

## Source Property Information

|                   |   |               |   |
|-------------------|---|---------------|---|
| BRRTS #:          | <input type="text" value="02-41-576745"/>                       | CLOSURE DATE: | <input type="text" value="10/03/2016"/> |
| ACTIVITY NAME:    | <input type="text" value="Harwood Avenue Commercial Property"/> | FID #:        | <input type="text" value="341270710"/>  |
| PROPERTY ADDRESS: | <input type="text" value="7600-7610 Harwood Ave"/>              | DATCP #:      | <input type="text"/>                    |
| MUNICIPALITY:     | <input type="text" value="Wauwatosa"/>                          | PECFA#:       | <input type="text"/>                    |
| PARCEL ID #:      | <input type="text" value="3710061000 &amp; 3710060000"/>        |               |   |

**\*WTM COORDINATES:**

X:  Y:

*\* Coordinates are in  
WTM83, NAD83 (1991)*

**WTM COORDINATES REPRESENT:**

- ☐ Approximate Center Of Contaminant Source  
☒ Approximate Source Parcel Center

Please check as appropriate: (BRRTS Action Code)

### CONTINUING OBLIGATIONS

#### Contaminated Media for Residual Contamination:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Groundwater Contamination > ES (236) | <input checked="" type="checkbox"/> Soil Contamination > *RCL or **SSRCL (232) |
| <input type="checkbox"/> Contamination in ROW                            | <input type="checkbox"/> Contamination in ROW                                  |
| <input type="checkbox"/> Off-Site Contamination                          | <input type="checkbox"/> Off-Site Contamination                                |

#### Site Specific Obligations:

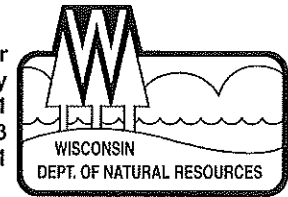
- |  |   |
|--|---|
| <input type="checkbox"/> Soil: maintain industrial zoning (220)<br><i>(note: soil contamination concentrations<br/>between non-industrial and industrial levels)</i> | <input checked="" type="checkbox"/> Cover or Barrier (222)  |
| <input checked="" type="checkbox"/> Structural Impediment (224)  | <input checked="" type="checkbox"/> Direct Contact  |
| <input type="checkbox"/> Site Specific Condition (228)   | <input checked="" type="checkbox"/> Soil to GW Pathway  |
|  | <input type="checkbox"/> Vapor Mitigation (226)   |
|  | <input type="checkbox"/> Maintain Liability Exemption (230)<br><i>(note: local government unit or economic<br/>development corporation was directed to<br/>take a response action )</i> |

Are all monitoring wells properly abandoned per NR 141? (234)

☒ Yes ☐ No ☐ N/A

*\* Residual Contaminant Level*

*\*\*Site Specific Residual Contaminant Level*



October 3, 2016

Andrew Schneider  
7610 Harwood Avenue  
Wauwatosa, WI 53213

Dennis Webb  
Sage Water | Global Water Center  
247 W. Freshwater Way, Mailbox 100, Milwaukee, WI 53204

**KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS**

SUBJECT: Final Case Closure with Continuing Obligations  
Harwood Ave. Commercial Property, 7600-7610 Harwood Ave., Wauwatosa, WI 53213  
DNR BRRTS Activity #: 02-41-576745  
FID #: 341270710

Dear Mr. Schneider and Mr. Webb:

The Department of Natural Resources (DNR) considers Harwood Avenue Commercial Property closed, with continuing obligations. No further investigation or remediation is required at this time. However, you, future property owners, and occupants of the property must comply with the continuing obligations as explained in the conditions of closure in this letter. Please read over this letter closely to ensure that you comply with all conditions and other on-going requirements. Provide this letter and any attachments listed at the end of this letter to anyone who purchases, rents or leases this property from you. For residential property transactions, you may be required to make disclosures under s. 709.02, Wis. Stats.

This final closure decision is based on the correspondence and data provided, and is issued under chs. NR 726 and 727, Wis. Adm. Code. The Southeast Region (SER) Closure Committee reviewed the request for closure on May 12, 2016. The DNR Closure Committee reviewed this environmental remediation case for compliance with state laws and standards to maintain consistency in the closure of these cases. A request for remaining actions needed was issued by the DNR on September 20, 2016, and documentation that the conditions in that letter were met was received on September 28, 2016.

The current subject property serves as a commercial building for multiple occupants ranging from a small café to a home decorations store. The current closure request was submitted as one site, by the current owner of the 7610 Harwood Avenue parcel, based on the intention of combining both 7600 & 7610 Harwood Avenue properties upon case closure. The contaminants of concern at the subject site include polynuclear aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), and metals. The soil impacts at the site are due to soil fill material that extends across both properties. Additionally, groundwater contamination above NR 140 groundwater enforcement standards was found in the northwest corner of the site, and has been identified as likely coming from an off-site source. The conditions of closure and continuing obligations required were based on the property being used for commercial purposes.

Continuing Obligations

The continuing obligations for this site are summarized below. Further details on actions required are found in the section Closure Conditions.

- Groundwater contamination is present at or above ch. NR 140, Wis. Adm. Code enforcement standards.

- Residual soil contamination exists that must be properly managed should it be excavated or removed.
- Pavement and the existing buildings must be maintained over contaminated soil and the DNR must be notified and approve any changes to this barrier.
- If a structural impediment that obstructed a complete site investigation and/or cleanup is removed or modified, additional environmental work must be completed.

The DNR fact sheet “Continuing Obligations for Environmental Protection,” RR-819, helps to explain a property owner’s responsibility for continuing obligations on their property. The fact sheet may be obtained at <http://dnr.wi.gov/files/PDF/pubs/rr/RR819.pdf>.

#### GIS Registry

This site will be included on the Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web) at <http://dnr.wi.gov/topic/Brownfields/clean.html>, to provide public notice of residual contamination and of any continuing obligations. The site can also be viewed on the Remediation and Redevelopment Sites Map (RRSM), a map view, under the Geographic Information System (GIS) Registry layer, at the same web address.

DNR approval prior to well construction or reconstruction is required for all sites shown on the GIS Registry, in accordance with s. NR 812.09 (4) (w), Wis. Adm. Code. This requirement applies to private drinking water wells and high capacity wells. To obtain approval, complete and submit Form 3300-254 to the DNR Drinking and Groundwater program’s regional water supply specialist. This form can be obtained on-line at <http://dnr.wi.gov/topic/wells/documents/3300254.pdf>.

All site information is also on file at the SER Regional DNR office, at 2300 North Dr. Martin Luther King Jr. Drive, Milwaukee, WI 53212. This letter and information that was submitted with your closure request application, including any maintenance plan and maps, can be found as a Portable Document Format (PDF) in BRRTS on the Web.

#### Prohibited Activities

Certain activities are prohibited at closed sites because maintenance of a barrier is intended to prevent contact with any remaining contamination. When a barrier is required, the condition of closure requires notification of the DNR before making a change, in order to determine if further action is needed to maintain the protectiveness of the remedy employed. The following activities are prohibited on any portion of the property where pavement and building foundation is required, as shown on the attached map Location Map, figure D.2.c., April 7, 2016, unless prior written approval has been obtained from the DNR:

- removal of the existing barrier or cover;
- replacement with another barrier or cover;
- excavating or grading of the land surface;
- filling on covered or paved areas;
- plowing for agricultural cultivation;
- construction or placement of a building or other structure;
- changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings.

#### Closure Conditions

Compliance with the requirements of this letter is a responsibility to which you, and any subsequent property owners must adhere. DNR staff will conduct periodic prearranged inspections to ensure that the conditions included in this letter and the attached maintenance plan are met. If these requirements are not followed, the DNR may take enforcement action under s. 292.11, Wis. Stats. to ensure compliance with the specified requirements, limitations or other conditions related to the property.

Please send written notifications in accordance with the following requirements to:

Department of Natural Resources  
Attn: Remediation and Redevelopment Program Environmental Program Associate  
2300 N. Dr. Martin Luther King Jr. Drive  
Milwaukee, WI 23212

Residual Groundwater Contamination (ch. NR 140, 812, Wis. Adm. Code)

Groundwater contamination greater than enforcement standards is present on this contaminated property, as shown on the attached map Groundwater Isoconcentration, figure B.3.b., June 28, 2016. If you intend to construct a new well, or reconstruct an existing well, you'll need prior DNR approval. Affected property owners and right-of-way holders were notified of the presence of groundwater contamination.

Residual Soil Contamination (ch. NR 718, chs. 500 to 536, Wis. Adm. Code or ch. 289, Wis. Stats.)

Soil contamination remains in soil fill across the property as indicated on the attached map Residual Soil Contamination, figure B.2.b, June 28, 2016. If soil in the specific locations described above is excavated in the future, the property owner or right-of-way holder at the time of excavation must sample and analyze the excavated soil to determine if contamination remains. If sampling confirms that contamination is present, the property owner or right-of-way holder at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards and rules. Contaminated soil may be managed in accordance with ch. NR 718, Wis. Adm. Code, with prior DNR approval.

In addition, all current and future owners and occupants of the property and right-of-way holders need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

Depending on site-specific conditions, construction over contaminated soils or groundwater may result in vapor migration of contaminants into enclosed structures or migration along newly placed underground utility lines. The potential for vapor inhalation and means of mitigation should be evaluated when planning any future redevelopment, and measures should be taken to ensure the continued protection of public health, safety, welfare and the environment at the site.

Cover or Barrier (s. 292.12 (2) (a), Wis. Stats., s. NR 726.15, s. NR 727.07 Wis. Adm. Code)

The building and pavement that exists in the specific location shown on the attached map Location Map, figure D.2.c., April 7, 2016, shall be maintained in compliance with the attached maintenance plan in order to minimize the infiltration of water and prevent additional groundwater contamination that would violate the groundwater quality standards in ch. NR 140, Wis. Adm. Code, and to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health.

The attached maintenance plan and inspection log (DNR form 4400-305) are to be kept up-to-date and on-site. Inspections shall be conducted annually, in accordance with the attached maintenance plan. Submit the inspection log to the DNR only upon request after the date of this letter.

Structural Impediments (s. 292.12 (2) (b), Wis. Stats., s. NR 726.15, s. NR 727.07, Wis. Adm. Code)

The remaining buildings as shown on the attached map Location Map, figure D.2.a., April 7, 2016, made complete investigation and/or remediation of the soil contamination on this property impracticable. If the structural impediment is to be removed, the property owner shall notify the DNR at least 45 days before removal, and conduct an investigation of the degree and extent of PAH, VOC, and metal contamination below the structural impediment. If contamination is found at that time, the contamination shall be properly remediated in accordance with applicable statutes and rules.



In Closing

Please be aware that the case may be reopened pursuant to s. NR 727.13, Wis. Adm. Code, for any of the following situations:

- if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, or welfare or to the environment,
- if the property owner does not comply with the conditions of closure, with any deed restrictions applied to the property, or with a certificate of completion issued under s. 292.15, Wis. Stats., or
- a property owner fails to maintain or comply with a continuing obligation (imposed under this closure approval letter).

The DNR appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact the DNR Project Manager, Binyoti Amungwafor at (414) 263-8607, or at [Binyoti.Amungwafor@Wisconsin.gov](mailto:Binyoti.Amungwafor@Wisconsin.gov), or me at (414) 263-8561 or at [Pamela.Mylotta@Wisconsin.gov](mailto:Pamela.Mylotta@Wisconsin.gov).

Sincerely,



Pamela A. Mylotta  
Southeast Region Team Supervisor  
Remediation & Redevelopment Program

Attachments:

- Location Map (extent of cap shown), figure D.2.c., April 7, 2016
- Groundwater Isoconcentration, figure B.3.b., June 28, 2016
- Residual Soil Contamination, figure B.2.b., June 28, 2016
- Maintenance Plan, Attachment D, April 7, 2016
- Inspection Log, DNR Form 4400-305
- Location Map (structural impediments shown), figure D.2.a., April 7, 2016

cc: Kapur & Associates, INC, 7711 N. Port Washington Rd, Milwaukee, WI 53217

| Parameter                                       | Units | WI NR 140 GW<br>Quality Enforcement<br>Standards | WI NR 140 GW<br>Quality Preventive<br>Action Limits | MW-1     | MW-2        | MW-3         |
|---|-------|--|---|----------|-------------|--------------|
| <b>Polynuclear Aromatic Hydrocarbons (PAHs)</b> |       |  |   |          |             |              |
| Benzo(a)pyrene                                  | ug/L  | .2   | .02   | 0.0042 J | <b>0.51</b> | 0.018 J      |
| Benzo(b)fluoranthene                            | ug/L  | .2   | .02   | 0.010 J  | <b>0.77</b> | <b>0.038</b> |
| Chrysene  | ug/L  | .2   | .02   | 0.012 J  | <b>0.92</b> | <b>0.038</b> |
| <b>RCRA Metals</b>                              |       |  |   |          |             |              |
| Barium, Dissolved                               | ug/L  | 2000   | 400   | 67.9     | 66.0        | 67.1         |
| Chromium, Dissolved                             | ug/L  | 100  | 10  | <0.87    | <0.87       | 2.0 J        |
| <b>Volatile Organic Compounds (VOCs)</b>        |       |  |   | <LDLs    |             |              |



SHEET:  
GROUNDWATER ISOCONCENTRATION

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:

**B.3.b.**

NORTH ARROW:



SCALE:

1" = 20'



SEAL:

We listen. we innovate.  
we turn your vision into reality.

DRAWN BY:

TWP CHECKED BY:

RAB APPROVED BY:

TWP PROJECT NO.

16.0131.01 DATE:

04/12/2016

REVISION DATE:

06/28/2016



| Parameter                                       | Units | WI NR 720 Soil to Groundwater Pathway | WI NR 720 Soil Cleanup Standards Direct Contact Industrial | WI NR 720 Soil Cleanup Standards Direct Contact Non-Industrial | B1 (2-4) | B1 (6-8) | B1 (14-16) | B2 (2-4) | B2 (10-12) | B2 (14-16) | B3 (2-4) | B3 (10-12) | B3 (14-16) | B4 (2-4) | B4 (10-12) | B4 (14-16) |
|---|-------|---------------------------------------|--|--|----------|----------|------------|----------|------------|------------|----------|------------|------------|----------|------------|------------|
| <b>Polynuclear Aromatic Hydrocarbons (PAHs)</b> |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| 1-Methylnaphthalene                             | ug/kg |                                       | 53,100   | 15,600   | <77.6    | 43.1     | <9.1       | <37.7    | 18,200     | 10,800 J   | <384     | 12.1 J     | 24.6 J     | <76.0    | 31.8       | <8.9       |
| Benzo(a)anthracene                              | ug/kg |                                       | 2,110  | 148  | 874      | 356      | 43.1       | 430      | 75,900     | 48,200     | 10,900   | 225        | 384        | 757      | 167        | 38.8       |
| Benzo(a)pyrene                                  | ug/kg | 470                                   | 211  | 15   | 990      | 390      | 41.0       | 500      | 62,600     | 37,300     | 14,100   | 278        | 432        | 829      | 181        | 42.9       |
| Benzo(b)fluoranthene                            | ug/kg | 479                                   | 2,110.00   | 148  | 876      | 316      | 40.7       | 477      | 45,500     | 30,800     | 13,200   | 248        | 494        | 592      | 175        | 39.1       |
| Benzo(k)fluoranthene                            | ug/kg |                                       | 21,100   | 1,480  | 1,020    | 352      | 33.0       | 558      | 63,000     | 38,100     | 12,100   | 285        | 362        | 751      | 129        | 36.8       |
| Chrysene  | ug/kg | 145                                   | 211,000  | 14,800   | 978      | 428      | 47.5       | 522      | 76,500     | 50,300     | 12,000   | 262        | 440        | 866      | 201        | 45.2       |
| Dibenz(a,h)anthracene                           | ug/kg |                                       | 211  | 15   | 135      | 77.8     | 8.3 J      | 76.4     | 11,900     | 5,450      | 2,760    | 37.1       | 59.8       | 151      | 31.1       | 8.9 J      |
| Fluoranthene                                    | ug/kg | 88,900                                | 22,000,000   | 2,290,000  | 2,160    | 1,050    | 106        | 1,060    | 213,000    | 129,000    | 22,000   | 587        | 1,090      | 2,180    | 541        | 96.1       |
| Fluorene  | ug/kg | 14,800                                | 22,000,000   | 2,290,000  | 132 J    | 79.8     | 9.8 J      | 60.6 J   | 61,400     | 35,300     | 516 J    | 31.2       | 70.9       | 155      | 41.5       | <8.9       |
| Indeno(1,2,3-cd)pyrene                          | ug/kg |                                       | 2,110  | 148  | 337      | 206      | 20.9       | 183      | 27,500     | 12,900     | 6,500    | 93.8       | 154        | 416      | 87.2       | 23.3       |
| Naphthalene                                     | ug/kg | 658                                   | 26,000   | 5,150  | 87.6 J   | 108      | 10.0 J     | 47.5 J   | 94,700     | 52,400     | <384     | 23.4       | 51.2       | 117 J    | 41.8       | <40.0      |
| Pyrene  | ug/kg | 54,100                                | 16,500,000   | 1,720,000  | 1,770    | 825      | 80.0       | 822      | 132,000    | 87,500     | 16,900   | 454        | 864        | 1,830    | 467        | 77.5       |
| <b>RCRA Metals</b>                              |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| Arsenic   | ug/kg | 584                                   | 2,390  | 613  | 9,900    | 3,900    | <3.3       | 5,100    | 4,900      | 3,800      | 6,600    | 3,600      | 4,500      | <3.1     | 5,300      | 4,100      |
| Barium  | ug/kg | 165,000                               | 100,000,000  | 15,300,000   | 89,400   | 29,300   | 17,100     | 47,100   | 31,300     | 33,800     | 287,000  | 52,400     | 48,600     | 37,000   | 20,400     | 14,000     |
| Cadmium   | ug/kg | 752                                   | 799,000  | 70,000   | 490 J    | 220 J    | 130 J      | 510 J    | 500 J      | 340 J      | 1,000    | 200 J      | 160 J      | 140 J    | 210 J      | 160 J      |
| Lead  | ug/kg | 27,000                                | 800,000  | 400,000  | 119,000  | 36,700   | 13,600     | 54,800   | 37,700     | 48,200     | 358,000  | 42,200     | 41,300     | 9,900    | 11,100     | 6,500      |
| <b>Volatile Organic Compounds (VOCs)</b>        |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| Naphthalene                                     | ug/kg | 658                                   | 26,000   | 5,150  | 81.5 J   | <40.0    | <40.0      | 68.6 J   | 82,900     | 96,000     | 157 J    | <40.0      | <40.0      | <40.0    | <40.0      | <40.0      |
| PID   | ppmv  |                                       |  |  | 0.8      | 0.7      | 0.9        | 2.2      | 2.7        | 1.2        | 1.2      | 0.5        | 0.5        | 1.5      | 0.6        | 20.8       |



SHEET:  
RESIDUAL SOIL CONTAMINATION

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:  
B.2.b.

NORTH ARROW:



SCALE:

1" = 20'

0 10 20

SEAL:

we listen... we innovate... we turn your vision into reality.

DRAWN BY:

RAB CHECKED BY:

TWP APPROVED BY:

TWP PROJECT NO.

16.0131.01

DATE:

3/9/2016

REVISION DATE:

06/28/2016

FILENAME: S:\\_Environ\160131-7610 Harwood Ave. Toso ENV\Figs-Photos\RES SOIL CONTAM rev.dwg

PLOT DATE/TIME: 9/26/2016 2:39 PM

PLOTTED BY: TRAVIS W. PETERSON

**COVER or BARRIER MAINTENANCE PLAN**  
*(to be included in Form 4400-202, as Attachment D)*

April 7, 2016

Property Located at:

7600-7610 W. Harwood Avenue, Wauwatosa, WI 53213

DNR BRRTS/Activity #02-41-576745

[LEGAL DESCRIPTION] **"7600"**

LEFEBER SUBD LOT 6 AND ELY STRIP OF ADJ LOT 7 7.5 IN WIDE ON ITS NLY LI AND 5.75 IN WIDE ON ITS SLY LI INCLDG EASEMENT SE 1/4 SEC 21

[TAX /Parcel Identification Number) 3710060000

**"7610"**

LEFEBER SUBD LOT 7 EX COM NELY COR SD LOT TH WLY 7.5 IN SLY PAR TO ITS ELY LI 22.54 FT SLY TO ITS SLY LI NELY 5.75 IN TO ITS SELY COR TH NLY TO BEG AND ELY 4 FT 7.5 IN LOT 8 AND PT LOT 10 LYING E OF A LI 25 FT E OF AND PAR WITH E LI LOT 11 INCLDG EASEMENT SE 1/.

[TAX /Parcel Identification Number) 3710061000

#### Introduction

This document is the Maintenance Plan for an asphalt parking lot and building at the above-referenced property in accordance with the requirements of s. NR 724.13 (2), Wis. Adm. Code. The maintenance activities relate to the existing asphalt parking lot and building which addresses or occupies the area over the contaminated groundwater plume or soil.

More site-specific information about this property/site may be found in:

- The case file in the DNR Southeast **Region** office
- [BRRTS on the Web](#) (DNR's internet based data base of contaminated sites)for the link to a PDF for site-specific information at the time of closure and on continuing obligations;
- [RR Sites Map/GIS Registry layer](#) for a map view of the site, and
- The DNR project manager for Milwaukee County.

#### **D.1. Descriptions:**

##### Description of Contamination

Analytical results indicate that subsurface contamination containing PAHs (1-Methylnaphthalene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, and pyrene), RCRA metals (arsenic, barium, cadmium, lead, and selenium), and VOCs (naphthalene) is present above the respective applicable NR 720 soil RCLs from approximately 2 to 16 feet bgs throughout the subject property with the highest concentrations occurring in B2 (NW property corner) from 10 to 16 feet bgs. The likely source for the impacted media likely stemming from both fill materials present at the property and an offsite source identified via historical information research including fire insurance maps. Groundwater contaminated by

PAHs is located at a depth of 15-16 feet. The extent of the soil and groundwater contamination is shown on the attached drawings(s) Figures D.2.a and D.2.b.

#### Description of the [Cover/Barrier] to be Maintained

The asphalt parking lot consists of 3 inches of asphalt over 4-6 inches of compacted base material and the onsite building is of masonry (cream city brick) construction with concrete basement floor and foundation walls. The asphalt parking lot and building is located over the entire subject site as shown on the **attached** drawings D.2.a, D.2.b and D.2.c.

#### Cover/Building/Slab/Barrier Purpose

The asphalt parking lot and building over the contaminated residual soil and contaminated groundwater plume serves as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. The cover/barrier also acts as a partial infiltration barrier to minimize future soil-to-groundwater contamination migration that would violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. Based on the current use of the property, commercial, the barrier should function as intended unless disturbed.

#### Annual Inspection

The asphalt parking lot and building overlying the residual soil and contaminated groundwater plume and as depicted in Figure 3 will be inspected once a year, normally in the spring after all snow and ice is gone, for deterioration, cracks and other potential problems that can cause [additional infiltration into] [or exposure to] underlying soils. The inspections will be performed by the property owner or their designated representative. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed [[and] where infiltration from the surface will not be effectively minimized] will be documented.

A log of the inspections and any repairs will be maintained by the property owner and is included as D.4, Form 4400-305, Continuing Obligations Inspection and Maintenance Log. The log will include recommendations for necessary repair of any areas where underlying soils are exposed and where infiltration from the surface will not be effectively minimized. Once repairs are completed, they will be documented in the inspection log. A copy of the maintenance plan and inspection log will be kept at the site; or, if there is no acceptable place (for example, no building is present) to keep it at the site, at the address of the property owner and available for submittal or inspection by Wisconsin Department of Natural Resources (DNR) representatives upon their request.

*[Note: The DNR may, in some instances, require in the case closure letter that the inspection log be submitted at least annually after every inspection. If the case closure letter requires that, then add the following sentence to the paragraph above: A copy of the inspection log must be submitted electronically to the DNR after every inspection, at least annually.]*

#### Maintenance Activities

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling or larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must

inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event the asphalt parking lot and building overlying the residual soil and contaminated groundwater plume is removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the DNR or its successor.

The property owner, in order to maintain the integrity of the asphalt parking lot and building, will maintain a copy of this Maintenance Plan at the site; or, if there is no acceptable place to keep it at the site (for example, no building is present), at the address of the property owner and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

#### Prohibition of Activities and Notification of DNR Prior to Actions Affecting a Cover/Barrier

The following activities are prohibited on any portion of the property where [pavement, a building foundation, soil cover, engineered cap or other barrier] is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure; 7) changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings.

If removal, replacement or other changes to a cover, or a building which is acting as a cover, are considered, the property owner will contact DNR at least 45 days before taking such an action, to determine whether further action may be necessary to protect human health, safety, or welfare or the environment, in accordance with s. NR 727.07, Wis. Adm. Code,

#### Amendment or Withdrawal of Maintenance Plan

This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of DNR.

#### Contact Information

*(Form 4400-202, Attachment D, Part 1.) Contact Information, including the name, address and phone number of the individual or facility who will be conducting the maintenance.)*

April 2016

Site Owner and Operator:      Andrew Schneider, Quatre Chiens, LLC  
7610 W. Harwood Avenue, Wauwatosa, WI 53213  
414-778-3333

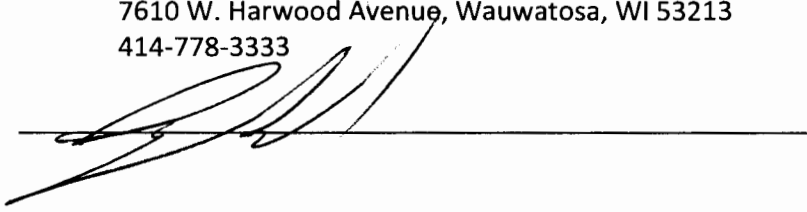
Signature: \_\_\_\_\_

(DNR may request signature of affected property owners, on a case-by-case basis)

Property Owner:

Andrew Schneider, Quatre Chiens, LLC  
7610 W. Harwood Avenue, Wauwatosa, WI 53213  
414-778-3333

Signature:

A handwritten signature in black ink, appearing to read 'Andrew Schneider', is written over a horizontal line.

Consultant:

Kapur & Associates, Inc.  
7711 N. Port Washington Road, Milwaukee, WI 53217  
414-751-7279

DNR:

Binyoti Amungwafor  
2300 N. Dr. MLK Jr. Drive, Milwaukee, WI 53218  
414-263-8607

## **D.2 Location Map(s)**

*Include a location map which shows:*

- (1) the feature that requires maintenance;*
- (2) the location of the feature(s) that require(s) maintenance: on and off the source property;*
- (3) the extent of the structure or feature(s) to be maintained, in relation to other structures or features on the site;*
- (4) the extent and type of residual contamination; and*
- (5) all property boundaries.*

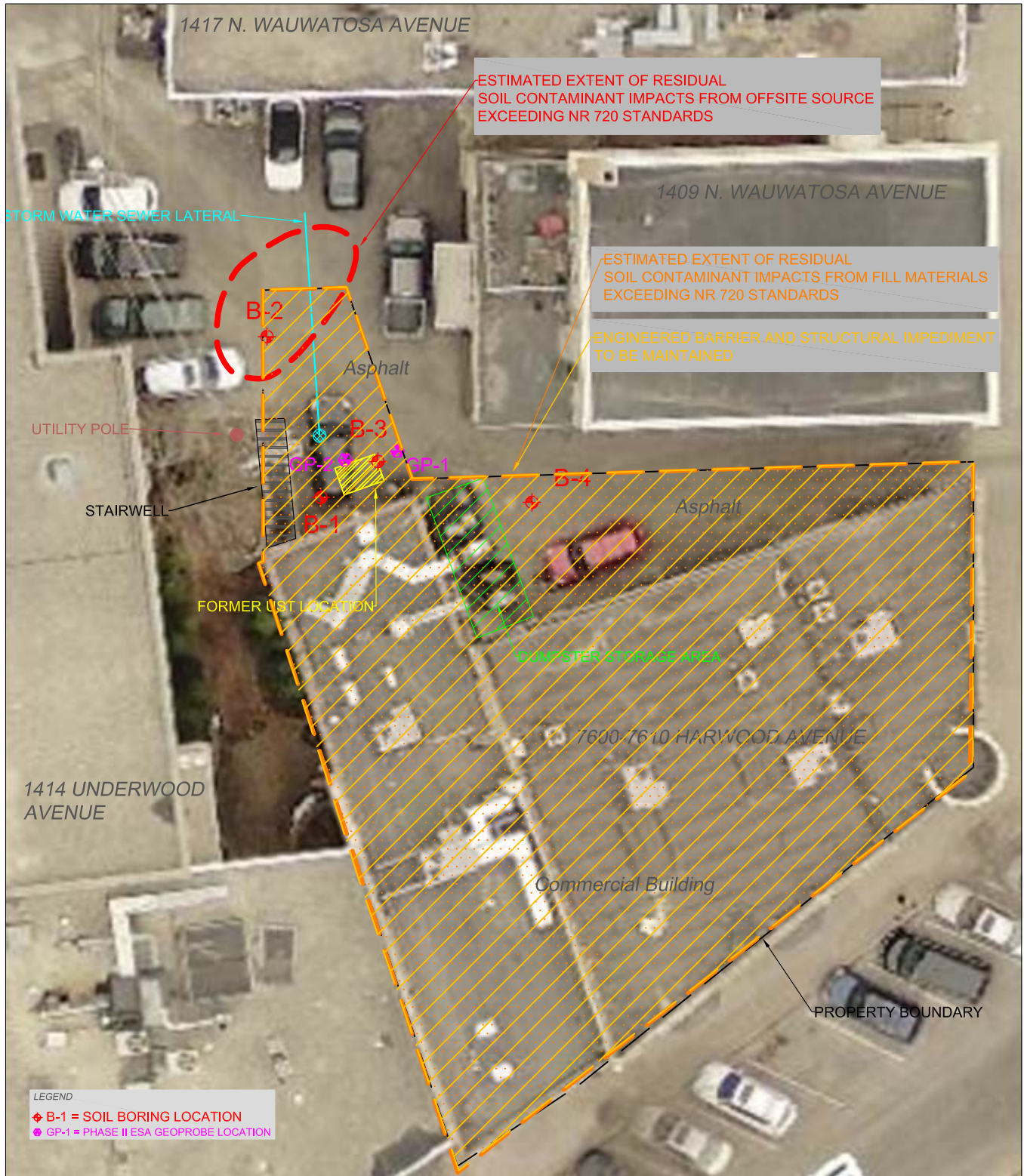
## **D.3 Photographs of Cover/Barrier**

*Include one or more photographs documenting the condition and extent of the cover/barrier/building/slab at the time of the closure request. Pertinent features must be visible and discernible. Include a title on each photograph, which identifies the site name and location of the feature, and the date on which the photograph was taken.*

## **D.4 Continuing Obligations Inspection and Maintenance Log**

Use DNR Fillable Form Form 4400-305





**KAPUR & ASSOCIATES, INC.**  
CONSULTING ENGINEERS  
7711 N. PORT WASHINGTON ROAD  
MILWAUKEE, WISCONSIN 53217  
Phone: 414.351.8568 Fax: 414.351.4117

www.kapurengineers.com

SHEET:  
LOCATION MAP

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:  
D.2.a

NORTH ARROW:



SCALE:

1" = 20'

0 10 20

SEAL:

we listen... we innovate... we turn your vision into reality.

DRAWN BY: RAB CHECKED BY:

TWP APPROVED BY:

TWP PROJECT NO.:

16.0131.01 DATE:

3/9/2016 REVISION DATE:

06/28/2016

FILENAME: S:\\_Environ\160131-7610 Harwood Ave. Tosa ENV\Figs-Photos\0.2.a.dwg

PLOT DATE/TIME: 9/26/2016 2:56 PM

PLOTTED BY: TRAVIS W. PETERSON





SHEET:  
LOCATION MAP

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:  
D.2.b

NORTH ARROW:



SCALE:

1" = 20'



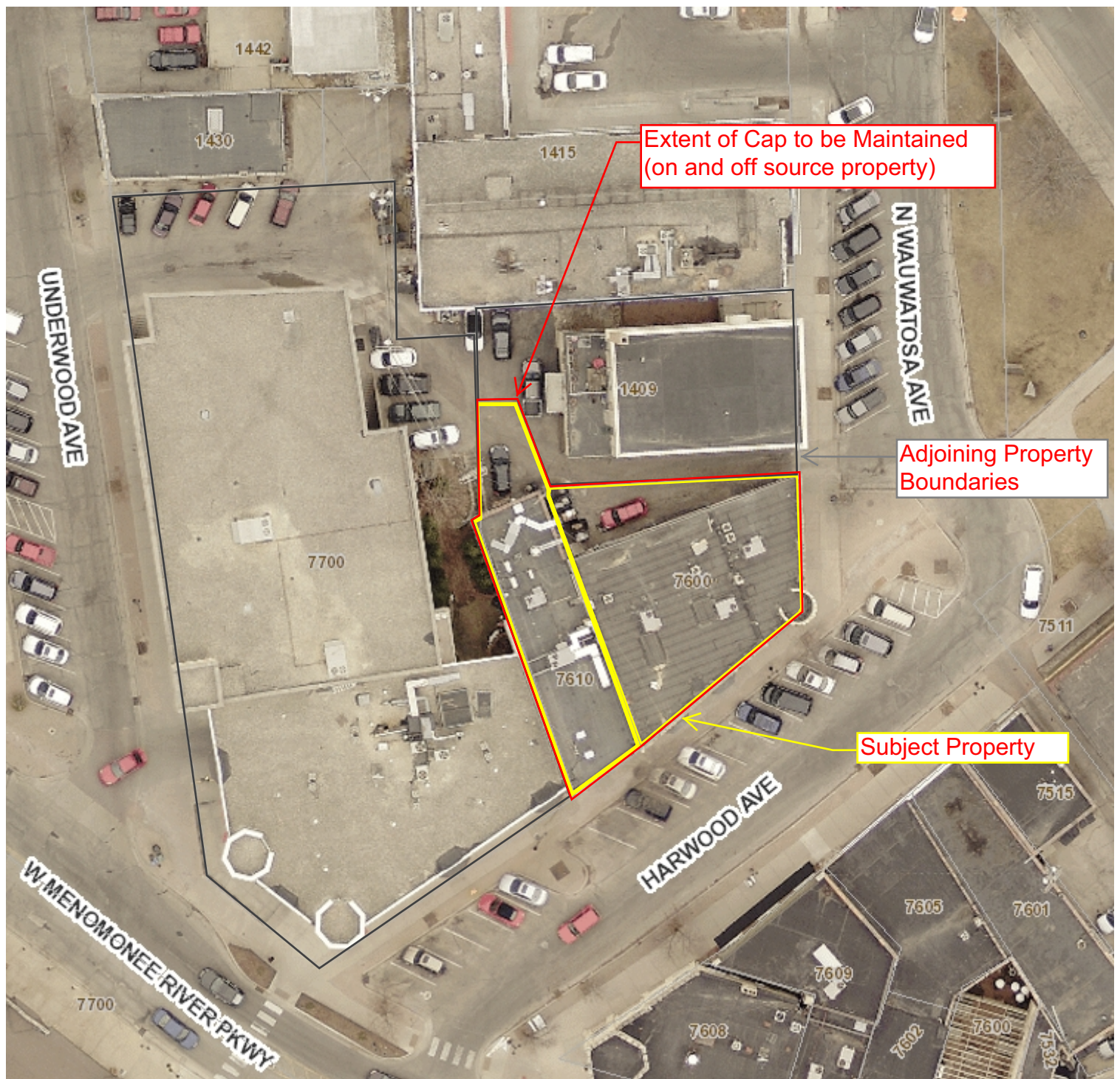
SEAL:

We listen. we innovate.  
We turn your vision into reality.





# MILWAUKEE COUNTY INTERACTIVE MAPPING SERVICE



Projection  
NAD\_1927\_StatePlane\_Wisconsin  
South\_FIPS\_4803

THIS MAP IS NOT TO BE  
USED FOR NAVIGATION

© MCAMLIS

**DISCLAIMER:** This map is a user generated static output from the Milwaukee County Land Information Office Interactive Mapping Service website. The contents herein are for reference purposes only and may or may not be accurate, current or otherwise reliable. No liability is assumed for the data delineated herein either expressed or implied by Milwaukee County or its employees.

Figure: D.2.c

Location Map



90 0 45 90 Feet

## Legend

1: 539

- ☐ Tax Parcels
- ☐ Subdivision Docs
- ☐ Condo Docs
- ☐ CSM Docs
- 2015 COLOR**
  - ☐ Red: Band\_1
  - ☐ Green: Band\_2
  - ☐ Blue: Band\_3
- ☐ County Boundary
- ☐ City Limits Outline

**Directions:** In accordance with s. NR 727.05 (1) (b) 3., Wis. Adm. Code, use of this form for documenting the inspections and maintenance of certain continuing obligations is required. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.]. When using this form, identify the condition that is being inspected. See the closure approval letter for this site for requirements regarding the submittal of this form to the Department of Natural Resources. A copy of this inspection log is required to be maintained either on the property, or at a location specified in the closure approval letter. Do NOT delete previous inspection results. This form was developed to provide a continuous history of site inspection results. The Department of Natural Resources project manager is identified in the closure letter. The project manager may also be identified from the database, BRRTS on the Web, at <http://dnr.wi.gov/botw/SetUpBasicSearchForm.do>, by searching for the site using the BRRTS ID number, and then looking in the "Who" section.

|   |                                  |
|---|----------------------------------|
| Activity (Site) Name<br><b>HARWOOD AVENUE COMMERCIAL PROPERTY</b> | BRRTS No.<br><b>02-41-576745</b> |
|---|----------------------------------|

Inspections are required to be conducted (see closure approval letter):

- ☒ annually  
☐ semi-annually  
☐ other – specify \_\_\_\_\_

When submittal of this form is required, submit the form electronically to the DNR project manager. An electronic version of this filled out form, or a scanned version may be sent to the following email address (see closure approval letter):

Binyoti.Amungwafor@wisconsin.gov

| Inspection Date | Inspector Name | Item  | Describe the condition of the item that is being inspected | Recommendations for repair or maintenance | Previous recommendations implemented?           | Photographs taken and attached?                 |
|-----------------|----------------|---|--|---|---|---|
|                 |                | <input type="checkbox"/> monitoring well<br><input type="checkbox"/> cover/barrier<br><input type="checkbox"/> vapor mitigation system<br><input type="checkbox"/> other: |  |   | <input type="radio"/> Y <input type="radio"/> N | <input type="radio"/> Y <input type="radio"/> N |
|                 |                | <input type="checkbox"/> monitoring well<br><input type="checkbox"/> cover/barrier<br><input type="checkbox"/> vapor mitigation system<br><input type="checkbox"/> other: |  |   | <input type="radio"/> Y <input type="radio"/> N | <input type="radio"/> Y <input type="radio"/> N |
|                 |                | <input type="checkbox"/> monitoring well<br><input type="checkbox"/> cover/barrier<br><input type="checkbox"/> vapor mitigation system<br><input type="checkbox"/> other: |  |   | <input type="radio"/> Y <input type="radio"/> N | <input type="radio"/> Y <input type="radio"/> N |
|                 |                | <input type="checkbox"/> monitoring well<br><input type="checkbox"/> cover/barrier<br><input type="checkbox"/> vapor mitigation system<br><input type="checkbox"/> other: |  |   | <input type="radio"/> Y <input type="radio"/> N | <input type="radio"/> Y <input type="radio"/> N |
|                 |                | <input type="checkbox"/> monitoring well<br><input type="checkbox"/> cover/barrier<br><input type="checkbox"/> vapor mitigation system<br><input type="checkbox"/> other: |  |   | <input type="radio"/> Y <input type="radio"/> N | <input type="radio"/> Y <input type="radio"/> N |
|                 |                | <input type="checkbox"/> monitoring well<br><input type="checkbox"/> cover/barrier<br><input type="checkbox"/> vapor mitigation system<br><input type="checkbox"/> other: |  |   | <input type="radio"/> Y <input type="radio"/> N | <input type="radio"/> Y <input type="radio"/> N |



{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap with subject property boundary marked (facing south)

{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap with subject property boundary marked (facing southwest)

{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap with MW-2 (facing south)

{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap on west adjoining property with MW-2 (facing west)

{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap on east adjoining property with MW-2 (facing northeast)

{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap on east adjoining property with MW-3 (facing northwest)



**SUBMIT AS UNBOUND PACKAGE IN THE ORDER SHOWN**

Notice: Pursuant to ch. 292, Wis. Stats., and chs. NR 726 and 746, Wis. Adm. Code, this form is required to be completed for case closure requests. The closure of a case means that the Department of Natural Resources (DNR) has determined that no further response is required at that time based on the information that has been submitted to the DNR. All sections of this form must be completed unless otherwise directed by the Department. DNR will consider your request administratively complete when the form and all sections are completed, all attachments are included, and the applicable fees required under ch. NR 749, Wis. Adm. Code, are included, and sent to the proper destinations. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31 - 19.39, Wis. Stats.). Incomplete forms will be considered "administratively incomplete" and processing of the request will stop until required information is provided.

**Site Information**

|                                    |  |  |                |
|------------------------------------|--|--|----------------|
| BRRTS No.                          |  | VPLE No.   |                |
| 02-41-576745                       |  |  |                |
| Parcel ID No.                      |  |  |                |
| 37-10-060000 & 37-10-061000        |  |  |                |
| FID No.                            |  | WTM Coordinates  |                |
| 341270710                          |  | X 682241   | Y 288291       |
| BRRTS Activity (Site) Name         |  | WTM Coordinates Represent:   |                |
| HARWOOD AVENUE COMMERCIAL PROPERTY |  | <input checked="" type="checkbox"/> Source Area <input type="checkbox"/> Parcel Center |                |
| Site Address                       |  | City   | State ZIP Code |
| 7600-7610 W. HARWOOD AVENUE        |  | WAUWATOSA  | WI 53213       |
| Acres Ready For Use                |  | 0.17   |                |

|                             |  |                     |                |
|-----------------------------|--|---------------------|----------------|
| Responsible Party (RP) Name |  |                     |                |
| ANDREW SCHNEIDER            |  |                     |                |
| Company Name                |  |                     |                |
| QUATRE CHIENS, LLC          |  |                     |                |
| Mailing Address             |  | City                | State ZIP Code |
| 7610 W. HARWOOD AVENUE      |  | WAUWATOSA           | WI 53213       |
| Phone Number                |  | Email               |                |
| (414) 778-3333              |  | ANDY12874@GMAIL.COM |                |

☒ Check here if the RP is the owner of the source property.

|                               |  |                        |                |
|-------------------------------|--|------------------------|----------------|
| Environmental Consultant Name |  |                        |                |
| TRAVIS PETERSON               |  |                        |                |
| Consulting Firm               |  |                        |                |
| KAPUR & ASSOCIATES, INC.      |  |                        |                |
| Mailing Address               |  | City                   | State ZIP Code |
| 7711 N. PORT WASHINGTON ROAD  |  | GLENDALE               | WI 53217       |
| Phone Number                  |  | Email                  |                |
| (414) 751-7279                |  | TPETERSON@KAPURINC.COM |                |

**Fees and Mailing of Closure Request**

1. Send a copy of page one of this form and the applicable ch. NR 749, Wis. Adm. Code, fee(s) to the DNR Regional EPA (Environmental Program Associate) at <http://dnr.wi.gov/topic/Brownfields/Contact.html>. Check all fees that apply:

☐ \$1,050 Closure Fee

☐ \$300 Database Fee for Soil

☐ \$350 Database Fee for Groundwater or Monitoring Wells (Not Abandoned)

Total Amount of Payment \$ \_\_\_\_\_

☒ Resubmittal, Fees Previously Paid

2. Send one paper copy and one e-copy on compact disk of the entire closure package to the Regional Project Manager assigned to your site. Submit as unbound, separate documents in the order and with the titles prescribed by this form. For electronic document submittal requirements, see <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>.

**Site Summary**

*If any portion of the Site Summary Section is not relevant to the case closure request, you must fully explain the reasons why in the relevant section of the form. All information submitted shall be legible. Providing illegible information will result in a submittal being considered incomplete until corrected.*

**1. General Site Information and Site History**

- A. **Site Location:** Describe the physical location of the site, both generally and specific to its immediate surroundings.  
The site is located south of the intersection of Wauwatosa Avenue and West Harwood Avenue in the City of Wauwatosa, Milwaukee County, Wisconsin in the northeast 1/4 of the southeast 1/4 of Section 21, Township 07N, Range 21 east.
- B. **Prior and current site usage:** Specifically describe the current and historic occupancy and types of use.  
The site was originally developed in 1901 as a bank and was utilized as such until 1952. The site is currently occupied by La Reve Patisserie & Cafe, Oro Di Oliva - gourmet grocery store, Urban Laundry - womens clothing store and Blue Lapin - home decorations with a small (single vehicle) asphalt parking area on the north side of the building exterior.
- C. **Current zoning** (e.g., industrial, commercial, residential) for the site and for neighboring properties, and how verified (Provide documentation in Attachment G).  
According to the City of Wauwatosa zoning for the subject parcel is currently commercial C1 - Neighborhood/Village Trade, the same for neighboring properties.
- D. **Describe how and when site contamination was discovered.**  
Site contamination was discovered in January of 2016 by Sigma Group during the installation of two soil borings to 15 feet at the estimated location a former 1,000 gallon fuel oil Underground Storage Tank (UST), removed on September 22, 1995. The subject property is listed on the WDNR GIS registry as an open ERP site. The Phase II ESA performed identified soil contamination on-site; however, were unable to define the source as the former UST, likely from fill materials present or from a potential off-site source (historic).
- E. **Describe the type(s) and source(s) or suspected source(s) of contamination.**  
The identified contaminated soil appears to be of two separate plumes with one likely stemming from fill materials deposited on-site over the course of historic redevelopment activities and the second from an off-site source likely one of those identified as Wauwatosa Fuel & Supply Co., Quickflash Fuels, Inc. and/or Jones Machinery all formerly operating adjacent to the subject site.
- F. **Other relevant site description information** (or enter Not Applicable).  
Not Applicable
- G. **List BRRTS activity/site name and number for BRRTS activities at this source property, including closed cases.**  
02-41-576745/Harwood Avenue Commercial Property- Open ERP
- H. **List BRRTS activity/site name(s) and number(s) for all properties immediately adjacent to (abutting) this source property.**  
None

**2. General Site Conditions****A. Soil/Geology**

- i. **Describe soil type(s) and relevant physical properties, thickness of soil column across the site, vertical and lateral variations in soil types.**  
Native soil type for the Milwaukee region is part of the Ozaukee-Morley-Mequon Association. It is typically well-drained to somewhat poorly drained soil that has a subsoil of silty clay loam and silty clay; formed in thin loess and silty clay loam of glacial till, on moraines. This association is found in the glaciated uplands where the soils formed in a thin layer of loess and the underlying glacial till. The major soils are the Ozaukee, Morley, and Mequon. Ozaukee Soils make up 20 percent of the association; Morley soil, 18 percent; Mequon soil, 11 percent; and minor soils, 51 percent. The Ozaukee and Morley soils are gently sloping, and occupy ridges and convex sloped sides of glacial moraines. The Mequon soils are in drainage ways or old lake basins.  
  
Based on observations from soil borings, the site subsurface soils consisted of uniform brown sand and gravelly sand (of brown, red and black coloration), with various non-soil material including trace amounts of non-exempt or solid waste by NR 500.08, WAC, such as concrete and plastic at shallow depths.
- ii. **Describe the composition, location and lateral extent, and depth of fill or waste deposits on the site.**  
Soil fill containing trace amounts of concrete and plastic pieces at shallow depths, was found throughout the investigation area and is estimated to extend throughout the property.
- iii. **Describe the depth to bedrock, bedrock type, competency and whether or not it was encountered during the investigation.**  
Depth to bedrock is expected to be greater than 100 feet below ground surface (bgs) and is expected to be of the Silurian System: dolomite undivided; includes Cayugan, Niagaran, and Alexandrian series. Bedrock was not encountered during the investigation.

- iv. Describe the nature and locations of current surface cover(s) across the site (e.g., natural vegetation, landscaped areas, gravel, hard surfaces, and buildings).

The building imprint covers the majority of the property. The remaining portion of the site is a small asphalt parking area (single vehicle) to the north of the building.

#### B. Groundwater

- i. Discuss depth to groundwater and piezometric elevations. Describe and explain depth variations, including high and low water table elevation and whether free product affects measurement of water table elevation. Describe the stratigraphic unit(s) where water table was found or which were measured for piezometric levels.

Depths to groundwater ranged between 15.7 to 16.25 feet bgs with corresponding surveyed elevations of 656.79 to 656.81 across the site. Groundwater was encountered within a gravel / sand layer uniformly across the site.

- ii. Discuss groundwater flow direction(s), shallow and deep. Describe and explain flow variations, including fracture flow if present.

Groundwater flow direction is to the southwest toward the Menomonee River.

- iii. Discuss groundwater flow characteristics: hydraulic conductivity, flow rate and permeability, or state why this information was not obtained.

Groundwater elevation data in the monitoring wells ranged from 672.24 feet above mean sea level (msl) in MW-2 to 672.71 feet msl in MW-3. The data from these events revealed the general groundwater flow direction is in a southwesterly direction with a horizontal hydraulic gradient of 0.02 ft/ft. The estimated hydraulic conductivity specific to the subject site specific soils (sand to gravel/sand) ranges from 10+2 to 10+5 (m/yr) with an estimated permeability of 5.00 x 10<sup>-3</sup> m/sec.

- iv. Identify and describe locations/distance of potable and/or municipal wells within 1200 feet of the site. Include general summary of well construction (geology, depth of casing, depth of screened or open interval).

No private or municipal well is located within 1,200 feet of the subject site.

### 3. Site Investigation Summary

#### A. General

- i. Provide a brief summary of the site investigation history. Reference previous submittals by name and date. Describe site investigation activities undertaken since the last submittal for this project and attach the appropriate documentation in Attachment C, if not previously provided.

A Phase II ESA was conducted in January of 2016 by the Sigma Group where two soil borings were installed to fifteen feet bgs at the estimated location of the former 1,000-gallon fuel oil UST. The Phase II ESA identified soil contamination onsite; however, it was unable to define the source of the identified contamination as the former UST. The Site Investigation activities performed by Kapur in February 2016 were performed to determine a contaminant source and define, to the extent practical, the degree of contamination onsite. The SI activities included installation of 4 soil borings and 3 groundwater monitoring wells. Analytical results of the SI sampling indicated soil and groundwater impacts present above applicable standards. The source of contaminant impacts likely being fill materials distributed at the property and an offsite source contributing the the elevated concentrations at B2/MW-2 and identified via historic fire insurance maps.

- ii. Identify whether contamination extends beyond the source property boundary, and if so describe the media affected (e.g., soil, groundwater, vapors and/or sediment, etc.), and the vertical and horizontal extent of impacts.

Soil and groundwater impacts likely extend beyond the property boundary northwest corner due to influence from a historic offsite source. Soil impacts extend from the upper four feet to above the groundwater interface of approx: 16 feet bgs.

- iii. Identify any structural impediments to the completion of site investigation and/or remediation and whether these impediments are on the source property or off the source property. Identify the type and location of any structural impediment (e.g., structure) that also serves as the performance standard barrier for protection of the direct contact or the groundwater pathway.

Impediments to completion of the SI included the onsite building and the very small physical nature of the property boundary. The exterior portion, though asphalt covered, is an area not much larger than 1 or 2 automobile parking stalls that determined further soil boring and or monitoring well installations to be excessive.

#### B. Soil

- i. Describe degree and extent of soil contamination. Relate this to known or suspected sources and known or potential receptors/migration pathways.

Analytical results indicate that subsurface contamination containing PAHs (1-Methylnaphthalene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, and pyrene), RCRA metals (arsenic, barium, cadmium, lead, and selenium), and VOCs (naphthalene) is present above the respective applicable NR 720 soil RCLs from approximately 2 to 16 feet bgs throughout the subject property with the highest concentrations occurring in B2 (NW property corner) from 10 to 16 feet bgs. The likely source for the impacted media likely stemming from both fill



materials present at the property and an offsite source identified via historical information research including fire insurance maps. The onsite storm water utility corridor servicing the subject property is a potential receptor for contaminant impacts, however; based upon the depth of the sewer manhole and lateral, proximity to identified impacted subsurface soil and corresponding concentrations; contaminant migration along the sewer does not appear to be evident. Based upon information obtained for this investigation, no other sensitive areas or receptors were identified in the immediate vicinity of the site.

- ii. Describe the concentration(s) and types of soil contaminants found in the upper four feet of the soil column. PAH constituents (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene), RCRA metals (arsenic, barium, cadmium, and lead) are present within the upper four feet of the soil column at concentrations above the respective applicable NR 720 soil RCLs throughout the subject property. The identified contaminants and concentrations appear indicative of fill materials having been distributed at the property.
- iii. Identify the ch. NR 720, Wis. Adm. Code, method used to establish the soil cleanup standards for this site. This includes a soil performance standard established in accordance with s. NR 720.08, a Residual Contaminant Level (RCL) established in accordance with s. NR 720.10 that is protective of groundwater quality, or an RCL established in accordance with s. NR 720.12 that is protective of human health from direct contact with contaminated soil. Identify the land use classification that was used to establish cleanup standards. Provide a copy of the supporting calculations/ information in Attachment C.

A soil performance standard (existing asphalt cap and onsite building) established in accordance with s. NR 720.08 is being utilized for this investigation, along with established ch. NR 720 Soil Residual Contaminant Levels (Web Calculator) were utilized for this investigation.

#### C. Groundwater

- i. Describe degree and extent of groundwater contamination. Relate this to known or suspected sources and known or potential receptors/migration pathways. Specifically address any potential or existing impacts to water supply wells or interception with building foundation drain systems.  
Analytical results for PAHs, RCRA Metals, and VOCs indicated concentrations of benzo(a)pyrene, benzo(b)fluoranthene, and chrysene exceeding the NR 140 Enforcement Standards (ES) in MW-2. Benzo(b)fluoranthene, and chrysene concentrations were detected only slightly above the NR 140 Preventive Action Limits (PALs) in MW-3. No analyte detected in MW-1 exceeded laboratory detection limits or the NR 140 PAL. The onsite storm water utility corridor servicing the subject property is a potential receptor for contaminant impacts, however; based upon the depth of the sewer manhole and lateral in relation to the observed depth to groundwater; contaminant migration along the sewer does not appear to be evident.
- ii. Describe the presence of free product at the site, including the thickness, depth, and locations. Identify the depth and location of the smear zone.  
No free product was encountered during this investigation.

#### D. Vapor

- i. Describe how the vapor migration pathway was assessed, including locations where vapor, soil gas, or indoor air samples were collected. If the vapor pathway was not assessed, explain reasons why.  
Three soil vapor probes (SVP-1 through SVP-3) were installed to eight feet bgs within the location of soil borings B1, B3 and B4 along the building north face (adjacent to the former UST cavity) and at the building northwest corner to screen for petroleum vapors. No obvious odor was detected and PID readings of the soil borings remained below background levels (<10 ppmv). Oxygen concentration for SVP-1 and SVP-2 was 17.1 %, 17.9% and 18.3%, respectively. Vapor intrusion can be ruled out in most petroleum releases where five feet (in the horizontal and vertical direction) of clean, unsaturated soil with an oxygen content  $\geq 5\%$  exists between the residual petroleum contamination and the building (Ref. 1). Based on the analysis of the soil borings, the contaminant type, proximity of the contaminant plume and current onsite building / property layout, it is unlikely that a vapor intrusion risk exists at the subject property.
- ii. Identify the applicable DNR action levels and the land use classification used to establish them. Describe where the DNR action levels were reached or exceeded (e.g., sub slab, indoor air or both).  
DNR action levels were not required for this investigation.

#### E. Surface Water and Sediment

- i. Identify whether surface water and/or sediment was assessed and describe the impacts found. If this pathway was not assessed, explain why.  
This pathway was not assessed as surface water and/or sediment were not present within or adjacent to the subject site of this investigation.
- ii. Identify any surface water and/or sediment action levels used to assess the impacts for this pathway and how these were derived. Describe where the DNR action levels were reached or exceeded.  
Not applicable to this investigation.

**4. Remedial Actions Implemented and Residual Levels at Closure**

- A. General: Provide a brief summary of the remedial action history. List previous remedial action report submittals by name and date. Identify remedial actions undertaken since the last submittal for this project and provide the appropriate documentation in Attachment C.

Remedial actions were not implemented as part of this investigation at the subject site, however, the existing asphalt cap will be maintained and utilized as an engineered barrier preventing direct contact, surface infiltration and the potential for contaminant migration along with aiding in the ability for natural attenuation processes to continue.

- B. Describe any immediate or interim actions taken at the site under ch NR 708, Wis. Adm. Code.  
None taken other than utilization of the existing asphalt cap as an engineered barrier preventing surface infiltration and direct contact.

- C. Describe the active remedial actions taken at the source property, including: type of remedial system(s) used for each media affected; the size and location of any excavation or in-situ treatment; the effectiveness of the systems to address the contaminated media and substances; operational history of the systems; and summarize the performance of the active remedial actions. Provide any system performance documentation in Attachment A.7.

No active remedial actions have been undertaken as part of this investigation at the subject site.

- D. Describe the alternatives considered during the Green and Sustainable Remediation evaluation in accordance with NR 722.09 and any practices implemented as a result of the evaluation.

No Green and Sustainable Remediation option is applicable to this investigation.

- E. Describe the nature, degree and extent of residual contamination that will remain at the source property or on other affected properties after case closure.

PAHs (1-Methylnaphthalene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, and pyrene), RCRA metals (arsenic, barium, cadmium, lead, and selenium), and VOCs (naphthalene) exceeding the respective applicable NR 720 soil RCLs from approximately 2 to 16 feet bgs throughout the subject property with the highest concentrations occurring in B2 (NW property corner) from 10 to 16 feet bgs will remain at the source property after closure.

- F. Describe the residual soil contamination within four feet of ground surface (direct contact zone) that attains or exceeds RCLs established under s. NR 720.12, Wis. Adm. Code, for protection of human health from direct contact.

PAH constituents (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene), RCRA metals (arsenic, barium, cadmium, and lead) are present within the upper four feet of the soil column at concentrations above the respective applicable NR 720 soil RCLs throughout the subject property. The identified contaminants and concentrations appear indicative of fill materials having been distributed at the property.

- G. Describe the residual soil contamination that is above the observed low water table that attains or exceeds the soil standard(s) for the groundwater pathway.

PAH constituents (benzo(a)pyrene, benzo(b)fluoranthene, chrysene, fluoranthene, fluorene, naphthalene and pyrene), RCRA metals (arsenic, lead and selenium) are present above the observed water table at concentrations above the respective applicable NR 720 soil RCLs groundwater pathway at B2 and B3.

- H. Describe how the residual contamination will be addressed, including but not limited to details concerning: covers, engineering controls or other barrier features; use of natural attenuation of groundwater; and vapor mitigation systems or measures.

The existing asphalt cap and onsite building will be maintained and utilized as an engineered barrier preventing surface infiltration and the potential for contaminant migration along with aiding in the ability for natural attenuation processes to continue.

- I. If using natural attenuation as a groundwater remedy, describe how the data collected supports the conclusion that natural attenuation is effective in reducing contaminant mass and concentration (e.g., stable or receding groundwater plume).

Given the elevated contaminant concentrations detected in soil (the highest detected at or slightly above the groundwater interface) versus groundwater concentrations being detected only slightly above the ES or PAL reveals that natural attenuation processes are occurring and breaking down the contaminant mass with little to no external influence.

- J. Identify how all exposure pathways (soil, groundwater, vapor) were removed and/or adequately addressed by immediate, interim and/or remedial action(s).

The existing asphalt cap and onsite building is being maintained and utilized as an engineered barrier preventing direct contact to soil, surface infiltration and the potential for contaminant migration along with aiding in the ability for natural attenuation processes to continue.

- K. Identify any system hardware anticipated to be left in place after site closure, and explain the reasons why it will remain.

No system installed as part of this investigation, other than the existing asphalt cap and onsite building being maintained and utilized as an engineered barrier.

- L. Identify the need for a ch. NR 140, Wis. Adm. Code, groundwater Preventive Action Limit (PAL) or Enforcement Standard (ES) exemption, and identify the affected monitoring points and applicable substances.  
A PAL exemption is appropriate for contaminants (benzo(b)fluoranthene and chrysene) at MW-3 and an ES exemption at MW-2 (benzo(a)pyrene, benzo(b)fluoranthene and chrysene) given the elevated contaminant concentrations detected in soil (the highest detected at or slightly above the groundwater interface) versus groundwater concentrations being detected, thus, revealing that natural attenuation processes are occurring and breaking down the contaminant mass with little to no external influence.
- M. If a DNR action level for vapor intrusion was exceeded (for indoor air, sub slab, or both) describe where it was exceeded and how the pathway was addressed.
- N. Describe the surface water and/or sediment contaminant concentrations and areas after remediation. If a DNR action level was exceeded, describe where it was exceeded and how the pathway was addressed.

**5. Continuing Obligations: Situations where sites, including all affected properties and rights-of-way (ROWs), are included on the DNR's GIS Registry. In certain situations, maintenance plans are also required, and must be included in Attachment D.**

Directions: For each of the 3 property types below, check all situations that apply to this closure request.

(NOTE: Monitoring wells to be transferred to another site are addressed in Attachment E.)

| This situation applies to the following property or Right of Way (ROW): |                                     |                          | Case Closure Situation - Continuing Obligation<br>Inclusion on the GIS Registry is Required (ii. - xiv.)                                  | Maintenance Plan Required |
|---|-------------------------------------|--------------------------|---|---------------------------|
| Property Type:  |                                     |                          |   |                           |
| Source Property   | Affected Property (Off-Source)      | ROW                      |   |                           |
| i.  | <input type="checkbox"/>            | <input type="checkbox"/> | None of the following situations apply to this case closure request.  | NA                        |
| ii.   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Residual groundwater contamination exceeds ch. NR 140 ESs.  | NA                        |
| iii.  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Residual soil contamination exceeds ch. NR 720 RCLs.  | NA                        |
| iv.   | Monitoring Wells Remain:            |                          |   |                           |
|   | <input type="checkbox"/>            | <input type="checkbox"/> | • Not Abandoned (filled and sealed)   | NA                        |
|   | <input type="checkbox"/>            | <input type="checkbox"/> | • Continued Monitoring (requested or required)  | Yes                       |
| v.  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Cover/Barrier/Engineered Cover or Control for (soil) direct contact pathways (includes vapor barriers)                                    | Yes                       |
| vi.   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Cover/Barrier/Engineered Cover or Control for (soil) groundwater infiltration pathway   | Yes                       |
| vii.  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Structural Impediment: impedes completion of investigation or remedial action (not as a performance standard cover)                       | NA                        |
| viii.   | <input type="checkbox"/>            | <input type="checkbox"/> | Residual soil contamination meets NR 720 industrial soil RCLs, land use is classified as industrial                                       | NA                        |
| ix.   | <input type="checkbox"/>            | NA                       | Vapor Mitigation System (VMS) required due to exceedances of vapor risk screening levels or other health based concern                    | Yes                       |
| x.  | <input type="checkbox"/>            | NA                       | Vapor: Dewatering System needed for VMS to work effectively   | Yes                       |
| xi.   | <input type="checkbox"/>            | NA                       | Vapor: Compounds of Concern in use: full vapor assessment could not be completed  | NA                        |
| xii.  | <input type="checkbox"/>            | NA                       | Vapor: Commercial/industrial exposure assumptions used.   | NA                        |
| xiii.   | <input type="checkbox"/>            | <input type="checkbox"/> | Vapor: Residual volatile contamination poses future risk of vapor intrusion   | NA                        |
| xiv.  | <input type="checkbox"/>            | <input type="checkbox"/> | Site-specific situation: (e. g., fencing, methane monitoring, other) (discuss with project manager before submitting the closure request) | Site specific             |

**6. Underground Storage Tanks**

- A. Were any tanks, piping or other associated tank system components removed as part of the investigation or remedial action? ☐ Yes ☒ No
- B. Do any upgraded tanks meeting the requirements of ch. ATCP 93, Wis. Adm. Code, exist on the property? ☐ Yes ☒ No
- C. If the answer to question 6.B. is yes, is the leak detection system currently being monitored? ☐ Yes ☐ No



**General Instructions**

All information shall be legible. Providing illegible information will result in a submittal being considered incomplete until corrected. For each attachment (A-G), provide a Table of Contents page, listing all 'applicable' and 'not applicable' items by Closure Form titles (e.g., A.1. Groundwater Analytical Table, A.2. Soil Analytical Results Table, etc.). If any item is 'not applicable' to the case closure request, you must fully explain the reasons why.

**Data Tables (Attachment A)****Directions for Data Tables:**

- Use bold and italics font for information of importance on tables and figures. Use bold font for ch. NR 140, Wis. Adm. Code ES attainments or exceedances, and italicized font for ch. NR 140, Wis. Adm. Code, PAL attainments or exceedances.
- Use bold font to identify individual ch. NR 720 Wis. Adm. Code RCL exceedances. Tables should also include the corresponding groundwater pathway and direct contact pathway RCLs for comparison purposes. Cumulative hazard index and cumulative cancer risk exceedances should also be tabulated and identified on Tables A.2 and A.3.
- Do not use shading or highlighting on the analytical tables.
- Include on Data Tables the level of detection for results which are below the detection level (i.e., do not just list as no detect (ND)).
- Include the units on data tables.
- Summaries of all data must include information collected by previous consultants.
- Do not submit lab data sheets unless these have not been submitted in a previous report. Tabulate all data required in s. NR 716.15 (3)(c), Wis. Adm. Code, in the format required in s. NR 716.15(4)(e), Wis. Adm. Code.
- Include in Attachment A all of the following tables, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: A.1. Groundwater Analytical Table; A.2. Soil Analytical Results Table, etc.).
- For required documents, each table (e.g., A.1., A.2., etc.) should be a separate Portable Document Format (PDF).

**A. Data Tables**

- A.1. **Groundwater Analytical Table(s):** Table(s) showing the analytical results and collection dates for all groundwater sampling points (e.g., monitoring wells, temporary wells, sumps, extraction wells, potable wells) for which samples have been collected.
- A.2. **Soil Analytical Results Table(s):** Table(s) showing all soil analytical results and collection dates. Indicate if sample was collected above or below the observed low water table (unsaturated versus saturated).
- A.3. **Residual Soil Contamination Table(s):** Table(s) showing the analytical results of only the residual soil contamination at the time of closure. This table shall be a subset of table A.2 and should include only the soil sample locations that exceed an RCL. Indicate if sample was collected above or below the observed low water table (unsaturated versus saturated). Table A.3 is optional only if a total of fewer than 15 soil samples have been collected at the site.
- A.4. **Vapor Analytical Table(s):** Table(s) showing type(s) of samples, sample collection methods, analytical method, sample results, date of sample collection, time period for sample collection, method and results of leak detection, and date, method and results of communication testing.
- A.5. **Other Media of Concern (e.g., sediment or surface water):** Table(s) showing type(s) of sample, sample collection method, analytical method, sample results, date of sample collection, and time period for sample collection.
- A.6. **Water Level Elevations:** Table(s) showing all water level elevation measurements and dates from all monitoring wells. If present, free product should be noted on the table.
- A.7. **Other:** This attachment should include: 1) any available tabulated natural attenuation data; 2) data tables pertaining to engineered remedial systems that document operational history, demonstrate system performance and effectiveness, and display emissions data; and (3) any other data tables relevant to case closure not otherwise noted above. If this section is not applicable, please explain the reasons why.

**Maps, Figures and Photos (Attachment B)****Directions for Maps, Figures and Photos:**

- Provide on paper no larger than 11 x 17 inches, unless otherwise directed by the Department. Maps and figures may be submitted in a larger electronic size than 11 x 17 inches, in a PDF readable by the Adobe Acrobat Reader. However, those larger-size documents must be legible when printed.
- Prepare visual aids, including maps, plans, drawings, fence diagrams, tables and photographs according to the applicable portions of ss. NR 716.15(4), 726.09(2) and 726.11(3), (5) and (6), Wis. Adm. Code.
- Include all sample locations.
- Contour lines should be clearly labeled and defined.
- Include in Attachment B all of the following maps and figures, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: B.1. Location Map; B.2. Detailed Site Map, etc).
- For the electronic copies that are required, each map (e.g., B.1.a., B.2.a, etc.) should be a separate PDF.
- Maps, figures and photos should be dated to reflect the most recent revision.

**B.1. Location Maps**

- B.1.a. **Location Map:** A map outlining all properties within the contaminated site boundaries on a United States Geological Survey (U.S.G.S.) topographic map or plat map in sufficient detail to permit easy location of all affected and/or adjacent parcels. If groundwater standards are exceeded, include the location of all potable wells, including municipal wells, within 1200 feet of the area of contamination.
- B.1.b. **Detailed Site Map:** A map that shows all relevant features (buildings, roads, current ground surface cover, individual property boundaries for all affected properties, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination attaining or exceeding a ch. NR 140 ES, and/or in relation to the boundaries of soil contamination attaining or exceeding a RCL. Provide parcel identification numbers for all affected properties.
- B.1.c. **RR Sites Map:** From RR Sites Map ([http://dnrm.wi.gov/sli/?Viewer=RR Sites](http://dnrm.wi.gov/sli/?Viewer=RR%20Sites)) attach a map depicting the source property, and all open and closed BRRTS sites within a half-mile radius or less of the property.

**B.2. Soil Figures**

- B.2.a. Soil Contamination:** Figure(s) showing the location of all identified unsaturated soil contamination. Use a single contour to show the horizontal extent of each area of contiguous soil contamination that exceeds a soil to groundwater pathway RCL as determined under ch. NR 720.Wis. Adm. Code. A separate contour line should be used to indicate the horizontal extent of each area of contiguous soil contamination that exceeds a direct contact RCL exceedances (0-4 foot depth).
- B.2.b. Residual Soil Contamination:** Figure(s) showing only the locations of soil samples where unsaturated soil contamination remains at the time of closure (locations represented in Table A.3). Use a single contour to show the horizontal extent of each area of contiguous soil contamination that exceeds a soil to groundwater pathway RCL as determined under ch. NR 720 Wis. Adm. Code. A separate contour line should be used to indicate the horizontal extent of each area of contiguous soil contamination that exceeds a direct contact RCL exceedance (0-4 foot depth).

**B.3. Groundwater Figures**

- B.3.a. Geologic Cross-Section Figure(s):** One or more cross-section diagrams showing soil types and correlations across the site, water table and piezometric elevations, and locations and elevations of geologic rock units, if encountered. Display on one or more figures all of the following:
- Source location(s) and vertical extent of residual soil contamination exceeding an RCL. Distinguish between direct contact and the groundwater pathway RCLs.
  - Source location(s) and lateral and vertical extent if groundwater contamination exceeds ch. NR 140 ES.
  - Surface features, including buildings and basements, and show surface elevation changes.
  - Any areas of active remediation within the cross section path, such as excavations or treatment zones.
  - Include a map displaying the cross-section location(s), if they are not displayed on the Detailed Site Map (Map B.1.b.)
- B.3.b. Groundwater Isoconcentration:** Figure(s) showing the horizontal extent of the post-remedial groundwater contamination exceeding a ch. NR 140, Wis. Adm. Code, PAL and/or an ES. Indicate the date and direction of groundwater flow based on the most recent sampling data.
- B.3.c. Groundwater Flow Direction:** Figure(s) representing groundwater movement at the site. If the flow direction varies by more than 20° over the history of the site, submit two groundwater flow maps showing the maximum variation in flow direction.
- B.3.d. Monitoring Wells:** Figure(s) showing all monitoring wells, with well identification number. Clearly designate any wells that: (1) are proposed to be abandoned; (2) cannot be located; (3) are being transferred; (4) will be retained for further sampling, or (5) have been abandoned.

**B.4. Vapor Maps and Other Media**

- B.4.a. Vapor Intrusion Map:** Map(s) showing all locations and results for samples taken to investigate the vapor intrusion pathway in relation to residual soil and groundwater contamination, including sub-slab, indoor air, soil vapor, soil gas, ambient air, and communication testing. Show locations and footprints of affected structures and utility corridors, and/or where residual contamination poses a future risk of vapor intrusion.
- B.4.b. Other media of concern (e.g., sediment or surface water):** Map(s) showing all sampling locations and results for other media investigation. Include the date of sample collection and identify where any standards are exceeded.
- B.4.c. Other:** Include any other relevant maps and figures not otherwise noted above. (This section may remain blank).

- B.5. Structural Impediment Photos:** One or more photographs documenting the structural impediment feature(s) which precluded a complete site investigation or remediation at the time of the closure request. The photographs should document the area that could not be investigated or remediated due to a structural impediment. The structural impediment should be indicated on Figures B.2.a and B.2.b.

**Documentation of Remedial Action (Attachment C)****Directions for Documentation of Remedial Action:**

- Include in Attachment C all of the following documentation, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: C.1. Site Investigation Documentation; C.2. Investigative Waste, etc.).
- If the documentation requested below has already been submitted to the DNR, please note the title and date of the report for that particular document requested.
  - C.1. Site Investigation documentation**, that has not otherwise been submitted with the Site Investigation Report.
  - C.2. Investigative waste disposal documentation.**
  - C.3. Provide a description of the methodology** used along with all supporting documentation if the RCLs are different than those contained in the Department's RCL Spreadsheet available at: <http://dnr.wi.gov/topic/Brownfields/Professionals.html>.
  - C.4. Construction documentation** or as-built report for any constructed remedial action or portion of, or interim action specified in s. NR 724.02(1), Wis. Adm. Code.
  - C.5. Decommissioning of Remedial Systems.** Include plans to properly abandon any systems or equipment.
  - C.6. Other.** Include any other relevant documentation not otherwise noted above (This section may remain blank).

**Maintenance Plan(s) and Photographs (Attachment D)****Directions for Maintenance Plans and Photographs:**

Attach a maintenance plan for each affected property (source property, each off-source affected property) with continuing obligations requiring future maintenance (e.g., direct contact, groundwater protection, vapor intrusion). See Site Summary section 5 for all affected property(s) requiring a maintenance plan. Maintenance plan guidance and/or templates for: 1) Cover/barrier systems; 2) Vapor intrusion; and 3) Monitoring wells, can be found at: <http://dnr.wi.gov/topic/Brownfields/Professionals.html#tabx3>

- D.1. Descriptions of maintenance action(s) required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required:**
- Provide brief descriptions of the type, depth and location of residual contamination.

- Provide a description of the system/cover/barrier/monitoring well(s) to be maintained.
  - Provide a description of the maintenance actions required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required.
  - Provide contact information, including the name, address and phone number of the individual or facility who will be conducting the maintenance.
- D.2. **Location map(s) which show(s):** (1) the feature that requires maintenance; (2) the location of the feature(s) that require(s) maintenance - on and off the source property; (3) the extent of the structure or feature(s) to be maintained, in relation to other structures or features on the site; (4) the extent and type of residual contamination; and (5) all property boundaries.
- D.3. **Photographs** for site or facilities with a cover or other performance standard, a structural impediment or a vapor mitigation system, include one or more photographs documenting the condition and extent of the feature at the time of the closure request. Pertinent features shall be visible and discernible. Photographs shall be submitted with a title related to the site name and location, and the date on which it was taken.
- D.4. **Inspection log**, to be maintained on site, or at a location specified in the maintenance plan or approval letter. The inspection and maintenance log is found at: <http://dnr.wi.gov/files/PDF/forms/4400/4400-305.pdf>.

#### Monitoring Well Information (Attachment E)

##### Directions for Monitoring Well Information:

For all wells that will remain in use, be transferred to another party, or that could not be located; attach monitoring well construction and development forms (DNR Form 4400-113 A and B: [http://dnr.wi.gov/topic/groundwater/documents/forms/4400\\_113\\_1\\_2.pdf](http://dnr.wi.gov/topic/groundwater/documents/forms/4400_113_1_2.pdf))

##### Select One:

- ☐ No monitoring wells were installed as part of this response action.
- ☒ All monitoring wells have been located and will be properly abandoned upon the DNR granting conditional closure to the site
- ☐ **Select One or More:**
- ☐ Not all monitoring wells can be located, despite good faith efforts. Attachment E must include a description of efforts made to locate the wells.
- ☐ One or more wells will remain in use at the site after this closure. Attachment E must include documentation as to the reason(s) the well(s) will remain in use. When one or more monitoring wells will remain in use this is considered a continuing obligation and a maintenance plan will be required and must be included in Attachment D.
- ☐ One or more monitoring wells will be transferred to another owner upon case closure being granted. Attachment E should include documentation identifying the name, address and email for the new owner(s). Provide documentation from the party accepting future responsibility for monitoring well(s).

#### Source Legal Documents (Attachment F)

##### Directions for Source Legal Documents:

Label documents with the specific closure form titles (e.g., F.1. Deed, F.2. Certified Survey Map, etc.). Include all of the following documents, in the order listed:

- F.1. **Deed:** The most recent deed with legal description clearly listed.
- Note: If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.*
- F.2. **Certified Survey Map:** A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. In cases where the certified survey map or recorded plat map are not legible or are unavailable, a copy of a parcel map from a county land information office may be substituted. A copy of a parcel map from a county land information office shall be legible, and the parcels identified in the legal description shall be clearly identified and labeled with the applicable parcel identification number.
- F.3. **Verification of Zoning:** Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.
- F.4. **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description(s) accurately describe(s) the correct contaminated property or properties. This section applies to the source property only. Signed statements for Other Affected Properties should be included in Attachment G.



**Notifications to Owners of Affected Properties (Attachment G)****Directions for Notifications to Owners of Affected Properties:**

Complete the table on the following page for sites which require notification to owners of affected properties pursuant to ch. 292, Wis. Stats. and ch. NR 725 and 726, Wis. Adm. Code. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31- 19.39, Wis. Stats.]. The DNR's "Guidance on Case Closure and the Requirements for Managing Continuing Obligations" (PUB-RR-606) lists specific notification requirements <http://dnr.wi.gov/files/PDF/pubs/rr/RR606.pdf>.

State law requires that the responsible party provide a 30-day, written advance notification to certain persons prior to applying for case closure. This requirement applies if: (1) the person conducting the response action does not own the source property; (2) the contamination has migrated onto another property; and/or (3) one or more monitoring wells will not be abandoned. Use form 4400-286, Notification of Continuing Obligations and Residual Contamination, at <http://dnr.wi.gov/files/PDF/forms/4400/4400-286.pdf>

Include a copy of each notification sent and accompanying proof of delivery, i.e., return receipt or signature confirmation. (These items will not be placed on the GIS Registry.)

Include the following documents for each property, keeping each property's documents grouped together and labeled with the letter G and the corresponding ID number from the table on the following page. (Source Property documents should only be included in Attachment F):

- **Deed:** The most recent deed with legal descriptions clearly listed for all affected properties.  
*Note: If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.*
- **Certified Survey Map:** A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. In cases where the certified survey map or recorded plat map are not legible or are unavailable, a copy of a parcel map from a county land information office may be substituted. A copy of a parcel map from a county land information office shall be legible, and the parcels identified in the legal description shall be clearly identified and labeled with the applicable parcel identification number.
- **Verification of Zoning:** Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.
- **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes the attached legal description(s) accurately describe(s) the correct contaminated property or properties.



### Notifications to Owners of Affected Properties (Attachment G)

[illegible]

**Signatures and Findings for Closure Determination**

Check the correct box for this case closure request, and have either a professional engineer or a hydrogeologist, as defined in ch. NR 712, Wis. Adm. Code, sign this document.

☒ A response action(s) for this site addresses groundwater contamination (including natural attenuation remedies).

☐ The response action(s) for this site addresses media other than groundwater.

**Engineering Certification**

I, Jeremy Schwartz hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this case closure request has been prepared by me or prepared under my supervision in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this case closure request is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code. Specifically, with respect to compliance with the rules, in my professional opinion a site investigation has been conducted in accordance with ch. NR 716, Wis. Adm. Code, and all necessary remedial actions have been completed in accordance with chs. NR 140, NR 718, NR 720, NR 722, NR 724 and NR 726, Wis. Adm. Codes."

Jeremy Schwartz  
Printed Name

Project Engineer  
Title



[Signature]  
Signature

9-30-16  
Date

\_\_\_\_\_  
P.E. Stamp and Number

**Hydrogeologist Certification**

I, \_\_\_\_\_ hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this case closure request is correct and the document was prepared by me or prepared by me or prepared under my supervision and, in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code. Specifically, with respect to compliance with the rules, in my professional opinion a site investigation has been conducted in accordance with ch. NR 716, Wis. Adm. Code, and all necessary remedial actions have been completed in accordance with chs. NR 140, NR 718, NR 720, NR 722, NR 724 and NR 726, Wis. Adm. Codes."

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



**Table A.1: Groundwater Analytical Results**  
**Le Reve Patisserie & Café**  
**7600-7610 W. Harwood Avenue, Wauwatosa, Wisconsin**

| Parameter                                | Units | WI NR 140 GW Quality Enforcement Standards | WI NR 140 GW Quality Preventive Action Limits | MW-1     | MW-2    | MW-3     | TRIP |
|--|-------|--|---|----------|---------|----------|------|
| Polynuclear Aromatic Hydrocarbons (PAHs) |       |  |   |          |         |          |      |
| 1-Methylnaphthalene                      | ug/L  |  |   | 0.0029 J | 0.074   | 0.0072 J | NA   |
| 2-Methylnaphthalene                      | ug/L  |  |   | 0.0039 J | 0.087   | 0.014 J  |      |
| Acenaphthene                             | ug/L  |  |   | <0.0045  | 0.32    | <0.0045  |      |
| Acenaphthylene                           | ug/L  |  |   | <0.0045  | 0.018 J | <0.0045  |      |
| Anthracene                               | ug/L  | 3000                                       | 600   | <0.0037  | 0.85    | 0.0041 J |      |
| Benzo(a)anthracene                       | ug/L  |  |   | 0.0088 J | 0.67    | 0.020 J  |      |
| Benzo(a)pyrene                           | ug/L  | .2   | .02   | 0.0042 J | 0.51    | 0.018 J  |      |
| Benzo(b)fluoranthene                     | ug/L  | .2   | .02   | 0.010 J  | 0.77    | 0.038    |      |
| Benzo(g,h,i)perylene                     | ug/L  |  |   | 0.0040 J | 0.29    | 0.018 J  |      |
| Benzo(k)fluoranthene                     | ug/L  |  |   | 0.0053 J | 0.42    | 0.019 J  |      |
| Chrysene                                 | ug/L  | .2   | .02   | 0.012 J  | 0.92    | 0.038    |      |
| Dibenz(a,h)anthracene                    | ug/L  |  |   | <0.0051  | 0.074   | <0.0051  |      |
| Fluoranthene                             | ug/L  | 400  | 80  | 0.018 J  | 2.1     | 0.064    |      |
| Fluorene                                 | ug/L  | 400  | 80  | <0.0037  | 0.52    | 0.0046 J |      |
| Indeno(1,2,3-cd)pyrene                   | ug/L  |  |   | <0.0033  | 0.25    | 0.013 J  |      |
| Naphthalene                              | ug/L  | 100  | 10  | 0.028 J  | 0.23    | 0.0079 J |      |
| Phenanthrene                             | ug/L  |  |   | 0.016 J  | 2.4     | 0.043 J  |      |
| Pyrene                                   | ug/L  | 250  | 50  | 0.017 J  | 1.5     | 0.055    |      |
| RCRA Metals                              |       |  |   |          |         |          |      |
| Barium, Dissolved                        | ug/L  | 2000                                       | 400   | 67.9     | 66.0    | 67.1     | NA   |
| Chromium, Dissolved                      | ug/L  | 100  | 10  | <0.87    | <0.87   | 2.0 J    |      |
| Volatile Organic Compounds (VOCs)        |       |  |   | <LDLs    |         |          |      |

**NOTES:** **Sample Collection Date: February 29, 2016**

*Only analytes with a detection in at least one sample are shown*

NA = Not Analyzed

ug/L = micrograms per Liter

LDLs = Laboratory Detection Limits

Concentrations equal to or exceeding the WI NR 140 GW Quality Enforcement Standards are **bold faced**

Concentrations equal to or exceeding the WI NR 140 GW Quality Preventive Action Limits are *italicized*

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

Table A.2.  
Soil Analytical Results Table  
7600 & 7610 Harwood Avenue, Wauwatosa, Wisconsin  
Sigma Project No. 15935

| Soil Sample Location:       |       | GP-1         |             |  | GP-2         |         |  | Groundwater<br>Pathway RCL <sup>4</sup> | Non-Industrial<br>Direct Contact<br>RCL <sup>5</sup> | Industrial<br>Direct Contact<br>RCL <sup>6</sup> |
|-----------------------------|-------|--------------|-------------|--|--------------|---------|--|---|--|--|
| Sample Depth (feet bgs):    |       | 6-8          | 12-14       |  | 6-8          | 10-12   |  |   |  |  |
| Sample Collection Date:     |       | 1/7/16       | 1/7/16      |  | 1/7/16       | 1/7/16  |  |   |  |  |
| VOCs                        |       |              |             |  |              |         |  |   |  |  |
| Benzene                     | mg/kg | <0.016       | <0.016      |  | <0.016       | <0.016  |  | 0.0051                                  | 1.49   | 7.41   |
| Bromobenzene                | mg/kg | <0.039       | <0.039      |  | <0.039       | <0.039  |  | NS                                      | 354  | 679  |
| Bromodichloromethane        | mg/kg | <0.015       | <0.015      |  | <0.015       | <0.015  |  | 0.0003                                  | 0.39   | 1.96   |
| Bromoform                   | mg/kg | <0.023       | <0.023      |  | <0.023       | <0.023  |  | 0.0023                                  | 23.6   | 115  |
| tert-Butylbenzene           | mg/kg | <0.035       | <0.035      |  | <0.035       | <0.035  |  | NS                                      | 183  | 183  |
| sec-Butylbenzene            | mg/kg | <0.036       | <0.036      |  | <0.036       | <0.036  |  | NS                                      | 145  | 145  |
| n-Butylbenzene              | mg/kg | <0.086       | <0.086      |  | <0.086       | <0.086  |  | NS                                      | 108  | 108  |
| Carbon tetrachloride        | mg/kg | <0.021       | <0.021      |  | <0.021       | <0.021  |  | 0.0039                                  | 0.854  | 4.25   |
| Chlorobenzene               | mg/kg | <0.039       | <0.039      |  | <0.039       | <0.039  |  | NS                                      | 392  | 761  |
| Chloroethane                | mg/kg | <0.045       | <0.045      |  | <0.045       | <0.045  |  | 0.2266                                  | NS   | NS   |
| Chloroform                  | mg/kg | <0.026       | <0.026      |  | <0.026       | <0.026  |  | 0.0033                                  | 0.423  | 2.13   |
| Chloromethane               | mg/kg | <0.25        | <0.25       |  | <0.25        | <0.25   |  | 0.0155                                  | 171  | 720  |
| 2-Chlorotoluene             | mg/kg | <0.029       | <0.029      |  | <0.029       | <0.029  |  | NS                                      | 907  | 907  |
| 4-Chlorotoluene             | mg/kg | <0.032       | <0.032      |  | <0.032       | <0.032  |  | NS                                      | 253  | 253  |
| 1,2-Dibromo-3-chloropropane | mg/kg | <0.078       | <0.078      |  | <0.078       | <0.078  |  | 0.0002                                  | 0.008  | 0.099  |
| Dibromochloromethane        | mg/kg | <0.031       | <0.031      |  | <0.031       | <0.031  |  | 0.032                                   | 0.971  | 4.82   |
| 1,4-Dichlorobenzene         | mg/kg | <0.03        | <0.03       |  | <0.03        | <0.03   |  | 0.144                                   | 3.48   | 17.5   |
| 1,3-Dichlorobenzene         | mg/kg | <0.03        | <0.03       |  | <0.03        | <0.03   |  | 1.1528                                  | 297  | 297  |
| 1,2-Dichlorobenzene         | mg/kg | <0.039       | <0.039      |  | <0.039       | <0.039  |  | 1.168                                   | 376  | 376  |
| Dichlorodifluoromethane     | mg/kg | <0.043       | <0.043      |  | <0.043       | <0.043  |  | 3.0863                                  | 135  | 571  |
| 1,2-Dichloroethane          | mg/kg | <0.03        | <0.03       |  | <0.03        | <0.03   |  | 0.0028                                  | 0.608  | 3.03   |
| 1,1-Dichloroethane          | mg/kg | <0.025       | <0.025      |  | <0.025       | <0.025  |  | 0.4828                                  | 4.72   | 23.7   |
| 1,1-Dichloroethene          | mg/kg | <0.029       | <0.029      |  | <0.029       | <0.029  |  | 0.005                                   | 342  | 1,190  |
| cis-1,2-Dichloroethene      | mg/kg | <0.021       | <0.021      |  | <0.021       | <0.021  |  | 0.0412                                  | 156  | 2,040  |
| trans-1,2-Dichloroethene    | mg/kg | <0.024       | <0.024      |  | <0.024       | <0.024  |  | 0.0588                                  | 1,560  | 1,860  |
| 1,2-Dichloropropane         | mg/kg | <0.025       | <0.025      |  | <0.025       | <0.025  |  | 0.0033                                  | 1.33   | 6.62   |
| 2,2-Dichloropropane         | mg/kg | <0.1         | <0.1        |  | <0.1         | <0.1    |  | NS                                      | 527  | 527  |
| 1,3-Dichloropropane         | mg/kg | <0.031       | <0.031      |  | <0.031       | <0.031  |  | 0.0003                                  | 1,490  | 1,490  |
| Di-isopropyl Ether          | mg/kg | <0.012       | <0.012      |  | <0.012       | <0.012  |  | NS                                      | 2,260  | 2,260  |
| EDB (1,2-Dibromoethane)     | mg/kg | <0.035       | <0.035      |  | <0.035       | <0.035  |  | 0.0000282                               | 0.047  | 0.23   |
| Ethylbenzene                | mg/kg | <0.027       | <0.027      |  | <0.027       | <0.027  |  | 1.57                                    | 7.47   | 37   |
| Hexachlorobutadiene         | mg/kg | <0.11        | <0.11       |  | <0.11        | <0.11   |  | NS                                      | 1.51   | 7.45   |
| Isopropylbenzene            | mg/kg | <0.037       | <0.037      |  | <0.037       | <0.037  |  | NS                                      | NS   | NS   |
| p-Isopropyltoluene          | mg/kg | <0.056       | <0.056      |  | <0.056       | <0.056  |  | NS                                      | 162  | 162  |
| Methylene chloride          | mg/kg | <0.22        | <0.22       |  | <0.22        | <0.22   |  | 0.0026                                  | 60.7   | 1,070  |
| Methyl-tert-butyl-ether     | mg/kg | <0.025       | <0.025      |  | <0.025       | <0.025  |  | 0.027                                   | 59.4   | 293  |
| Naphthalene                 | mg/kg | <0.087       | <0.087      |  | <0.087       | <0.087  |  | 0.6582                                  | 5.15   | 26   |
| n-Propylbenzene             | mg/kg | <0.035       | <0.035      |  | <0.035       | <0.035  |  | NS                                      | 264  | 264  |
| 1,1,2,2-Tetrachloroethane   | mg/kg | <0.013       | <0.013      |  | <0.013       | <0.013  |  | 0.0002                                  | 0.753  | 3.69   |
| 1,1,1,2-Tetrachloroethane   | mg/kg | <0.029       | <0.029      |  | <0.029       | <0.029  |  | 0.0534                                  | 2.59   | 12.9   |
| Tetrachloroethene (PCE)     | mg/kg | <0.054       | <0.054      |  | <0.054       | <0.054  |  | 0.0045                                  | 30.7   | 153  |
| Toluene                     | mg/kg | <0.031       | <0.031      |  | <0.031       | <0.031  |  | 1.1072                                  | 818  | 818  |
| 1,2,4-Trichlorobenzene      | mg/kg | <0.085       | <0.085      |  | <0.085       | <0.085  |  | 0.408                                   | 22   | 98.7   |
| 1,2,3-Trichlorobenzene      | mg/kg | <0.12        | <0.12       |  | <0.12        | <0.12   |  | NS                                      | 62.6   | 818  |
| 1,1,1-Trichloroethane       | mg/kg | <0.04        | <0.04       |  | <0.04        | <0.04   |  | 0.1402                                  | 640  | 640  |
| 1,1,2-Trichloroethane       | mg/kg | <0.033       | <0.033      |  | <0.033       | <0.033  |  | 0.0032                                  | 1.48   | 7.34   |
| Trichloroethene (TCE)       | mg/kg | <0.042       | <0.042      |  | <0.042       | <0.042  |  | 0.0036                                  | 1.26   | 8.81   |
| Trichlorofluoromethane      | mg/kg | <0.06        | <0.06       |  | <0.06        | <0.06   |  | NS                                      | 1,120  | 1,230  |
| 1,2,4-Trimethylbenzene      | mg/kg | <0.078       | <0.078      |  | <0.078       | <0.078  |  | 1.3821                                  | 89.8   | 219  |
| 1,3,5-Trimethylbenzene      | mg/kg | <0.089       | <0.089      |  | <0.089       | <0.089  |  |   | 182  | 182  |
| Vinyl Chloride              | mg/kg | <0.01        | <0.01       |  | <0.01        | <0.01   |  | 0.0001                                  | 0.067  | 2.03   |
| Xylenes (total)             | mg/kg | <0.099       | <0.099      |  | <0.099       | <0.099  |  | 3.94                                    | 258  | 258  |
| PAHs                        |       |              |             |  |              |         |  |   |  |  |
| Acenaphthene                | mg/kg | 0.050 "J"    | <0.0201     |  | <0.0201      | <0.0201 |  | NS                                      | 3,440  | 33,000   |
| Acenaphthylene              | mg/kg | <0.0198      | <0.0198     |  | <0.0198      | <0.0198 |  | NS                                      | NS   | NS   |
| Anthracene                  | mg/kg | 0.084        | 0.056       |  | 0.082        | <0.0171 |  | 197.7273                                | 17,200   | 100,000  |
| Benzo(a)anthracene          | mg/kg | [0.147]      | [0.184]     |  | [0.176]      | <0.0191 |  | NS                                      | 0.147  | 2.1  |
| Benzo(a)pyrene              | mg/kg | [0.2]        | [0.215]     |  | [0.182]      | <0.0143 |  | 0.47                                    | 0.015  | 0.211  |
| Benzo(b)fluoranthene        | mg/kg | [0.288]      | [0.33]      |  | [0.258]      | <0.019  |  | 0.4793                                  | 0.148  | 2.11   |
| Benzo(ghi)perylene          | mg/kg | 0.162        | 0.154       |  | 0.121        | <0.02   |  | NS                                      | NS   | NS   |
| Benzo(k)fluoranthene        | mg/kg | 0.103        | 0.116       |  | 0.135        | <0.0174 |  | NS                                      | 1.48   | 21.1   |
| Chrysene                    | mg/kg | 0.196        | 0.223       |  | 0.197        | <0.0192 |  | 0.1446                                  | 14.8   | 211  |
| Dibenzo(a,h)anthracene      | mg/kg | [0.0295 "J"] | [0.034 "J"] |  | [0.0281 "J"] | <0.015  |  | NS                                      | 0.015  | 0.211  |
| Fluoranthene                | mg/kg | 0.52         | 0.40        |  | 0.43         | <0.0192 |  | 88.8778                                 | 2,290  | 22,000   |
| Fluorene                    | mg/kg | 0.044 "J"    | <0.0184     |  | 0.029 "J"    | <0.0184 |  | 14.8027                                 | 2,290  | 22,000   |
| Indeno(1,2,3-cd)pyrene      | mg/kg | 0.132        | 0.131       |  | 0.099        | <0.0165 |  | NS                                      | 0.148  | 2.11   |
| 1-Methylnaphthalene         | mg/kg | 0.0299 "J"   | <0.0205     |  | <0.0205      | <0.0205 |  | NS                                      | 15.6   | 53.1   |
| 2-Methylnaphthalene         | mg/kg | 0.0277 "J"   | <0.0199     |  | <0.0199      | <0.0199 |  | NS                                      | 229  | 2,200  |
| Naphthalene                 | mg/kg | 0.064 "J"    | <0.0203     |  | <0.0203      | <0.0203 |  | 0.6582                                  | 5.15   | 26   |
| Phenanthrene                | mg/kg | 0.55         | 0.184       |  | 0.288        | <0.0198 |  | NS                                      | NS   | NS   |
| Pyrene                      | mg/kg | 0.48         | 0.37        |  | 0.39         | <0.0192 |  | 54.1322                                 | 1,720  | 16,500   |

Notes:

1. Unsaturated/smear zone versus saturated soil conditions based on: (1) measured water levels in adjacent/nearby monitoring wells, or (2) soil moisture conditions recorded on soil boring logs during drilling.

2. Analytical units:  
mg/kg = milligrams per kilogram (equivalent to parts per million, ppm)

3. NA = not analyzed

4. Groundwater Pathway RCL = Residual Contaminant Level for protection of groundwater as presented on the WDNR's RCL Spreadsheet (dated July 2015) referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014

5. Non-Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at a non-industrial property as presented on the WDNR's RCL Spreadsheet (dated July 2015) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014

6. Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at an industrial property as presented on the WDNR's RCL Spreadsheet (dated July 2015) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014

7. NS = no standard established

8. Laboratory flags:  
"J" = Analyte detected between Limit of Detection and Limit of Quantitation

9. Exceedances:  
**BOLD** = Concentration exceeds Groundwater Pathway RCL  
[ ] = Concentration exceeds Non-Industrial Direct Contact RCL (any depth)  
{ } = Concentration exceeds Industrial Direct Contact RCL (any depth)

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The Sigma Group, Inc.

I:\Quatre Chiens LLC\15935 - Harwood Avenue\090 Reports\Analytical Tables



Table A.2: Soil Analytical Results

Le Reve Patisserie & Café

7600-7610 W. Harwood Avenue, Wauwatosa, Wisconsin

| Parameter                                | Units | WI NR 720 Soil to Groundwater Pathway | WI NR 720 Soil Cleanup Standards Direct Contact Industrial | WI NR 720 Soil Cleanup Standards Direct Contact Non-Industrial | B1 (2-4) | B1 (6-8) | B1 (14-16) | B2 (2-4) | B2 (10-12) | B2 (14-16) | B3 (2-4) | B3 (10-12) | B3 (14-16) | B4 (2-4) | B4 (10-12) | B4 (14-16) | TRIP |  |
|--|-------|---------------------------------------|--|--|----------|----------|------------|----------|------------|------------|----------|------------|------------|----------|------------|------------|------|--|
| Polynuclear Aromatic Hydrocarbons (PAHs) |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |      |  |
| 1-Methylnaphthalene                      | ug/kg |                                       | 53,100   | 15,600   | <77.6    | 43.1     | <9.1       | <37.7    | 18,200     | 10,800 J   | <384     | 12.1 J     | 24.6 J     | <76.0    | 31.8       | <8.9       | NA   |  |
| 2-Methylnaphthalene                      | ug/kg |                                       | 2,200,000  | 229,000  | <77.6    | 46.1     | <9.1       | 44.6 J   | 31,900     | 17,600     | <384     | 13.2 J     | 25.1 J     | <76.0    | 27.7       | <8.9       |      |  |
| Acenaphthene                             | ug/kg |                                       | 33,000,000   | 3,440,000  | 125 J    | 69.6     | 9.2 J      | 51.4 J   | 34,000     | 20,600     | 544 J    | 28.2       | 73.5       | 176      | 42.3       | <8.9       |      |  |
| Acenaphthylene                           | ug/kg |                                       |  |  | <69.4    | 40.7     | <8.1       | <33.7    | <6,400     | <5,110     | <344     | 14.1 J     | <17.0      | <68.0    | 12.6 J     | <8.0       |      |  |
| Anthracene                               | ug/kg | 198,000                               | 100,000,000  | 17,200,000   | 384      | 243      | 29.9       | 171      | 107,000    | 65,100     | 2,560    | 88.4       | 194        | 450      | 90.1       | 17.0 J     |      |  |
| Benzo(a)anthracene                       | ug/kg |                                       | 2,110  | 148  | 874      | 356      | 43.1       | 430      | 75,900     | 48,200     | 10,900   | 225        | 384        | 757      | 167        | 38.8       |      |  |
| Benzo(a)pyrene                           | ug/kg | 470                                   | 211  | 15   | 990      | 390      | 41.0       | 500      | 62,600     | 37,300     | 14,100   | 278        | 432        | 829      | 181        | 42.9       |      |  |
| Benzo(b)fluoranthene                     | ug/kg | 479                                   | 2,110.00   | 148  | 876      | 316      | 40.7       | 477      | 45,500     | 30,800     | 13,200   | 248        | 494        | 592      | 175        | 39.1       |      |  |
| Benzo(g,h,i)perylene                     | ug/kg |                                       |  |  | 331      | 240      | 23.8       | 185      | 28,200     | 13,200     | 6,300    | 94.3       | 154        | 481      | 101        | 26.7       |      |  |
| Benzo(k)fluoranthene                     | ug/kg |                                       | 21,100   | 1,480  | 1,020    | 352      | 33.0       | 558      | 63,000     | 38,100     | 12,100   | 285        | 362        | 751      | 129        | 36.8       |      |  |
| Chrysene                                 | ug/kg | 145                                   | 211,000  | 14,800   | 978      | 428      | 47.5       | 522      | 76,500     | 50,300     | 12,000   | 262        | 440        | 866      | 201        | 45.2       |      |  |
| Dibenz(a,h)anthracene                    | ug/kg |                                       | 211  | 15   | 135      | 77.8     | 8.3 J      | 76.4     | 11,900     | 5,450      | 2,760    | 37.1       | 59.8       | 151      | 31.1       | 8.9 J      |      |  |
| Fluoranthene                             | ug/kg | 88,900                                | 22,000,000   | 2,290,000  | 2,160    | 1,050    | 106        | 1,060    | 213,000    | 129,000    | 22,000   | 587        | 1,090      | 2,180    | 541        | 96.1       |      |  |
| Fluorene                                 | ug/kg | 14,800                                | 22,000,000   | 2,290,000  | 132 J    | 79.8     | 9.8 J      | 60.6 J   | 61,400     | 35,300     | 516 J    | 31.2       | 70.9       | 155      | 41.5       | <8.9       |      |  |
| Indeno(1,2,3-cd)pyrene                   | ug/kg |                                       | 2,110  | 148  | 337      | 206      | 20.9       | 183      | 27,500     | 12,900     | 6,500    | 93.8       | 154        | 416      | 87.2       | 23.3       |      |  |
| Naphthalene                              | ug/kg | 658                                   | 26,000   | 5,150  | 87.6 J   | 108      | 10.0 J     | 47.5 J   | 94,700     | 52,400     | <384     | 23.4       | 51.2       | 117 J    | 41.8       | <40.0      |      |  |
| Phenanthrene                             | ug/kg |                                       |  |  | 1,630    | 1,020    | 100        | 643      | 307,000    | 186,000    | 8,160    | 359        | 884        | 2,220    | 650        | 75.9       |      |  |
| Pyrene                                   | ug/kg | 54,100                                | 16,500,000   | 1,720,000  | 1,770    | 825      | 80.0       | 822      | 132,000    | 87,500     | 16,900   | 454        | 864        | 1,830    | 467        | 77.5       |      |  |
| RCRA Metals                              |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |      |  |
| Arsenic                                  | ug/kg | 584                                   | 2,390  | 613  | 9,900    | 3,900    | <3.3       | 5,100    | 4,900      | 3,800      | 6,600    | 3,600      | 4,500      | <3.1     | 5,300      | 4,100      | NA   |  |
| Barium                                   | ug/kg | 165,000                               | 100,000,000  | 15,300,000   | 89,400   | 29,300   | 17,100     | 47,100   | 31,300     | 33,800     | 287,000  | 52,400     | 48,600     | 37,000   | 20,400     | 14,000     |      |  |
| Cadmium                                  | ug/kg | 752                                   | 799,000  | 70,000   | 490 J    | 220 J    | 130 J      | 510 J    | 500 J      | 340 J      | 1,000    | 200 J      | 160 J      | 140 J    | 210 J      | 160 J      |      |  |
| Chromium                                 | ug/kg | 360000000                             |  |  | 11,900   | 7,500    | 6,500      | 11,200   | 10,500     | 8,100      | 11,800   | 9,300      | 11,000     | 7,600    | 7,000      | 5,600      |      |  |
| Lead                                     | ug/kg | 27,000                                | 800,000  | 400,000  | 119,000  | 36,700   | 13,600     | 54,800   | 37,700     | 48,200     | 358,000  | 42,200     | 41,300     | 9,900    | 11,100     | 6,500      |      |  |
| Selenium                                 | ug/kg | 520                                   | 5,110,000  | 391,000  | <890     | <780     | <790       | <820     | <800       | <790       | <770     | <760       | 1,300      | <750     | <800       | <720       |      |  |
| Volatile Organic Compounds (VOCs)        |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |      |  |
| Naphthalene                              | ug/kg | 658                                   | 26,000   | 5,150  | 81.5 J   | <40.0    | <40.0      | 68.6 J   | 82,900     | 96,000     | 157 J    | <40.0      | <40.0      | <40.0    | <40.0      | <40.0      | <40  |  |
|  |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |      |  |
| Percent Moisture                         | %     |                                       |  |  | 14.1     | 9.6      | 8.0        | 11.6     | 6.8        | 8.7        | 13.2     | 11.5       | 12.1       | 12.3     | 7.5        | 6.7        | NA   |  |
| PID                                      | ppmv  |                                       |  |  | 0.8      | 0.7      | 0.9        | 2.2      | 2.7        | 1.2        | 1.2      | 0.5        | 0.5        | 1.5      | 0.6        | 20.8       |      |  |

NOTES:

Only analytes with a detection in at least one sample are shown

(2-3) = sample depth in feet below ground surface

ug/kg = micrograms per kilogram

RCL = Residual Contaminant Level

PID - Photoionization Detector

ppmv = parts per million by volume in air

NR = Not Reported/Below Detection Limits

NA = Not Analyzed

Sample Collection Date: February 16, 2016

Concentrations equal to or exceeding the NR 720 Soil RCL Industrial Direct Contact Standards are 'boxed' outlined & in bold

Concentrations equal to or exceeding the NR 720 Soil RCL Non-Industrial Direct Contact Standards are bold faced

Concentrations equal to or exceeding the NR 720 Soil RCL (via EPA RSLs) Soil to Groundwater Standards are italicized in red

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

Table A.3: Residual Soil Contamination  
Le Reve Patisserie & Café  
7600-7610 W. Harwood Avenue, Wauwatosa, Wisconsin

| Parameter                                | Units | WI NR 720 Soil to Groundwater Pathway | WI NR 720 Soil Cleanup Standards Direct Contact Industrial | WI NR 720 Soil Cleanup Standards Direct Contact Non-Industrial | B1 (2-4) | B1 (6-8) | B1 (14-16) | B2 (2-4) | B2 (10-12) | B2 (14-16) | B3 (2-4) | B3 (10-12) | B3 (14-16) | B4 (2-4) | B4 (10-12) | B4 (14-16) | TRIP |  |
|--|-------|---------------------------------------|--|--|----------|----------|------------|----------|------------|------------|----------|------------|------------|----------|------------|------------|------|--|
| Polynuclear Aromatic Hydrocarbons (PAHs) |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |      |  |
| 1-Methylnaphthalene                      | ug/kg |                                       | 53,100   | 15,600   | <77.6    | 43.1     | <9.1       | <37.7    | 18,200     | 10,800 J   | <384     | 12.1 J     | 24.6 J     | <76.0    | 31.8       | <8.9       | NA   |  |
| 2-Methylnaphthalene                      | ug/kg |                                       | 2,200,000  | 229,000  | <77.6    | 46.1     | <9.1       | 44.6 J   | 31,900     | 17,600     | <384     | 13.2 J     | 25.1 J     | <76.0    | 27.7       | <8.9       |      |  |
| Acenaphthene                             | ug/kg |                                       | 33,000,000   | 3,440,000  | 125 J    | 69.6     | 9.2 J      | 51.4 J   | 34,000     | 20,600     | 544 J    | 28.2       | 73.5       | 176      | 42.3       | <8.9       |      |  |
| Acenaphthylene                           | ug/kg |                                       |  |  | <69.4    | 40.7     | <8.1       | <33.7    | <6,400     | <5,110     | <344     | 14.1 J     | <17.0      | <68.0    | 12.6 J     | <8.0       |      |  |
| Anthracene                               | ug/kg | 198,000                               | 100,000,000  | 17,200,000   | 384      | 243      | 29.9       | 171      | 107,000    | 65,100     | 2,560    | 88.4       | 194        | 450      | 90.1       | 17.0 J     |      |  |
| Benzo(a)anthracene                       | ug/kg |                                       | 2,110  | 148  | 874      | 356      | 43.1       | 430      | 75,900     | 48,200     | 10,900   | 225        | 384        | 757      | 167        | 38.8       |      |  |
| Benzo(a)pyrene                           | ug/kg | 470                                   | 211  | 15   | 990      | 390      | 41.0       | 500      | 62,600     | 37,300     | 14,100   | 278        | 432        | 829      | 181        | 42.9       |      |  |
| Benzo(b)fluoranthene                     | ug/kg | 479                                   | 2,110.00   | 148  | 876      | 316      | 40.7       | 477      | 45,500     | 30,800     | 13,200   | 248        | 494        | 592      | 175        | 39.1       |      |  |
| Benzo(g,h,i)perylene                     | ug/kg |                                       |  |  | 331      | 240      | 23.8       | 185      | 28,200     | 13,200     | 6,300    | 94.3       | 154        | 481      | 101        | 26.7       |      |  |
| Benzo(k)fluoranthene                     | ug/kg |                                       | 21,100   | 1,480  | 1,020    | 352      | 33.0       | 558      | 63,000     | 38,100     | 12,100   | 285        | 362        | 751      | 129        | 36.8       |      |  |
| Chrysene                                 | ug/kg | 145                                   | 211,000  | 14,800   | 978      | 428      | 47.5       | 522      | 76,500     | 50,300     | 12,000   | 262        | 440        | 866      | 201        | 45.2       |      |  |
| Dibenz(a,h)anthracene                    | ug/kg |                                       | 211  | 15   | 135      | 77.8     | 8.3 J      | 76.4     | 11,900     | 5,450      | 2,760    | 37.1       | 59.8       | 151      | 31.1       | 8.9 J      |      |  |
| Fluoranthene                             | ug/kg | 88,900                                | 22,000,000   | 2,290,000  | 2,160    | 1,050    | 106        | 1,060    | 213,000    | 129,000    | 22,000   | 587        | 1,090      | 2,180    | 541        | 96.1       |      |  |
| Fluorene                                 | ug/kg | 14,800                                | 22,000,000   | 2,290,000  | 132 J    | 79.8     | 9.8 J      | 60.6 J   | 61,400     | 35,300     | 516 J    | 31.2       | 70.9       | 155      | 41.5       | <8.9       |      |  |
| Indeno(1,2,3-cd)pyrene                   | ug/kg |                                       | 2,110  | 148  | 337      | 206      | 20.9       | 183      | 27,500     | 12,900     | 6,500    | 93.8       | 154        | 416      | 87.2       | 23.3       |      |  |
| Naphthalene                              | ug/kg | 658                                   | 26,000   | 5,150  | 87.6 J   | 108      | 10.0 J     | 47.5 J   | 94,700     | 52,400     | <384     | 23.4       | 51.2       | 117 J    | 41.8       | <40.0      |      |  |
| Phenanthrene                             | ug/kg |                                       |  |  | 1,630    | 1,020    | 100        | 643      | 307,000    | 186,000    | 8,160    | 359        | 884        | 2,220    | 650        | 75.9       |      |  |
| Pyrene                                   | ug/kg | 54,100                                | 16,500,000   | 1,720,000  | 1,770    | 825      | 80.0       | 822      | 132,000    | 87,500     | 16,900   | 454        | 864        | 1,830    | 467        | 77.5       |      |  |
| RCRA Metals                              |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |      |  |
| Arsenic                                  | ug/kg | 584                                   | 2,390  | 613  | 9,900    | 3,900    | <3.3       | 5,100    | 4,900      | 3,800      | 6,600    | 3,600      | 4,500      | <3.1     | 5,300      | 4,100      | NA   |  |
| Barium                                   | ug/kg | 165,000                               | 100,000,000  | 15,300,000   | 89,400   | 29,300   | 17,100     | 47,100   | 31,300     | 33,800     | 287,000  | 52,400     | 48,600     | 37,000   | 20,400     | 14,000     |      |  |
| Cadmium                                  | ug/kg | 752                                   | 799,000  | 70,000   | 490 J    | 220 J    | 130 J      | 510 J    | 500 J      | 340 J      | 1,000    | 200 J      | 160 J      | 140 J    | 210 J      | 160 J      |      |  |
| Chromium                                 | ug/kg | 360000000                             |  |  | 11,900   | 7,500    | 6,500      | 11,200   | 10,500     | 8,100      | 11,800   | 9,300      | 11,000     | 7,600    | 7,000      | 5,600      |      |  |
| Lead                                     | ug/kg | 27,000                                | 800,000  | 400,000  | 119,000  | 36,700   | 13,600     | 54,800   | 37,700     | 48,200     | 358,000  | 42,200     | 41,300     | 9,900    | 11,100     | 6,500      |      |  |
| Selenium                                 | ug/kg | 520                                   | 5,110,000  | 391,000  | <890     | <780     | <790       | <820     | <800       | <790       | <770     | <760       | 1,300      | <750     | <800       | <720       |      |  |
| Volatile Organic Compounds (VOCs)        |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |      |  |
| Naphthalene                              | ug/kg | 658                                   | 26,000   | 5,150  | 81.5 J   | <40.0    | <40.0      | 68.6 J   | 82,900     | 96,000     | 157 J    | <40.0      | <40.0      | <40.0    | <40.0      | <40.0      | <40  |  |
|  |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |      |  |
| Percent Moisture                         | %     |                                       |  |  | 14.1     | 9.6      | 8.0        | 11.6     | 6.8        | 8.7        | 13.2     | 11.5       | 12.1       | 12.3     | 7.5        | 6.7        | NA   |  |
| PID                                      | ppmv  |                                       |  |  | 0.8      | 0.7      | 0.9        | 2.2      | 2.7        | 1.2        | 1.2      | 0.5        | 0.5        | 1.5      | 0.6        | 20.8       |      |  |

NOTES:  
Only analytes with a detection in at least one sample are shown  
(2-3) = sample depth in feet below ground surface  
ug/kg = micrograms per kilogram  
RCL = Residual Contaminant Level  
PID - Photoionization Detector  
ppmv = parts per million by volume in air  
NR = Not Reported/Below Detection Limits  
NA = Not Analyzed

Sample Collection Date: February 16, 2016  
Concentrations equal to or exceeding the NR 720 Soil RCL Industrial Direct Contact Standards are 'boxed' outlined & in bold  
Concentrations equal to or exceeding the NR 720 Soil RCL Non-Industrial Direct Contact Standards are bold faced  
Concentrations equal to or exceeding the NR 720 Soil RCL (via EPA RSLs) Soil to Groundwater Standards are italicized in red  
J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

**Table A.4: Vapor Analytical Results**  
**7600-7610 W. Harwood Avenue**  
**Wauwatosa, Wisconsin**

| Parameter | Units | SVP-1 | SVP-2 | SVP-3 |
|-----------|-------|-------|-------|-------|
| Oxygen    | %     | 17.1  | 17.9  | 18.3  |
| PID       | PPMV  | < 10  | <10   | <10   |

Date Samples Collected: February 16, 2016

PID: Photoionization Detector

PPMV: Parts Per Million by Volume

**A.5. Other Media of Concern (e.g., sediment or surface water)**

*Not Applicable for this Investigation.*





A.6 Water Level Elevations  
La Reve Patisserie & Café  
7600-7610 W. Harwood Avenue, Wauwatosa, Wisconsin

| Well Data |                   |                            |                             |                                       |                          |
|-----------|-------------------|----------------------------|-----------------------------|---------------------------------------|--------------------------|
| Well ID   | Date              | Surface Elevation (ft MSL) | PVC Well Elevation (ft MSL) | Depth to Water (From TOC in feet bgs) | Water Elevation (ft MSL) |
| MW-1      | February 29, 2016 | 672.85                     | 672.62                      | 16                                    | 656.62                   |
| MW-2      | February 29, 2016 | 672.5                      | 672.24                      | 15.45                                 | 656.79                   |
| MW-3      | February 29, 2016 | 672.95                     | 672.71                      | 15.9                                  | 656.81                   |

Notes:

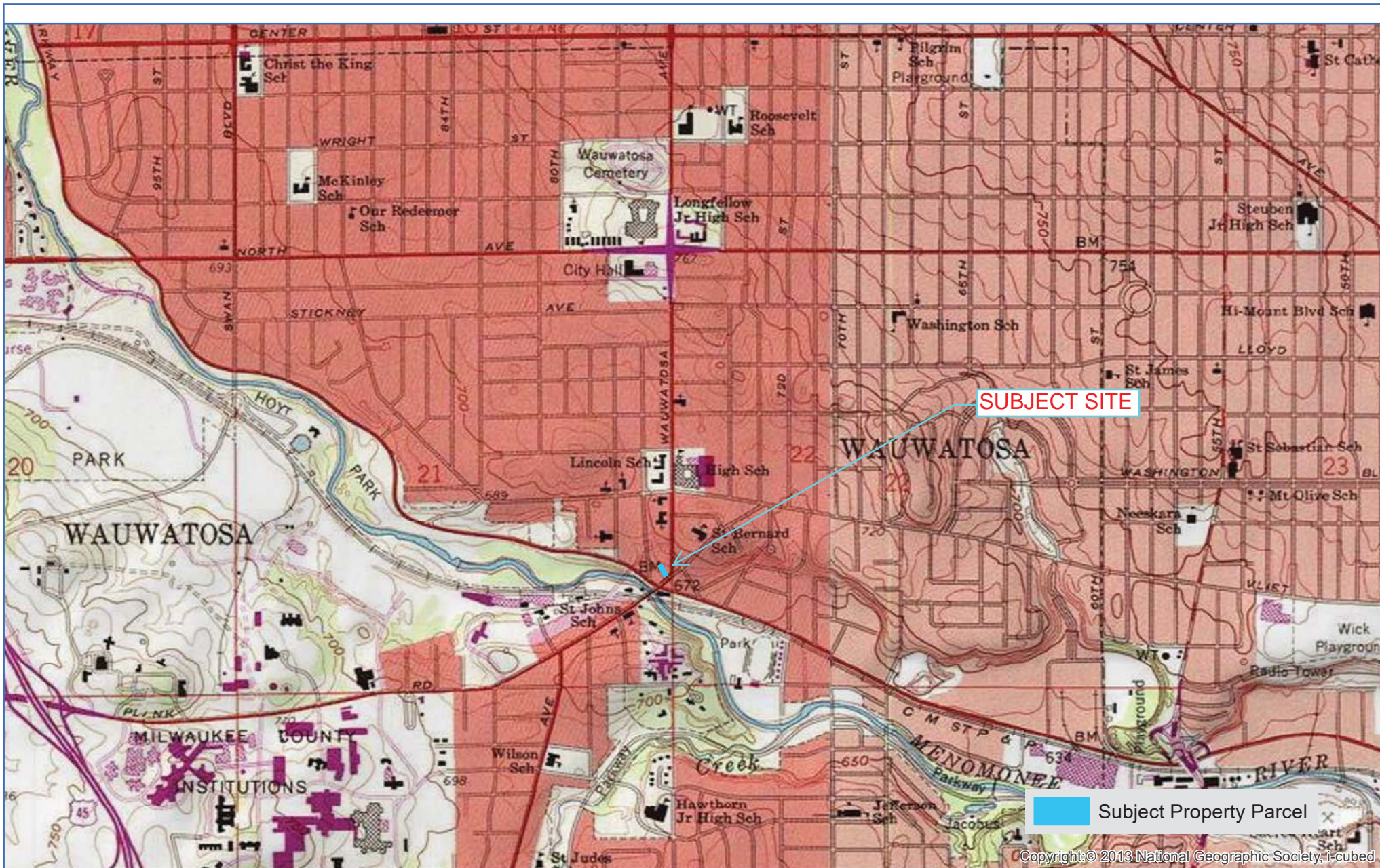
ft MSL = Feet above Mean Sea Level

TOC = Top of casing

## **A.7. Other**

***Not Applicable for this Investigation.***





**KAPUR & ASSOCIATES, INC.**  
CONSULTING ENGINEERS  
7711 N. PORT WASHINGTON ROAD  
MILWAUKEE, WISCONSIN 53217  
Phone: 414.351.6550 Fax: 414.351.6117  
www.kapurengineers.com

SHEET:  
**LOCATION MAP**

PROJECT:  
**LE REVE PATISserie & CAFE**

LOCATION:  
**7600-7610 W. HARWOOD AVENUE, WAUWATOSA, WI 53213**

FIGURE:  
**B.1.a**

NORTH ARROW:



0 1,100 2,200 Feet

1 inch = 1,600 feet

we listen. we innovate.  
we turn your vision into reality.

DRAWN BY: RAB

CHECKED BY: TWP

APPROVED BY: TWP

PROJECT NO. 16.0131.01

DATE: 3/11/2016

REVISION DATE:





SHEET:  
DETAILED SITE MAP

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:  
B.1.b.

NORTH ARROW:



SCALE:

1" = 20'



SEAL:

we listen... we innovate.  
we turn your vision into reality.

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RAB CHECKED BY:

TWP APPROVED BY:

TWP PROJECT NO.

16.0131.01

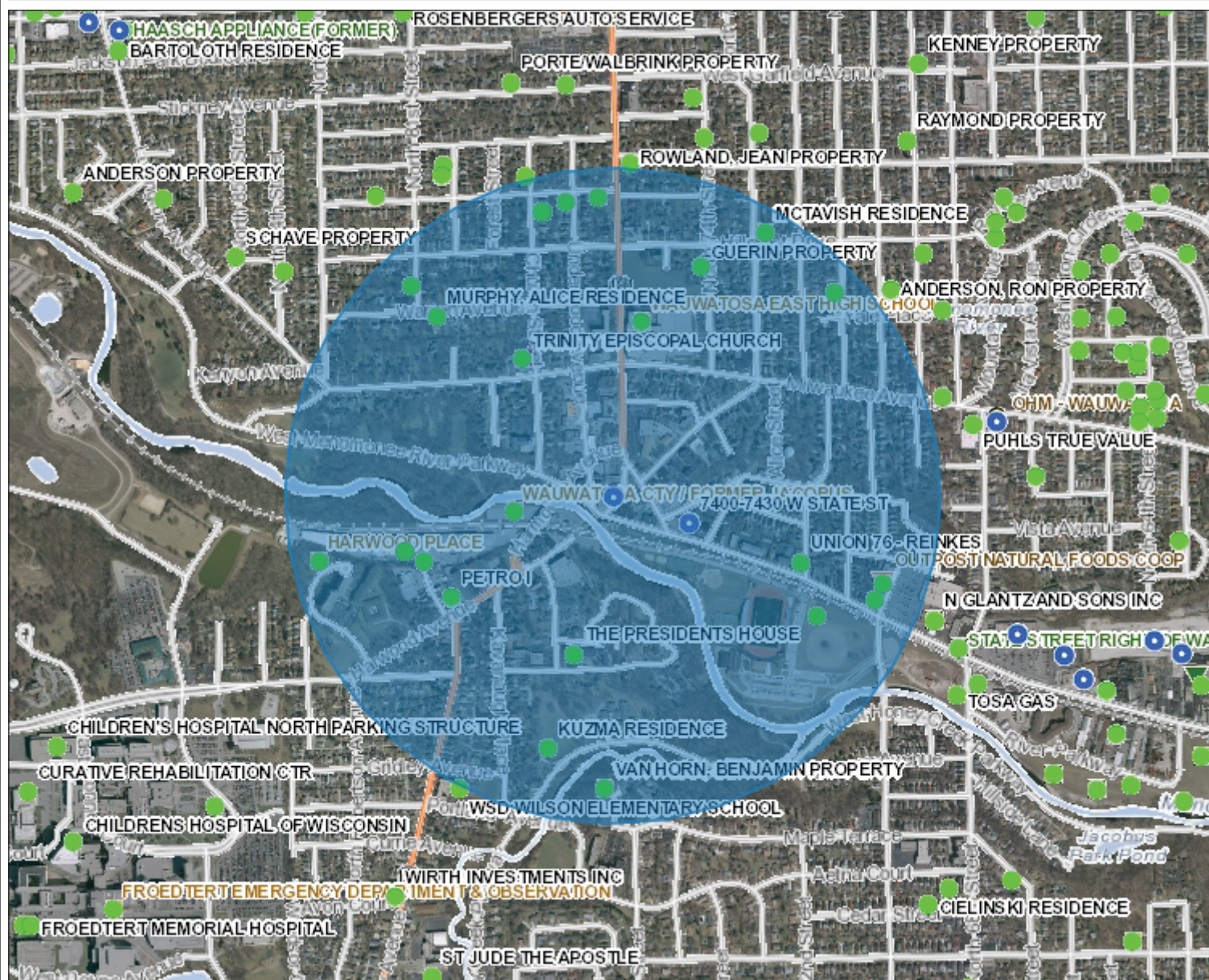
DATE:

3/9/2016

REVISION DATE:

06/28/2016





### Legend

-  Open Site (ongoing cleanup)
-  Open Site Boundary
-  Closed Site (completed cleanup)
-  Closed Site Boundary
-  Groundwater Contamination
-  Soil Contamination
-  Groundwater and Soil Contamination
-  Contamination From Another Property
-  Dryclean Environmental Response Fund (DERF)
-  Green Space Grant (2004-2009)
-  Ready for Reuse
-  Site Assessment Grant (2001-2009)
-  State Funded Response
-  Sustainable Urban Development Zone (SUDZ)
-  General Liability Clarification Letters
-  Superfund NPL
-  Voluntary Party Liability Exemption
-  Rivers and Streams
-  Open Water
-  Municipality
-  State Boundaries
-  County Boundaries
-  Major Roads
  -  Interstate Highway
  -  State Highway
  -  US Highway

## Notes

7600-7610 W. Harwood Ave.  
Wauwatosa, WI 53213

0.5 0 0.23 0.5 Miles

NAD\_1983 HARN Wisconsin TM

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1: 14,654



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Note: Not all sites are mapped.



| Parameter                                       | Units | WI NR 720 Soil to Groundwater Pathway | WI NR 720 Soil Cleanup Standards Direct Contact Industrial | WI NR 720 Soil Cleanup Standards Direct Contact Non-Industrial | B1 (2-4) | B1 (6-8) | B1 (14-16) | B2 (2-4) | B2 (10-12) | B2 (14-16) | B3 (2-4) | B3 (10-12) | B3 (14-16) | B4 (2-4) | B4 (10-12) | B4 (14-16) |
|---|-------|---------------------------------------|--|--|----------|----------|------------|----------|------------|------------|----------|------------|------------|----------|------------|------------|
| <b>Polynuclear Aromatic Hydrocarbons (PAHs)</b> |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| 1-Methylnaphthalene                             | ug/kg |                                       | 53,100   | 15,600   | <77.6    | 43.1     | <9.1       | <37.7    | 18,200     | 10,800 J   | <384     | 12.1 J     | 24.6 J     | <76.0    | 31.8       | <8.9       |
| Benzo(a)anthracene                              | ug/kg |                                       | 2,110  | 148  | 874      | 356      | 43.1       | 430      | 75,900     | 48,200     | 10,900   | 225        | 384        | 757      | 167        | 38.8       |
| Benzo(a)pyrene                                  | ug/kg | 470                                   | 211  | 15   | 990      | 390      | 41.0       | 500      | 62,600     | 37,300     | 14,100   | 278        | 432        | 829      | 181        | 42.9       |
| Benzo(b)fluoranthene                            | ug/kg | 479                                   | 2,110.00   | 148  | 876      | 316      | 40.7       | 477      | 45,500     | 30,800     | 13,200   | 248        | 494        | 592      | 175        | 39.1       |
| Benzo(k)fluoranthene                            | ug/kg |                                       | 21,100   | 1,480  | 1,020    | 352      | 33.0       | 558      | 63,000     | 38,100     | 12,100   | 285        | 362        | 751      | 129        | 36.8       |
| Chrysene  | ug/kg | 145                                   | 211,000  | 14,800   | 978      | 428      | 47.5       | 522      | 76,500     | 50,300     | 12,000   | 262        | 440        | 866      | 201        | 45.2       |
| Dibenz(a,h)anthracene                           | ug/kg |                                       | 211  | 15   | 135      | 77.8     | 8.3 J      | 76.4     | 11,900     | 5,450      | 2,760    | 37.1       | 59.8       | 151      | 31.1       | 8.9 J      |
| Fluoranthene                                    | ug/kg | 88,900                                | 22,000,000   | 2,290,000  | 2,160    | 1,050    | 106        | 1,060    | 213,000    | 129,000    | 22,000   | 587        | 1,090      | 2,180    | 541        | 96.1       |
| Fluorene  | ug/kg | 14,800                                | 22,000,000   | 2,290,000  | 132 J    | 79.8     | 9.8 J      | 60.6 J   | 61,400     | 35,300     | 516 J    | 31.2       | 70.9       | 155      | 41.5       | <8.9       |
| Indeno(1,2,3-cd)pyrene                          | ug/kg |                                       | 2,110  | 148  | 337      | 206      | 20.9       | 183      | 27,500     | 12,900     | 6,500    | 93.8       | 154        | 416      | 87.2       | 23.3       |
| Naphthalene                                     | ug/kg | 658                                   | 26,000   | 5,150  | 87.6 J   | 108      | 10.0 J     | 47.5 J   | 94,700     | 52,400     | <384     | 23.4       | 51.2       | 117 J    | 41.8       | <40.0      |
| Pyrene  | ug/kg | 54,100                                | 16,500,000   | 1,720,000  | 1,770    | 825      | 80.0       | 822      | 132,000    | 87,500     | 16,900   | 454        | 864        | 1,830    | 467        | 77.5       |
| <b>RCRA Metals</b>                              |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| Arsenic   | ug/kg | 584                                   | 2,390  | 613  | 9,900    | 3,900    | <3.3       | 5,100    | 4,900      | 3,800      | 6,600    | 3,600      | 4,500      | <3.1     | 5,300      | 4,100      |
| Barium  | ug/kg | 165,000                               | 100,000,000  | 15,300,000   | 89,400   | 29,300   | 17,100     | 47,100   | 31,300     | 33,800     | 287,000  | 52,400     | 48,600     | 37,000   | 20,400     | 14,000     |
| Cadmium   | ug/kg | 752                                   | 799,000  | 70,000   | 490 J    | 220 J    | 130 J      | 510 J    | 500 J      | 340 J      | 1,000    | 200 J      | 160 J      | 140 J    | 210 J      | 160 J      |
| Lead  | ug/kg | 27,000                                | 800,000  | 400,000  | 119,000  | 36,700   | 13,600     | 54,800   | 37,700     | 48,200     | 358,000  | 42,200     | 41,300     | 9,900    | 11,100     | 6,500      |
| <b>Volatile Organic Compounds (VOCs)</b>        |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| Naphthalene                                     | ug/kg | 658                                   | 26,000   | 5,150  | 81.5 J   | <40.0    | <40.0      | 68.6 J   | 82,900     | 96,000     | 157 J    | <40.0      | <40.0      | <40.0    | <40.0      | <40.0      |
| PID   | ppmv  |                                       |  |  | 0.8      | 0.7      | 0.9        | 2.2      | 2.7        | 1.2        | 1.2      | 0.5        | 0.5        | 1.5      | 0.6        | 20.8       |



SHEET:  
SOIL CONTAMINATION

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:  
B.2.a.

NORTH ARROW:



SCALE:

1" = 20'

0 10 20

SEAL:

we listen... we innovate... we turn your vision into reality.

DRAWN BY:

RAB CHECKED BY:

TWP APPROVED BY:

TWP PROJECT NO.

16.0131.01

DATE:

3/9/2016

REVISION DATE:

06/28/2016

FILENAME: S:\\_Environ\160131-7610 Harwood Ave. Toso ENV\Figs-Photos\SOIL CONTAM rev.dwg

PLOT DATE/TIME: 9/26/2016 2:34 PM

PLOTTED BY: TRAVIS W. PETERSON

| Parameter                                       | Units | WI NR 720 Soil to Groundwater Pathway | WI NR 720 Soil Cleanup Standards Direct Contact Industrial | WI NR 720 Soil Cleanup Standards Direct Contact Non-Industrial | B1 (2-4) | B1 (6-8) | B1 (14-16) | B2 (2-4) | B2 (10-12) | B2 (14-16) | B3 (2-4) | B3 (10-12) | B3 (14-16) | B4 (2-4) | B4 (10-12) | B4 (14-16) |
|---|-------|---------------------------------------|--|--|----------|----------|------------|----------|------------|------------|----------|------------|------------|----------|------------|------------|
| <b>Polynuclear Aromatic Hydrocarbons (PAHs)</b> |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| 1-Methylnaphthalene                             | ug/kg |                                       | 53,100   | 15,600   | <77.6    | 43.1     | <9.1       | <37.7    | 18,200     | 10,800 J   | <384     | 12.1 J     | 24.6 J     | <76.0    | 31.8       | <8.9       |
| Benzo(a)anthracene                              | ug/kg |                                       | 2,110  | 148  | 874      | 356      | 43.1       | 430      | 75,900     | 48,200     | 10,900   | 225        | 384        | 757      | 167        | 38.8       |
| Benzo(a)pyrene                                  | ug/kg | 470                                   | 211  | 15   | 990      | 390      | 41.0       | 500      | 62,600     | 37,300     | 14,100   | 278        | 432        | 829      | 181        | 42.9       |
| Benzo(b)fluoranthene                            | ug/kg | 479                                   | 2,110.00   | 148  | 876      | 316      | 40.7       | 477      | 45,500     | 30,800     | 13,200   | 248        | 494        | 592      | 175        | 39.1       |
| Benzo(k)fluoranthene                            | ug/kg |                                       | 21,100   | 1,480  | 1,020    | 352      | 33.0       | 558      | 63,000     | 38,100     | 12,100   | 285        | 362        | 751      | 129        | 36.8       |
| Chrysene  | ug/kg | 145                                   | 211,000  | 14,800   | 978      | 428      | 47.5       | 522      | 76,500     | 50,300     | 12,000   | 262        | 440        | 866      | 201        | 45.2       |
| Dibenz(a,h)anthracene                           | ug/kg |                                       | 211  | 15   | 135      | 77.8     | 8.3 J      | 76.4     | 11,900     | 5,450      | 2,760    | 37.1       | 59.8       | 151      | 31.1       | 8.9 J      |
| Fluoranthene                                    | ug/kg | 88,900                                | 22,000,000   | 2,290,000  | 2,160    | 1,050    | 106        | 1,060    | 213,000    | 129,000    | 22,000   | 587        | 1,090      | 2,180    | 541        | 96.1       |
| Fluorene  | ug/kg | 14,800                                | 22,000,000   | 2,290,000  | 132 J    | 79.8     | 9.8 J      | 60.6 J   | 61,400     | 35,300     | 516 J    | 31.2       | 70.9       | 155      | 41.5       | <8.9       |
| Indeno(1,2,3-cd)pyrene                          | ug/kg |                                       | 2,110  | 148  | 337      | 206      | 20.9       | 183      | 27,500     | 12,900     | 6,500    | 93.8       | 154        | 416      | 87.2       | 23.3       |
| Naphthalene                                     | ug/kg | 658                                   | 26,000   | 5,150  | 87.6 J   | 108      | 10.0 J     | 47.5 J   | 94,700     | 52,400     | <384     | 23.4       | 51.2       | 117 J    | 41.8       | <40.0      |
| Pyrene  | ug/kg | 54,100                                | 16,500,000   | 1,720,000  | 1,770    | 825      | 80.0       | 822      | 132,000    | 87,500     | 16,900   | 454        | 864        | 1,830    | 467        | 77.5       |
| <b>RCRA Metals</b>                              |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| Arsenic   | ug/kg | 584                                   | 2,390  | 613  | 9,900    | 3,900    | <3.3       | 5,100    | 4,900      | 3,800      | 6,600    | 3,600      | 4,500      | <3.1     | 5,300      | 4,100      |
| Barium  | ug/kg | 165,000                               | 100,000,000  | 15,300,000   | 89,400   | 29,300   | 17,100     | 47,100   | 31,300     | 33,800     | 287,000  | 52,400     | 48,600     | 37,000   | 20,400     | 14,000     |
| Cadmium   | ug/kg | 752                                   | 799,000  | 70,000   | 490 J    | 220 J    | 130 J      | 510 J    | 500 J      | 340 J      | 1,000    | 200 J      | 160 J      | 140 J    | 210 J      | 160 J      |
| Lead  | ug/kg | 27,000                                | 800,000  | 400,000  | 119,000  | 36,700   | 13,600     | 54,800   | 37,700     | 48,200     | 358,000  | 42,200     | 41,300     | 9,900    | 11,100     | 6,500      |
| <b>Volatile Organic Compounds (VOCs)</b>        |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| Naphthalene                                     | ug/kg | 658                                   | 26,000   | 5,150  | 81.5 J   | <40.0    | <40.0      | 68.6 J   | 82,900     | 96,000     | 157 J    | <40.0      | <40.0      | <40.0    | <40.0      | <40.0      |
| PID   | ppmv  |                                       |  |  | 0.8      | 0.7      | 0.9        | 2.2      | 2.7        | 1.2        | 1.2      | 0.5        | 0.5        | 1.5      | 0.6        | 20.8       |



SHEET:  
RESIDUAL SOIL CONTAMINATION

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:  
B.2.b.

NORTH ARROW:



SCALE:

1" = 20'

0 10 20

SEAL:

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RAB CHECKED BY:

TWP APPROVED BY:

TWP PROJECT NO.

16.0131.01

DATE:

3/9/2016

REVISION DATE:

06/28/2016

FILENAME: S:\\_Environ\160131-7610 Harwood Ave. Toso ENV\Figs-Photos\RES SOIL CONTAM rev.dwg

PLOT DATE/TIME: 9/26/2016 2:39 PM

PLOTTED BY: TRAVIS W. PETERSON





SHEET:  
GEOLOGIC CROSS-SECTION

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:

B.3.a.

NORTH ARROW:



SCALE:

1" = 20'



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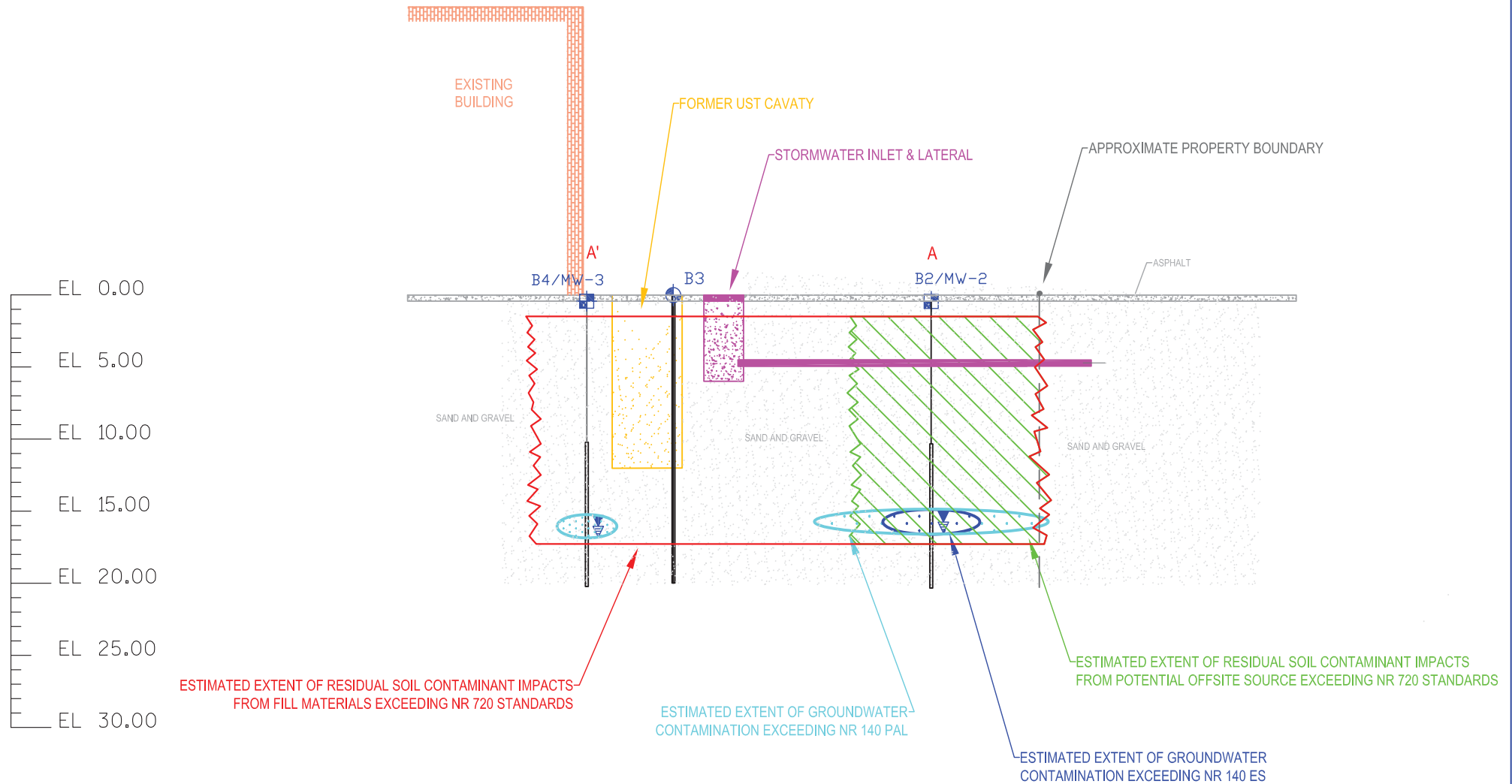
TWP PROJECT NO.

16.0131.01 DATE:

3/9/2016

REVISION DATE:

06/28/2016



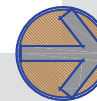
SHEET:  
GEOLOGIC CROSS-SECTION A - A' FACING WEST

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:  
B.3.a.i.

NORTH ARROW:



SCALE: 1" = 10'



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| Parameter                                       | Units | WI NR 140 GW<br>Quality Enforcement<br>Standards | WI NR 140 GW<br>Quality Preventive<br>Action Limits | MW-1     | MW-2        | MW-3         |
|---|-------|--|---|----------|-------------|--------------|
| <b>Polynuclear Aromatic Hydrocarbons (PAHs)</b> |       |  |   |          |             |              |
| Benzo(a)pyrene                                  | ug/L  | .2   | .02   | 0.0042 J | <b>0.51</b> | 0.018 J      |
| Benzo(b)fluoranthene                            | ug/L  | .2   | .02   | 0.010 J  | <b>0.77</b> | <b>0.038</b> |
| Chrysene  | ug/L  | .2   | .02   | 0.012 J  | <b>0.92</b> | <b>0.038</b> |
| <b>RCRA Metals</b>                              |       |  |   |          |             |              |
| Barium, Dissolved                               | ug/L  | 2000   | 400   | 67.9     | 66.0        | 67.1         |
| Chromium, Dissolved                             | ug/L  | 100  | 10  | <0.87    | <0.87       | 2.0 J        |
| <b>Volatile Organic Compounds (VOCs)</b>        |       |  |   | <LDLs    |             |              |



SHEET:  
GROUNDWATER ISOCONCENTRATION

PROJECT:  
LE REVE PATISSERIE & CAFE

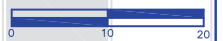
LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:  
**B.3.b.**

NORTH ARROW:



SCALE: 1" = 20'



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PLOT DATE/TIME: 7/19/2016 2:00 PM

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SHEET:  
GROUNDWATER FLOW DIRECTION

FIGURE:  
**B.3.c.**

NORTH ARROW:



SCALE: 1" = 20'



SEAL:

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
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DRAWN BY: TWP CHECKED BY: RAB APPROVED BY: TWP PROJECT NO. 16.0131.01 DATE: 04/12/2016 REVISION DATE: 06/28/2016

FILENAME: S:\\_Environ\160131-7610 Harwood Ave. Tosa ENV\Figs-Photos\GW FLOW.dwg

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CONSULTING ENGINEERS  
7721 N. PORT WASHINGTON ROAD  
MILWAUKEE, WISCONSIN 53217  
Phone: 414.351.8668 Fax: 414.351.4117  
www.kapurengineers.com

SHEET:  
**MONITORING WELLS**

PROJECT:  
**LE REVE PATISSERIE & CAFE**

LOCATION:  
**7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213**

FIGURE:

**B.3.d.**

NORTH ARROW:



SCALE:

1" = 20'



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DATE:

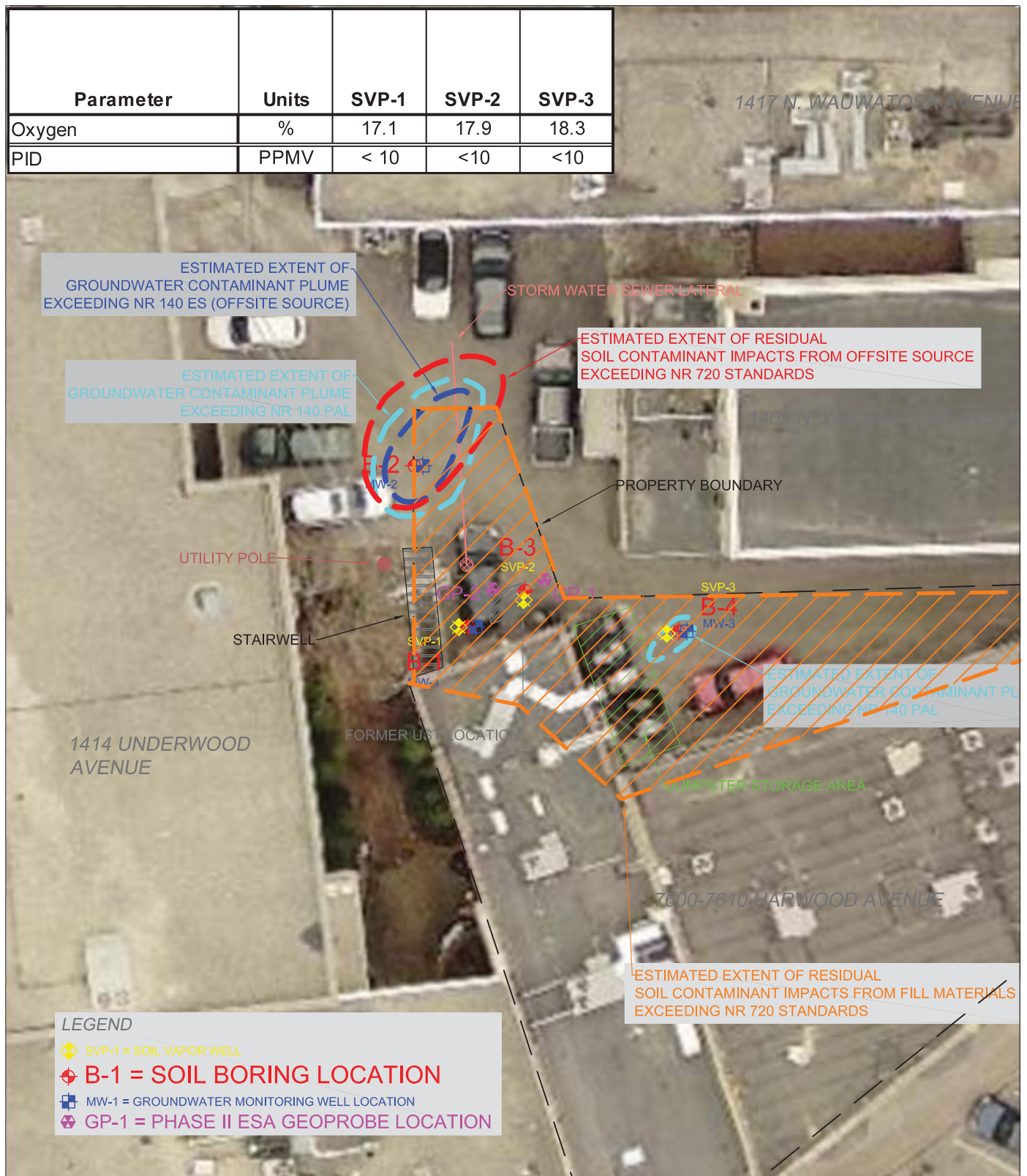
04/12/2016

REVISION DATE:

06/28/2016



| Parameter | Units | SVP-1 | SVP-2 | SVP-3 |
|-----------|-------|-------|-------|-------|
| Oxygen    | %     | 17.1  | 17.9  | 18.3  |
| PID       | PPMV  | < 10  | <10   | <10   |



SHEET:  
VAPOR INTRUSION MAP

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:

B.4.a.

NORTH ARROW:



SCALE:

1" = 20'



SEAL:

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TWP APPROVED BY:

TWP PROJECT NO.

16.0131.01

DATE:

3/9/2016

REVISION DATE:

06/28/2016

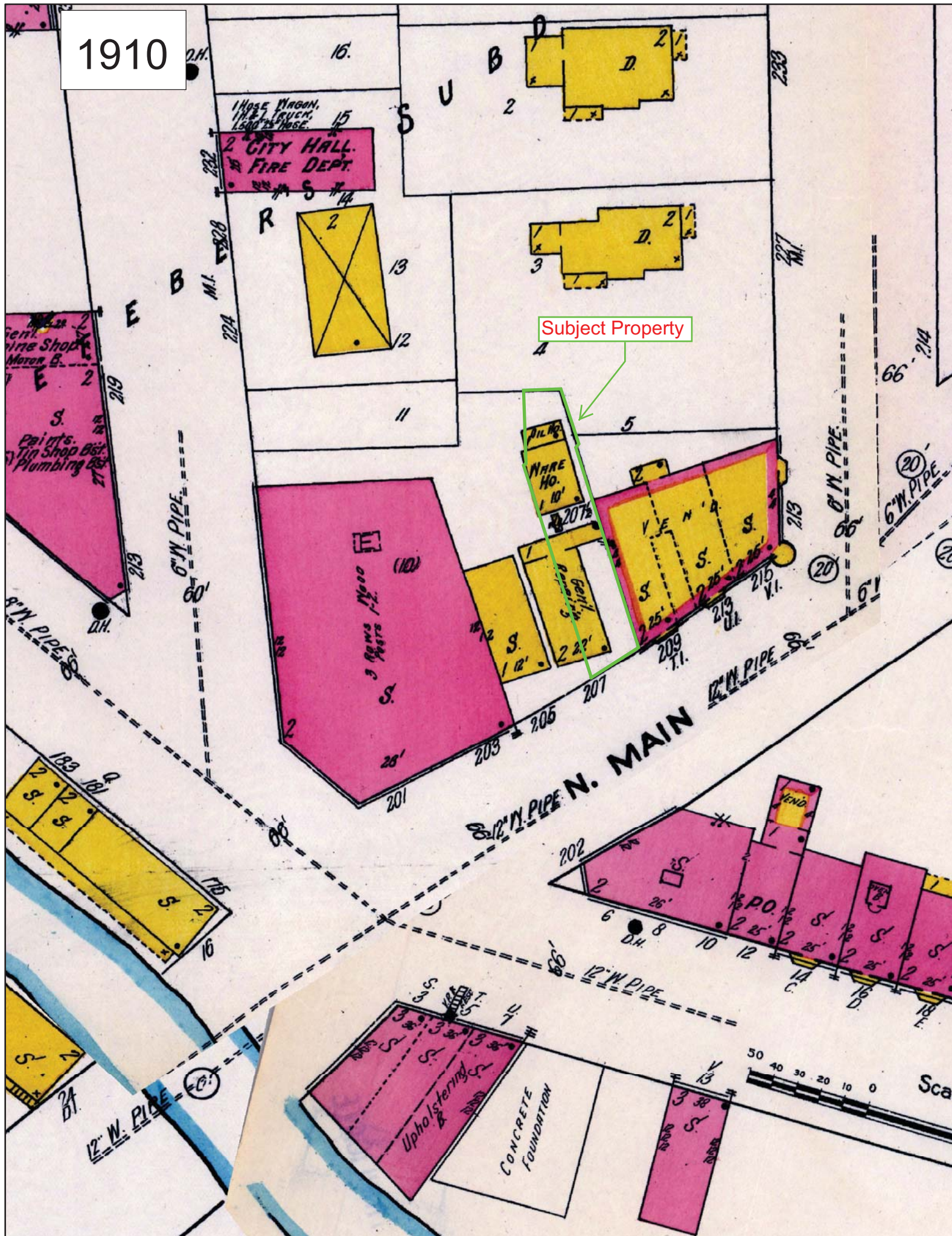
#### **B.4.b. Other Media of Concern (e.g., Sediment or Surface Water)**

*Other media were not a concern as part of this Site Investigation.*

#### **B.4.c. Other**



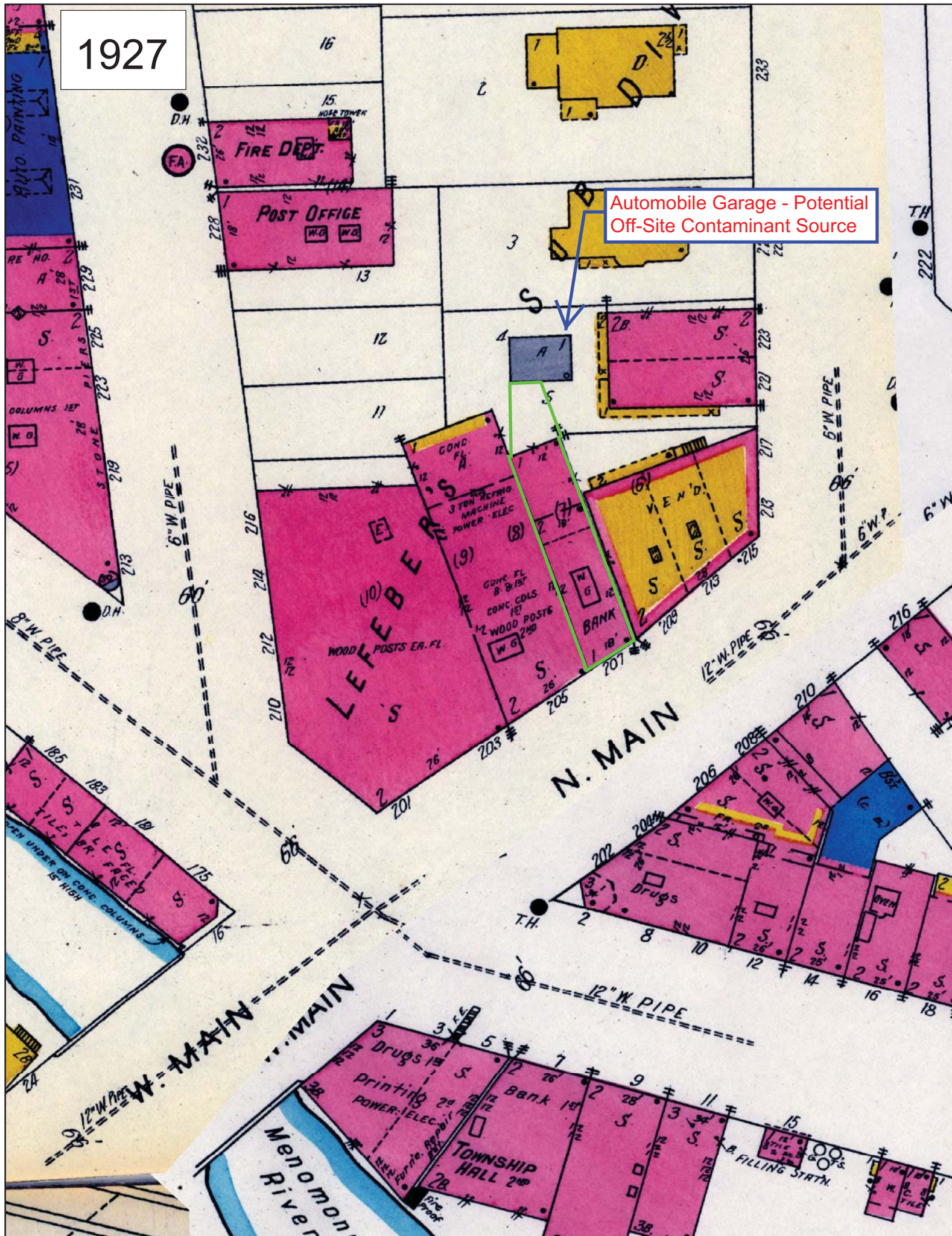
1910





1927

Automobile Garage - Potential  
Off-Site Contaminant Source





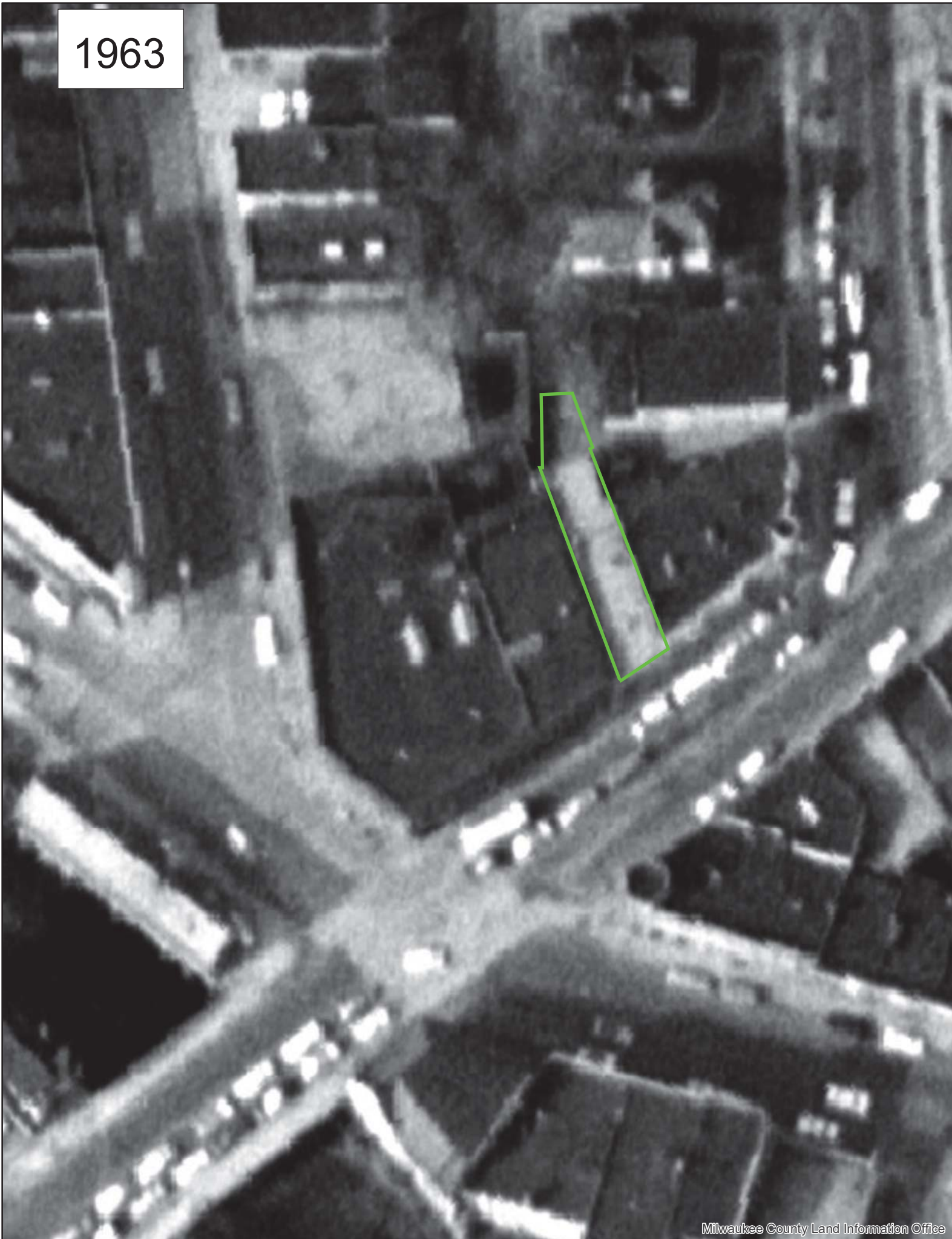
1937





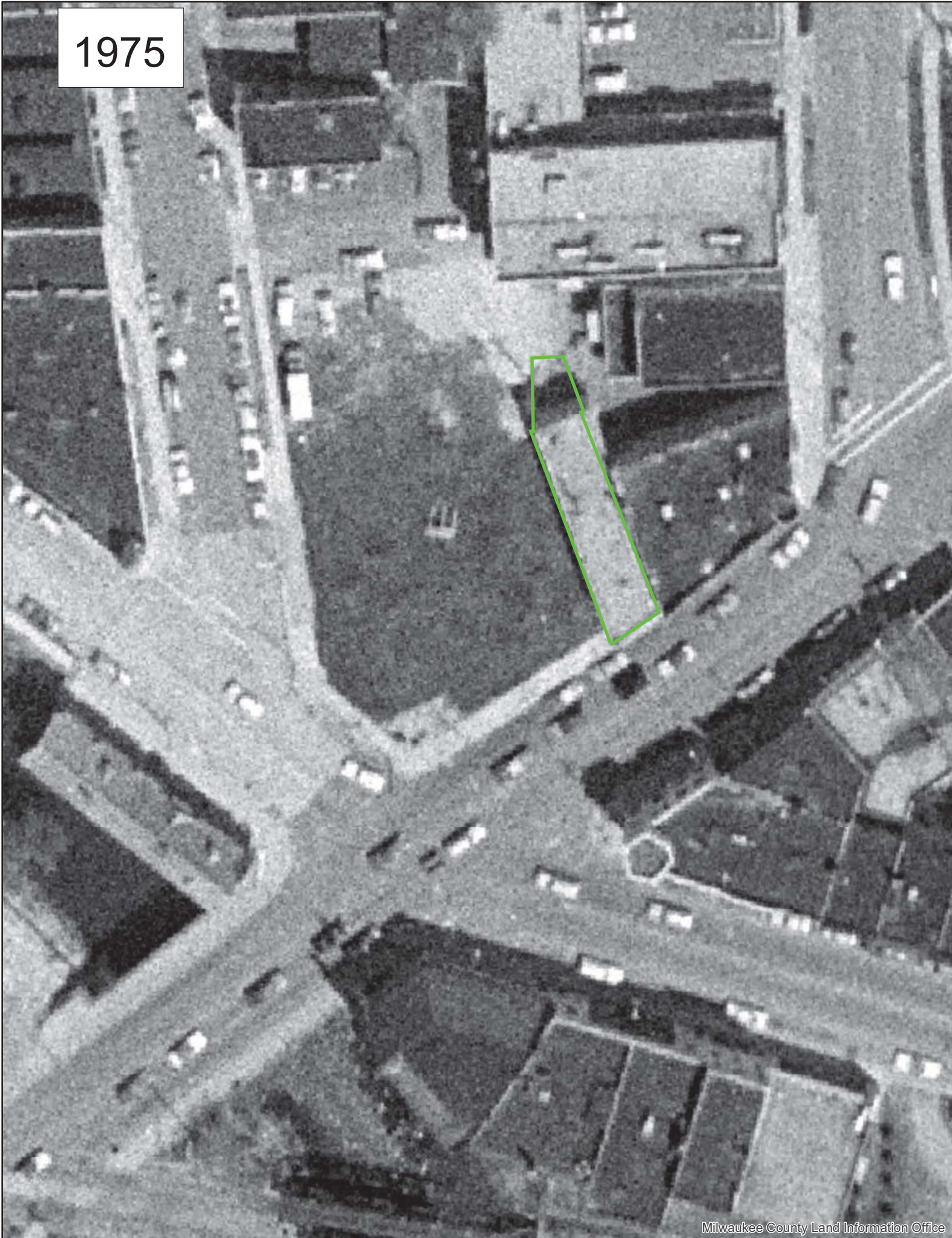


1963



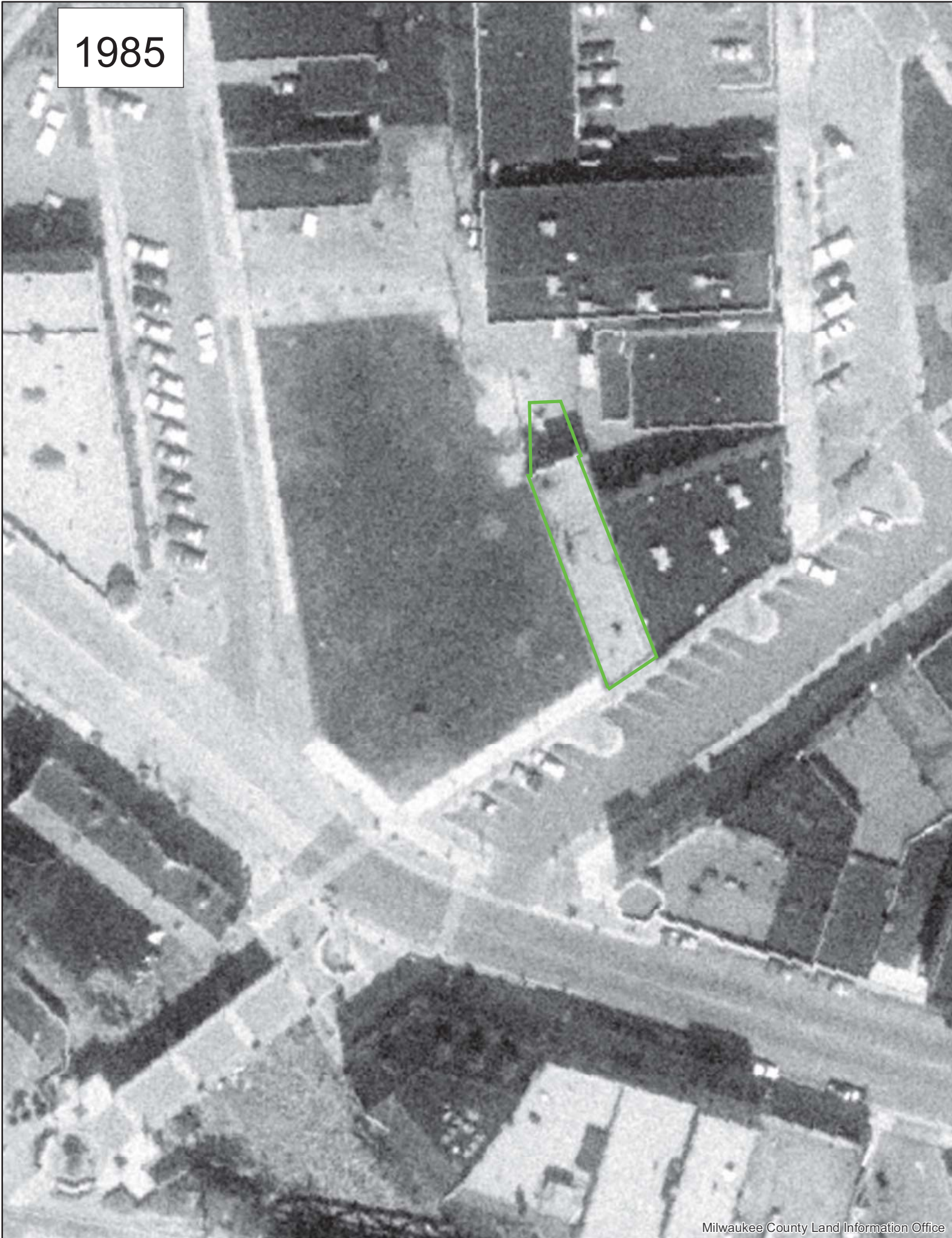


1975





1985



## **B.5. Structural Impediment Photos**

Impediments to completion of the SI included the on-site building and the very small physical nature of the property. The exterior portion, though asphalt covered, is an area not much larger than 1 or 2 automobile parking stalls that determined further soil boring and or monitoring well installations to be excessive.



{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap with subject property boundary marked (facing south)

{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap with subject property boundary marked (facing southwest)

{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap with MW-2 (facing south)

{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap on west adjoining property with MW-2 (facing west)



{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap on east adjoining property with MW-2 (facing northeast)

{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap on east adjoining property with MW-3 (facing northwest)

## **C.1. Site Investigation Documentation**

Kapur & Associates, Inc., Site Investigation Report - Le Reve Patisserie & Cafe, 7600-7610 W. Harwood Avenue, Wauwatosa, Wisconsin 53213  
(attached)

# **SITE INVESTIGATION REPORT**

**LE REVE PATISSERIE & CAFÉ**

**7600–7610 W. HARWOOD AVENUE**

**WAUWATOSA, WISCONSIN 53213**

**WDNR Activity # 02–41–576745**

**Prepared for:**

**Quatre Chiens, LLC  
7610 W. Harwood Avenue  
Wauwatosa, Wisconsin 53213**

**Prepared by:**

**Kapur & Associates, Inc.  
7711 North Port Washington Road  
Milwaukee, Wisconsin 53217**

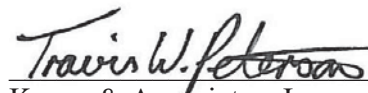
**April 2016**




# SUBMITTAL CERTIFICATION SITE INVESTIGATION AND REMEDIAL ACTION REPORT

Quatre Chiens, LLC  
7600-7610 W. Harwood Avenue  
Wauwatosa, Wisconsin 53213

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

  
\_\_\_\_\_  
Kapur & Associates, Inc.  
Travis W. Peterson  
Environmental Manager

April 7, 2016  
Date

  
\_\_\_\_\_  
Kapur & Associates, Inc.  
Rachel A. Beyer  
Environmental Scientist

April 7, 2016  
Date

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

\_\_\_\_\_  
Kapur & Associates, Inc.  
Jeremy Schwartz, P.E.  
(Title)

\_\_\_\_\_  
Date

\_\_\_\_\_  
P.E. stamp

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## EXECUTIVE SUMMARY

This report documents the findings of an environmental Site Investigation (SI) for the Le Reve Patisserie & Café commercial property located at 7600-7610 West Harwood Avenue in the City of Wauwatosa, Wisconsin. Kapur & Associates, Inc. (Kapur) performed this investigation in compliance with Wisconsin Administrative Code (Chapter NR 716) as part of a pending real estate transaction and in conjunction with the proposed redevelopment plans for the subject property.

The purpose of the investigation was to determine degree and extent along with the likely contaminant source for known soil and potential groundwater contamination at the subject property (WDNR Activity # 02-41-76745) including that of a former 1,000 gallon fuel oil UST onsite. Kapur conducted site investigation activities from February through March 2016, at the subject site that included monitoring the installation of soil borings, ch. NR 141 permanent groundwater monitoring wells, collection of soil and groundwater samples for laboratory analysis, and a vapor intrusion screening.

### **Findings and Conclusions**

The findings and conclusions regarding the commercial property SI activities at 7600-7610 West Harwood Avenue in the City of Wauwatosa, Wisconsin are summarized below:

#### **Soil:**

Site specific soil was generally composed of sand with intermixed gravel and trace clay. The sand appeared uniform from a depth of 7-10 feet bgs to the maximum drill depth of 20 feet bgs. Groundwater was encountered at approximately 16 to 17 feet bgs in all of the soil borings. Analytical results indicate that subsurface contamination containing PAHs (1-Methylnaphthalene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, and pyrene), RCRA metals (arsenic, barium, cadmium, lead, and selenium), and VOCs (naphthalene) is present above the respective applicable NR 720 soil RCLs from approximately 2 to 16 feet bgs throughout the subject property with the highest concentrations occurring in B2 (NW property corner) from 10 to 16 feet bgs.

#### **Groundwater:**

Depth to groundwater levels ranged from 15.45 to 16 feet bgs (656.62 to 656.81 MSL). Onsite groundwater flow is generally southwest. Based upon local geology and surface elevations localized groundwater flow is expected to be southwest toward the Menomonee River while regional groundwater is anticipated to flow east toward Lake Michigan. Analytical results for PAHs, RCRA Metals, and VOCs indicated concentrations of benzo(a)pyrene,

benzo(b)fluoranthene, and chrysene exceeding the NR 140 Enforcement Standards (ES) in MW-2. Benzo(b)fluoranthene, and chrysene concentration were detected only slightly above the NR 140 Preventive Action Limit (PAL) in MW-3. No analyte detected in MW-1 exceeded laboratory detection limits or the NR 140 PAL.

### **Vapor Intrusion Screening:**

Three soil vapor probes (SVP-1 through SVP-3) were installed to eight feet bgs within the location of soil borings B1, B3 and B4 along the building north face (adjacent to the former UST cavity) and at the building northwest corner to screen for petroleum vapors. No obvious odor was detected and PID readings of the soil borings remained below background levels (<10 ppmv). Oxygen concentration for SVP-1 and SVP-2 was 17.1 %, 17.9% and 18.3%, respectively. Vapor intrusion can be ruled out in most petroleum releases where five feet (in the horizontal and vertical direction) of clean, unsaturated soil with an oxygen content  $\geq 5\%$  exists between the residual petroleum contamination and the building (Ref. 1). Based on the analysis of the soil borings, the contaminant type, proximity of the contaminant plume and current onsite building / property layout, it is unlikely that a vapor intrusion risk exists at the subject property.

### **Contaminant Migration:**

Based on field results from groundwater sampling activities the general groundwater flow direction is to the southwest with a relatively horizontal hydraulic gradient. Hydraulic gradient, along with the estimated hydraulic conductivity of site specific groundwater interface soils (gravel-sand), permeability, and flow rate indicate that the onsite storm water utility corridor servicing the subject property is a potential receptor for contaminant impacts. However, the field data and analytical results do not indicate that the stormwater utility corridor servicing the subject site has or is currently acting as a migratory pathway or potential receptor for contaminant impacts.

### **Potential Offsite Contaminant Sources:**

In reviewing available historical documentation including fire insurance maps, aerial photographs and city directory records, it has been determined than from the early to late 1920's an auto service facility was located adjacent to the northern property boundary of the subject site. In addition, the adjacent property to the west at 7700 W. State Street & 7616 Harwood Avenue was listed as Wauwatosa Fuel & Supply Co. from 1936 to 1965, Quickflash Fuels, Inc. from 1970 to 1984 and Jones Machinery (manufacturing) at 7616 Harwood Avenue from 1957 to at least 1959.

In an effort to further investigate this potential, a request was made to the adjoining property owners to allow for additional borings/wells to be installed, however; access has not been granted.

## **Opinions and Recommendations**

The identified contaminated soil appears to be of two separate plumes with one stemming from likely fill materials deposited onsite over the course of historic redevelopment activities and the second from an offsite source likely one of those identified as Wauwatosa Fuel & Supply Co., Quickflash Fuels, Inc. and/or Jones Machinery all formerly operating adjacent to the subject site. In as much, soil contamination appears to have been defined to the extent practical within the property boundary and further subsurface soil investigation is not warranted. The site has an in place engineered cap (asphalt parking) that will be maintained over the existing contaminated soil. This engineered cap will be part of the cap maintenance plan and will serve as a barrier continuing to prevent surficial influence and contaminant migration at the subject property.

The observed groundwater impacts appear minimal, either slightly above the ES or PAL, in the same identified areas of impacted soils and, given the elevated concentrations in soil, it does not appear that significant leaching or ‘soil to groundwater’ movement of contaminants is occurring nor have historic seasonal fluctuations in groundwater elevation been influenced.

It is Kapur’s opinion that offsite investigation would likely confirm the presence of an offsite source contributing to the elevated contaminant concentrations, not contributed to site fill materials indicative of subsurface conditions in the immediate area, and not as a result of an onsite source (former fuel oil UST). Therefore, Kapur recommends no further investigative activities and case closure per ch. NR 726 for the Harwood Avenue Commercial Property ERP site with registry on the WDNR Geographic Information System (GIS) for residual soil and groundwater contamination at the subject property.



## LIST OF ABBREVIATIONS

|      |  |
|------|--|
| bgs  | Below Ground Surface   |
| ES   | Enforcement Standard   |
| J    | Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit |
| LDL  | Laboratory Detection Limit   |
| LUST | Leaking Underground Storage Tank   |
| MDL  | Method Detection Limit   |
| MRL  | Method Reporting Limit   |
| MSL  | Mean Sea Level   |
| PAH  | Polynuclear Aromatic Hydrocarbons  |
| PAL  | Preventive Action Limit  |
| PID  | Photoionization Detector   |
| ppm  | Parts Per Million  |
| ppmv | Parts Per Million by Volume in air   |
| ppb  | Parts Per Billion  |
| RP   | Responsible Party  |
| RAP  | Remedial Action Plan   |
| RCL  | Residual Contaminant Level   |
| RCRA | Resource Conservation and Recovery Act   |
| REC  | Recognized Environmental Condition   |
| SI   | Site Investigation   |
| USGS | United States Geologic Survey  |
| UST  | Underground Storage Tank   |
| VOC  | Volatile Organic Compound  |
| WDNR | Wisconsin Department of Natural Resources  |

## **1.0 INTRODUCTION**

Kapur & Associates, Inc. (Kapur) has performed an environmental Site Investigation (SI) for the Le Reve Patisserie & Café commercial property located at 7600-7610 West Harwood Avenue in the City of Milwaukee, Wisconsin. Kapur has performed this investigation in accordance with Wisconsin Administrative Code (Chapter NR 716) and in conjunction with the proposed development of the current property including renovation of the building interior. This report was prepared for Quatre Chiens, LLC, current owner and responsible party.

### **1.1 Site Location**

The subject property consists of a single Tax Parcel ID Number 3710060000 totaling approximately 0.11 acres located in the northeast ¼ of the southeast ¼ of Section 21, Township 7 north, Range 21 east (Ref. 1). The site is located south of the intersection of Wauwatosa Avenue and West Harwood Avenue in the City of Wauwatosa, Milwaukee County, Wisconsin (See Figure B.1.a for topographic site location and Figure B.1.b for an aerial map of the subject property). The recorded parcel legal description is:

LEFEBER SUBD LOT 6 AND ELY STRIP OF ADJ LOT 7 7.5 IN WIDE ON ITS NLY LI  
AND 5.75 IN WIDE ON ITS SLY LI INCLDG EASEMENT SE 1/4 SEC 21

### **1.2 Site Background**

The subject property was originally developed in 1901 as a bank, occupied by 1<sup>st</sup> National Bank of Wauwatosa from 1926-1952 with remodeling occurring in 1947. A former 1,000-gallon fuel oil tank was located in the paved area just north of the building until it was removed on September 22, 1995. A Phase I ESA was completed for the subject property and adjacent building in March of 2006 by the Sigma Group (Ref. 2). In April of 2011 a limited Phase II ESA was performed by Sigma Group where two soil borings to a six-foot depth were installed in the basement of the 7600 property, adjacent to the subject property (Ref. 3). A second Phase II ESA was conducted in January of 2016 by the Sigma Group where two additional borings were installed to fifteen feet bgs at the estimated location of the former UST (Ref. 4). The subject property is listed on the WDNR GIS registry as an open ERP site. The Phase II ESA's performed identified soil contamination onsite; however, were unable to define the source as the former UST. The purpose of the Site Investigation activities performed by Kapur in February 2016 was to determine a contaminant source and define, to the extent practical, the degree of contamination onsite.

### 1.3 Site Description

The subject property, approximately 2,400 square feet or 0.06-acres in area (Milwaukee County GIS) consists of a 1 ½ story brick commercial building currently utilized as a La Reve Patisserie & Café restaurant with a small (single vehicle) asphalt parking area to the north of the building. A stairwell leads from the basement on the north side of the building to the exterior and parking area.

Based on the USGS Milwaukee Quadrangle topographic map, the subject site is relatively flat with an elevation of 677 feet above the MSL (Ref. 1). The surrounding topography shows a general gentle sloping to the west/southwest in the direction of the Menomonee River located approximately 300 feet from subject site. Localized groundwater is between 15 and 16 feet below ground surface (bgs) with a southwesterly flow direction. Regionally, groundwater is expected to flow east toward Lake Michigan. Depth to bedrock is expected to be greater than 100 feet bgs (Ref. 5).

The subject property is located in an area containing mixed residential and commercial properties as follows:

- The site is bounded on the north by an asphalt parking lot servicing 1409 N. Wauwatosa Avenue and a multi-commercial tenant building (1415 N. Wauwatosa Avenue) beyond.
- The property is bounded on the east by the same asphalt parking lot servicing 1409 N. Wauwatosa Avenue and a commercial building at 7600 W. Harwood Avenue.
- The property is bounded on the south by West Harwood Avenue with commercial development beyond.
- The property is bounded on the west by a multitenant commercial building including Noodles and Company (7700 W. State Street) tenant immediately west of the subject site.

The City of Wauwatosa supplies municipal water and controls the sanitary sewer lateral lines servicing the subject property. The onsite facility utilizes natural gas heat and electricity supplied by WE Energies.

### 1.4 Purpose

The purpose of the SI activities at the subject property was to determine the source of known contamination onsite and to determine the nature and extent of soil and potential groundwater contamination. The following scope of work was completed with regard to the SI activities:

- Preparation of a site specific Health & Safety Plan.
- Coordination with drilling subcontractor, laboratory, and Diggers Hotline.
- Review of available historical information pertaining to the location and status of the former tank.
- Review of previous ESAs completed at the subject property.



- Installation of four direct push soil borings.
- Field screening of soil borings in two foot increments during drilling operations utilizing a PID.
- Collection of twelve soil samples for laboratory analysis of PAHs, RCRA Metals, and VOCs.
- Vapor screen analysis of three (3) soil vapor points.
- Conversion of three soil borings into permanent 1-inch ch. NR 141 groundwater monitoring wells.
- Collection of three (3) groundwater samples for laboratory analysis of PAHs, RCRA Metals, and VOCs.

### **1.5 Owner, Consultant, and Subcontractors List**

The following section summarizes the names, addresses, and telephone numbers of the property owner, consultant, and subcontractors:

Owner: Quatre Schiens, LLC  
7610 W. Harwood Avenue  
Wauwatosa, Wisconsin 53213  
Phone: (414) 778-3333  
Contact: Mr. Andrew Schneider

Consultant: Kapur & Associates, Inc.  
7711 North Port Washington Road  
Milwaukee, Wisconsin 53217  
Phone: (414) 351-6668  
Contact: Travis Peterson, Environmental Manager

### **Contractors for Commodity Services**

Geoprobe Borings: Horizon Construction and Exploration  
764 Tower Drive  
Fredonia, Wisconsin 53021  
Phone: (262) 692-3374  
Contact: Adam Sweet

Analytical Testing: Pace Analytical Services, Inc.  
1241 Bellevue Street, Green Bay, Wisconsin 54302  
WDNR Lab Certification # 405132750  
Phone: (920) 321-6405  
Contact: Christopher Hyska

## **2.0 GEOLOGY AND RECEPTORS**

### **2.1 Regional and Local Geology and Hydrology**

#### **2.1.1 Site Topography**

The topography of the site is relatively flat. The ground surface elevation is approximately 677 feet above MSL (Ref. 1). Surface water at the subject property enters storm sewers/drains located onsite.

#### **2.1.2 Site Geology**

Native soil type for the Milwaukee region is part of the Ozaukee-Morley-Mequon Association. It is typically well-drained to somewhat poorly drained soil that has a subsoil of silty clay loam and silty clay; formed in thin loess and silty clay loam of glacial till, on moraines. This association is found in the glaciated uplands where the soils formed in a thin layer of loess and the underlying glacial till. The major soils are the Ozaukee, Morley, and Mequon. Ozaukee Soils make up 20 percent of the association; Morley soil, 18 percent; Mequon soil, 11 percent; and minor soils, 51 percent. The Ozaukee and Morley soils are gently sloping, and occupy ridges and convex sloped sides of glacial moraines. The Mequon soils are in drainage ways or old lake basins (Ref. 7).

Based on observations from soil borings, the site subsurface soils consisted of uniform brown sand and gravelly sand (of brown, red and black coloration), with various non-soil material including trace amounts of non-exempt or solid waste by NR 500.08, WAC, such as concrete and plastic at shallow depths. Bedrock in the region is expected to be greater than 100 feet bgs (Ref. 5 and 6).

#### **2.1.3 Site Hydrogeology**

Based on field results from groundwater sampling activities performed on February 29, 2016, groundwater elevation data in the monitoring wells ranged from 672.24 feet above mean sea level (msl) in MW-2 to 672.71 feet msl in MW-3. The data from these events revealed the general groundwater flow direction is in a southwesterly direction with a horizontal hydraulic gradient of 0.02 ft/ft. Hydraulic conductivity specific to the subject property was not obtained, however, the estimated hydraulic conductivity of site specific soils (sand to gravel/sand) ranges from  $10^{+2}$  to  $10^{+5}$  (m/yr) with an estimated permeability of  $5.00 \times 10^{-3}$  m/sec (Ref. 8).

## 2.2 Receptors

Field and laboratory results indicate residual soil and groundwater contamination is present north of the site building within the asphalted parking area and alley, the highest concentrations present at the northwest property corner. The onsite storm water utility corridor servicing the subject property is a potential receptor for contaminant impacts, however; based upon the depth of the sewer manhole and lateral, proximity to identified impacted subsurface soil and corresponding concentrations; contaminant migration along the sewer does not appear to be evident. Based upon information obtained for this investigation, no other sensitive areas or receptors were identified in the immediate vicinity of the site. Municipal water and sewer is supplied to the subject property by the City of Wauwatosa (Figures B.1.a and B.1.b depict monitoring wells, utility lines, onsite sub-grade utilities, and public street rights of way in relation to the subject property). According to Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) and Wisconsin Department of Natural Resources (WDNR) online well records database, there are zero private (potable) or municipal wells within 1,200 feet of the subject property.



## **3.0 SITE INVESTIGATION RESULTS**

### **3.1 Methods of Investigation**

#### **3.1.1 Site Reconnaissance**

In February 2016, Kapur conducted a reconnaissance of the site to inspect the areas with potential sources or indicators of contamination. In addition, as further information became available for review, Kapur evaluated the data and adjusted and/or added to the investigation plan accordingly.

#### **3.1.2 Soil Boring and Well Installation**

Four soil borings were advanced to 20 feet bgs on February 16, 2016 using direct push methods. Borings were located along the north of the property. These borings, along with analytical results from previous Phase II soil boring activities, were used to investigate subsurface conditions and determine the nature and extent of residual contamination at the subject property (Ref. 3&6). Excess soil cuttings were handled by Horizon Construction and Exploration using proper disposal methods. A total of thirty soil samples were field screened for VOCs using a miniRAE 2000 PID throughout sampling activities.

Three soil borings (B-1, B-2, B-4) installed on February 16, 2016, were converted into permanent 1-inch groundwater monitoring wells in accordance with WDNR Administrative Code Chapter NR 140. These wells (MW-1, MW-2, MW-3), were used to define the nature and extent of residual groundwater contamination at the subject property (Ref. 3&6). Purged water was disposed of down the storm sewer located onsite per Wauwatosa Department of Public Works (DPW) instructions. Monitoring wells were constructed of polyvinyl chloride (PVC) pipe with a 10-foot slotted screen section at the bottom and solid pipe to the surface.

Soil boring and groundwater monitoring well locations are shown in Figures B.2.a and B.3.b, respectively. The extent of residual subsurface contamination shown in these figures is based upon analytical results obtained during site investigation activities. Appendix A shows photographs taken during the SI investigation. Appendix B contains the WDNR Soil Boring Logs, PID screening results of soil samples, Well Construction Forms, and Well Development Forms. Detailed descriptions of drilling, soil sampling, field screening, and temporary well installation methods are included in Appendix D.

### **3.2 Analytical Results**

Pace Analytical Services, Inc. of Green Bay, Wisconsin (WDNR Certification Number: 405132750) analyzed the soil and groundwater samples for this investigation. Methods used for analyzing soil and groundwater samples are presented in Appendix C.

### 3.2.1 Soil

Kapur collected soil boring samples on February 16, 2016. Soil samples were submitted for analysis of PAHS, VOCs, and RCRA metals. Field observation and laboratory analytical results of the soil investigation indicated:

- PID readings remained below background levels (<10 ppmv) for all boring samples except B4, at a depth of 14-16 feet bgs with a PID reading of 20.8 ppmv.

#### B1

- PAHs including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene were detected at concentrations above the respective NR 720 Soil to Groundwater Pathway, Industrial and/or Non-Industrial Direct Contact Standards at depths of 2-4 feet bgs and 6-8 bgs. Only benzo(a)pyrene (41 ug/kg) was detected at a depth of 14-16 feet bgs above the Non-Industrial Direct Contact Standard of 15 ug/kg.
- RCRA Metals concentrations of arsenic 9,900 ug/kg (2-4 feet bgs) and 3,900 ug/kg (6-8 feet bgs) were detected at above the respective NR 720 Soil to Groundwater Pathway, Industrial and Non-Industrial Direct Contact Standards. Lead concentrations of 119,000 ug/kg and 36,700 ug/kg exceeded only the NR 720 Soil to Groundwater Pathway standard of 27,000 ug/kg at the same respective depths. No other metals detected exceeded any applicable standard.
- VOCs were not detected above laboratory detection limits (LDLs) and/or applicable NR 720 RCL standards.

#### B2

- PAHs including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene chrysene, dibenz(a,h)anthracene, fluoranthene, fluorine, indeno(1,2,3-cd)pyrene, naphthalene and pyrene were detected at concentrations above the respective NR 720 Soil to Groundwater Pathway, Industrial and/or Non-Industrial Direct Contact Standards at depths of 2-4 feet bgs, 10-12 feet bgs and 14-16 bgs. The highest concentrations within the 10-12 feet bgs sample depth.
- RCRA Metals concentrations of arsenic 5,100 ug/kg (2-4 feet bgs), 4,900 ug/kg (10-12 feet bgs) and 3,800 ug/kg (14-16 feet bgs) were detected at above the respective NR 720 Soil to Groundwater Pathway, Industrial and Non-Industrial Direct Contact Standards. Lead concentrations of 54,800 ug/kg, 37,700 ug/kg and 48,200 ug/kg exceeded only the NR 720 Soil to Groundwater Pathway standard of 27,000 ug/kg at the same respective depths. No other metals detected exceeded applicable NR 720 standards.

- Of the VOCs; only naphthalene concentrations of 82,900 ug/kg (10-12 feet bgs) and 96,000 ug/kg (14-16 feet bgs) were detected above the NR 720 Soil to Groundwater Pathway standard of 27,000 ug/kg. No other VOC was detected above LDLs.

### B3

- PAHs including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene were detected at concentrations above the respective NR 720 Soil to Groundwater Pathway, Industrial and/or Non-Industrial Direct Contact Standards at depths of 2-4 feet bgs, 10-12 bgs and 14-16 feet bgs.
- RCRA Metals concentrations of arsenic 6,600 ug/kg (2-4 feet bgs), 3,600 ug/kg (10-12 feet bgs) and 4,500 ug/kg (14-16 feet bgs) were detected at above the respective NR 720 Soil to Groundwater Pathway, Industrial and Non-Industrial Direct Contact Standards. Lead concentrations of 358,000 ug/kg, 42,200 ug/kg and 41,300 ug/kg exceeded only the NR 720 Soil to Groundwater Pathway standard of 27,000 ug/kg at the same respective depths. Barium (287,000 ug/kg) and cadmium (1,000 ug/kg) exceeded the NR 720 Soil to Groundwater Pathway standard of 165,000 ug/kg and 752 ug/kg, respectively, at a depth of 2-4 feet bgs. Selenium (1,300 ug/kg) exceeded the NR 720 Soil to Groundwater Pathway standard of 520 ug/kg at a depth of 14-16 feet bgs.
- VOCs were not detected above laboratory detection limits (LDLs) and/or applicable NR 720 RCL standards.

### B4

- PAHs including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene were detected at concentrations above the respective NR 720 Soil to Groundwater Pathway, Industrial and/or Non-Industrial Direct Contact Standards at depths of 2-4 feet bgs and 6-8 bgs. Only benzo(a)pyrene (42.9 ug/kg) was detected at a depth of 14-16 feet bgs above the Non-Industrial Direct Contact Standard of 15 ug/kg.
- RCRA Metals concentrations of arsenic 5,300 ug/kg (10-12 feet bgs) and 4,100 ug/kg (14-16 feet bgs) were detected at above the respective NR 720 Soil to Groundwater Pathway, Industrial and Non-Industrial Direct Contact Standards. No other metals detected exceeded applicable NR 720 standards.
- VOCs were not detected above laboratory detection limits (LDLs) and/or applicable NR 720 RCL standards.

Figure B.2.a. illustrates the soil boring locations and estimated extent of residual soil contamination based upon analytical results. Figures B.3.a. and B.3.a.i show the plan view



and geologic cross section from A to A'. WDNR Soil Boring Logs and PID screening results of soil samples are included in Appendix B. Complete analytical reports and chain of custody are included in Appendix C.

### **3.2.2 Groundwater**

Monitoring wells MW-1, MW-2 and MW-3 were installed on February 16, 2016. The wells were subsequently developed and sampled on February 29, 2016. All groundwater samples were submitted for laboratory analysis of PAHs, RCRA Metals, and VOCs. Field monitoring and laboratory analytical data indicated:

- Depth to groundwater measurements ranged between 15.7 feet bgs to 16.23 feet bgs with measured elevations from 656.62 feet MSL to 656.81 feet MSL indicating a southwesterly flow direction.

#### MW-1

- No PAH, RCRA metal or VOC analyte was detected above LDLs or ch. NR 140 Preventive Action Limit (PAL).

#### MW-2

- PAH concentrations of benzo(a)pyrene (0.51 ug/L), benzo(b)fluoranthene (0.77 ug/L) and chrysene (0.92 ug/L) exceeded the respective ch. NR 140 Enforcement Standard (ES) standard of 0.2 ug/L.
- Of the RCRA metals; barium was detected at a concentration of 66.0 ug/L well below the NR 140 PAL of 400 ug/L.
- VOCs were not detected above LDLs.

#### MW-3

- PAH concentrations of benzo(b)fluoranthene (0.038 ug/L) and chrysene (0.038 ug/L) exceeded the respective ch. NR 140 PAL standard of 0.02 ug/L, yet remaining below the NR 140 ES of 0.2 ug/L.
- Of the RCRA metals; barium was detected at a concentration of 67.1 ug/L below the NR 140 PAL of 400 ug/L.
- VOCs were not detected above LDLs.

Table A.1 details the groundwater analytical results for the groundwater sampling activities. Figure B.3.b details location of the monitoring wells and the horizontal extent of groundwater contamination. Figure B.3.c outlines the observed groundwater flow direction. Complete laboratory analytical reports and chain of custody are included in Appendix C.

### **3.2.3 Vapor Intrusion Study**

Given the historic presence of a 1,000 gallon fuel oil UST, subsurface soil contamination identified within close proximity to the building foundation, the potential for vapor intrusion into the onsite building was deemed present and, as such, a vapor screening completed. Three soil vapor probes (SVP-1 through SVP-3) were installed to eight feet bgs within the location of soil borings B1, B3 and B4 along the building north face (adjacent to the former UST cavity) and at the building northwest corner to screen for petroleum vapors. No obvious odor was detected and PID readings of the soil borings remained below background levels (<10 ppmv). Oxygen concentrations for SVP-1, SVP-2 and SVP-3 were 17.1 %, 17.9% and 18.3%, respectively. Vapor intrusion can be ruled out in most petroleum releases where five feet (in the horizontal and vertical direction) of clean, unsaturated soil with an oxygen content  $\geq 5\%$  exists between the residual petroleum contamination and the building (Ref. 9). Based on the analysis of the soil borings, the contaminant type and proximity of the contaminant plume to the building, it is unlikely that a vapor intrusion risk exists at the subject property.

Table A.4 illustrates the vapor probe analytical results. A vapor intrusion map is included in figure B.4.a that depicts the location of vapor probes (SVP-1 through SVP-3).

## **3.3 Contaminant Migration**

Based on field results from groundwater sampling activities the general groundwater flow direction is to the southwest with a relatively horizontal hydraulic gradient. Hydraulic gradient, along with the estimated hydraulic conductivity of site specific groundwater interface soils (gravel-sand), permeability, and flow rate indicate that the onsite subgrade utility corridors servicing the subject property are potential receptors for contaminant impacts. However, the field data and analytical results do not indicate that the stormwater utility corridor servicing the subject site has or is currently acting as a migratory pathway or potential receptor for contaminant impacts.

## 4.0 CONCLUSIONS

Based on the findings of this SI, Kapur concludes the following regarding the current subsurface conditions at 7600-7610 West Harwood Avenue in the City of Wauwatosa, Wisconsin:

### Soil

Site specific soil was generally composed of non-native soils (uniform sand to gravelly sand) with trace clay and debris (plastic, concrete) to depths ranging from ground surface to approximately 20 feet bgs.

Field observations and analytical results indicate that subsurface contamination containing PAHs (1-methylnaphthalene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorine, indeno(1,2,3-cd)pyrene, naphthalene, and/or pyrene), RCRA metals (arsenic, barium, cadmium, lead, and/or selenium), and VOCs (naphthalene) is present above the respective applicable NR 720 soil RCLs from approximately 2 to 16 feet bgs throughout the subject property with the highest concentrations in B2 from 10-16 feet.

### Groundwater:

Depth to groundwater levels ranged from 15.45 to 16 feet bgs (656.62 to 656.81 MSL). Onsite groundwater flow is generally southwest. Based upon local geology and surface elevations localized groundwater flow is expected to be southwest toward the Menomonee River while regional groundwater is anticipated to flow east toward Lake Michigan. Analytical results for PAHs, RCRA Metals, and VOCs indicated concentrations of benzo(a)pyrene, benzo(b)fluoranthene, and chrysene exceeding the NR 140 ES in MW-2. Benzo(b)fluoranthene, and chrysene concentration were detected only slightly above the NR 140 PAL in MW-3. No analyte detected in MW-1 exceeded laboratory detection limits or the NR 140 PAL.

### Vapor Intrusion Screening:

Three soil vapor probes (SVP-1 through SVP-3) were installed to eight feet bgs within the location of soil borings B1, B3 and B4 along the building north face (adjacent to the former UST cavity) and at the building northwest corner to screen for petroleum vapors. No obvious odor was detected and PID readings of the soil borings remained below background levels (<10 ppmv). Oxygen concentration for SVP-1 and SVP-2 was 17.1 %, 17.9% and 18.3%, respectively. Vapor intrusion can be ruled out in most petroleum releases where five feet (in the horizontal and vertical direction) of clean, unsaturated soil with an oxygen content  $\geq 5\%$  exists between the residual petroleum contamination and the building (Ref. 1). Based on the analysis of the soil borings, the contaminant



type, proximity of the contaminant plume and current onsite building / property layout, it is unlikely that a vapor intrusion risk exists at the subject property.

**Contaminant Migration:**

Based on field results from groundwater sampling activities the general groundwater flow direction is to the southwest with a relatively horizontal hydraulic gradient. Hydraulic gradient, along with the estimated hydraulic conductivity of site specific groundwater interface soils (gravel-sand), permeability, and flow rate indicate that the onsite subgrade utility corridors servicing the subject property are potential receptors for contaminant impacts. However, the field data and analytical results do not indicate that the stormwater utility corridor servicing the subject site has or is currently acting as a migratory pathway or potential receptor for contaminant impacts.

**Potential Offsite Contaminant Sources:**

In reviewing available historical documentation including fire insurance maps, aerial photographs and city directory records, it has been determined that from the early to late 1920's an auto service facility was located adjacent to the northern property boundary of the subject site. In addition, the adjacent property to the west at 7700 W. State Street & 7616 Harwood Avenue was listed as Wauwatosa Fuel & Supply Co. from 1936 to 1965, Quickflash Fuels, Inc. from 1970 to 1984 and Jones Machinery (manufacturing) at 7616 Harwood Avenue from 1957 to at least 1959.

In an effort to further investigate this potential, a request was made to the adjoining property owners to allow for additional borings/wells to be installed, however; access has not been granted.

## 5.0 OPINIONS AND RECOMMENDATIONS

The identified contaminated soil appears to be of two separate plumes with one stemming from likely fill materials deposited onsite over the course of historic redevelopment activities and the second from an offsite source likely one of those identified as Wauwatosa Fuel & Supply Co., Quickflash Fuels, Inc. and/or Jones Machinery all formerly operating adjacent to the subject site. In as much, soil contamination appears to have been defined to the extent practical within the property boundary and further subsurface soil investigation is not warranted. The site has an in place engineered cap (asphalt parking) that will be maintained over the existing contaminated soil. This engineered cap will be part of the cap maintenance plan and will serve as a barrier continuing to prevent surficial influence and contaminant migration at the subject property.

The observed groundwater impacts appear minimal, either slightly above the ES or PAL, in the same identified areas of impacted soils and, given the elevated concentrations in soil, it does not appear that significant leaching or ‘soil to groundwater’ movement of contaminants is occurring nor have historic seasonal fluctuations in groundwater elevation been influenced.

It is Kapur’s opinion that offsite investigation would likely confirm the presence of an offsite source contributing to the elevated contaminant concentrations, not contributed to site fill materials indicative of subsurface conditions in the immediate area, and not as a result of an onsite source (former fuel oil UST). Therefore, Kapur recommends no further investigative activities and case closure per ch. NR 726 for the Harwood Avenue Commercial Property ERP site with registry on the WDNR Geographic Information System (GIS) for residual soil and groundwater contamination at the subject property.

## 6.0 REFERENCES

1. United States Geological Survey Topographic Maps (1958). Wauwatosa, Wisconsin Quadrangle, 7.5 Minute Series.
2. The Sigma Group (March 2006) Phase I Environmental Site Assessment: Former Streff Advertising Building, 7600 & 7610 Harwood Avenue, Wauwatosa, Wisconsin.
3. The Sigma Group (April 5, 2011) Limited Phase II Assessment: 7600 & 7610 Harwood Avenue, Wauwatosa, Wisconsin.
4. The Sigma Group (January 20, 2016) Phase II Site Investigation Results: 7600 & 7610 Harwood Avenue, Wauwatosa, Wisconsin.
5. M. G. Mudrey, Jr, B.A. Brown and J. K. Greenberg (1982). Bed Rock Geologic Map of Wisconsin.
6. Southeastern Wisconsin Regional Planning Commission and the Wisconsin Geological and Natural History Survey (June, 2002). Technical Report Number 37, Groundwater Resources of Southeastern Wisconsin.
7. U.S. Department of Agriculture, Soil Conservation Service, University of Wisconsin, Wisconsin Geological and Natural History Survey, Soils Department, and Wisconsin Agricultural Experiment Station (July 1971). Soil Survey of Milwaukee and Waukesha Counties, Wisconsin.
8. Freeze, R.A., and Cherry, J.A., 1979, Groundwater: Englewood Cliffs, NJ, Prentice-Hall, 604 p.
9. WDNR Guidance on Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin (RR-800) - <http://dnr.wi.gov/topic/Brownfields/Vapor.html>

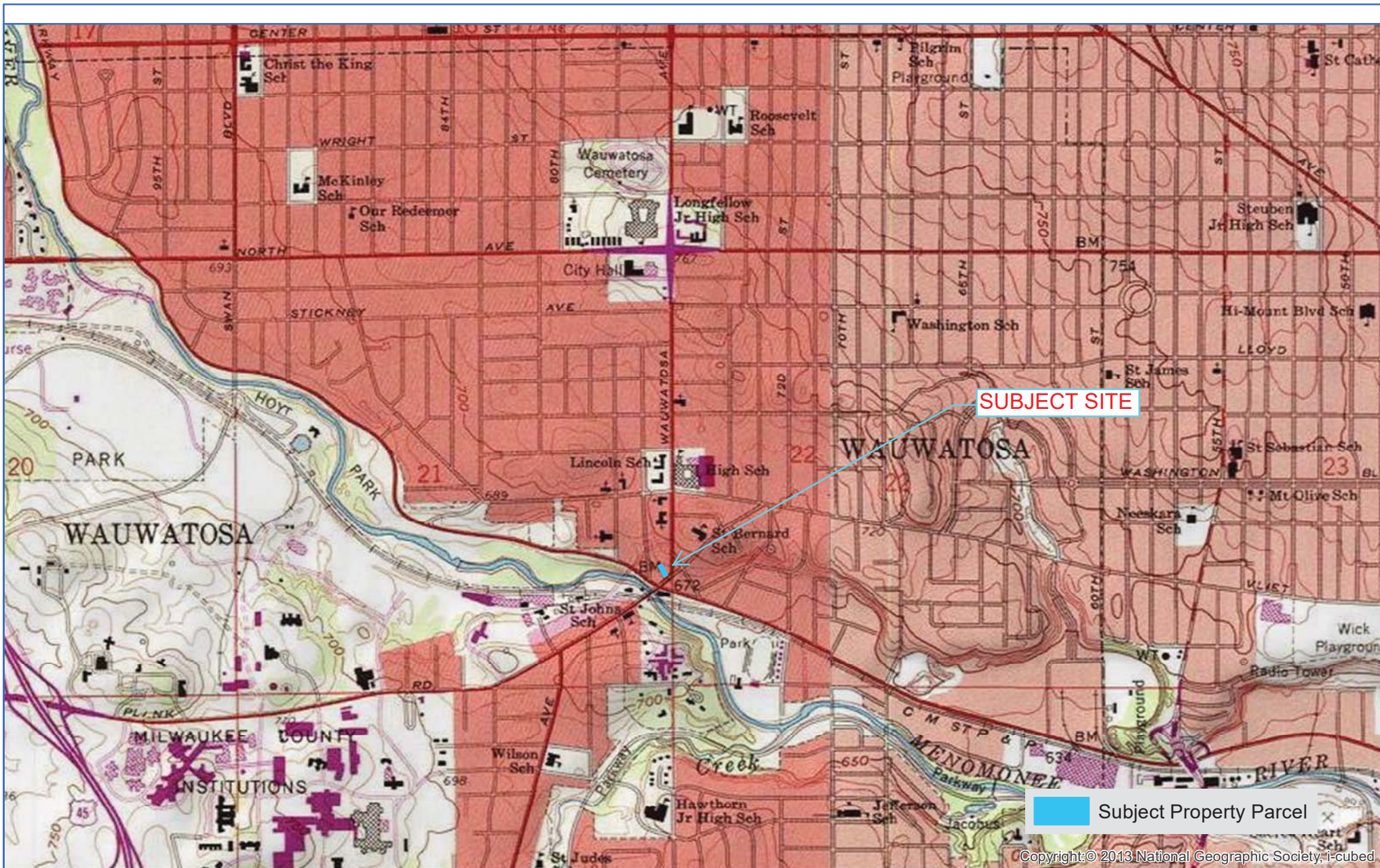
### *Disclaimer:*

*This investigation has been conducted to assess likely sources of environmental concern, and does not represent an exhaustive study of all possible concerns at the Site. The conclusions and recommendations contained herein have been developed through the interpretation of currently available information and represent the professional opinion of Kapur. Other than this, no warranty is implied or intended.*

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## **SITE MAPS AND FIGURES**



**KAPUR & ASSOCIATES, INC.**  
CONSULTING ENGINEERS  
7711 N. PORT WASHINGTON ROAD  
MILWAUKEE, WISCONSIN 53217  
Phone: 414.351.6550 Fax: 414.351.6117  
www.kapurengineers.com

SHEET:  
LOCATION MAP

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 W. HARWOOD AVENUE, WAUWATOSA, WI 53213

FIGURE:  
B.1.a

NORTH ARROW:



0 1,100 2,200 Feet

1 inch = 1,600 feet

we listen, we innovate,  
we turn your vision into reality

DRAWN BY: RAB

CHECKED BY: TWP

APPROVED BY: TWP

PROJECT NO. 16.0131.01

DATE: 3/11/2016

REVISION DATE:





**KAPUR & ASSOCIATES, INC.**  
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SHEET:  
**DETAILED SITE MAP**

PROJECT:  
**LE REVE PATISSERIE & CAFE**

LOCATION:  
**7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213**

FIGURE:

**B.1.b.**

NORTH ARROW:



SCALE:

1" = 20'



SEAL:

we listen... we innovate.  
we turn your vision into reality.

DRAWN BY:

RAB CHECKED BY:

TWP APPROVED BY:

TWP PROJECT NO.

16.0131.01

DATE:

3/9/2016

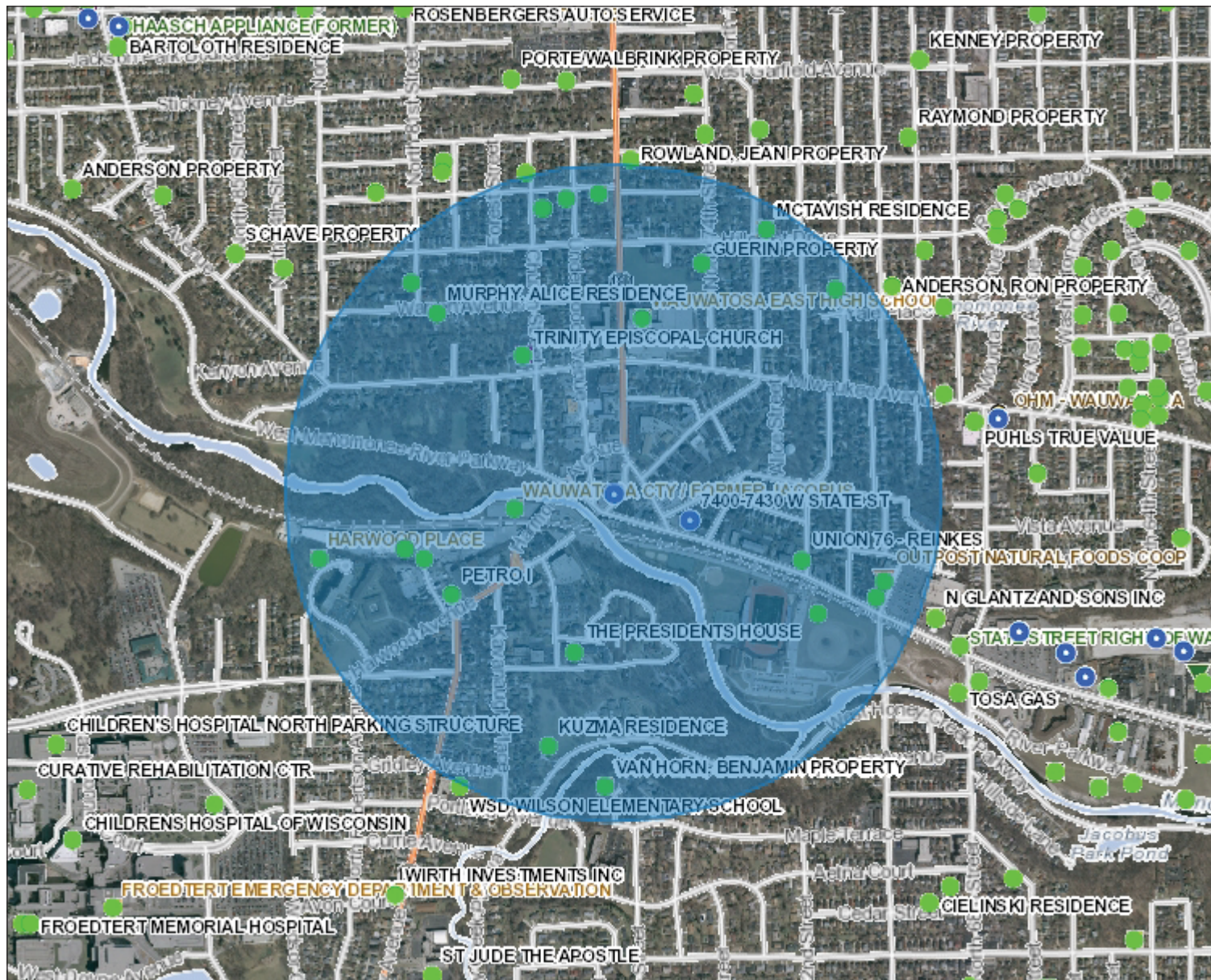
REVISION DATE:

06/28/2016





Figure B.1.c. RR Sites Map



### Legend

- Open Site (ongoing cleanup)
- Open Site Boundary
- Closed Site (completed cleanup)
- Closed Site Boundary
- Groundwater Contamination
- Soil Contamination
- Groundwater and Soil Contamination
- Contamination From Another Property
- Dryclean Environmental Response Fund (DERF)
- Green Space Grant (2004-2009)
- Ready for Reuse
- Site Assessment Grant (2001-2009)
- State Funded Response
- Sustainable Urban Development Zone (SUDZ)
- General Liability Clarification Letters
- Superfund NPL
- Voluntary Party Liability Exemption
- Rivers and Streams
- Open Water
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway

### Notes

7600-7610 W. Harwood Ave.  
Wauwatosa, WI 53213

0.5 0 0.23 0.5 Miles

NAD\_1983\_HARN\_Wisconsin\_TM

© Latitude Geographics Group Ltd.

1: 14,654



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**Note: Not all sites are mapped.**



| Parameter                                       | Units | WI NR 720 Soil to Groundwater Pathway | WI NR 720 Soil Cleanup Standards Direct Contact Industrial | WI NR 720 Soil Cleanup Standards Direct Contact Non-Industrial | B1 (2-4) | B1 (6-8) | B1 (14-16) | B2 (2-4) | B2 (10-12) | B2 (14-16) | B3 (2-4) | B3 (10-12) | B3 (14-16) | B4 (2-4) | B4 (10-12) | B4 (14-16) |
|---|-------|---------------------------------------|--|--|----------|----------|------------|----------|------------|------------|----------|------------|------------|----------|------------|------------|
| <b>Polynuclear Aromatic Hydrocarbons (PAHs)</b> |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| 1-Methylnaphthalene                             | ug/kg |                                       | 53,100   | 15,600   | <77.6    | 43.1     | <9.1       | <37.7    | 18,200     | 10,800 J   | <384     | 12.1 J     | 24.6 J     | <76.0    | 31.8       | <8.9       |
| Benzo(a)anthracene                              | ug/kg |                                       | 2,110  | 148  | 874      | 356      | 43.1       | 430      | 75,900     | 48,200     | 10,900   | 225        | 384        | 757      | 167        | 38.8       |
| Benzo(a)pyrene                                  | ug/kg | 470                                   | 211  | 15   | 990      | 390      | 41.0       | 500      | 62,600     | 37,300     | 14,100   | 278        | 432        | 829      | 181        | 42.9       |
| Benzo(b)fluoranthene                            | ug/kg | 479                                   | 2,110.00   | 148  | 876      | 316      | 40.7       | 477      | 45,500     | 30,800     | 13,200   | 248        | 494        | 592      | 175        | 39.1       |
| Benzo(k)fluoranthene                            | ug/kg |                                       | 21,100   | 1,480  | 1,020    | 352      | 33.0       | 558      | 63,000     | 38,100     | 12,100   | 285        | 362        | 751      | 129        | 36.8       |
| Chrysene  | ug/kg | 145                                   | 211,000  | 14,800   | 978      | 428      | 47.5       | 522      | 76,500     | 50,300     | 12,000   | 262        | 440        | 866      | 201        | 45.2       |
| Dibenz(a,h)anthracene                           | ug/kg |                                       | 211  | 15   | 135      | 77.8     | 8.3 J      | 76.4     | 11,900     | 5,450      | 2,760    | 37.1       | 59.8       | 151      | 31.1       | 8.9 J      |
| Fluoranthene                                    | ug/kg | 88,900                                | 22,000,000   | 2,290,000  | 2,160    | 1,050    | 106        | 1,060    | 213,000    | 129,000    | 22,000   | 587        | 1,090      | 2,180    | 541        | 96.1       |
| Fluorene  | ug/kg | 14,800                                | 22,000,000   | 2,290,000  | 132 J    | 79.8     | 9.8 J      | 60.6 J   | 61,400     | 35,300     | 516 J    | 31.2       | 70.9       | 155      | 41.5       | <8.9       |
| Indeno(1,2,3-cd)pyrene                          | ug/kg |                                       | 2,110  | 148  | 337      | 206      | 20.9       | 183      | 27,500     | 12,900     | 6,500    | 93.8       | 154        | 416      | 87.2       | 23.3       |
| Naphthalene                                     | ug/kg | 658                                   | 26,000   | 5,150  | 87.6 J   | 108      | 10.0 J     | 47.5 J   | 94,700     | 52,400     | <384     | 23.4       | 51.2       | 117 J    | 41.8       | <40.0      |
| Pyrene  | ug/kg | 54,100                                | 16,500,000   | 1,720,000  | 1,770    | 825      | 80.0       | 822      | 132,000    | 87,500     | 16,900   | 454        | 864        | 1,830    | 467        | 77.5       |
| <b>RCRA Metals</b>                              |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| Arsenic   | ug/kg | 584                                   | 2,390  | 613  | 9,900    | 3,900    | <3.3       | 5,100    | 4,900      | 3,800      | 6,600    | 3,600      | 4,500      | <3.1     | 5,300      | 4,100      |
| Barium  | ug/kg | 165,000                               | 100,000,000  | 15,300,000   | 89,400   | 29,300   | 17,100     | 47,100   | 31,300     | 33,800     | 287,000  | 52,400     | 48,600     | 37,000   | 20,400     | 14,000     |
| Cadmium   | ug/kg | 752                                   | 799,000  | 70,000   | 490 J    | 220 J    | 130 J      | 510 J    | 500 J      | 340 J      | 1,000    | 200 J      | 160 J      | 140 J    | 210 J      | 160 J      |
| Lead  | ug/kg | 27,000                                | 800,000  | 400,000  | 119,000  | 36,700   | 13,600     | 54,800   | 37,700     | 48,200     | 358,000  | 42,200     | 41,300     | 9,900    | 11,100     | 6,500      |
| <b>Volatile Organic Compounds (VOCs)</b>        |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| Naphthalene                                     | ug/kg | 658                                   | 26,000   | 5,150  | 81.5 J   | <40.0    | <40.0      | 68.6 J   | 82,900     | 96,000     | 157 J    | <40.0      | <40.0      | <40.0    | <40.0      | <40.0      |
| PID   | ppmv  |                                       |  |  | 0.8      | 0.7      | 0.9        | 2.2      | 2.7        | 1.2        | 1.2      | 0.5        | 0.5        | 1.5      | 0.6        | 20.8       |



SHEET:  
SOIL CONTAMINATION

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:  
B.2.a.

NORTH ARROW:



SCALE:

1" = 20'

0 10 20

SEAL:

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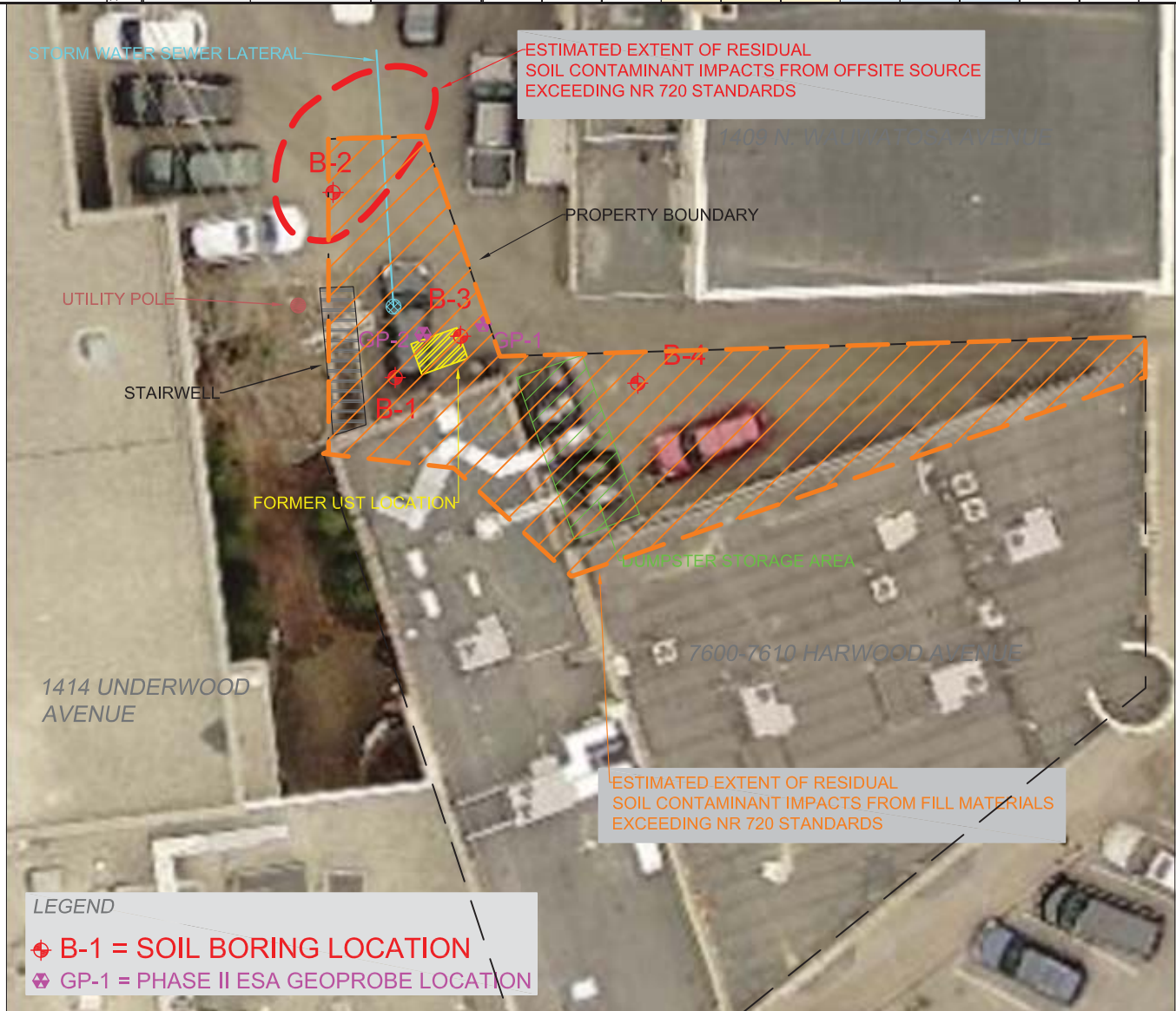
06/28/2016

FILENAME: S:\\_Environ\160131-7610 Harwood Ave. Tosa ENV\Figs-Photos\SOIL CONTAM rev.dwg

PLOT DATE/TIME: 7/19/2016 2:09 PM

PLOTTED BY: TRAVIS W. PETERSON

| Parameter                                       | Units | WI NR 720 Soil to Groundwater Pathway | WI NR 720 Soil Cleanup Standards Direct Contact Industrial | WI NR 720 Soil Cleanup Standards Direct Contact Non-Industrial | B1 (2-4) | B1 (6-8) | B1 (14-16) | B2 (2-4) | B2 (10-12) | B2 (14-16) | B3 (2-4) | B3 (10-12) | B3 (14-16) | B4 (2-4) | B4 (10-12) | B4 (14-16) |
|---|-------|---------------------------------------|--|--|----------|----------|------------|----------|------------|------------|----------|------------|------------|----------|------------|------------|
| <b>Polynuclear Aromatic Hydrocarbons (PAHs)</b> |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| 1-Methylnaphthalene                             | ug/kg |                                       | 53,100   | 15,600   | <77.6    | 43.1     | <9.1       | <37.7    | 18,200     | 10,800 J   | <384     | 12.1 J     | 24.6 J     | <76.0    | 31.8       | <8.9       |
| Benzo(a)anthracene                              | ug/kg |                                       | 2,110  | 148  | 874      | 356      | 43.1       | 430      | 75,900     | 48,200     | 10,900   | 225        | 384        | 757      | 167        | 38.8       |
| Benzo(a)pyrene                                  | ug/kg | 470                                   | 211  | 15   | 990      | 390      | 41.0       | 500      | 62,600     | 37,300     | 14,100   | 278        | 432        | 829      | 181        | 42.9       |
| Benzo(b)fluoranthene                            | ug/kg | 479                                   | 2,110.00   | 148  | 876      | 316      | 40.7       | 477      | 45,500     | 30,800     | 13,200   | 248        | 494        | 592      | 175        | 39.1       |
| Benzo(k)fluoranthene                            | ug/kg |                                       | 21,100   | 1,480  | 1,020    | 352      | 33.0       | 558      | 63,000     | 38,100     | 12,100   | 285        | 362        | 751      | 129        | 36.8       |
| Chrysene  | ug/kg | 145                                   | 211,000  | 14,800   | 978      | 428      | 47.5       | 522      | 76,500     | 50,300     | 12,000   | 262        | 440        | 866      | 201        | 45.2       |
| Dibenz(a,h)anthracene                           | ug/kg |                                       | 211  | 15   | 135      | 77.8     | 8.3 J      | 76.4     | 11,900     | 5,450      | 2,760    | 37.1       | 59.8       | 151      | 31.1       | 8.9 J      |
| Fluoranthene                                    | ug/kg | 88,900                                | 22,000,000   | 2,290,000  | 2,160    | 1,050    | 106        | 1,060    | 213,000    | 129,000    | 22,000   | 587        | 1,090      | 2,180    | 541        | 96.1       |
| Fluorene  | ug/kg | 14,800                                | 22,000,000   | 2,290,000  | 132 J    | 79.8     | 9.8 J      | 60.6 J   | 61,400     | 35,300     | 516 J    | 31.2       | 70.9       | 155      | 41.5       | <8.9       |
| Indeno(1,2,3-cd)pyrene                          | ug/kg |                                       | 2,110  | 148  | 337      | 206      | 20.9       | 183      | 27,500     | 12,900     | 6,500    | 93.8       | 154        | 416      | 87.2       | 23.3       |
| Naphthalene                                     | ug/kg | 658                                   | 26,000   | 5,150  | 87.6 J   | 108      | 10.0 J     | 47.5 J   | 94,700     | 52,400     | <384     | 23.4       | 51.2       | 117 J    | 41.8       | <40.0      |
| Pyrene  | ug/kg | 54,100                                | 16,500,000   | 1,720,000  | 1,770    | 825      | 80.0       | 822      | 132,000    | 87,500     | 16,900   | 454        | 864        | 1,830    | 467        | 77.5       |
| <b>RCRA Metals</b>                              |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| Arsenic   | ug/kg | 584                                   | 2,390  | 613  | 9,900    | 3,900    | <3.3       | 5,100    | 4,900      | 3,800      | 6,600    | 3,600      | 4,500      | <3.1     | 5,300      | 4,100      |
| Barium  | ug/kg | 165,000                               | 100,000,000  | 15,300,000   | 89,400   | 29,300   | 17,100     | 47,100   | 31,300     | 33,800     | 287,000  | 52,400     | 48,600     | 37,000   | 20,400     | 14,000     |
| Cadmium   | ug/kg | 752                                   | 799,000  | 70,000   | 490 J    | 220 J    | 130 J      | 510 J    | 500 J      | 340 J      | 1,000    | 200 J      | 160 J      | 140 J    | 210 J      | 160 J      |
| Lead  | ug/kg | 27,000                                | 800,000  | 400,000  | 119,000  | 36,700   | 13,600     | 54,800   | 37,700     | 48,200     | 358,000  | 42,200     | 41,300     | 9,900    | 11,100     | 6,500      |
| <b>Volatile Organic Compounds (VOCs)</b>        |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| Naphthalene                                     | ug/kg | 658                                   | 26,000   | 5,150  | 81.5 J   | <40.0    | <40.0      | 68.6 J   | 82,900     | 96,000     | 157 J    | <40.0      | <40.0      | <40.0    | <40.0      | <40.0      |
| PID   | ppmv  |                                       |  |  | 0.8      | 0.7      | 0.9        | 2.2      | 2.7        | 1.2        | 1.2      | 0.5        | 0.5        | 1.5      | 0.6        | 20.8       |



SHEET:  
RESIDUAL SOIL CONTAMINATION

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUKATOSA, WISCONSIN 53213

FIGURE:  
B.2.b.

NORTH ARROW:



SCALE:

1" = 20'

0 10 20

SEAL:

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SHEET:  
GEOLOGIC CROSS-SECTION

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:

B.3.a.

NORTH ARROW:



SCALE:

1" = 20'



SEAL:

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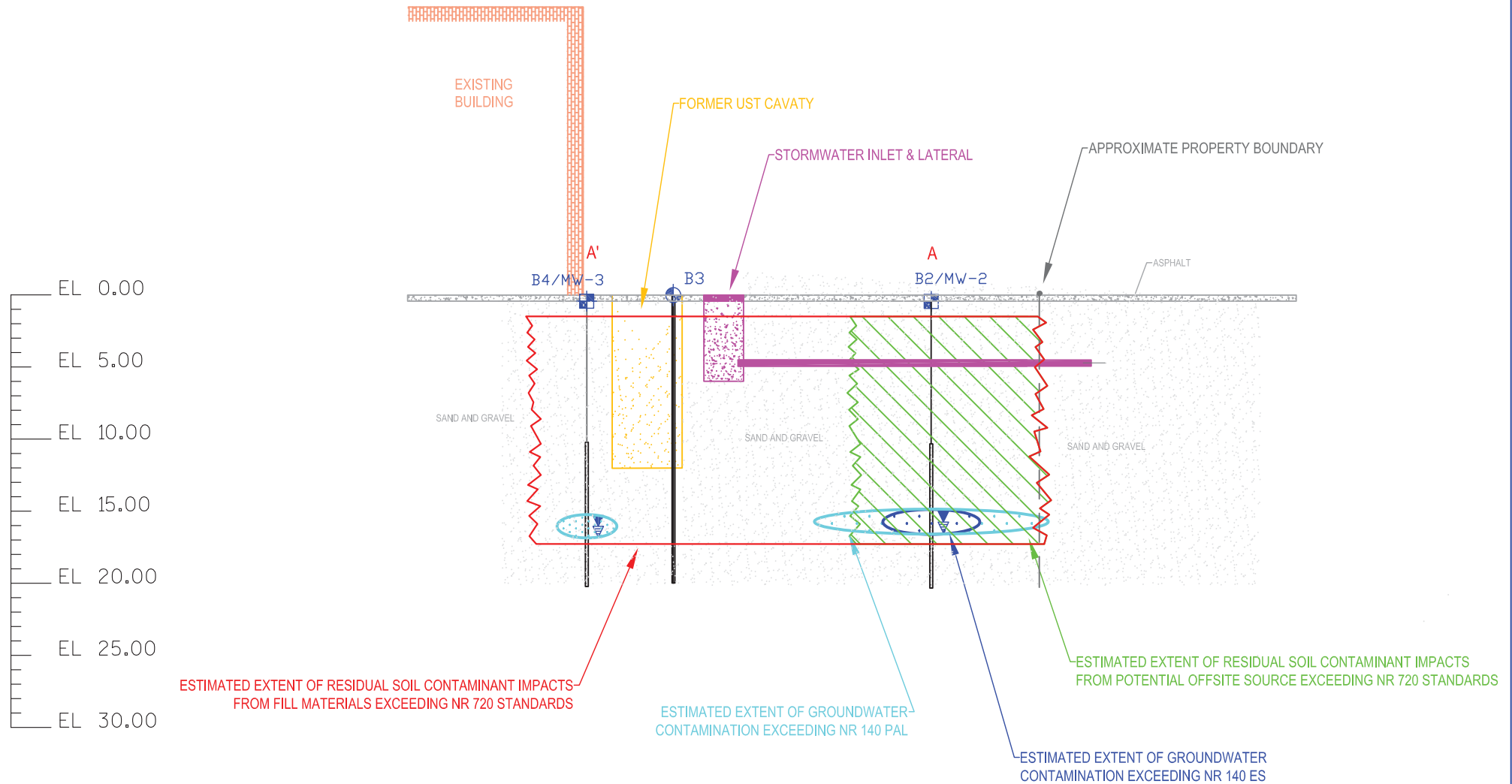
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REVISION DATE:

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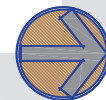
SHEET:  
**GEOLOGIC CROSS-SECTION A - A' FACING WEST**

PROJECT:  
**LE REVE PATISSERIE & CAFE**

LOCATION:  
**7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213**

FIGURE:  
**B.3.a.i.**

NORTH ARROW:



SCALE: 1" = 10'



SEAL:

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| Parameter                                       | Units | WI NR 140 GW<br>Quality Enforcement<br>Standards | WI NR 140 GW<br>Quality Preventive<br>Action Limits | MW-1     | MW-2        | MW-3         |
|---|-------|--|---|----------|-------------|--------------|
| <b>Polynuclear Aromatic Hydrocarbons (PAHs)</b> |       |  |   |          |             |              |
| Benzo(a)pyrene                                  | ug/L  | .2   | .02   | 0.0042 J | <b>0.51</b> | 0.018 J      |
| Benzo(b)fluoranthene                            | ug/L  | .2   | .02   | 0.010 J  | <b>0.77</b> | <b>0.038</b> |
| Chrysene  | ug/L  | .2   | .02   | 0.012 J  | <b>0.92</b> | <b>0.038</b> |
| <b>RCRA Metals</b>                              |       |  |   |          |             |              |
| Barium, Dissolved                               | ug/L  | 2000   | 400   | 67.9     | 66.0        | 67.1         |
| Chromium, Dissolved                             | ug/L  | 100  | 10  | <0.87    | <0.87       | 2.0 J        |
| <b>Volatile Organic Compounds (VOCs)</b>        |       |  |   | <LDLs    |             |              |



SHEET:  
GROUNDWATER ISOCONCENTRATION

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:

B.3.b.

NORTH ARROW:



SCALE:

1" = 20'



SEAL:

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#### LEGEND

 MW-1 = GROUNDWATER MONITORING WELL LOCATION



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CONSULTING ENGINEERS  
7721 N. PORT WASHINGTON ROAD  
MILWAUKEE, WISCONSIN 53217  
Phone: 414.351.8668 Fax: 414.351.4117

www.kapurengineers.com

SHEET:  
GROUNDWATER FLOW DIRECTION

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:

**B.3.c.**

NORTH ARROW:



SCALE:

1" = 20'



SEAL:

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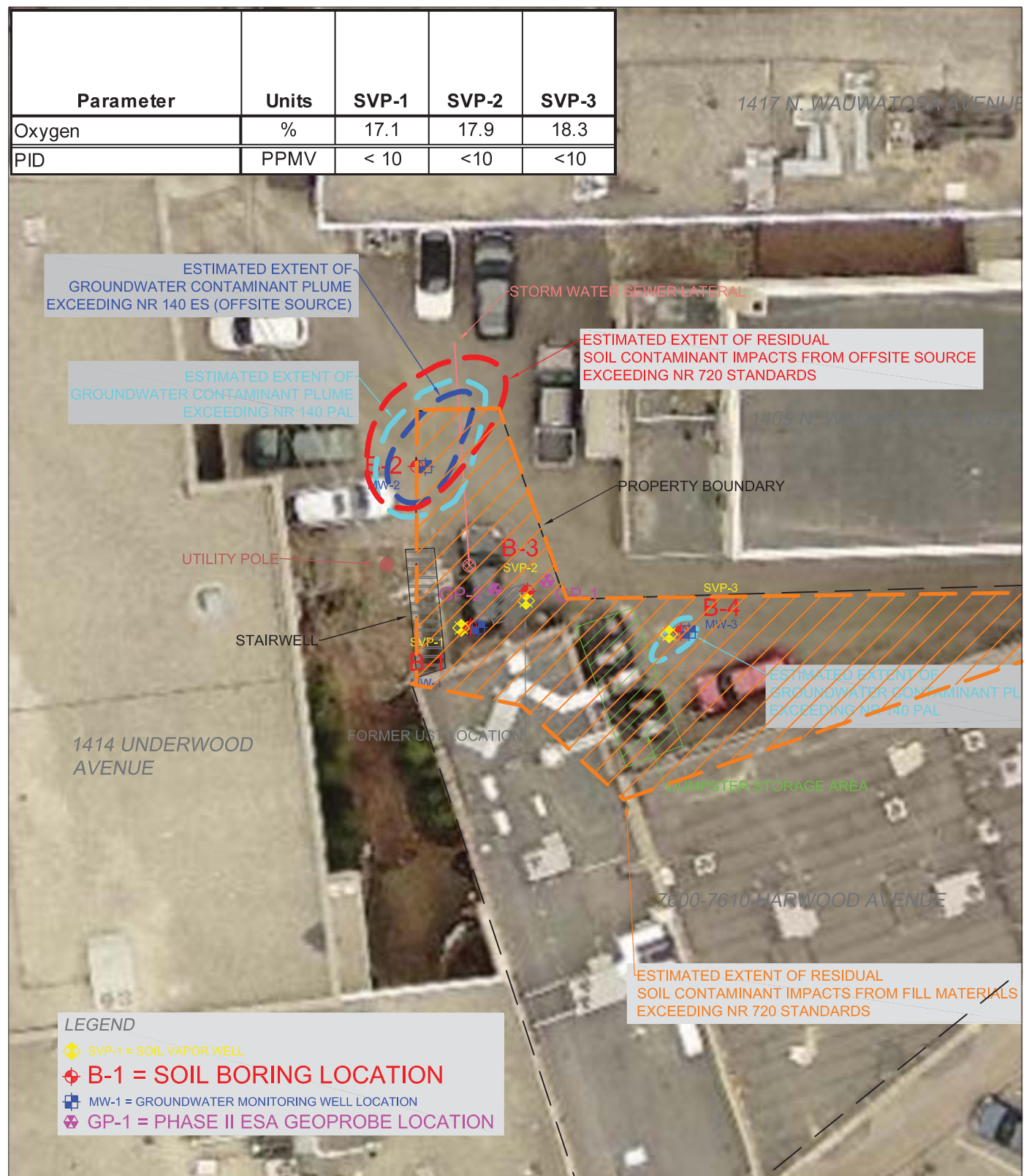
16.0131.01 DATE:

04/12/2016

REVISION DATE:

06/28/2016

| Parameter | Units | SVP-1 | SVP-2 | SVP-3 |
|-----------|-------|-------|-------|-------|
| Oxygen    | %     | 17.1  | 17.9  | 18.3  |
| PID       | PPMV  | < 10  | <10   | <10   |



SHEET:  
VAPOR INTRUSION MAP

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:

B.4.a.

NORTH ARROW:



SCALE:

1" = 20'



SEAL:

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DATE:

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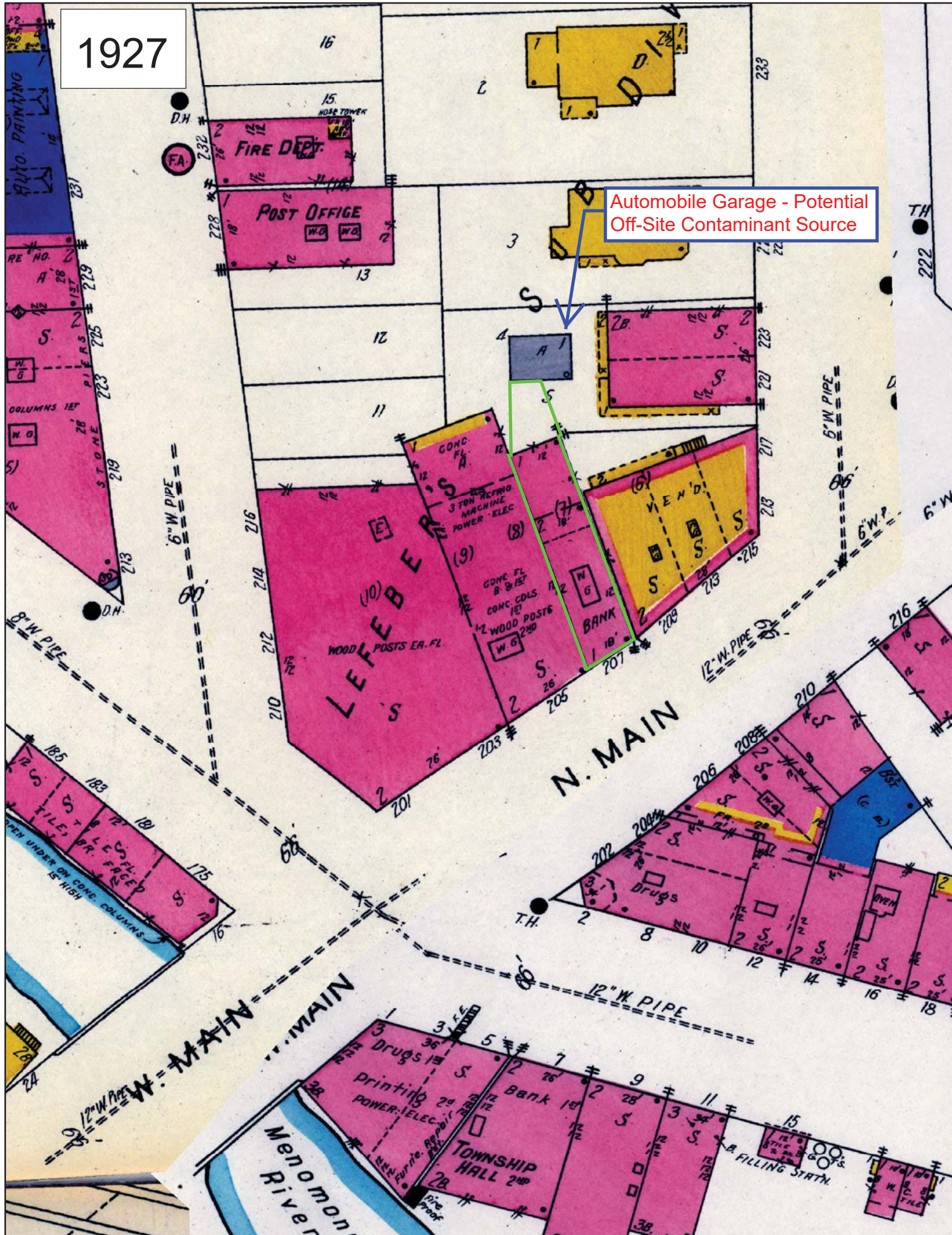
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06/28/2016



1927

Automobile Garage - Potential  
Off-Site Contaminant Source





## **TABLES**



**Table A.1: Groundwater Analytical Results**  
**Le Reve Patisserie & Café**  
**7600-7610 W. Harwood Avenue, Wauwatosa, Wisconsin**

| Parameter                                | Units | WI NR 140 GW Quality Enforcement Standards | WI NR 140 GW Quality Preventive Action Limits | MW-1     | MW-2    | MW-3     | TRIP |
|--|-------|--|---|----------|---------|----------|------|
| Polynuclear Aromatic Hydrocarbons (PAHs) |       |  |   |          |         |          |      |
| 1-Methylnaphthalene                      | ug/L  |  |   | 0.0029 J | 0.074   | 0.0072 J | NA   |
| 2-Methylnaphthalene                      | ug/L  |  |   | 0.0039 J | 0.087   | 0.014 J  |      |
| Acenaphthene                             | ug/L  |  |   | <0.0045  | 0.32    | <0.0045  |      |
| Acenaphthylene                           | ug/L  |  |   | <0.0045  | 0.018 J | <0.0045  |      |
| Anthracene                               | ug/L  | 3000                                       | 600   | <0.0037  | 0.85    | 0.0041 J |      |
| Benzo(a)anthracene                       | ug/L  |  |   | 0.0088 J | 0.67    | 0.020 J  |      |
| Benzo(a)pyrene                           | ug/L  | .2   | .02   | 0.0042 J | 0.51    | 0.018 J  |      |
| Benzo(b)fluoranthene                     | ug/L  | .2   | .02   | 0.010 J  | 0.77    | 0.038    |      |
| Benzo(g,h,i)perylene                     | ug/L  |  |   | 0.0040 J | 0.29    | 0.018 J  |      |
| Benzo(k)fluoranthene                     | ug/L  |  |   | 0.0053 J | 0.42    | 0.019 J  |      |
| Chrysene                                 | ug/L  | .2   | .02   | 0.012 J  | 0.92    | 0.038    |      |
| Dibenz(a,h)anthracene                    | ug/L  |  |   | <0.0051  | 0.074   | <0.0051  |      |
| Fluoranthene                             | ug/L  | 400  | 80  | 0.018 J  | 2.1     | 0.064    |      |
| Fluorene                                 | ug/L  | 400  | 80  | <0.0037  | 0.52    | 0.0046 J |      |
| Indeno(1,2,3-cd)pyrene                   | ug/L  |  |   | <0.0033  | 0.25    | 0.013 J  |      |
| Naphthalene                              | ug/L  | 100  | 10  | 0.028 J  | 0.23    | 0.0079 J |      |
| Phenanthrene                             | ug/L  |  |   | 0.016 J  | 2.4     | 0.043 J  |      |
| Pyrene                                   | ug/L  | 250  | 50  | 0.017 J  | 1.5     | 0.055    |      |
| RCRA Metals                              |       |  |   |          |         |          |      |
| Barium, Dissolved                        | ug/L  | 2000                                       | 400   | 67.9     | 66.0    | 67.1     | NA   |
| Chromium, Dissolved                      | ug/L  | 100  | 10  | <0.87    | <0.87   | 2.0 J    |      |
| Volatile Organic Compounds (VOCs)        |       |  |   | <LDLs    |         |          |      |

**NOTES:** **Sample Collection Date: February 29, 2016**

*Only analytes with a detection in at least one sample are shown*

NA = Not Analyzed

ug/L = micrograms per Liter

LDLs = Laboratory Detection Limits

Concentrations equal to or exceeding the WI NR 140 GW Quality Enforcement Standards are **bold faced**

Concentrations equal to or exceeding the WI NR 140 GW Quality Preventive Action Limits are *italicized*

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

| Parameter                                | Units | WI NR 720 Soil to Groundwater Pathway | WI NR 720 Soil Cleanup Standards Direct Contact Industrial | WI NR 720 Soil Cleanup Standards Direct Contact Non-Industrial | B1 (2-4) | B1 (6-8) | B1 (14-16) | B2 (2-4) | B2 (10-12) | B2 (14-16) | B3 (2-4) | B3 (10-12) | B3 (14-16) | B4 (2-4) | B4 (10-12) | B4 (14-16) | TRIP |
|--|-------|---------------------------------------|--|--|----------|----------|------------|----------|------------|------------|----------|------------|------------|----------|------------|------------|------|
| Polynuclear Aromatic Hydrocarbons (PAHs) |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |      |
| 1-Methylnaphthalene                      | ug/kg |                                       | 53,100   | 15,600   | <77.6    | 43.1     | <9.1       | <37.7    | 18,200     | 10,800 J   | <384     | 12.1 J     | 24.6 J     | <76.0    | 31.8       | <8.9       | NA   |
| 2-Methylnaphthalene                      | ug/kg |                                       | 2,200,000  | 229,000  | <77.6    | 46.1     | <9.1       | 44.6 J   | 31,900     | 17,600     | <384     | 13.2 J     | 25.1 J     | <76.0    | 27.7       | <8.9       |      |
| Acenaphthene                             | ug/kg |                                       | 33,000,000   | 3,440,000  | 125 J    | 69.6     | 9.2 J      | 51.4 J   | 34,000     | 20,600     | 544 J    | 28.2       | 73.5       | 176      | 42.3       | <8.9       |      |
| Acenaphthylene                           | ug/kg |                                       |  |  | <69.4    | 40.7     | <8.1       | <33.7    | <6,400     | <5,110     | <344     | 14.1 J     | <17.0      | <68.0    | 12.6 J     | <8.0       |      |
| Anthracene                               | ug/kg | 198,000                               | 100,000,000  | 17,200,000   | 384      | 243      | 29.9       | 171      | 107,000    | 65,100     | 2,560    | 88.4       | 194        | 450      | 90.1       | 17.0 J     |      |
| Benzo(a)anthracene                       | ug/kg |                                       | 2,110  | 148  | 874      | 356      | 43.1       | 430      | 75,900     | 48,200     | 10,900   | 225        | 384        | 757      | 167        | 38.8       |      |
| Benzo(a)pyrene                           | ug/kg | 470                                   | 211  | 15   | 990      | 390      | 41.0       | 500      | 62,600     | 37,300     | 14,100   | 278        | 432        | 829      | 181        | 42.9       |      |
| Benzo(b)fluoranthene                     | ug/kg | 479                                   | 2,110.00   | 148  | 876      | 316      | 40.7       | 477      | 45,500     | 30,800     | 13,200   | 248        | 494        | 592      | 175        | 39.1       |      |
| Benzo(g,h,i)perylene                     | ug/kg |                                       |  |  | 331      | 240      | 23.8       | 185      | 28,200     | 13,200     | 6,300    | 94.3       | 154        | 481      | 101        | 26.7       |      |
| Benzo(k)fluoranthene                     | ug/kg |                                       | 21,100   | 1,480  | 1,020    | 352      | 33.0       | 558      | 63,000     | 38,100     | 12,100   | 285        | 362        | 751      | 129        | 36.8       |      |
| Chrysene                                 | ug/kg | 145                                   | 211,000  | 14,800   | 978      | 428      | 47.5       | 522      | 76,500     | 50,300     | 12,000   | 262        | 440        | 866      | 201        | 45.2       |      |
| Dibenz(a,h)anthracene                    | ug/kg |                                       | 211  | 15   | 135      | 77.8     | 8.3 J      | 76.4     | 11,900     | 5,450      | 2,760    | 37.1       | 59.8       | 151      | 31.1       | 8.9 J      |      |
| Fluoranthene                             | ug/kg | 88,900                                | 22,000,000   | 2,290,000  | 2,160    | 1,050    | 106        | 1,060    | 213,000    | 129,000    | 22,000   | 587        | 1,090      | 2,180    | 541        | 96.1       |      |
| Fluorene                                 | ug/kg | 14,800                                | 22,000,000   | 2,290,000  | 132 J    | 79.8     | 9.8 J      | 60.6 J   | 61,400     | 35,300     | 516 J    | 31.2       | 70.9       | 155      | 41.5       | <8.9       |      |
| Indeno(1,2,3-cd)pyrene                   | ug/kg |                                       | 2,110  | 148  | 337      | 206      | 20.9       | 183      | 27,500     | 12,900     | 6,500    | 93.8       | 154        | 416      | 87.2       | 23.3       |      |
| Naphthalene                              | ug/kg | 658                                   | 26,000   | 5,150  | 87.6 J   | 108      | 10.0 J     | 47.5 J   | 94,700     | 52,400     | <384     | 23.4       | 51.2       | 117 J    | 41.8       | <40.0      |      |
| Phenanthrene                             | ug/kg |                                       |  |  | 1,630    | 1,020    | 100        | 643      | 307,000    | 186,000    | 8,160    | 359        | 884        | 2,220    | 650        | 75.9       |      |
| Pyrene                                   | ug/kg | 54,100                                | 16,500,000   | 1,720,000  | 1,770    | 825      | 80.0       | 822      | 132,000    | 87,500     | 16,900   | 454        | 864        | 1,830    | 467        | 77.5       |      |
| RCRA Metals                              |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |      |
| Arsenic                                  | ug/kg | 584                                   | 2,390  | 613  | 9,900    | 3,900    | <3.3       | 5,100    | 4,900      | 3,800      | 6,600    | 3,600      | 4,500      | <3.1     | 5,300      | 4,100      | NA   |
| Barium                                   | ug/kg | 165,000                               | 100,000,000  | 15,300,000   | 89,400   | 29,300   | 17,100     | 47,100   | 31,300     | 33,800     | 287,000  | 52,400     | 48,600     | 37,000   | 20,400     | 14,000     |      |
| Cadmium                                  | ug/kg | 752                                   | 799,000  | 70,000   | 490 J    | 220 J    | 130 J      | 510 J    | 500 J      | 340 J      | 1,000    | 200 J      | 160 J      | 140 J    | 210 J      | 160 J      |      |
| Chromium                                 | ug/kg | 360000000                             |  |  | 11,900   | 7,500    | 6,500      | 11,200   | 10,500     | 8,100      | 11,800   | 9,300      | 11,000     | 7,600    | 7,000      | 5,600      |      |
| Lead                                     | ug/kg | 27,000                                | 800,000  | 400,000  | 119,000  | 36,700   | 13,600     | 54,800   | 37,700     | 48,200     | 358,000  | 42,200     | 41,300     | 9,900    | 11,100     | 6,500      |      |
| Selenium                                 | ug/kg | 520                                   | 5,110,000  | 391,000  | <890     | <780     | <790       | <820     | <800       | <790       | <770     | <760       | 1,300      | <750     | <800       | <720       |      |
| Volatile Organic Compounds (VOCs)        |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |      |
| Naphthalene                              | ug/kg | 658                                   | 26,000   | 5,150  | 81.5 J   | <40.0    | <40.0      | 68.6 J   | 82,900     | 96,000     | 157 J    | <40.0      | <40.0      | <40.0    | <40.0      | <40.0      | <40  |
|  |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |      |
| Percent Moisture                         | %     |                                       |  |  | 14.1     | 9.6      | 8.0        | 11.6     | 6.8        | 8.7        | 13.2     | 11.5       | 12.1       | 12.3     | 7.5        | 6.7        | NA   |
| PID                                      | ppmv  |                                       |  |  | 0.8      | 0.7      | 0.9        | 2.2      | 2.7        | 1.2        | 1.2      | 0.5        | 0.5        | 1.5      | 0.6        | 20.8       |      |

NOTES:

Only analytes with a detection in at least one sample are shown

(2-3) = sample depth in feet below ground surface

ug/kg = micrograms per kilogram

RCL = Residual Contaminant Level

PID - Photoionization Detector

ppmv = parts per million by volume in air

NR = Not Reported/Below Detection Limits

NA = Not Analyzed

Sample Collection Date: February 16, 2016

Concentrations equal to or exceeding the NR 720 Soil RCL Industrial Direct Contact Standards are 'boxed' outlined & in bold

Concentrations equal to or exceeding the NR 720 Soil RCL Non-Industrial Direct Contact Standards are bold faced

Concentrations equal to or exceeding the NR 720 Soil RCL (via EPA RSLs) Soil to Groundwater Standards are italicized in red

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



**Table A.4: Vapor Analytical Results**  
**7600-7610 W. Harwood Avenue**  
**Wauwatosa, Wisconsin**

| Parameter | Units | SVP-1 | SVP-2 | SVP-3 |
|-----------|-------|-------|-------|-------|
| Oxygen    | %     | 17.1  | 17.9  | 18.3  |
| PID       | PPMV  | < 10  | <10   | <10   |

Date Samples Collected: February 16, 2016

PID: Photoionization Detector

PPMV: Parts Per Million by Volume



A.6 Water Level Elevations  
La Reve Patisserie & Café  
7600–7610 W. Harwood Avenue, Wauwatosa, Wisconsin

| Well Data |                   |                            |                             |                                       |                          |
|-----------|-------------------|----------------------------|-----------------------------|---------------------------------------|--------------------------|
| Well ID   | Date              | Surface Elevation (ft MSL) | PVC Well Elevation (ft MSL) | Depth to Water (From TOC in feet bgs) | Water Elevation (ft MSL) |
| MW-1      | February 29, 2016 | 672.85                     | 672.62                      | 16                                    | 656.62                   |
| MW-2      | February 29, 2016 | 672.5                      | 672.24                      | 15.45                                 | 656.79                   |
| MW-3      | February 29, 2016 | 672.95                     | 672.71                      | 15.9                                  | 656.81                   |

Notes:

ft MSL = Feet above Mean Sea Level  
TOC = Top of casing

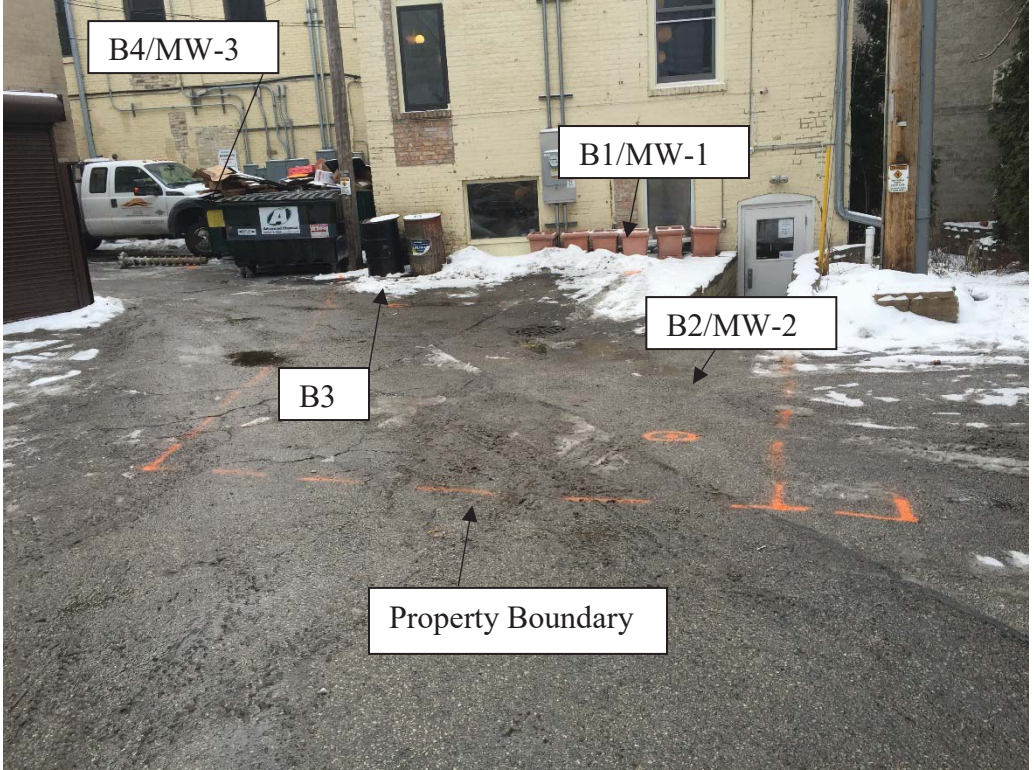
## **APPENDICES**

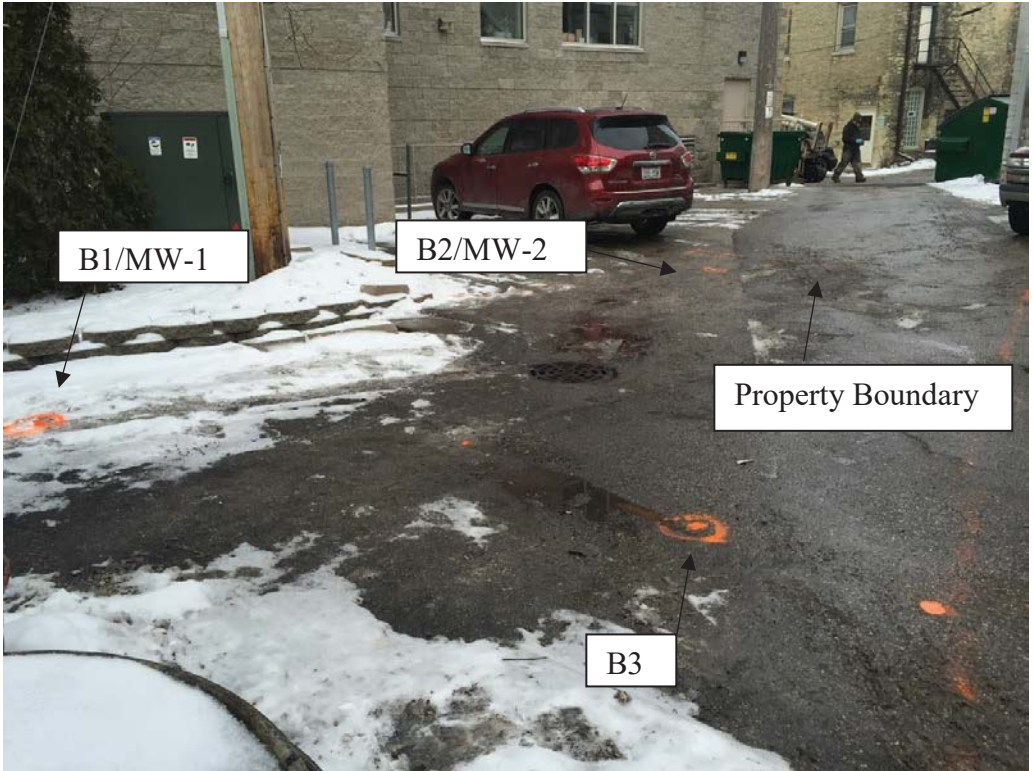


## **APPENDIX A**

### **SITE PHOTOGRAPHS**

## PHOTOGRAPHIC LOG

| Photo #   | Date     |   |
|---|----------|---|
| 1   | 02/16/16 |   |
| <b>Description</b><br>Subject Property:<br><br>Site boundaries and boring/MW locations (facing south) |          |   |
|   |          |  |

| Photo #   | Date     |  |
|---|----------|--|
| 2   | 02/16/16 |  |
| <b>Description</b><br>Subject Property:<br><br>Site boundaries and boring/MW locations (facing northwest) |          |  |
|   |          |  |



## PHOTOGRAPHIC LOG

Photo #  
3

Date  
02/16/16

### Description

Subject Property:

Typical drilling  
activities at B1/MW-1  
(facing southwest)




KAPUR & ASSOCIATES, INC.  
CONSULTING ENGINEERS

Site Investigation Activities  
Harwood Avenue Commercial Property  
7600-7610 W. Harwood Ave, Wauwatosa, WI 53213



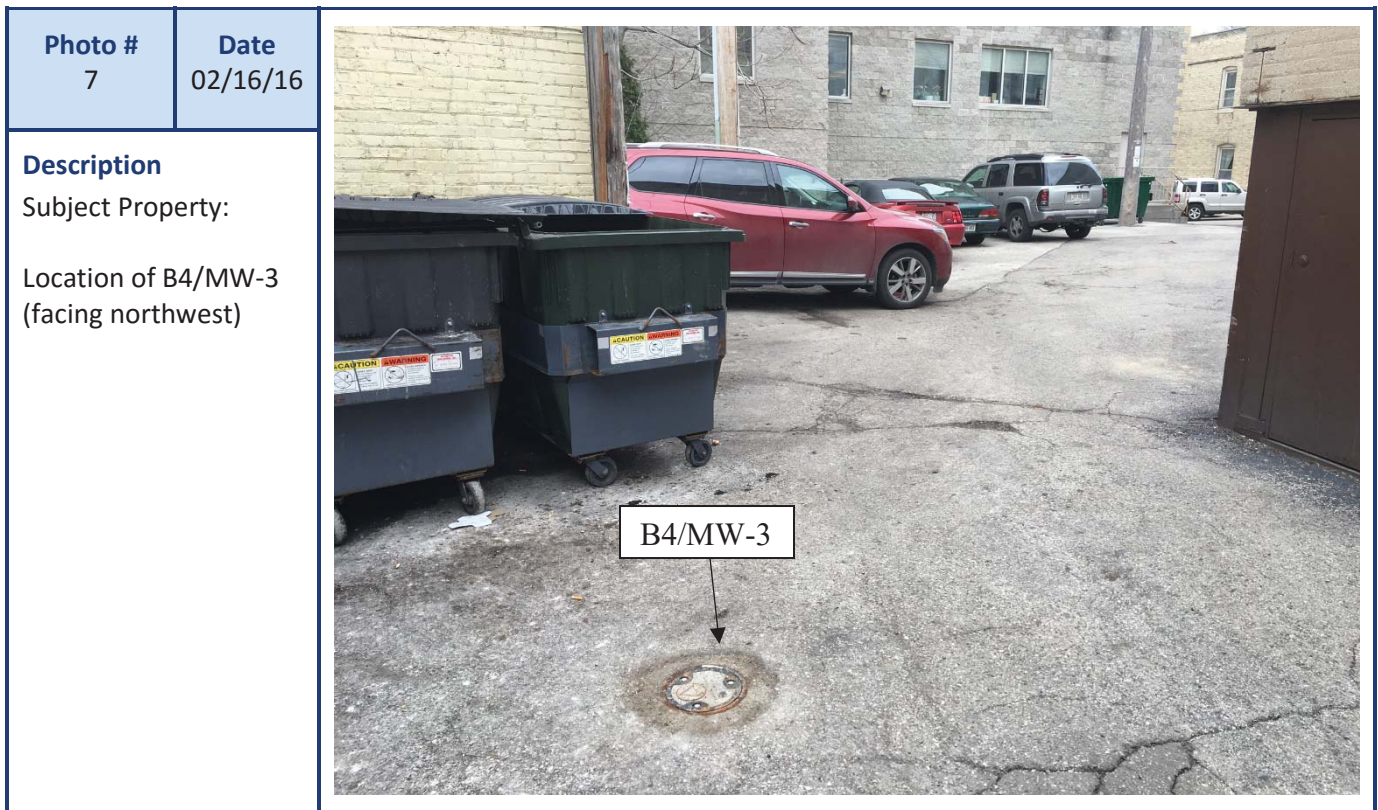
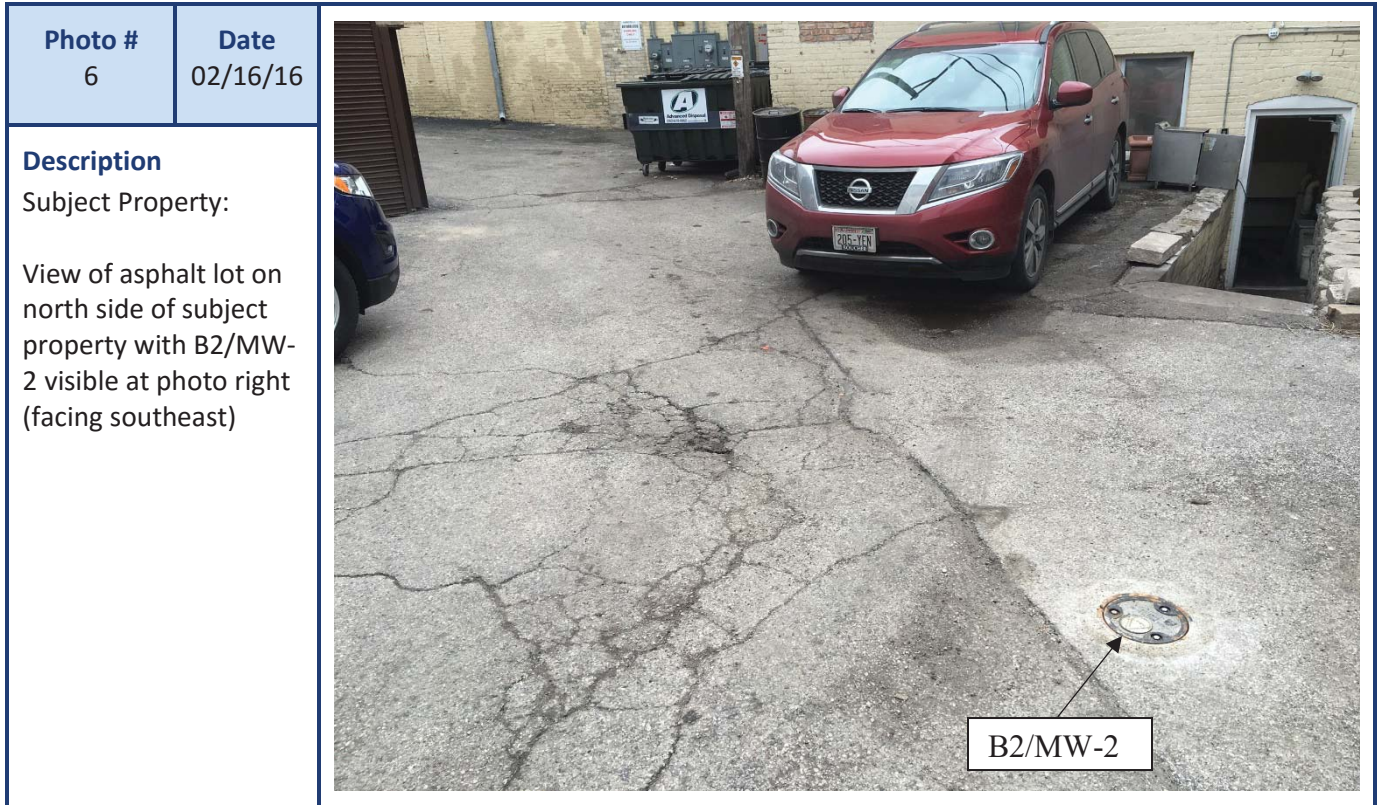
## PHOTOGRAPHIC LOG

| Photo #  | Date     |  |
|--|----------|--|
| 4  | 02/16/16 |  |
| <b>Description</b><br>Subject Property:<br><br>Former tank cavity location (facing west) |          |  |

| Photo #   | Date     |  |
|---|----------|--|
| 5   | 02/16/16 |  |
| <b>Description</b><br>Subject Property:<br><br>Location of B1/MW-1 in asphalt parking area to the north of the building (facing east) |          |  |

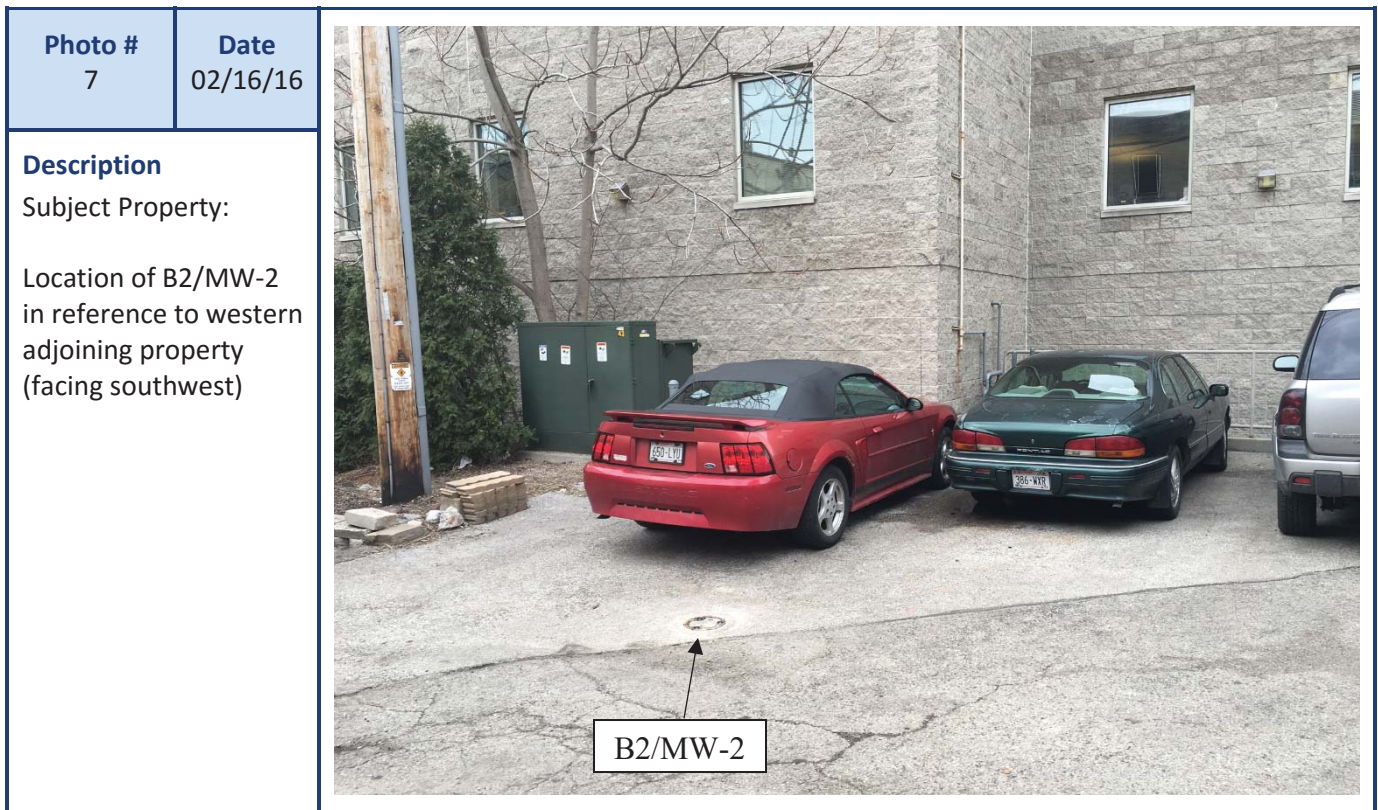
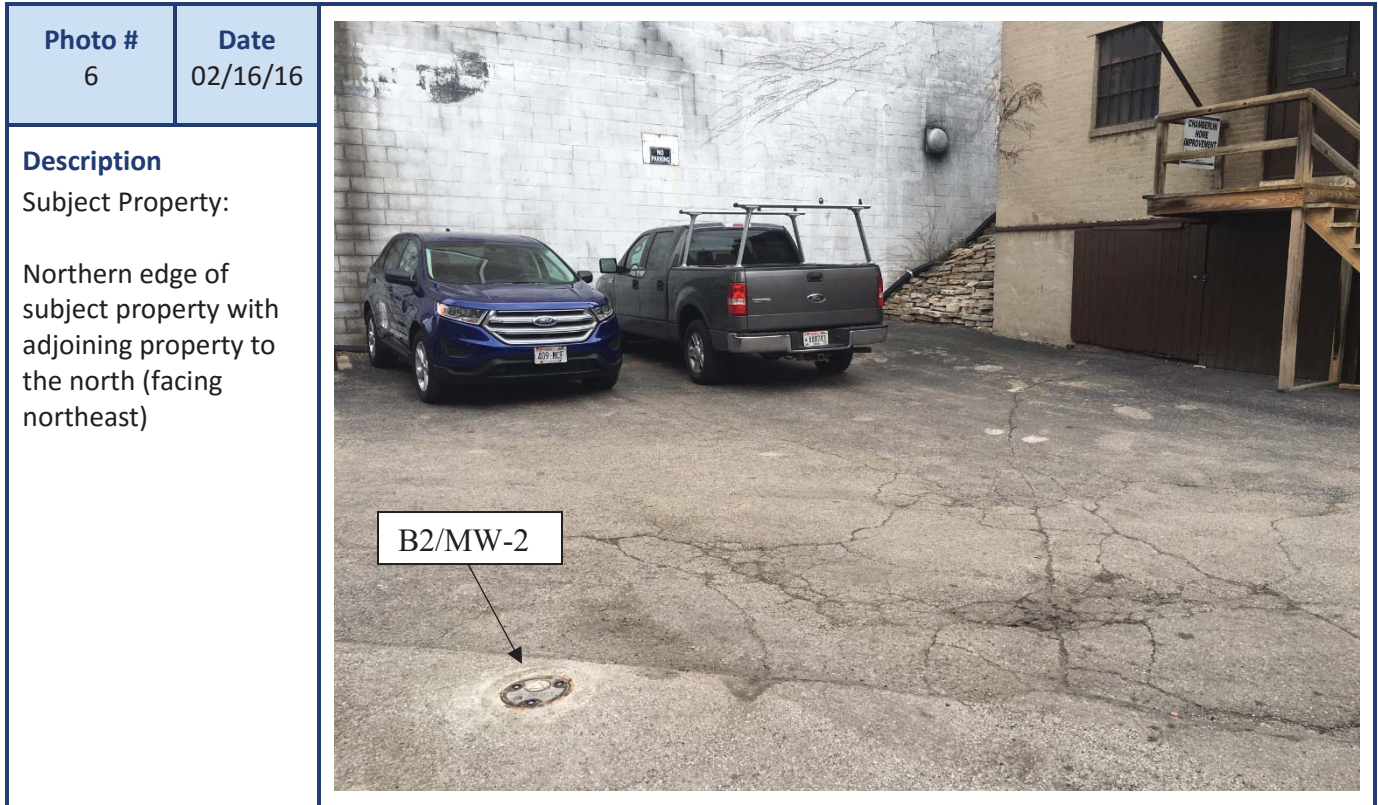


## PHOTOGRAPHIC LOG





## PHOTOGRAPHIC LOG





## **APPENDIX B**

### **WDNR SOIL BORING LOGS & ABANDONMENT FORMS**

Route To: Watershed/Wastewater ☐ Waste Management ☐  
Remediation/Redevelopment ☒ Other ☐

Page 1 of 1

|   |                 |                                    |  |                                      |  |
|---|-----------------|------------------------------------|--|--------------------------------------|--|
| Facility/Project Name<br>Harwood Avenue   |                 | License/Permit/Monitoring Number   |  | Boring Number<br>B1                  |  |
| Boring Drilled By: Name of crew chief (first, last) and Firm<br>Dan Fischer<br>Horizon Construction and Exploration                                 |                 | Date Drilling Started<br>2/16/2016 |  | Date Drilling Completed<br>2/16/2016 |  |
| Drilling Method<br>GeoProbe   |                 |                                    |  |                                      |  |
| Well Unique Well No.  | DNR Well ID No. | Common Well Name<br>MW-1           | Final Static Water Level<br>655.6 Feet MSL | Surface Elevation<br>672.6 Feet MSL  | Borehole Diameter<br>1.0 inches          |
| Local Grid Origin <input checked="" type="checkbox"/> (estimated: <input checked="" type="checkbox"/> ) or Boring Location <input type="checkbox"/> |                 |                                    | Local Grid Location                        |                                      |  |
| State Plane<br>NE 1/4 of SE 1/4 of Section 21, T 7 N, R 21 E  |                 |                                    | Lat 43° 2' 59.2"<br>Long 88° 0' 28.0"      |                                      |  |
| Facility ID<br>341270710  |                 |                                    | County<br>Milwaukee                        | County Code<br>41                    | Civil Town/City/ or Village<br>Wauwatosa |

| Sample             |                                 | Blow Counts | Depth In Feet | Soil/Rock Description<br>And Geologic Origin For<br>Each Major Unit | U C S | Graphic<br>Log | Well<br>Diagram | PID/FID | Soil Properties         |                     |                 |                     |  | P 200 | ROD/<br>Comments |
|--------------------|---------------------------------|-------------|---------------|---|-------|----------------|-----------------|---------|-------------------------|---------------------|-----------------|---------------------|--|-------|------------------|
| Number<br>and Type | Length Att. &<br>Recovered (in) |             |               |   |       |                |                 |         | Compressive<br>Strength | Moisture<br>Content | Liquid<br>Limit | Plasticity<br>Index |  |       |                  |
| GS                 | 24<br>12                        |             |               | Asphalt   |       |                |                 | 0       |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               | light brown and tan sandy gravel                                    | GP    |                |                 |         |                         |                     |                 |                     |  |       |                  |
| GS                 | 24<br>12                        |             | 2             | dark brown gravelly sand  |       |                |                 | 0.8     |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   | SP    |                |                 |         |                         |                     |                 |                     |  |       |                  |
| GS                 | 24<br>12                        |             | 4             | dark brown sand   | SW    |                |                 | 0       |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               | yellow sand and rock  | SP    |                |                 |         |                         |                     |                 |                     |  |       |                  |
| GS                 | 24<br>12                        |             | 6             | red and brown sand with some gravel                                 | GP    |                |                 | 0.7     |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               | gravel seam   | SW    |                |                 |         |                         |                     |                 |                     |  |       |                  |
| GS                 | 24<br>12                        |             | 8             | uniform brown sand  |       |                |                 | 0       |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               | light brown sand and fine gravel                                    | SP    |                |                 |         |                         |                     |                 |                     |  |       |                  |
| GS                 | 24<br>12                        |             | 10            |   |       |                |                 | 0       |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               | dark brown sand with some gravel                                    | SP    |                |                 |         |                         |                     |                 |                     |  |       |                  |
| GS                 | 24<br>12                        |             | 12            | light brown gravelly sand   |       |                |                 | 0       |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
| GS                 | 24<br>24                        |             | 14            |   |       |                |                 | 0.9     |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
| GS                 | 2<br>12                         |             | 16            |   | SW    |                |                 | 0       |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
| GS                 | 24<br>12                        |             | 18            |   |       |                |                 | 0       |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             | 20            |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |
|                    |                                 |             |               |   |       |                |                 |         |                         |                     |                 |                     |  |       |                  |

groundwater at 17 feet

END OF BORING

I hereby certify that the information on this form is true and correct to the best of my knowledge.

|                                |  |                           |
|--------------------------------|--|---------------------------|
| Signature<br><i>Rashid Bay</i> | Firm<br>Kapur & Associates, Inc.<br>7711 N. Port Washington Rd 53217 | Tel: 414-751-7200<br>Fax: |
|--------------------------------|--|---------------------------|

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Route To: Watershed/Wastewater ☐ Waste Management ☐  
Remediation/Redevelopment ☒ Other ☐

Page 1 of 1

|  |                 |                                    |  |                                      |  |
|--|-----------------|------------------------------------|--|--------------------------------------|--|
| Facility/Project Name<br>Harwood Avenue  |                 | License/Permit/Monitoring Number   |  | Boring Number<br>B2                  |  |
| Boring Drilled By: Name or crew chief (first, last) and Firm<br>Dan Fischer<br>Horizon Construction and Exploration                                |                 | Date Drilling Started<br>2/16/2016 |  | Date Drilling Completed<br>2/16/2016 |  |
| Drilling Method<br>GeoProbe  |                 |                                    |  |                                      |  |
| WT Unique Well No.   | DNR Well ID No. | Common Well Name<br>MW-2           | Final Static Water Level<br>655.2 Feet MSL | Surface Elevation<br>672.2 Feet MSL  | Borehole Diameter<br>1.0 inches          |
| Local Grid Origin <input checked="" type="checkbox"/> (estimated <input checked="" type="checkbox"/> ) or Boring Location <input type="checkbox"/> |                 |                                    | Local Grid Location                        |                                      |  |
| State Plane<br>NE 1/4 of SE 1/4 of Section 21, T 7 N, R 21 E   |                 |                                    | Lat 43° 2' 59.2" Long 88° 0' 28.0"         |                                      |  |
| Facility ID<br>341270710   |                 |                                    | County<br>Milwaukee                        | County Code<br>41                    | Civil Town/City/ or Village<br>Wauwatosa |

| Sample Number and Type | Length Att. & Recovered (in) | Blow Counts | Depth In Feet | Soil/Rock Description And Geologic Origin For Each Major Unit | U S C S | Graphic Log | Well Diagram | PID/FID | Soil Properties      |                  |              |                  |       | RQD/ Comments |
|------------------------|------------------------------|-------------|---------------|---|---------|-------------|--------------|---------|----------------------|------------------|--------------|------------------|-------|---------------|
|                        |                              |             |               |   |         |             |              |         | Compressive Strength | Moisture Content | Liquid Limit | Plasticity Index | P 200 |               |
| GS                     | 24                           |             | 0             | asphalt, wet  |         |             |              | 0       |                      |                  |              |                  |       |               |
|                        | 0                            |             |               | white sandy gravel  | GP      |             |              |         |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 2             | uniform light brown sand                                      | SW      |             |              | 0.7     |                      |                  |              |                  |       |               |
|                        | 6                            |             |               | large white gravel and rock (concrete)                        |         |             |              |         |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 4             | black sand with some odor                                     | SP      |             |              | 2.2     |                      |                  |              |                  |       |               |
|                        | 6                            |             |               | gray gravel seam  | GP      |             |              |         |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 6             | uniform light brown sand                                      | SW      |             |              | 0.8     |                      |                  |              |                  |       |               |
|                        | 12                           |             |               | white gravel  | GW      |             |              |         |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 8             | uniform light brown sand, wet                                 |         |             |              | 1.0     |                      |                  |              |                  |       |               |
|                        | 12                           |             |               |   | SW      |             |              | 2.7     |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 10            | black sand, slight odor                                       | SW      |             |              | 1.2     |                      |                  |              |                  |       |               |
|                        | 12                           |             |               | light brown gravelly sand, slight odor                        |         |             |              |         |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 12            |   | SP      |             |              | 1.2     |                      |                  |              |                  |       |               |
|                        | 12                           |             |               |   |         |             |              |         |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 14            | black sand, odor  |         |             |              | 7.5     |                      |                  |              |                  |       |               |
|                        | 12                           |             |               |   | SP      |             |              |         |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 16            |   |         |             |              |         |                      |                  |              |                  |       |               |
|                        | 12                           |             |               |   |         |             |              |         |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 18            |   |         |             |              |         |                      |                  |              |                  |       |               |
|                        | 12                           |             |               |   |         |             |              |         |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 20            |   |         |             |              |         |                      |                  |              |                  |       |               |
|                        | 12                           |             |               |   |         |             |              |         |                      |                  |              |                  |       |               |

groundwater at 17 feet

END OF BORING

I hereby certify that the information on this form is true and correct to the best of my knowledge.

|                                |  |                          |
|--------------------------------|--|--------------------------|
| Signature<br><i>Rachel Bay</i> | Firm<br>Kapur & Associates, Inc.<br>7711 N. Port Washington Rd 53217 | Tel 414-751-7200<br>Fax: |
|--------------------------------|--|--------------------------|

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.



Route To: Watershed/Wastewater ☐ Waste Management ☐  
Remediation/Redevelopment ☒ Other ☐

Page 1 of 1

|   |  |   |  |  |  |
|---|--|---|--|--|--|
| Facility/Project Name<br>Harwood Avenue   |  | License/Permit/Monitoring Number                              |  | Boring Number<br>B3  |  |
| Boring Drilled By: Name of crew chief (first, last) and Firm<br>Dan Fischer<br>Horizon Construction and Exploration                                 |  | Date Drilling Started<br>2/16/2016                            |  | Date Drilling Completed<br>2/16/2016   |  |
| Drilling Method<br>GeoProbe   |  | Final Static Water Level<br>655.7 Feet MSL                    |  | Surface Elevation<br>672.7 Feet MSL  |  |
| Borehole Diameter<br>1.0 inches   |  | Common Well Name  |  | DNR Well ID No.  |  |
| Local Grid Origin <input checked="" type="checkbox"/> (estimated: <input checked="" type="checkbox"/> ) or Boring Location <input type="checkbox"/> |  | State Plane<br>N, E <input checked="" type="checkbox"/> S/C/N |  | Lat 43° 2' 59.2"   |  |
| NE 1/4 of SE 1/4 of Section 21, T 7 N, R 21 E   |  | Long 88° 0' 28.0"   |  | Feet <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W |  |
| Facility ID<br>341270710  |  | County<br>Milwaukee   |  | County Code<br>41  |  |
| Civil Town/City/ or Village<br>Wauwatosa  |  |   |  |  |  |

| Sample             |                                 |                         | Blow Counts | Depth In Feet | Soil/Rock Description<br>And Geologic Origin For<br>Each Major Unit          | U S C S | Graphic<br>Log | Well<br>Diagram | PID/FID | Soil Properties     |                 |                     |       |  | RQD/<br>Comments |                        |
|--------------------|---------------------------------|-------------------------|-------------|---------------|--|---------|----------------|-----------------|---------|---------------------|-----------------|---------------------|-------|--|------------------|------------------------|
| Number<br>and Type | Length Att. &<br>Recovered (in) | Compressive<br>Strength |             |               |  |         |                |                 |         | Moisture<br>Content | Liquid<br>Limit | Plasticity<br>Index | P 200 |  |                  |                        |
| GS                 | 24<br>12                        |                         |             |               | asphalt  |         |                |                 | 0       |                     |                 |                     |       |  |                  |                        |
| GS                 | 24<br>24                        |                         | 2           |               | dark and light brown mixed sand with some debris (plastic) and gravel, moist | SP      |                |                 | 1.2     |                     |                 |                     |       |  |                  |                        |
| GS                 | 24<br>12                        |                         | 4           |               |  |         |                |                 | 0.6     |                     |                 |                     |       |  |                  |                        |
| GS                 | 24<br>12                        |                         | 6           |               | wet, black and brown sand with some gravel, slight odor                      | SP      |                |                 | 0.8     |                     |                 |                     |       |  |                  |                        |
| GS                 | 24<br>12                        |                         | 8           |               | uniform light brown sand   | SW      |                |                 | 1.3     |                     |                 |                     |       |  |                  |                        |
| GS                 | 24<br>24                        |                         | 10          |               | uniform light brown sand, wet  | SW      |                |                 | 0.5     |                     |                 |                     |       |  |                  |                        |
| GS                 | 24<br>12                        |                         | 12          |               | wet gravel seam with some sand   | GP      |                |                 | 1.3     |                     |                 |                     |       |  |                  |                        |
| GS                 | 24<br>24                        |                         | 14          |               | gravelly sand, light brown and red, slight odor                              |         |                |                 | 0.5     |                     |                 |                     |       |  |                  |                        |
| GS                 | 24<br>24                        |                         | 16          |               |  | SP      |                |                 | 0.5     |                     |                 |                     |       |  |                  |                        |
| GS                 | 24                              |                         | 18          |               |  |         |                |                 |         |                     |                 |                     |       |  |                  |                        |
| GS                 |                                 |                         | 20          |               |  |         |                |                 |         |                     |                 |                     |       |  |                  | groundwater at 17 feet |
|                    |                                 |                         |             |               |  |         |                |                 |         |                     |                 |                     |       |  |                  | END OF BORING          |

I hereby certify that the information on this form is true and correct to the best of my knowledge.

|                                  |  |                           |
|----------------------------------|--|---------------------------|
| Signature<br><i>Rachel Beyer</i> | Firm<br>Kapur & Associates, Inc.<br>7711 N. Port Washington Rd 53217 | Tel: 414-751-7200<br>Fax: |
|----------------------------------|--|---------------------------|

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Route To: Watershed/Wastewater ☐ Waste Management ☐  
Remediation/Redevelopment ☒ Other ☐

Page 1 of 1

|  |  |   |  |   |  |
|--|--|---|--|---|--|
| Facility/Project Name<br><b>Harwood Avenue</b>   |  | License/Permit/Monitoring Number                  |  | Boring Number<br><b>B4</b>                  |  |
| Boring Drilled By: Name of crew chief (first, last) and Firm<br><b>Dan Fischer<br/>Horizon Construction and Exploration</b>                        |  | Date Drilling Started<br><b>2/16/2016</b>         |  | Date Drilling Completed<br><b>2/16/2016</b> |  |
| Well Unique Well No.   |  | DNR Well ID No.                                   |  | Common Well Name                            |  |
|  |  |   |  | <b>MW-3</b>                                 |  |
| Local Grid Origin <input checked="" type="checkbox"/> (estimated <input checked="" type="checkbox"/> ) or Boring Location <input type="checkbox"/> |  | Final Static Water Level<br><b>655.7 Feet MSL</b> |  | Surface Elevation<br><b>672.7 Feet MSL</b>  |  |
| State Plane<br><b>NE 1/4 of SE 1/4 of Section 21, T 7 N, R 21 E</b>  |  | Lat <b>43° 2' 59.2"</b>                           |  | Longitude <b>88° 0' 28.0"</b>               |  |
| Facility ID<br><b>341270710</b>  |  | County<br><b>Milwaukee</b>                        |  | County Code<br><b>41</b>                    |  |
|  |  | Civil Town/City/ or Village<br><b>Wauwatosa</b>   |  |   |  |

| Sample Number and Type | Length Att. & Recovered (in) | Blow Counts | Depth In Feet | Soil/Rock Description And Geologic Origin For Each Major Unit | U S C S | Graphic Log | Well Diagram | PID/FID | Soil Properties      |                  |              |                  |       | RQD/ Comments |
|------------------------|------------------------------|-------------|---------------|---|---------|-------------|--------------|---------|----------------------|------------------|--------------|------------------|-------|---------------|
|                        |                              |             |               |   |         |             |              |         | Compressive Strength | Moisture Content | Liquid Limit | Plasticity Index | P 200 |               |
| GS                     | 24                           |             | 0             | asphalt   |         |             |              | 0       |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 2             | uniform light brown sand                                      | SW      |             |              | 1.5     |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 4             | dark brown wet clay   | CL      |             |              | 0.7     |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 6             | uniform dark brown sand                                       | SW      |             |              | 1.3     |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 8             | uniform light brown sand                                      | SP      |             |              | 0.9     |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 10            | sand seam, black odor   |         |             |              | 0.9     |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 12            | uniform light brown sand, odor                                |         |             |              | 20.8    |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 14            |   |         |             |              |         |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 16            | gravelly sand, odor, light brown                              | SP      |             |              |         |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 18            |   |         |             |              |         |                      |                  |              |                  |       |               |
| GS                     | 24                           |             | 20            |   |         |             |              |         |                      |                  |              |                  |       |               |

groundwater at 17 feet

END OF BORING

I hereby certify that the information on this form is true and correct to the best of my knowledge.

|                                |   |                           |
|--------------------------------|---|---------------------------|
| Signature<br><i>Rachel Bay</i> | Firm<br><b>Kapur &amp; Associates, Inc.</b><br>7711 N. Port Washington Rd 53217 | Tel: 414-751-7200<br>Fax: |
|--------------------------------|---|---------------------------|

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Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Route to:

☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other

| 1. General Information   |     |                 |          | 2. Facility / Owner Information  |                                 |                               |                         |
|--|-----|-----------------|----------|--|---------------------------------|-------------------------------|-------------------------|
| WI Unique Well No.   |     | DNR Well ID No. |          | County   |                                 | Facility Name                 |                         |
|  |     |                 |          | Milwaukee  |                                 | Harwood Ave. Tosa             |                         |
| Common Well Name   |     |                 |          | Gov't Lot # (if applicable)  |                                 | License/Permit/Monitoring No. |                         |
| B3   |     |                 |          |  |                                 | 341270710                     |                         |
| 1/4  | 1/4 | Section         | Township | Range  | Street Address of Well          |                               |                         |
| NE   | SE  | 21              | 7 N      | 21   | 7610 Harwood Ave, Wauwatosa, WI |                               |                         |
|  |     |                 |          |  | City, Village, or Town          |                               |                         |
|  |     |                 |          |  | Wauwatosa                       |                               |                         |
| Well Location <input type="checkbox"/> ft / <input type="checkbox"/> m (Local Grid <input checked="" type="checkbox"/> )   |     |                 |          | Datum  |                                 |                               |                         |
| <input type="checkbox"/> N / <input type="checkbox"/> S  |     |                 |          | <input type="checkbox"/> E / <input type="checkbox"/> W  |                                 |                               |                         |
|  |     |                 |          | Zone   |                                 |                               |                         |
| WTM- <input type="checkbox"/> UTM- <input type="checkbox"/> Latitude/Longitude - <input type="checkbox"/> State Plane- <input type="checkbox"/> <input type="checkbox"/> S <input type="checkbox"/> C <input type="checkbox"/> N |     |                 |          | Street Address or Route of Present Owner   |                                 |                               |                         |
| Local Grid Origin <input type="checkbox"/> ft / <input type="checkbox"/> m   |     |                 |          | Datum  |                                 |                               |                         |
| N  |     |                 |          | <input type="checkbox"/> E / <input type="checkbox"/> W  |                                 |                               |                         |
|  |     |                 |          | Zone   |                                 |                               |                         |
| WTM- <input type="checkbox"/> UTM- <input type="checkbox"/> Latitude/Longitude - <input type="checkbox"/> State Plane- <input type="checkbox"/> <input type="checkbox"/> S <input type="checkbox"/> C <input type="checkbox"/> N |     |                 |          | City   |                                 |                               |                         |
|  |     |                 |          | State  |                                 | Zip Code                      |                         |
|  |     |                 |          |  |                                 |                               |                         |
| 4. Pump, Liner, Screen, Casing & Sealing Material  |     |                 |          |  |                                 |                               |                         |
| Reason For Abandonment   |     |                 |          | WI Unique Well No. of Replacement Well   |                                 |                               |                         |
| Soil Borings Complete  |     |                 |          |  |                                 |                               |                         |
| <input type="checkbox"/> Monitoring Well<br><input type="checkbox"/> Water Well<br><input type="checkbox"/> Drillhole / Borehole   |     |                 |          | Original Construction Date   |                                 |                               |                         |
|  |     |                 |          | If a Well Construction Report is available, please attach.   |                                 |                               |                         |
| Construction Type:   |     |                 |          | Required Method of Placing Sealing Material  |                                 |                               |                         |
| <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug   |     |                 |          | <input type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped   |                                 |                               |                         |
| <input type="checkbox"/> Other (Specify) _____   |     |                 |          | <input checked="" type="checkbox"/> Screened & Poured <input type="checkbox"/> Other (Explain)   |                                 |                               |                         |
|  |     |                 |          | (Bentonite Chips)  |                                 |                               |                         |
| Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock  |     |                 |          | Sealing Materials  |                                 |                               |                         |
| Total Well Depth From Groundsurface (ft.)  |     |                 |          | Casing Diameter (in.)  |                                 |                               |                         |
| Lower Drillhole Diameter (in.)   |     |                 |          | Casing Depth (ft.)   |                                 |                               |                         |
| 1.0  |     |                 |          |  |                                 |                               |                         |
| Was Well Annular Space Grouted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown   |     |                 |          | <input type="checkbox"/> Neat Cement Grout<br><input type="checkbox"/> Sand-Cement (Concrete) Grout<br><input type="checkbox"/> Concrete<br><input type="checkbox"/> Clay-Sand Slurry<br><input type="checkbox"/> Bentonite-Sand Slurry<br><input checked="" type="checkbox"/> Chipped Bentonite |                                 |                               |                         |
| If yes, to what depth (feet)?  |     |                 |          | Depth to Water (Feet)  |                                 |                               |                         |
|  |     |                 |          | 17.0   |                                 |                               |                         |
| 5. Material Used To Fill Well / Drillhole<br>Bentonite   |     |                 |          | From (Ft.)   | To (Ft.)                        | Cubic Feet                    | Mix Ratio or Mud Weight |
|  |     |                 |          | Surface  | 15.0                            | 0.409                         |                         |
|  |     |                 |          |  |                                 |                               |                         |
|  |     |                 |          |  |                                 |                               |                         |
| 6. Comments  |     |                 |          |  |                                 |                               |                         |
|  |     |                 |          |  |                                 |                               |                         |

7. Supervision of Work

| 7. Supervision of Work                    |       |                     |                                | DNR Use Only  |          |
|---|-------|---------------------|--------------------------------|---------------|----------|
| Name of Person or Firm Doing Sealing Work |       | Date of Abandonment |                                | Date Received | Noted By |
| Horizon Construction                      |       | 2/16/16             |                                |               |          |
| Street or Route                           |       | Telephone Number    |                                | Comments      |          |
| 764 Tower Drive                           |       | 2623772896          |                                |               |          |
| City                                      | State | Zip Code            | Signature of Person Doing Work | Date Signed   |          |
| Fredonia                                  | WI    | 53021               | <i>Rachel Bay</i>              | 4/8/16        |          |



**WELL CONSTRUCTION &  
DEVELOPMENT FORMS**

Route To:

Watershed/Wastewater ☐  
Remediation/Redevelopment ☒Waste Management ☐  
Other ☐MONITORING WELL CONSTRUCTION  
Form 4400-113A Rev. 7-98

|  |  |   |
|--|--|---|
| Facility/Project Name<br>Harwood Avenue    | Local Grid Location of Well<br>ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.   | Well Name<br>MW-1   |
| Facility License, Permit or Monitoring No. | Local Grid Origin <input checked="" type="checkbox"/> (estimated: <input checked="" type="checkbox"/> ) or Well Location <input type="checkbox"/><br>Lat. 43° 2' 59.2" Long. 88° 0' 28.0" or               | Wis. Unique Well No. DNR Well Number                      |
| Facility ID<br>341270710                   | St. Plane _____ ft. N. _____ ft. E. <input checked="" type="checkbox"/> C/N  | Date Well Installed<br>02/16/2016                         |
| Type of Well<br>Well Code 11/mw            | Section Location of Waste/Source<br>NE 1/4 of SE 1/4 of Sec. 21 T. 7 N. R. 21 <input checked="" type="checkbox"/> E <input type="checkbox"/> W   | Well Installed By (Person's Name and Firm)<br>Dan Fischer |
| Distance from Waste/Source<br>ft. _____    | Location of Well Relative to Waste/Source<br>u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient<br>d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known | Horizon Construction and Exploration                      |

|   |   |
|---|---|
| A. Protective pipe, top elevation<br>672.85 ft. MSL   | 1. Cap and lock? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |
| B. Well casing, top elevation<br>672.84 ft. MSL   | 2. Protective cover pipe:<br>a. Inside diameter: 8.0 in.<br>b. Length: 0.5 ft.<br>c. Material: Steel <input type="checkbox"/> 0.4 PVC <input checked="" type="checkbox"/> Other <input type="checkbox"/>  |
| C. Land surface elevation<br>672.6 ft. MSL  | d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>If yes, describe: _____  |
| D. Surface seal, bottom _____ ft. MSL or _____ ft.  | 3. Surface seal: Bentonite <input checked="" type="checkbox"/> 3.0 Concrete <input type="checkbox"/> 0.1 Other <input type="checkbox"/>   |
| 12. USCS classification of soil near screen:<br>GP <input checked="" type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input checked="" type="checkbox"/><br>SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/><br>Bedrock <input type="checkbox"/> | 4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 3.0 Other <input type="checkbox"/>   |
| 13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  | 5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 3.3<br>b. _____ Lbs/gal mud weight Bentonite-sand slurry <input type="checkbox"/> 3.5<br>c. _____ Lbs/gal mud weight Bentonite slurry <input type="checkbox"/> 3.1<br>d. _____ % Bentonite Bentonite-cement grout <input type="checkbox"/> 5.0<br>e. _____ Ft <sup>3</sup> volume added for any of the above<br>f. How installed: Tremie <input type="checkbox"/> 0.1 Tremie pumped <input type="checkbox"/> 0.2 Gravity <input checked="" type="checkbox"/> 0.8 |
| 14. Drilling method used: Rotary <input type="checkbox"/> 5.0<br>Hollow Stem Auger <input checked="" type="checkbox"/> 4.1<br>Other <input type="checkbox"/>  | 6. Bentonite seal: a. Bentonite granules <input checked="" type="checkbox"/> 3.3<br>b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input type="checkbox"/> 3.2<br>c. _____ Other <input type="checkbox"/>   |
| 15. Drilling fluid used: Water <input type="checkbox"/> 0.2 Air <input type="checkbox"/> 0.1<br>Drilling Mud <input type="checkbox"/> 0.3 None <input checked="" type="checkbox"/> 9.9  | 7. Fine sand material: Manufacturer, product name & mesh size<br>a. R.W. Siltley #4000<br>b. Volume added 0.409 ft <sup>3</sup>   |
| 16. Drilling additives used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Describe _____ None   | 8. Filter pack material: Manufacturer, product name & mesh size<br>a. R.W. Siltley 10/20<br>b. Volume added 0.912 ft <sup>3</sup>   |
| 17. Source of water (attach analysis, if required):   | 9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2.3<br>Flush threaded PVC schedule 80 <input type="checkbox"/> 2.4<br>Other <input type="checkbox"/>   |
| E. Bentonite seal, top 672.6 ft. MSL or 0.0 ft.   | 10. Screen material: PVC<br>a. Screen Type: Factory cut <input checked="" type="checkbox"/> 1.1<br>Continuous slot <input type="checkbox"/> 0.1<br>Other <input type="checkbox"/>   |
| F. Fine sand, top 671.6 ft. MSL or 1.0 ft.  | b. Manufacturer Monoflex<br>c. Slot size: 0.010 in.<br>d. Slotted length: 10.0 ft.  |
| G. Filter pack, top 670.6 ft. MSL or 2.0 ft.  | 11. Backfill material (below filter pack): None <input type="checkbox"/> 1.4<br>Other <input checked="" type="checkbox"/>   |
| H. Screen joint, top 662.6 ft. MSL or 10.0 ft.  |   |
| I. Well bottom 652.6 ft. MSL or 20.0 ft.  |   |
| J. Filter pack, bottom 652.6 ft. MSL or 20.0 ft.  |   |
| K. Borehole, bottom 652.6 ft. MSL or 20.0 ft.   |   |
| L. Borehole, diameter 1.0 in.   |   |
| M. O.D. well casing 2.25 in.  |   |
| N. I.D. well casing 1.00 in.  |   |

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm

Kapur & Associates, Inc.  
7711 N. Port Washington Rd 53217

Tel: 414-751-7200

Fax:

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Route To:

Watershed/Wastewater ☐  
Remediation/Redevelopment ☒Waste Management ☐  
Other ☐

## MONITORING WELL CONSTRUCTION

Form 4400-113A

Rev. 7-98

|  |  |  |                   |
|--|--|--|-------------------|
| Facility/Project Name<br>Harwood Avenue    | Local Grid Location of Well<br>_____ ft. <input type="checkbox"/> N _____ ft. <input type="checkbox"/> E<br>_____ ft. <input type="checkbox"/> S _____ ft. <input type="checkbox"/> W                      |  | Well Name<br>MW-2 |
| Facility License, Permit or Monitoring No. | Local Grid Origin <input checked="" type="checkbox"/> (estimated: <input checked="" type="checkbox"/> ) or Well Location <input type="checkbox"/>  | Wis. Unique Well No. DNR Well Number                       |                   |
| Facility ID<br>341270710                   | Lat. 43° 2' 59.2" Long. 88° 0' 28.0" or  | Date Well Installed<br>02/16/2016                          |                   |
| Type of Well<br>Well Code 11/mw            | St. Plane _____ ft. N, _____ ft. E. <input checked="" type="checkbox"/> S/C/N  | Well Installed By: (Person's Name and Firm)<br>Dan Fischer |                   |
| Distance from Waste/Source<br>ft.          | Section Location of Waste/Source<br>NE 1/4 of SE 1/4 of Sec. 21 T. 7 N. R. 21 <input checked="" type="checkbox"/> E <input type="checkbox"/> W   | Horizon Construction and Exploration                       |                   |
| Enf. Stds. Apply <input type="checkbox"/>  | Location of Well Relative to Waste/Source<br>u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient<br>d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known | Gov. Lot Number  |                   |

|  |   |
|--|---|
| A. Protective pipe, top elevation<br>672.50 ft. MSL  | 1. Cap and lock? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |
| B. Well casing, top elevation<br>672.49 ft. MSL  | 2. Protective cover pipe:<br>a. Inside diameter: 8.0 in.<br>b. Length: 0.5 ft.<br>c. Material: PVC Steel <input type="checkbox"/> 0.4<br>Other <input checked="" type="checkbox"/>  |
| C. Land surface elevation<br>672.2 ft. MSL   | d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>If yes, describe: _____  |
| D. Surface seal, bottom _____ ft. MSL or _____ ft.   | 3. Surface seal: Bentonite <input checked="" type="checkbox"/> 3.0<br>Concrete <input type="checkbox"/> 0.1<br>Other <input type="checkbox"/>   |
| 12. USCS classification of soil near screen:<br>GP <input checked="" type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input checked="" type="checkbox"/><br>SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/><br>Bedrock <input type="checkbox"/> | 4. Material between well casing and protective pipe:<br>Bentonite <input checked="" type="checkbox"/> 3.0<br>Other <input type="checkbox"/>   |
| 13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   | 5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 3.3<br>b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3.5<br>c. _____ Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3.1<br>d. _____ % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 5.0<br>e. _____ Ft <sup>3</sup> volume added for any of the above |
| 14. Drilling method used: Rotary <input type="checkbox"/> 5.0<br>Hollow Stem Auger <input checked="" type="checkbox"/> 4.1<br>Other <input type="checkbox"/>   | f. How installed: Tremie <input type="checkbox"/> 0.1<br>Tremie pumped <input type="checkbox"/> 0.2<br>Gravity <input checked="" type="checkbox"/> 0.8  |
| 15. Drilling fluid used: Water <input type="checkbox"/> 0.2 Air <input type="checkbox"/> 0.1<br>Drilling Mud <input type="checkbox"/> 0.3 None <input checked="" type="checkbox"/> 9.9   | 6. Bentonite seal: a. Bentonite granules <input checked="" type="checkbox"/> 3.3<br>b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input type="checkbox"/> 3.2<br>c. _____ Other <input type="checkbox"/>   |
| 16. Drilling additives used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   | 7. Fine sand material: Manufacturer, product name & mesh size<br>a. R.W. Siltley #4000<br>b. Volume added 0.409 ft <sup>3</sup>   |
| Describe _____ None  | 8. Filter pack material: Manufacturer, product name & mesh size<br>a. R.W. Siltley 10/20<br>b. Volume added 0.912 ft <sup>3</sup>   |
| 17. Source of water (attach analysis, if required)   | 9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2.3<br>Flush threaded PVC schedule 80 <input type="checkbox"/> 2.4<br>Other <input type="checkbox"/>   |
| E. Bentonite seal, top 672.2 ft. MSL or 0.0 ft.  | 10. Screen material: PVC<br>a. Screen Type: Factory cut <input checked="" type="checkbox"/> 1.1<br>Continuous slot <input type="checkbox"/> 0.1<br>Other <input type="checkbox"/>   |
| F. Fine sand, top 671.2 ft. MSL or 1.0 ft.   | b. Manufacturer Monoflex<br>c. Slot size: 0.010 in.<br>d. Slotted length: 10.0 ft.  |
| G. Filter pack, top 670.2 ft. MSL or 2.0 ft.   | 11. Backfill material (below filter pack): None <input type="checkbox"/> 1.4<br>Other <input checked="" type="checkbox"/>   |
| H. Screen joint, top 662.2 ft. MSL or 10.0 ft.   |   |
| I. Well bottom 652.2 ft. MSL or 20.0 ft.   |   |
| J. Filter pack, bottom 652.2 ft. MSL or 20.0 ft.   |   |
| K. Borehole, bottom 652.2 ft. MSL or 20.0 ft.  |   |
| L. Borehole, diameter 1.0 in.  |   |
| M. O.D. well casing 2.25 in.   |   |
| N. I.D. well casing 1.00 in.   |   |

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

*Robert Kapur*

Firm

Kapur & Associates, Inc.  
7711 N. Port Washington Rd 53217

Tel: 414-751-7200

Fax:

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.



Route To:

Watershed/Wastewater ☐  
Remediation/Redevelopment ☒Waste Management ☐  
Other ☐MONITORING WELL CONSTRUCTION  
Form 4400-113A Rev. 7-98

|  |  |  |                                      |
|--|--|--|--------------------------------------|
| Facility/Project Name<br>Harwood Avenue    | Local Grid Location of Well<br>ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.   |  | Well Name<br>MW-3                    |
| Facility License, Permit or Monitoring No. | Local Grid Origin <input checked="" type="checkbox"/> (estimated: <input checked="" type="checkbox"/> ) or Well Location <input type="checkbox"/>  | Lat. 43° 2' 59.2" Long. 88° 0' 28.0" or                    | Wis. Unique Well No. DNR Well Number |
| Facility ID<br>341270710                   | St. Plane _____ ft. N. _____ ft. E. <input checked="" type="checkbox"/> S/C/N  | Date Well Installed<br>02/16/2016                          |                                      |
| Type of Well<br>Well Code 11/mw            | Section Location of Waste/Source<br>NE 1/4 of SE 1/4 of Sec. 21 T. 7 N. R. 21 <input checked="" type="checkbox"/> E <input type="checkbox"/> W   | Well Installed By: (Person's Name and Firm)<br>Dan Fischer |                                      |
| Distance from Waste/Source<br>ft.          | Location of Well Relative to Waste/Source<br>u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient<br>d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known | Gov. Lot Number  | Horizon Construction and Exploration |

A. Protective pipe, top elevation \_\_\_\_\_ 672.95 ft. MSL

B. Well casing, top elevation \_\_\_\_\_ 672.94 ft. MSL

C. Land surface elevation \_\_\_\_\_ 672.7 ft. MSL

D. Surface seal, bottom \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.

12. USCS classification of soil near screen:

GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP ☒  
SM ☐ SC ☐ ML ☐ MH ☐ CL ☒ CH ☐  
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5 0  
Hollow Stem Auger ☒ 4 1  
Other ☐

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1  
Drilling Mud ☐ 0 3 None ☒ 9 9

16. Drilling additives used? ☒ Yes ☐ No

Describe \_\_\_\_\_ None

17. Source of water (attach analysis, if required):

E. Bentonite seal, top \_\_\_\_\_ 672.7 ft. MSL or \_\_\_\_\_ 0.0 ft.

F. Fine sand, top \_\_\_\_\_ 671.7 ft. MSL or \_\_\_\_\_ 1.0 ft.

G. Filter pack, top \_\_\_\_\_ 670.7 ft. MSL or \_\_\_\_\_ 2.0 ft.

H. Screen joint, top \_\_\_\_\_ 662.7 ft. MSL or \_\_\_\_\_ 10.0 ft.

I. Well bottom \_\_\_\_\_ 652.7 ft. MSL or \_\_\_\_\_ 20.0 ft.

J. Filter pack, bottom \_\_\_\_\_ 652.7 ft. MSL or \_\_\_\_\_ 20.0 ft.

K. Borehole, bottom \_\_\_\_\_ 652.7 ft. MSL or \_\_\_\_\_ 20.0 ft.

L. Borehole, diameter \_\_\_\_\_ 1.0 in.

M. O.D. well casing \_\_\_\_\_ 2.25 in.

N. I.D. well casing \_\_\_\_\_ 1.00 in.

1. Cap and lock? ☐ Yes ☒ No

2. Protective cover pipe:  
a. Inside diameter: \_\_\_\_\_ 8.0 in.  
b. Length: \_\_\_\_\_ 0.5 ft.  
c. Material: \_\_\_\_\_ PVC Steel ☐ 0 4  
Other ☒

d. Additional protection? ☐ Yes ☒ No  
If yes, describe: \_\_\_\_\_

3. Surface seal: Bentonite ☒ 3 0  
Concrete ☐ 0 1  
Other ☐

4. Material between well casing and protective pipe: Bentonite ☒ 3 0  
Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 3 3  
b. \_\_\_\_\_ Lbs/gal mud weight ... Bentonite-sand slurry ☐ 3 5  
c. \_\_\_\_\_ Lbs/gal mud weight ... Bentonite slurry ☐ 3 1  
d. \_\_\_\_\_ % Bentonite ... Bentonite-cement grout ☐ 5 0  
e. \_\_\_\_\_ Ft<sup>3</sup> volume added for any of the above  
f. How installed: Tremie ☐ 0 1  
Tremie pumped ☐ 0 2  
Gravity ☒ 0 8

6. Bentonite seal: a. Bentonite granules ☒ 3 3  
b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3 2  
c. \_\_\_\_\_ Other ☐

7. Fine sand material: Manufacturer, product name & mesh size  
a. \_\_\_\_\_ R.W. Siltley #4000  
b. Volume added \_\_\_\_\_ 0.409 ft<sup>3</sup>

8. Filter pack material: Manufacturer, product name & mesh size  
a. \_\_\_\_\_ R.W. Siltley 10/20  
b. Volume added \_\_\_\_\_ 0.912 ft<sup>3</sup>

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3  
Flush threaded PVC schedule 80 ☐ 2 4  
Other ☐

10. Screen material: \_\_\_\_\_ PVC  
a. Screen Type: Factory cut ☒ 1 1  
Continuous slot ☐ 0 1  
Other ☐

b. Manufacturer \_\_\_\_\_ Monoflex  
c. Slot size: \_\_\_\_\_ 0.010 in.  
d. Slotted length: \_\_\_\_\_ 10.0 ft.

11. Backfill material (below filter pack): None ☐ 1 4  
Other ☒

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature *David M. Bay*

Firm Kapur & Associates, Inc.  
7711 N. Port Washington Rd 53217

Tel: 414-751-7200


Fax:

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Waste Management ☐  
Other ☐

|   |   |  |  |
|---|---|--|--|
| 1. Can this well be purged dry?                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |  |  |
| 2. Well development method:                       |   |  |  |
| surged with bailer and bailed                     | <input type="checkbox"/> 4 1  |  |  |
| surged with bailer and pumped                     | <input type="checkbox"/> 6 1  |  |  |
| surged with block and bailed                      | <input type="checkbox"/> 4 2  |  |  |
| surged with block and pumped                      | <input type="checkbox"/> 6 2  |  |  |
| surged with block, bailed, and pumped             | <input type="checkbox"/> 7 0  |  |  |
| compressed air                                    | <input type="checkbox"/> 2 0  |  |  |
| bailed only                                       | <input type="checkbox"/> 1 0  |  |  |
| pumped only                                       | <input type="checkbox"/> 5 1  |  |  |
| pumped slowly                                     | <input checked="" type="checkbox"/> 5 0                             |  |  |
| other _____                                       | <input type="checkbox"/> --   |  |  |
| 3. Time spent developing well                     | 30 min.   |  |  |
| 4. Depth of well (from top of well casing)        | 19.0 ft.  |  |  |
| 5. Inside diameter of well                        | 1.00 in.  |  |  |
| 6. Volume of water in filter pack and well casing | gal.  |  |  |
| 7. Volume of water removed from well              | 9.0 gal.  |  |  |
| 8. Volume of water added (if any)                 | gal.  |  |  |
| 9. Source of water added                          | _____   |  |  |
| 10. Analysis performed on water added?            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |  |  |
| (If yes, attach results)                          |   |  |  |
| 17. Additional comments on development:           |   |  |  |

|  | Before Development   | After Development  |
|--|--|--|
| 11. Depth to Water (from top of well casing)   | a. 16.00 ft.   | 15.80 ft.  |
| Date   | b. 2/29/2016   | 2/29/2016  |
| Time   | c. 12:15 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.                    | 12:45 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.                       |
| 12. Sediment in well bottom  | 10.0 inches  | 4.0 inches   |
| 13. Water clarity  | Clear <input type="checkbox"/> 1 0<br>Turbid <input checked="" type="checkbox"/> 1 5<br>(Describe) | Clear <input checked="" type="checkbox"/> 2 0<br>Turbid <input type="checkbox"/> 2 5<br>(Describe) |
| <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> |  |  |
| Fill in if drilling fluids were used and well is at solid waste facility:            |  |  |
| 14. Total suspended solids   | mg/l   | mg/l   |
| 15. COD  | mg/l   | mg/l   |
| 16. Well developed by: Person's Name and Firm  | Rachel Beyer<br>Kapur and Associates   |  |

|  |                     |  |  |
|--|---------------------|--|--|
| Name and Address of Facility Contact/Owner/Responsible Party |                     | I hereby certify that the above information is true and correct to the best of my knowledge. |  |
| Name:  |                     | Signature:   |  |
| Firm:  | Quatre Chiens, LLC  | Print Name:  | Rachel Beyer   |
| Street:  | 7610 W. Harwood Ave | Firm:  | Kapur & Associates, Inc.   |
| City/State/Zip:  | Wauwatosa, WI 53213 |  |  |

**NOTE:** See instructions for more information including a list of county codes and well type codes.


Route To: Watershed/Wastewater ☐ Waste Management ☐  
Remediation/Redevelopment ☒ Other ☐

|  |  |                            |  |
|--|--|----------------------------|--|
| Facility/Project Name<br><b>Harwood Avenue</b> |  | County<br><b>Milwaukee</b> | Well Name<br><b>MW-2</b>                   |
| Facility License, Permit or Monitoring Number  |  | County Code<br><b>41</b>   | Wis. Unique Well Number<br>DNR Well Number |

| <p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method:</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/> 4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/> 6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/> 4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/> 6 2</td></tr> <tr><td>surged with block, bailed, and pumped</td><td><input type="checkbox"/> 7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/> 2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/> 1 0</td></tr> <tr><td>pumped only</td><td><input type="checkbox"/> 5 1</td></tr> <tr><td>pumped slowly</td><td><input checked="" type="checkbox"/> 5 0</td></tr> <tr><td>other _____</td><td><input type="checkbox"/> _____</td></tr> </table> <p>3. Time spent developing well <b>40 min.</b></p> <p>4. Depth of well (from top of well casing) <b>19.2 ft.</b></p> <p>5. Inside diameter of well <b>1.00 in.</b></p> <p>6. Volume of water in filter pack and well casing _____ gal.</p> <p>7. Volume of water removed from well <b>7.0 gal.</b></p> <p>8. Volume of water added (if any) _____ gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br/>(If yes, attach results)</p> | surged with bailer and bailed  | <input type="checkbox"/> 4 1   | surged with bailer and pumped | <input type="checkbox"/> 6 1 | surged with block and bailed | <input type="checkbox"/> 4 2 | surged with block and pumped | <input type="checkbox"/> 6 2 | surged with block, bailed, and pumped | <input type="checkbox"/> 7 0 | compressed air | <input type="checkbox"/> 2 0 | bailed only | <input type="checkbox"/> 1 0 | pumped only | <input type="checkbox"/> 5 1 | pumped slowly | <input checked="" type="checkbox"/> 5 0 | other _____ | <input type="checkbox"/> _____ | <table style="width:100%;"> <tr> <th></th> <th style="text-align: center;">Before Development</th> <th style="text-align: center;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td>a. <b>15.45 ft.</b></td> <td><b>15.20 ft.</b></td> </tr> <tr> <td>Date</td> <td>b. <b>2/29/2016</b></td> <td><b>2/29/2016</b></td> </tr> <tr> <td>Time</td> <td>c. <b>12:45</b> <input checked="" type="checkbox"/> p.m.</td> <td><b>01:25</b> <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td><b>2.0 inches</b></td> <td><b>2.0 inches</b></td> </tr> <tr> <td>13. Water clarity</td> <td>Clear <input type="checkbox"/> 1 0<br/>Turbid <input checked="" type="checkbox"/> 1 5<br/>(Describe) _____</td> <td>Clear <input checked="" type="checkbox"/> 2 0<br/>Turbid <input type="checkbox"/> 2 5<br/>(Describe) _____</td> </tr> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <p>14. Total suspended solids _____ mg/l</p> <p>15. COD _____ mg/l</p> <p>16. Well developed by: Person's Name and Firm<br/><b>Rachel Beyer</b><br/><b>Kapur and Associates</b></p> |  | Before Development | After Development | 11. Depth to Water (from top of well casing) | a. <b>15.45 ft.</b> | <b>15.20 ft.</b> | Date | b. <b>2/29/2016</b> | <b>2/29/2016</b> | Time | c. <b>12:45</b> <input checked="" type="checkbox"/> p.m. | <b>01:25</b> <input checked="" type="checkbox"/> p.m. | 12. Sediment in well bottom | <b>2.0 inches</b> | <b>2.0 inches</b> | 13. Water clarity | Clear <input type="checkbox"/> 1 0<br>Turbid <input checked="" type="checkbox"/> 1 5<br>(Describe) _____ | Clear <input checked="" type="checkbox"/> 2 0<br>Turbid <input type="checkbox"/> 2 5<br>(Describe) _____ |
|---|--|--|-------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|---------------------------------------|------------------------------|----------------|------------------------------|-------------|------------------------------|-------------|------------------------------|---------------|---|-------------|--------------------------------|---|--|--------------------|-------------------|--|---------------------|------------------|------|---------------------|------------------|------|--|---|-----------------------------|-------------------|-------------------|-------------------|--|--|
| surged with bailer and bailed   | <input type="checkbox"/> 4 1   |  |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |
| surged with bailer and pumped   | <input type="checkbox"/> 6 1   |  |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |
| surged with block and bailed  | <input type="checkbox"/> 4 2   |  |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |
| surged with block and pumped  | <input type="checkbox"/> 6 2   |  |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |
| surged with block, bailed, and pumped   | <input type="checkbox"/> 7 0   |  |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |
| compressed air  | <input type="checkbox"/> 2 0   |  |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |
| bailed only   | <input type="checkbox"/> 1 0   |  |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |
| pumped only   | <input type="checkbox"/> 5 1   |  |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |
| pumped slowly   | <input checked="" type="checkbox"/> 5 0  |  |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |
| other _____   | <input type="checkbox"/> _____   |  |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |
|   | Before Development   | After Development  |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |
| 11. Depth to Water (from top of well casing)  | a. <b>15.45 ft.</b>  | <b>15.20 ft.</b>   |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |
| Date  | b. <b>2/29/2016</b>  | <b>2/29/2016</b>   |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |
| Time  | c. <b>12:45</b> <input checked="" type="checkbox"/> p.m.   | <b>01:25</b> <input checked="" type="checkbox"/> p.m.  |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |
| 12. Sediment in well bottom   | <b>2.0 inches</b>  | <b>2.0 inches</b>  |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |
| 13. Water clarity   | Clear <input type="checkbox"/> 1 0<br>Turbid <input checked="" type="checkbox"/> 1 5<br>(Describe) _____ | Clear <input checked="" type="checkbox"/> 2 0<br>Turbid <input type="checkbox"/> 2 5<br>(Describe) _____ |                               |                              |                              |                              |                              |                              |                                       |                              |                |                              |             |                              |             |                              |               |   |             |                                |   |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |

17. Additional comments on development:

|   |  |
|---|--|
| <p>Name and Address of Facility Contact/Owner/Responsible Party</p> <p>Name: _____</p> <p>Firm: <b>Quatre Chiens, LLC</b></p> <p>Street: <b>7610 W. Harwood Ave</b></p> <p>City/State/Zip: <b>Wauwatosa, WI 53213</b></p> | <p>I hereby certify that the above information is true and correct to the best of my knowledge.</p> <p>Signature: </p> <p>Print Name: <b>Rachel Beyer</b></p> <p>Firm: <b>Kapur &amp; Associates, Inc.</b></p> |
|---|--|

**NOTE:** See instructions for more information including a list of county codes and well type codes.



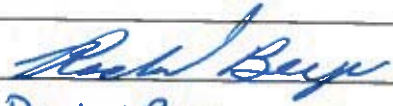
Route To: Watershed/Wastewater ☐ Waste Management ☐  
Remediation/Redevelopment ☒ Other ☐

|  |  |                            |  |
|--|--|----------------------------|--|
| Facility/Project Name<br><b>Harwood Avenue</b> |  | County<br><b>Milwaukee</b> | Well Name<br><b>MW-3</b>                   |
| Facility License, Permit or Monitoring Number  |  | County Code<br><b>41</b>   | Wis. Unique Well Number<br>DNR Well Number |

| <p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method:</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/> 41</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/> 61</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/> 42</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/> 62</td></tr> <tr><td>surged with block, bailed, and pumped</td><td><input type="checkbox"/> 70</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/> 20</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/> 10</td></tr> <tr><td>pumped only</td><td><input type="checkbox"/> 51</td></tr> <tr><td>pumped slowly</td><td><input checked="" type="checkbox"/> 50</td></tr> <tr><td>other</td><td><input type="checkbox"/> --</td></tr> </table> <p>3. Time spent developing well <b>30 min.</b></p> <p>4. Depth of well (from top of well casing) <b>19.5 ft.</b></p> <p>5. Inside diameter of well <b>1.00 in.</b></p> <p>6. Volume of water in filter pack and well casing <b>gal.</b></p> <p>7. Volume of water removed from well <b>5.0 gal.</b></p> <p>8. Volume of water added (if any) <b>gal.</b></p> <p>9. Source of water added</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br/>(If yes, attach results)</p> | surged with bailer and bailed  | <input type="checkbox"/> 41  | surged with bailer and pumped | <input type="checkbox"/> 61 | surged with block and bailed | <input type="checkbox"/> 42 | surged with block and pumped | <input type="checkbox"/> 62 | surged with block, bailed, and pumped | <input type="checkbox"/> 70 | compressed air | <input type="checkbox"/> 20 | bailed only | <input type="checkbox"/> 10 | pumped only | <input type="checkbox"/> 51 | pumped slowly | <input checked="" type="checkbox"/> 50 | other | <input type="checkbox"/> -- | <table style="width:100%;"> <tr> <th></th> <th style="text-align: center;">Before Development</th> <th style="text-align: center;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td>a. <b>15.90 ft.</b></td> <td><b>15.20 ft.</b></td> </tr> <tr> <td>Date</td> <td>b. <b>2/29/2016</b></td> <td><b>2/29/2016</b></td> </tr> <tr> <td>Time</td> <td>c. <b>11:15</b> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td><b>11:45</b> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td><b>8.0 inches</b></td> <td><b>4.0 inches</b></td> </tr> <tr> <td>13. Water clarity</td> <td>Clear <input type="checkbox"/> 10<br/>Turbid <input checked="" type="checkbox"/> 15<br/>(Describe)</td> <td>Clear <input checked="" type="checkbox"/> 20<br/>Turbid <input type="checkbox"/> 25<br/>(Describe)</td> </tr> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <table style="width:100%;"> <tr> <td>14. Total suspended solids</td> <td><b>mg/l</b></td> <td><b>mg/l</b></td> </tr> <tr> <td>15. COD</td> <td><b>mg/l</b></td> <td><b>mg/l</b></td> </tr> </table> <p>16. Well developed by: Person's Name and Firm<br/><b>Rachel Beyer</b><br/><b>Kapur and Associates</b></p> |  | Before Development | After Development | 11. Depth to Water (from top of well casing) | a. <b>15.90 ft.</b> | <b>15.20 ft.</b> | Date | b. <b>2/29/2016</b> | <b>2/29/2016</b> | Time | c. <b>11:15</b> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m. | <b>11:45</b> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m. | 12. Sediment in well bottom | <b>8.0 inches</b> | <b>4.0 inches</b> | 13. Water clarity | Clear <input type="checkbox"/> 10<br>Turbid <input checked="" type="checkbox"/> 15<br>(Describe) | Clear <input checked="" type="checkbox"/> 20<br>Turbid <input type="checkbox"/> 25<br>(Describe) | 14. Total suspended solids | <b>mg/l</b> | <b>mg/l</b> | 15. COD | <b>mg/l</b> | <b>mg/l</b> |
|---|--|--|-------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|---------------------------------------|-----------------------------|----------------|-----------------------------|-------------|-----------------------------|-------------|-----------------------------|---------------|--|-------|-----------------------------|--|--|--------------------|-------------------|--|---------------------|------------------|------|---------------------|------------------|------|--|---|-----------------------------|-------------------|-------------------|-------------------|--|--|----------------------------|-------------|-------------|---------|-------------|-------------|
| surged with bailer and bailed   | <input type="checkbox"/> 41  |  |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| surged with bailer and pumped   | <input type="checkbox"/> 61  |  |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| surged with block and bailed  | <input type="checkbox"/> 42  |  |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| surged with block and pumped  | <input type="checkbox"/> 62  |  |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| surged with block, bailed, and pumped   | <input type="checkbox"/> 70  |  |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| compressed air  | <input type="checkbox"/> 20  |  |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| bailed only   | <input type="checkbox"/> 10  |  |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| pumped only   | <input type="checkbox"/> 51  |  |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| pumped slowly   | <input checked="" type="checkbox"/> 50   |  |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| other   | <input type="checkbox"/> --  |  |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
|   | Before Development   | After Development  |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| 11. Depth to Water (from top of well casing)  | a. <b>15.90 ft.</b>  | <b>15.20 ft.</b>   |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| Date  | b. <b>2/29/2016</b>  | <b>2/29/2016</b>   |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| Time  | c. <b>11:15</b> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.           | <b>11:45</b> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.              |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| 12. Sediment in well bottom   | <b>8.0 inches</b>  | <b>4.0 inches</b>  |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| 13. Water clarity   | Clear <input type="checkbox"/> 10<br>Turbid <input checked="" type="checkbox"/> 15<br>(Describe) | Clear <input checked="" type="checkbox"/> 20<br>Turbid <input type="checkbox"/> 25<br>(Describe) |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| 14. Total suspended solids  | <b>mg/l</b>  | <b>mg/l</b>  |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |
| 15. COD   | <b>mg/l</b>  | <b>mg/l</b>  |                               |                             |                              |                             |                              |                             |                                       |                             |                |                             |             |                             |             |                             |               |  |       |                             |  |  |                    |                   |  |                     |                  |      |                     |                  |      |  |   |                             |                   |                   |                   |  |  |                            |             |             |         |             |             |

17. Additional comments on development:

|   |  |
|---|--|
| <p>Name and Address of Facility Contact/Owner/Responsible Party</p> <p>Name: _____</p> <p>Firm: <b>Quatre Chiens, LLC</b></p> <p>Street: <b>7610 W. Harwood Ave</b></p> <p>City/State/Zip: <b>Wauwatosa, WI 53213</b></p> | <p>I hereby certify that the above information is true and correct to the best of my knowledge.</p> <p>Signature: </p> <p>Print Name: <b>Rachel Beyer</b></p> <p>Firm: <b>Kapur &amp; Associates, Inc.</b></p> |
|---|--|

NOTE: See instructions for more information including a list of county codes and well type codes.

## **APPENDIX C**

### **LABORATORY ANALYTICAL REPORTS & CHAIN OF CUSTODY**

**SOIL**



March 04, 2016

Travis Peterson  
Kapur & Associates, Inc.  
7711 N. Port Washington Road  
Milwaukee, WI 53217

RE: Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

Dear Travis Peterson:

Enclosed are the analytical results for sample(s) received by the laboratory on February 18, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Christopher Hyska  
christopher.hyska@pacelabs.com  
Project Manager

Enclosures

cc: Kapur ALL, Kapur & Associates, Inc.  
Nicholas Connor, Kapur & Associates, Inc.  
Trish Hermann, Kapur & Associates, Inc.



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
Virginia VELAP ID: 460263  
North Dakota Certification #: R-150

South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Virginia VELAP Certification ID: 460263  
Virginia VELAP ID: 460263  
Wisconsin Certification #: 405132750  
Wisconsin DATCP Certification #: 105-444

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

| Lab ID      | Sample ID  | Matrix | Date Collected | Date Received  |
|-------------|------------|--------|----------------|----------------|
| 40128386001 | B1 (2-4)   | Solid  | 02/16/16 10:22 | 02/18/16 09:40 |
| 40128386002 | B1 (6-8)   | Solid  | 02/16/16 10:29 | 02/18/16 09:40 |
| 40128386003 | B1 (14-16) | Solid  | 02/16/16 10:40 | 02/18/16 09:40 |
| 40128386004 | B2 (2-4)   | Solid  | 02/16/16 11:07 | 02/18/16 09:40 |
| 40128386005 | B2 (10-12) | Solid  | 02/16/16 11:15 | 02/18/16 09:40 |
| 40128386006 | B2 (14-16) | Solid  | 02/16/16 11:19 | 02/18/16 09:40 |
| 40128386007 | B3 (2-4)   | Solid  | 02/16/16 11:43 | 02/18/16 09:40 |
| 40128386008 | B3 (10-12) | Solid  | 02/16/16 11:50 | 02/18/16 09:40 |
| 40128386009 | B3 (14-16) | Solid  | 02/16/16 11:54 | 02/18/16 09:40 |
| 40128386010 | B4 (2-4)   | Solid  | 02/16/16 12:19 | 02/18/16 09:40 |
| 40128386011 | B4 (10-12) | Solid  | 02/16/16 12:25 | 02/18/16 09:40 |
| 40128386012 | B4 (14-16) | Solid  | 02/16/16 12:25 | 02/18/16 09:40 |
| 40128386013 | TRIP       | Solid  | 02/16/16 12:30 | 02/18/16 09:40 |

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

| Lab ID      | Sample ID  | Method          | Analysts | Analytes Reported | Laboratory |
|-------------|------------|-----------------|----------|-------------------|------------|
| 40128386001 | B1 (2-4)   | EPA 6010        | DLB      | 7                 | PASI-G     |
|             |            | EPA 7471        | AJT      | 1                 | PASI-G     |
|             |            | EPA 8270 by SIM | ARO      | 20                | PASI-G     |
|             |            | EPA 8260        | SMT      | 64                | PASI-G     |
|             |            | ASTM D2974-87   | BTH      | 1                 | PASI-G     |
| 40128386002 | B1 (6-8)   | EPA 6010        | DLB      | 7                 | PASI-G     |
|             |            | EPA 7471        | AJT      | 1                 | PASI-G     |
|             |            | EPA 8270 by SIM | ARO      | 20                | PASI-G     |
|             |            | EPA 8260        | SMT      | 64                | PASI-G     |
|             |            | ASTM D2974-87   | BTH      | 1                 | PASI-G     |
| 40128386003 | B1 (14-16) | EPA 6010        | DLB      | 7                 | PASI-G     |
|             |            | EPA 7471        | AJT      | 1                 | PASI-G     |
|             |            | EPA 8270 by SIM | ARO      | 20                | PASI-G     |
|             |            | EPA 8260        | SMT      | 64                | PASI-G     |
|             |            | ASTM D2974-87   | BTH      | 1                 | PASI-G     |
| 40128386004 | B2 (2-4)   | EPA 6010        | DLB      | 7                 | PASI-G     |
|             |            | EPA 7471        | AJT      | 1                 | PASI-G     |
|             |            | EPA 8270 by SIM | ARO      | 20                | PASI-G     |
|             |            | EPA 8260        | SMT      | 64                | PASI-G     |
|             |            | ASTM D2974-87   | BTH      | 1                 | PASI-G     |
| 40128386005 | B2 (10-12) | EPA 6010        | DLB      | 7                 | PASI-G     |
|             |            | EPA 7471        | AJT      | 1                 | PASI-G     |
|             |            | EPA 8270 by SIM | ARO      | 20                | PASI-G     |
|             |            | EPA 8260        | SMT      | 64                | PASI-G     |
|             |            | ASTM D2974-87   | BTH      | 1                 | PASI-G     |
| 40128386006 | B2 (14-16) | EPA 6010        | DLB      | 7                 | PASI-G     |
|             |            | EPA 7471        | AJT      | 1                 | PASI-G     |
|             |            | EPA 8270 by SIM | ARO      | 20                | PASI-G     |
|             |            | EPA 8260        | SMT      | 64                | PASI-G     |
|             |            | ASTM D2974-87   | BTH      | 1                 | PASI-G     |
| 40128386007 | B3 (2-4)   | EPA 6010        | DLB      | 7                 | PASI-G     |
|             |            | EPA 7471        | AJT      | 1                 | PASI-G     |
|             |            | EPA 8270 by SIM | ARO      | 20                | PASI-G     |
|             |            | EPA 8260        | SMT      | 64                | PASI-G     |
|             |            | ASTM D2974-87   | BTH      | 1                 | PASI-G     |
| 40128386008 | B3 (10-12) | EPA 6010        | DLB      | 7                 | PASI-G     |
|             |            | EPA 7471        | AJT      | 1                 | PASI-G     |

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

| Lab ID      | Sample ID  | Method          | Analysts | Analytes Reported | Laboratory |
|-------------|------------|-----------------|----------|-------------------|------------|
| 40128386009 | B3 (14-16) | EPA 8270 by SIM | ARO      | 20                | PASI-G     |
|             |            | EPA 8260        | SMT      | 64                | PASI-G     |
|             |            | ASTM D2974-87   | BTH      | 1                 | PASI-G     |
|             |            | EPA 6010        | DLB      | 7                 | PASI-G     |
|             |            | EPA 7471        | AJT      | 1                 | PASI-G     |
|             |            | EPA 8270 by SIM | ARO      | 20                | PASI-G     |
| 40128386010 | B4 (2-4)   | EPA 8260        | SMT      | 64                | PASI-G     |
|             |            | ASTM D2974-87   | MAM      | 1                 | PASI-G     |
|             |            | EPA 6010        | DLB      | 7                 | PASI-G     |
|             |            | EPA 7471        | AJT      | 1                 | PASI-G     |
|             |            | EPA 8270 by SIM | ARO      | 20                | PASI-G     |
|             |            | EPA 8260        | SMT      | 64                | PASI-G     |
| 40128386011 | B4 (10-12) | ASTM D2974-87   | MAM      | 1                 | PASI-G     |
|             |            | EPA 6010        | DLB      | 7                 | PASI-G     |
|             |            | EPA 7471        | AJT      | 1                 | PASI-G     |
|             |            | EPA 8270 by SIM | ARO      | 20                | PASI-G     |
|             |            | EPA 8260        | SMT      | 64                | PASI-G     |
|             |            | ASTM D2974-87   | MAM      | 1                 | PASI-G     |
| 40128386012 | B4 (14-16) | EPA 6010        | DLB      | 7                 | PASI-G     |
|             |            | EPA 7471        | AJT      | 1                 | PASI-G     |
|             |            | EPA 8270 by SIM | ARO      | 20                | PASI-G     |
|             |            | EPA 8260        | SMT      | 64                | PASI-G     |
|             |            | ASTM D2974-87   | MAM      | 1                 | PASI-G     |
|             |            | EPA 8260        | SMT      | 64                | PASI-G     |
| 40128386013 | TRIP       | ASTM D2974-87   | MAM      | 1                 | PASI-G     |
|             |            | EPA 8260        | SMT      | 64                | PASI-G     |

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## SUMMARY OF DETECTION

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

| Lab Sample ID      | Client Sample ID       |        |       |              |                |            |
|--------------------|------------------------|--------|-------|--------------|----------------|------------|
| Method             | Parameters             | Result | Units | Report Limit | Analyzed       | Qualifiers |
| <b>40128386001</b> | <b>B1 (2-4)</b>        |        |       |              |                |            |
| EPA 6010           | Arsenic                | 9.9    | mg/kg | 2.3          | 03/01/16 18:02 |            |
| EPA 6010           | Barium                 | 89.4   | mg/kg | 0.58         | 03/01/16 18:02 | M0         |
| EPA 6010           | Cadmium                | 0.49J  | mg/kg | 0.58         | 03/01/16 18:02 |            |
| EPA 6010           | Chromium               | 11.9   | mg/kg | 1.2          | 03/01/16 18:02 |            |
| EPA 6010           | Lead                   | 119    | mg/kg | 1.4          | 03/01/16 18:02 | M0         |
| EPA 7471           | Mercury                | 0.57   | mg/kg | 0.056        | 03/02/16 11:20 | M0         |
| EPA 8270 by SIM    | Acenaphthene           | 125J   | ug/kg | 155          | 02/29/16 18:00 |            |
| EPA 8270 by SIM    | Anthracene             | 384    | ug/kg | 155          | 02/29/16 18:00 |            |
| EPA 8270 by SIM    | Benzo(a)anthracene     | 874    | ug/kg | 155          | 02/29/16 18:00 |            |
| EPA 8270 by SIM    | Benzo(a)pyrene         | 990    | ug/kg | 155          | 02/29/16 18:00 |            |
| EPA 8270 by SIM    | Benzo(b)fluoranthene   | 876    | ug/kg | 155          | 02/29/16 18:00 | lp         |
| EPA 8270 by SIM    | Benzo(g,h,i)perylene   | 331    | ug/kg | 155          | 02/29/16 18:00 |            |
| EPA 8270 by SIM    | Benzo(k)fluoranthene   | 1020   | ug/kg | 155          | 02/29/16 18:00 | lp         |
| EPA 8270 by SIM    | Chrysene               | 978    | ug/kg | 155          | 02/29/16 18:00 |            |
| EPA 8270 by SIM    | Dibenz(a,h)anthracene  | 135J   | ug/kg | 155          | 02/29/16 18:00 |            |
| EPA 8270 by SIM    | Fluoranthene           | 2160   | ug/kg | 155          | 02/29/16 18:00 |            |
| EPA 8270 by SIM    | Fluorene               | 132J   | ug/kg | 155          | 02/29/16 18:00 |            |
| EPA 8270 by SIM    | Indeno(1,2,3-cd)pyrene | 337    | ug/kg | 155          | 02/29/16 18:00 |            |
| EPA 8270 by SIM    | Naphthalene            | 87.6J  | ug/kg | 155          | 02/29/16 18:00 |            |
| EPA 8270 by SIM    | Phenanthrene           | 1630   | ug/kg | 155          | 02/29/16 18:00 |            |
| EPA 8270 by SIM    | Pyrene                 | 1770   | ug/kg | 155          | 02/29/16 18:00 |            |
| EPA 8260           | Naphthalene            | 81.5J  | ug/kg | 310          | 02/22/16 15:35 |            |
| ASTM D2974-87      | Percent Moisture       | 14.1   | %     | 0.10         | 02/18/16 16:48 |            |
| <b>40128386002</b> | <b>B1 (6-8)</b>        |        |       |              |                |            |
| EPA 6010           | Arsenic                | 3.9J   | mg/kg | 10.1         | 03/02/16 12:36 | D3         |
| EPA 6010           | Barium                 | 29.3   | mg/kg | 0.51         | 03/01/16 18:09 |            |
| EPA 6010           | Cadmium                | 0.22J  | mg/kg | 0.51         | 03/01/16 18:09 |            |
| EPA 6010           | Chromium               | 7.5    | mg/kg | 1.0          | 03/01/16 18:09 |            |
| EPA 6010           | Lead                   | 36.7   | mg/kg | 1.2          | 03/01/16 18:09 |            |
| EPA 7471           | Mercury                | 0.095  | mg/kg | 0.010        | 03/02/16 09:20 |            |
| EPA 8270 by SIM    | Acenaphthene           | 69.6   | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | Acenaphthylene         | 40.7   | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | Anthracene             | 243    | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | Benzo(a)anthracene     | 356    | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | Benzo(a)pyrene         | 390    | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | Benzo(b)fluoranthene   | 316    | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | Benzo(g,h,i)perylene   | 240    | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | Benzo(k)fluoranthene   | 352    | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | Chrysene               | 428    | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | Dibenz(a,h)anthracene  | 77.8   | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | Fluoranthene           | 1050   | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | Fluorene               | 79.8   | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | Indeno(1,2,3-cd)pyrene | 206    | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | 1-Methylnaphthalene    | 43.1   | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | 2-Methylnaphthalene    | 46.1   | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | Naphthalene            | 108    | ug/kg | 36.9         | 03/01/16 16:16 |            |
| EPA 8270 by SIM    | Phenanthrene           | 1020   | ug/kg | 36.9         | 03/01/16 16:16 |            |

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## SUMMARY OF DETECTION

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

| Lab Sample ID      | Client Sample ID       |        |       |              |                |            |
|--------------------|------------------------|--------|-------|--------------|----------------|------------|
| Method             | Parameters             | Result | Units | Report Limit | Analyzed       | Qualifiers |
| <b>40128386002</b> | <b>B1 (6-8)</b>        |        |       |              |                |            |
| EPA 8270 by SIM    | Pyrene                 | 825    | ug/kg | 36.9         | 03/01/16 16:16 |            |
| ASTM D2974-87      | Percent Moisture       | 9.6    | %     | 0.10         | 02/18/16 16:48 |            |
| <b>40128386003</b> | <b>B1 (14-16)</b>      |        |       |              |                |            |
| EPA 6010           | Barium                 | 17.1   | mg/kg | 0.52         | 03/01/16 18:12 |            |
| EPA 6010           | Cadmium                | 0.13J  | mg/kg | 0.52         | 03/01/16 18:12 |            |
| EPA 6010           | Chromium               | 6.5    | mg/kg | 1.0          | 03/01/16 18:12 |            |
| EPA 6010           | Lead                   | 13.6   | mg/kg | 1.2          | 03/01/16 18:12 |            |
| EPA 7471           | Mercury                | 0.035  | mg/kg | 0.010        | 03/02/16 09:22 |            |
| EPA 8270 by SIM    | Acenaphthene           | 9.2J   | ug/kg | 18.1         | 03/01/16 11:16 |            |
| EPA 8270 by SIM    | Anthracene             | 29.9   | ug/kg | 18.1         | 03/01/16 11:16 |            |
| EPA 8270 by SIM    | Benzo(a)anthracene     | 43.1   | ug/kg | 18.1         | 03/01/16 11:16 |            |
| EPA 8270 by SIM    | Benzo(a)pyrene         | 41.0   | ug/kg | 18.1         | 03/01/16 11:16 |            |
| EPA 8270 by SIM    | Benzo(b)fluoranthene   | 40.7   | ug/kg | 18.1         | 03/01/16 11:16 |            |
| EPA 8270 by SIM    | Benzo(g,h,i)perylene   | 23.8   | ug/kg | 18.1         | 03/01/16 11:16 |            |
| EPA 8270 by SIM    | Benzo(k)fluoranthene   | 33.0   | ug/kg | 18.1         | 03/01/16 11:16 |            |
| EPA 8270 by SIM    | Chrysene               | 47.5   | ug/kg | 18.1         | 03/01/16 11:16 |            |
| EPA 8270 by SIM    | Dibenz(a,h)anthracene  | 8.3J   | ug/kg | 18.1         | 03/01/16 11:16 |            |
| EPA 8270 by SIM    | Fluoranthene           | 106    | ug/kg | 18.1         | 03/01/16 11:16 |            |
| EPA 8270 by SIM    | Fluorene               | 9.8J   | ug/kg | 18.1         | 03/01/16 11:16 |            |
| EPA 8270 by SIM    | Indeno(1,2,3-cd)pyrene | 20.9   | ug/kg | 18.1         | 03/01/16 11:16 |            |
| EPA 8270 by SIM    | Naphthalene            | 10.0J  | ug/kg | 18.1         | 03/01/16 11:16 |            |
| EPA 8270 by SIM    | Phenanthrene           | 100    | ug/kg | 18.1         | 03/01/16 11:16 |            |
| EPA 8270 by SIM    | Pyrene                 | 80.0   | ug/kg | 18.1         | 03/01/16 11:16 |            |
| ASTM D2974-87      | Percent Moisture       | 8.0    | %     | 0.10         | 02/18/16 16:48 |            |
| <b>40128386004</b> | <b>B2 (2-4)</b>        |        |       |              |                |            |
| EPA 6010           | Arsenic                | 5.1J   | mg/kg | 10.6         | 03/02/16 12:40 | D3         |
| EPA 6010           | Barium                 | 47.1   | mg/kg | 0.53         | 03/01/16 18:14 |            |
| EPA 6010           | Cadmium                | 0.51J  | mg/kg | 0.53         | 03/01/16 18:14 |            |
| EPA 6010           | Chromium               | 11.2   | mg/kg | 1.1          | 03/01/16 18:14 |            |
| EPA 6010           | Lead                   | 54.8   | mg/kg | 1.3          | 03/01/16 18:14 |            |
| EPA 7471           | Mercury                | 0.059  | mg/kg | 0.010        | 03/02/16 09:25 |            |
| EPA 8270 by SIM    | Acenaphthene           | 51.4J  | ug/kg | 75.4         | 02/29/16 18:18 |            |
| EPA 8270 by SIM    | Anthracene             | 171    | ug/kg | 75.4         | 02/29/16 18:18 |            |
| EPA 8270 by SIM    | Benzo(a)anthracene     | 430    | ug/kg | 75.4         | 02/29/16 18:18 |            |
| EPA 8270 by SIM    | Benzo(a)pyrene         | 500    | ug/kg | 75.4         | 02/29/16 18:18 |            |
| EPA 8270 by SIM    | Benzo(b)fluoranthene   | 477    | ug/kg | 75.4         | 02/29/16 18:18 | lp         |
| EPA 8270 by SIM    | Benzo(g,h,i)perylene   | 185    | ug/kg | 75.4         | 02/29/16 18:18 |            |
| EPA 8270 by SIM    | Benzo(k)fluoranthene   | 558    | ug/kg | 75.4         | 02/29/16 18:18 | lp         |
| EPA 8270 by SIM    | Chrysene               | 522    | ug/kg | 75.4         | 02/29/16 18:18 |            |
| EPA 8270 by SIM    | Dibenz(a,h)anthracene  | 76.4   | ug/kg | 75.4         | 02/29/16 18:18 |            |
| EPA 8270 by SIM    | Fluoranthene           | 1060   | ug/kg | 75.4         | 02/29/16 18:18 |            |
| EPA 8270 by SIM    | Fluorene               | 60.6J  | ug/kg | 75.4         | 02/29/16 18:18 |            |
| EPA 8270 by SIM    | Indeno(1,2,3-cd)pyrene | 183    | ug/kg | 75.4         | 02/29/16 18:18 |            |
| EPA 8270 by SIM    | 2-Methylnaphthalene    | 44.6J  | ug/kg | 75.4         | 02/29/16 18:18 |            |
| EPA 8270 by SIM    | Naphthalene            | 47.5J  | ug/kg | 75.4         | 02/29/16 18:18 |            |
| EPA 8270 by SIM    | Phenanthrene           | 643    | ug/kg | 75.4         | 02/29/16 18:18 |            |

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## SUMMARY OF DETECTION

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

| Lab Sample ID      | Client Sample ID       |        |       |              |                |            |
|--------------------|------------------------|--------|-------|--------------|----------------|------------|
| Method             | Parameters             | Result | Units | Report Limit | Analyzed       | Qualifiers |
| <b>40128386004</b> | <b>B2 (2-4)</b>        |        |       |              |                |            |
| EPA 8270 by SIM    | Pyrene                 | 822    | ug/kg | 75.4         | 02/29/16 18:18 |            |
| EPA 8260           | Naphthalene            | 68.6J  | ug/kg | 283          | 02/22/16 19:42 |            |
| ASTM D2974-87      | Percent Moisture       | 11.6   | %     | 0.10         | 02/18/16 16:49 |            |
| <b>40128386005</b> | <b>B2 (10-12)</b>      |        |       |              |                |            |
| EPA 6010           | Arsenic                | 4.9J   | mg/kg | 10.4         | 03/02/16 12:43 | D3         |
| EPA 6010           | Barium                 | 31.3   | mg/kg | 0.52         | 03/01/16 18:17 |            |
| EPA 6010           | Cadmium                | 0.50J  | mg/kg | 0.52         | 03/01/16 18:17 |            |
| EPA 6010           | Chromium               | 10.5   | mg/kg | 1.0          | 03/01/16 18:17 |            |
| EPA 6010           | Lead                   | 37.7   | mg/kg | 1.3          | 03/01/16 18:17 |            |
| EPA 7471           | Mercury                | 0.12   | mg/kg | 0.0098       | 03/02/16 09:27 |            |
| EPA 8270 by SIM    | Acenaphthene           | 34000  | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | Anthracene             | 107000 | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | Benzo(a)anthracene     | 75900  | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | Benzo(a)pyrene         | 62600  | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | Benzo(b)fluoranthene   | 45500  | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | Benzo(g,h,i)perylene   | 28200  | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | Benzo(k)fluoranthene   | 63000  | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | Chrysene               | 76500  | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | Dibenz(a,h)anthracene  | 11900J | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | Fluoranthene           | 213000 | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | Fluorene               | 61400  | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | Indeno(1,2,3-cd)pyrene | 27500  | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | 1-Methylnaphthalene    | 18200  | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | 2-Methylnaphthalene    | 31900  | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | Naphthalene            | 94700  | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | Phenanthrene           | 307000 | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8270 by SIM    | Pyrene                 | 132000 | ug/kg | 14300        | 03/01/16 10:51 |            |
| EPA 8260           | Naphthalene            | 82900  | ug/kg | 3350         | 02/23/16 09:16 |            |
| ASTM D2974-87      | Percent Moisture       | 6.8    | %     | 0.10         | 02/18/16 16:49 |            |
| <b>40128386006</b> | <b>B2 (14-16)</b>      |        |       |              |                |            |
| EPA 6010           | Arsenic                | 3.8J   | mg/kg | 10.3         | 03/02/16 12:45 | D3         |
| EPA 6010           | Barium                 | 33.8   | mg/kg | 0.51         | 03/01/16 18:19 |            |
| EPA 6010           | Cadmium                | 0.34J  | mg/kg | 0.51         | 03/01/16 18:19 |            |
| EPA 6010           | Chromium               | 8.1    | mg/kg | 1.0          | 03/01/16 18:19 |            |
| EPA 6010           | Lead                   | 48.2   | mg/kg | 1.2          | 03/01/16 18:19 |            |
| EPA 7471           | Mercury                | 0.11   | mg/kg | 0.010        | 03/02/16 09:29 |            |
| EPA 8270 by SIM    | Acenaphthene           | 20600  | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8270 by SIM    | Anthracene             | 65100  | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8270 by SIM    | Benzo(a)anthracene     | 48200  | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8270 by SIM    | Benzo(a)pyrene         | 37300  | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8270 by SIM    | Benzo(b)fluoranthene   | 30800  | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8270 by SIM    | Benzo(g,h,i)perylene   | 13200  | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8270 by SIM    | Benzo(k)fluoranthene   | 38100  | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8270 by SIM    | Chrysene               | 50300  | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8270 by SIM    | Dibenz(a,h)anthracene  | 5450J  | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8270 by SIM    | Fluoranthene           | 129000 | ug/kg | 11400        | 03/03/16 17:17 |            |

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## SUMMARY OF DETECTION

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

| Lab Sample ID      | Client Sample ID       |        |       |              |                |            |
|--------------------|------------------------|--------|-------|--------------|----------------|------------|
| Method             | Parameters             | Result | Units | Report Limit | Analyzed       | Qualifiers |
| <b>40128386006</b> | <b>B2 (14-16)</b>      |        |       |              |                |            |
| EPA 8270 by SIM    | Fluorene               | 35300  | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8270 by SIM    | Indeno(1,2,3-cd)pyrene | 12900  | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8270 by SIM    | 1-Methylnaphthalene    | 10800J | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8270 by SIM    | 2-Methylnaphthalene    | 17600  | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8270 by SIM    | Naphthalene            | 52400  | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8270 by SIM    | Phenanthrene           | 186000 | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8270 by SIM    | Pyrene                 | 87500  | ug/kg | 11400        | 03/03/16 17:17 |            |
| EPA 8260           | Naphthalene            | 96000  | ug/kg | 3420         | 02/23/16 09:39 |            |
| ASTM D2974-87      | Percent Moisture       | 8.7    | %     | 0.10         | 02/18/16 16:49 |            |
| <b>40128386007</b> | <b>B3 (2-4)</b>        |        |       |              |                |            |
| EPA 6010           | Arsenic                | 6.6    | mg/kg | 2.0          | 03/01/16 18:22 |            |
| EPA 6010           | Barium                 | 287    | mg/kg | 0.50         | 03/01/16 18:22 |            |
| EPA 6010           | Cadmium                | 1.0    | mg/kg | 0.50         | 03/01/16 18:22 |            |
| EPA 6010           | Chromium               | 11.8   | mg/kg | 1.0          | 03/01/16 18:22 |            |
| EPA 6010           | Lead                   | 358    | mg/kg | 1.2          | 03/01/16 18:22 |            |
| EPA 7471           | Mercury                | 0.15   | mg/kg | 0.011        | 03/02/16 09:42 |            |
| EPA 8270 by SIM    | Acenaphthene           | 544J   | ug/kg | 768          | 03/02/16 19:19 |            |
| EPA 8270 by SIM    | Anthracene             | 2560   | ug/kg | 768          | 03/02/16 19:19 |            |
| EPA 8270 by SIM    | Benzo(a)anthracene     | 10900  | ug/kg | 768          | 03/02/16 19:19 |            |
| EPA 8270 by SIM    | Benzo(a)pyrene         | 14100  | ug/kg | 768          | 03/02/16 19:19 |            |
| EPA 8270 by SIM    | Benzo(b)fluoranthene   | 13200  | ug/kg | 768          | 03/02/16 19:19 |            |
| EPA 8270 by SIM    | Benzo(g,h,i)perylene   | 6300   | ug/kg | 768          | 03/02/16 19:19 |            |
| EPA 8270 by SIM    | Benzo(k)fluoranthene   | 12100  | ug/kg | 768          | 03/02/16 19:19 |            |
| EPA 8270 by SIM    | Chrysene               | 12000  | ug/kg | 768          | 03/02/16 19:19 |            |
| EPA 8270 by SIM    | Dibenz(a,h)anthracene  | 2760   | ug/kg | 768          | 03/02/16 19:19 |            |
| EPA 8270 by SIM    | Fluoranthene           | 22000  | ug/kg | 768          | 03/02/16 19:19 |            |
| EPA 8270 by SIM    | Fluorene               | 516J   | ug/kg | 768          | 03/02/16 19:19 |            |
| EPA 8270 by SIM    | Indeno(1,2,3-cd)pyrene | 6500   | ug/kg | 768          | 03/02/16 19:19 |            |
| EPA 8270 by SIM    | Phenanthrene           | 8160   | ug/kg | 768          | 03/02/16 19:19 |            |
| EPA 8270 by SIM    | Pyrene                 | 16900  | ug/kg | 768          | 03/02/16 19:19 |            |
| EPA 8260           | Naphthalene            | 157J   | ug/kg | 288          | 02/22/16 20:05 |            |
| ASTM D2974-87      | Percent Moisture       | 13.2   | %     | 0.10         | 02/18/16 16:49 |            |
| <b>40128386008</b> | <b>B3 (10-12)</b>      |        |       |              |                |            |
| EPA 6010           | Arsenic                | 3.6J   | mg/kg | 9.8          | 03/02/16 12:48 | D3         |
| EPA 6010           | Barium                 | 52.4   | mg/kg | 0.49         | 03/01/16 18:24 |            |
| EPA 6010           | Cadmium                | 0.20J  | mg/kg | 0.49         | 03/01/16 18:24 |            |
| EPA 6010           | Chromium               | 9.3    | mg/kg | 0.98         | 03/01/16 18:24 |            |
| EPA 6010           | Lead                   | 42.2   | mg/kg | 1.2          | 03/01/16 18:24 |            |
| EPA 7471           | Mercury                | 0.065  | mg/kg | 0.010        | 03/02/16 11:27 |            |
| EPA 8270 by SIM    | Acenaphthene           | 28.2   | ug/kg | 18.8         | 02/29/16 17:43 |            |
| EPA 8270 by SIM    | Acenaphthylene         | 14.1J  | ug/kg | 18.8         | 02/29/16 17:43 |            |
| EPA 8270 by SIM    | Anthracene             | 88.4   | ug/kg | 18.8         | 02/29/16 17:43 |            |
| EPA 8270 by SIM    | Benzo(a)anthracene     | 225    | ug/kg | 18.8         | 02/29/16 17:43 |            |
| EPA 8270 by SIM    | Benzo(a)pyrene         | 278    | ug/kg | 18.8         | 02/29/16 17:43 |            |
| EPA 8270 by SIM    | Benzo(b)fluoranthene   | 248    | ug/kg | 18.8         | 02/29/16 17:43 | lp         |
| EPA 8270 by SIM    | Benzo(g,h,i)perylene   | 94.3   | ug/kg | 18.8         | 02/29/16 17:43 |            |

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## SUMMARY OF DETECTION

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

| Lab Sample ID      | Client Sample ID       |        |       |              |                |            |
|--------------------|------------------------|--------|-------|--------------|----------------|------------|
| Method             | Parameters             | Result | Units | Report Limit | Analyzed       | Qualifiers |
| <b>40128386008</b> | <b>B3 (10-12)</b>      |        |       |              |                |            |
| EPA 8270 by SIM    | Benzo(k)fluoranthene   | 285    | ug/kg | 18.8         | 02/29/16 17:43 | lp         |
| EPA 8270 by SIM    | Chrysene               | 262    | ug/kg | 18.8         | 02/29/16 17:43 |            |
| EPA 8270 by SIM    | Dibenz(a,h)anthracene  | 37.1   | ug/kg | 18.8         | 02/29/16 17:43 |            |
| EPA 8270 by SIM    | Fluoranthene           | 587    | ug/kg | 18.8         | 02/29/16 17:43 |            |
| EPA 8270 by SIM    | Fluorene               | 31.2   | ug/kg | 18.8         | 02/29/16 17:43 |            |
| EPA 8270 by SIM    | Indeno(1,2,3-cd)pyrene | 93.8   | ug/kg | 18.8         | 02/29/16 17:43 |            |
| EPA 8270 by SIM    | 1-Methylnaphthalene    | 12.1J  | ug/kg | 18.8         | 02/29/16 17:43 |            |
| EPA 8270 by SIM    | 2-Methylnaphthalene    | 13.2J  | ug/kg | 18.8         | 02/29/16 17:43 |            |
| EPA 8270 by SIM    | Naphthalene            | 23.4   | ug/kg | 18.8         | 02/29/16 17:43 |            |
| EPA 8270 by SIM    | Phenanthrene           | 359    | ug/kg | 18.8         | 02/29/16 17:43 |            |
| EPA 8270 by SIM    | Pyrene                 | 454    | ug/kg | 18.8         | 02/29/16 17:43 |            |
| ASTM D2974-87      | Percent Moisture       | 11.5   | %     | 0.10         | 02/18/16 16:49 |            |
| <b>40128386009</b> | <b>B3 (14-16)</b>      |        |       |              |                |            |
| EPA 6010           | Arsenic                | 4.5J   | mg/kg | 10.5         | 03/02/16 12:50 | D3         |
| EPA 6010           | Barium                 | 48.6   | mg/kg | 0.52         | 03/01/16 18:31 |            |
| EPA 6010           | Cadmium                | 0.16J  | mg/kg | 0.52         | 03/01/16 18:31 |            |
| EPA 6010           | Chromium               | 11.0   | mg/kg | 1.0          | 03/01/16 18:31 |            |
| EPA 6010           | Lead                   | 41.3   | mg/kg | 1.3          | 03/01/16 18:31 |            |
| EPA 6010           | Selenium               | 1.3J   | mg/kg | 2.1          | 03/01/16 18:31 |            |
| EPA 7471           | Mercury                | 0.11   | mg/kg | 0.010        | 03/02/16 09:47 |            |
| EPA 8270 by SIM    | Acenaphthene           | 73.5   | ug/kg | 37.9         | 02/29/16 18:35 |            |
| EPA 8270 by SIM    | Anthracene             | 194    | ug/kg | 37.9         | 02/29/16 18:35 |            |
| EPA 8270 by SIM    | Benzo(a)anthracene     | 384    | ug/kg | 37.9         | 02/29/16 18:35 |            |
| EPA 8270 by SIM    | Benzo(a)pyrene         | 432    | ug/kg | 37.9         | 02/29/16 18:35 |            |
| EPA 8270 by SIM    | Benzo(b)fluoranthene   | 494    | ug/kg | 37.9         | 02/29/16 18:35 | lp         |
| EPA 8270 by SIM    | Benzo(g,h,i)perylene   | 154    | ug/kg | 37.9         | 02/29/16 18:35 |            |
| EPA 8270 by SIM    | Benzo(k)fluoranthene   | 362    | ug/kg | 37.9         | 02/29/16 18:35 | lp         |
| EPA 8270 by SIM    | Chrysene               | 440    | ug/kg | 37.9         | 02/29/16 18:35 |            |
| EPA 8270 by SIM    | Dibenz(a,h)anthracene  | 59.8   | ug/kg | 37.9         | 02/29/16 18:35 |            |
| EPA 8270 by SIM    | Fluoranthene           | 1090   | ug/kg | 37.9         | 02/29/16 18:35 |            |
| EPA 8270 by SIM    | Fluorene               | 70.9   | ug/kg | 37.9         | 02/29/16 18:35 |            |
| EPA 8270 by SIM    | Indeno(1,2,3-cd)pyrene | 154    | ug/kg | 37.9         | 02/29/16 18:35 |            |
| EPA 8270 by SIM    | 1-Methylnaphthalene    | 24.6J  | ug/kg | 37.9         | 02/29/16 18:35 |            |
| EPA 8270 by SIM    | 2-Methylnaphthalene    | 25.1J  | ug/kg | 37.9         | 02/29/16 18:35 |            |
| EPA 8270 by SIM    | Naphthalene            | 51.2   | ug/kg | 37.9         | 02/29/16 18:35 |            |
| EPA 8270 by SIM    | Phenanthrene           | 884    | ug/kg | 37.9         | 02/29/16 18:35 |            |
| EPA 8270 by SIM    | Pyrene                 | 864    | ug/kg | 37.9         | 02/29/16 18:35 |            |
| ASTM D2974-87      | Percent Moisture       | 12.1   | %     | 0.10         | 02/20/16 11:34 |            |
| <b>40128386010</b> | <b>B4 (2-4)</b>        |        |       |              |                |            |
| EPA 6010           | Barium                 | 37.0   | mg/kg | 0.49         | 03/01/16 18:33 |            |
| EPA 6010           | Cadmium                | 0.14J  | mg/kg | 0.49         | 03/01/16 18:33 |            |
| EPA 6010           | Chromium               | 7.6    | mg/kg | 0.97         | 03/01/16 18:33 |            |
| EPA 6010           | Lead                   | 9.9    | mg/kg | 1.2          | 03/01/16 18:33 |            |
| EPA 7471           | Mercury                | 0.029  | mg/kg | 0.011        | 03/02/16 09:49 |            |
| EPA 8270 by SIM    | Acenaphthene           | 176    | ug/kg | 152          | 03/01/16 10:34 |            |
| EPA 8270 by SIM    | Anthracene             | 450    | ug/kg | 152          | 03/01/16 10:34 |            |

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## SUMMARY OF DETECTION

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

| Lab Sample ID      | Client Sample ID       |        |       |              |                |            |
|--------------------|------------------------|--------|-------|--------------|----------------|------------|
| Method             | Parameters             | Result | Units | Report Limit | Analyzed       | Qualifiers |
| <b>40128386010</b> | <b>B4 (2-4)</b>        |        |       |              |                |            |
| EPA 8270 by SIM    | Benzo(a)anthracene     | 757    | ug/kg | 152          | 03/01/16 10:34 |            |
| EPA 8270 by SIM    | Benzo(a)pyrene         | 829    | ug/kg | 152          | 03/01/16 10:34 |            |
| EPA 8270 by SIM    | Benzo(b)fluoranthene   | 592    | ug/kg | 152          | 03/01/16 10:34 |            |
| EPA 8270 by SIM    | Benzo(g,h,i)perylene   | 481    | ug/kg | 152          | 03/01/16 10:34 |            |
| EPA 8270 by SIM    | Benzo(k)fluoranthene   | 751    | ug/kg | 152          | 03/01/16 10:34 |            |
| EPA 8270 by SIM    | Chrysene               | 866    | ug/kg | 152          | 03/01/16 10:34 |            |
| EPA 8270 by SIM    | Dibenz(a,h)anthracene  | 151J   | ug/kg | 152          | 03/01/16 10:34 |            |
| EPA 8270 by SIM    | Fluoranthene           | 2180   | ug/kg | 152          | 03/01/16 10:34 |            |
| EPA 8270 by SIM    | Fluorene               | 155    | ug/kg | 152          | 03/01/16 10:34 |            |
| EPA 8270 by SIM    | Indeno(1,2,3-cd)pyrene | 416    | ug/kg | 152          | 03/01/16 10:34 |            |
| EPA 8270 by SIM    | Naphthalene            | 117J   | ug/kg | 152          | 03/01/16 10:34 |            |
| EPA 8270 by SIM    | Phenanthrene           | 2220   | ug/kg | 152          | 03/01/16 10:34 |            |
| EPA 8270 by SIM    | Pyrene                 | 1830   | ug/kg | 152          | 03/01/16 10:34 |            |
| ASTM D2974-87      | Percent Moisture       | 12.3   | %     | 0.10         | 02/20/16 11:34 |            |
| <b>40128386011</b> | <b>B4 (10-12)</b>      |        |       |              |                |            |
| EPA 6010           | Arsenic                | 5.3J   | mg/kg | 10.4         | 03/02/16 13:00 | D3         |
| EPA 6010           | Barium                 | 20.4   | mg/kg | 0.52         | 03/01/16 18:36 |            |
| EPA 6010           | Cadmium                | 0.21J  | mg/kg | 0.52         | 03/01/16 18:36 |            |
| EPA 6010           | Chromium               | 7.0    | mg/kg | 1.0          | 03/01/16 18:36 |            |
| EPA 6010           | Lead                   | 11.1   | mg/kg | 1.3          | 03/01/16 18:36 |            |
| EPA 7471           | Mercury                | 0.015  | mg/kg | 0.010        | 03/02/16 09:51 |            |
| EPA 8270 by SIM    | Acenaphthene           | 42.3   | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | Acenaphthylene         | 12.6J  | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | Anthracene             | 90.1   | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | Benzo(a)anthracene     | 167    | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | Benzo(a)pyrene         | 181    | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | Benzo(b)fluoranthene   | 175    | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | Benzo(g,h,i)perylene   | 101    | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | Benzo(k)fluoranthene   | 129    | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | Chrysene               | 201    | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | Dibenz(a,h)anthracene  | 31.1   | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | Fluoranthene           | 541    | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | Fluorene               | 41.5   | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | Indeno(1,2,3-cd)pyrene | 87.2   | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | 1-Methylnaphthalene    | 31.8   | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | 2-Methylnaphthalene    | 27.7   | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | Naphthalene            | 41.8   | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | Phenanthrene           | 650    | ug/kg | 18.0         | 03/01/16 12:07 |            |
| EPA 8270 by SIM    | Pyrene                 | 467    | ug/kg | 18.0         | 03/01/16 12:07 |            |
| ASTM D2974-87      | Percent Moisture       | 7.5    | %     | 0.10         | 02/20/16 11:34 |            |
| <b>40128386012</b> | <b>B4 (14-16)</b>      |        |       |              |                |            |
| EPA 6010           | Arsenic                | 4.1J   | mg/kg | 9.4          | 03/02/16 13:02 | D3         |
| EPA 6010           | Barium                 | 14.0   | mg/kg | 0.47         | 03/01/16 18:38 |            |
| EPA 6010           | Cadmium                | 0.16J  | mg/kg | 0.47         | 03/01/16 18:38 |            |
| EPA 6010           | Chromium               | 5.6    | mg/kg | 0.94         | 03/01/16 18:38 |            |
| EPA 6010           | Lead                   | 6.5    | mg/kg | 1.1          | 03/01/16 18:38 |            |

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## SUMMARY OF DETECTION

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

| Lab Sample ID      | Client Sample ID       |        |       |              |                |            |
|--------------------|------------------------|--------|-------|--------------|----------------|------------|
| Method             | Parameters             | Result | Units | Report Limit | Analyzed       | Qualifiers |
| <b>40128386012</b> | <b>B4 (14-16)</b>      |        |       |              |                |            |
| EPA 7471           | Mercury                | 0.0098 | mg/kg | 0.0094       | 03/02/16 09:54 |            |
| EPA 8270 by SIM    | Anthracene             | 17.0J  | ug/kg | 17.9         | 03/01/16 10:17 |            |
| EPA 8270 by SIM    | Benzo(a)anthracene     | 38.8   | ug/kg | 17.9         | 03/01/16 10:17 |            |
| EPA 8270 by SIM    | Benzo(a)pyrene         | 42.9   | ug/kg | 17.9         | 03/01/16 10:17 |            |
| EPA 8270 by SIM    | Benzo(b)fluoranthene   | 39.1   | ug/kg | 17.9         | 03/01/16 10:17 |            |
| EPA 8270 by SIM    | Benzo(g,h,i)perylene   | 26.7   | ug/kg | 17.9         | 03/01/16 10:17 |            |
| EPA 8270 by SIM    | Benzo(k)fluoranthene   | 36.8   | ug/kg | 17.9         | 03/01/16 10:17 |            |
| EPA 8270 by SIM    | Chrysene               | 45.2   | ug/kg | 17.9         | 03/01/16 10:17 |            |
| EPA 8270 by SIM    | Dibenz(a,h)anthracene  | 8.9J   | ug/kg | 17.9         | 03/01/16 10:17 |            |
| EPA 8270 by SIM    | Fluoranthene           | 96.1   | ug/kg | 17.9         | 03/01/16 10:17 |            |
| EPA 8270 by SIM    | Indeno(1,2,3-cd)pyrene | 23.3   | ug/kg | 17.9         | 03/01/16 10:17 |            |
| EPA 8270 by SIM    | Phenanthrene           | 75.9   | ug/kg | 17.9         | 03/01/16 10:17 |            |
| EPA 8270 by SIM    | Pyrene                 | 77.5   | ug/kg | 17.9         | 03/01/16 10:17 |            |
| ASTM D2974-87      | Percent Moisture       | 6.7    | %     | 0.10         | 02/20/16 11:34 |            |

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B1 (2-4)** **Lab ID: 40128386001** Collected: 02/16/16 10:22 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ    | LOD   | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|--|---------|-------|--------|-------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010 Preparation Method: EPA 3050                         |         |       |        |       |    |                |                |           |      |
| Arsenic  | 9.9     | mg/kg | 2.3    | 0.74  | 1  | 02/25/16 08:06 | 03/01/16 18:02 | 7440-38-2 |      |
| Barium   | 89.4    | mg/kg | 0.58   | 0.14  | 1  | 02/25/16 08:06 | 03/01/16 18:02 | 7440-39-3 | M0   |
| Cadmium  | 0.49J   | mg/kg | 0.58   | 0.077 | 1  | 02/25/16 08:06 | 03/01/16 18:02 | 7440-43-9 |      |
| Chromium   | 11.9    | mg/kg | 1.2    | 0.22  | 1  | 02/25/16 08:06 | 03/01/16 18:02 | 7440-47-3 |      |
| Lead   | 119     | mg/kg | 1.4    | 0.50  | 1  | 02/25/16 08:06 | 03/01/16 18:02 | 7439-92-1 | M0   |
| Selenium   | <0.89   | mg/kg | 2.3    | 0.89  | 1  | 02/25/16 08:06 | 03/01/16 18:02 | 7782-49-2 |      |
| Silver   | <0.32   | mg/kg | 1.2    | 0.32  | 1  | 02/25/16 08:06 | 03/01/16 18:02 | 7440-22-4 | L5   |
| <b>7471 Mercury</b> Analytical Method: EPA 7471 Preparation Method: EPA 7471                         |         |       |        |       |    |                |                |           |      |
| Mercury  | 0.57    | mg/kg | 0.056  | 0.017 | 5  | 03/01/16 10:40 | 03/02/16 11:20 | 7439-97-6 | M0   |
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546          |         |       |        |       |    |                |                |           |      |
| Acenaphthene   | 125J    | ug/kg | 155    | 77.6  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 83-32-9   |      |
| Acenaphthylene   | <69.4   | ug/kg | 155    | 69.4  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 208-96-8  |      |
| Anthracene   | 384     | ug/kg | 155    | 80.5  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 120-12-7  |      |
| Benzo(a)anthracene   | 874     | ug/kg | 155    | 53.8  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 56-55-3   |      |
| Benzo(a)pyrene   | 990     | ug/kg | 155    | 55.5  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 50-32-8   |      |
| Benzo(b)fluoranthene   | 876     | ug/kg | 155    | 77.6  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 205-99-2  | lp   |
| Benzo(g,h,i)perylene   | 331     | ug/kg | 155    | 59.1  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 191-24-2  |      |
| Benzo(k)fluoranthene   | 1020    | ug/kg | 155    | 85.9  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 207-08-9  | lp   |
| Chrysene   | 978     | ug/kg | 155    | 71.8  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 218-01-9  |      |
| Dibenz(a,h)anthracene  | 135J    | ug/kg | 155    | 56.9  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 53-70-3   |      |
| Fluoranthene   | 2160    | ug/kg | 155    | 77.6  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 206-44-0  |      |
| Fluorene   | 132J    | ug/kg | 155    | 77.6  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 86-73-7   |      |
| Indeno(1,2,3-cd)pyrene   | 337     | ug/kg | 155    | 59.0  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 193-39-5  |      |
| 1-Methylnaphthalene  | <77.6   | ug/kg | 155    | 77.6  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 90-12-0   |      |
| 2-Methylnaphthalene  | <77.6   | ug/kg | 155    | 77.6  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 91-57-6   |      |
| Naphthalene  | 87.6J   | ug/kg | 155    | 77.6  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 91-20-3   |      |
| Phenanthrene   | 1630    | ug/kg | 155    | 77.6  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 85-01-8   |      |
| Pyrene   | 1770    | ug/kg | 155    | 77.6  | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 129-00-0  |      |
| <b>Surrogates</b>  |         |       |        |       |    |                |                |           |      |
| 2-Fluorobiphenyl (S)   | 43      | %     | 26-130 |       | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 321-60-8  |      |
| Terphenyl-d14 (S)  | 46      | %     | 10-130 |       | 8  | 02/25/16 09:21 | 02/29/16 18:00 | 1718-51-0 |      |
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |         |       |        |       |    |                |                |           |      |
| 1,1,1,2-Tetrachloroethane  | <26.6   | ug/kg | 63.8   | 26.6  | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 630-20-6  | W    |
| 1,1,1-Trichloroethane  | <26.6   | ug/kg | 63.8   | 26.6  | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 71-55-6   | W    |
| 1,1,2,2-Tetrachloroethane  | <26.6   | ug/kg | 63.8   | 26.6  | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 79-34-5   | W    |
| 1,1,2-Trichloroethane  | <26.6   | ug/kg | 63.8   | 26.6  | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 79-00-5   | W    |
| 1,1-Dichloroethane   | <26.6   | ug/kg | 63.8   | 26.6  | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 75-34-3   | W    |
| 1,1-Dichloroethene   | <26.6   | ug/kg | 63.8   | 26.6  | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 75-35-4   | W    |
| 1,1-Dichloropropene  | <26.6   | ug/kg | 63.8   | 26.6  | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 563-58-6  | W    |
| 1,2,3-Trichlorobenzene   | <26.6   | ug/kg | 63.8   | 26.6  | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 87-61-6   | W    |
| 1,2,3-Trichloropropane   | <26.6   | ug/kg | 63.8   | 26.6  | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 96-18-4   | W    |
| 1,2,4-Trichlorobenzene   | <50.6   | ug/kg | 266    | 50.6  | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 120-82-1  | W    |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B1 (2-4)** **Lab ID: 40128386001** Collected: 02/16/16 10:22 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ  | LOD  | DF | Prepared       | Analyzed       | CAS No.     | Qual |
|--|---------|-------|------|------|----|----------------|----------------|-------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |         |       |      |      |    |                |                |             |      |
| 1,2,4-Trimethylbenzene   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 95-63-6     | W    |
| 1,2-Dibromo-3-chloropropane  | <97.1   | ug/kg | 266  | 97.1 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 96-12-8     | W    |
| 1,2-Dibromoethane (EDB)  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 106-93-4    | W    |
| 1,2-Dichlorobenzene  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 95-50-1     | W    |
| 1,2-Dichloroethane   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 107-06-2    | W    |
| 1,2-Dichloropropane  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 78-87-5     | W    |
| 1,3,5-Trimethylbenzene   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 108-67-8    | W    |
| 1,3-Dichlorobenzene  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 541-73-1    | W    |
| 1,3-Dichloropropane  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 142-28-9    | W    |
| 1,4-Dichlorobenzene  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 106-46-7    | W    |
| 2,2-Dichloropropane  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 594-20-7    | W    |
| 2-Chlorotoluene  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 95-49-8     | W    |
| 4-Chlorotoluene  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 106-43-4    | W    |
| Benzene  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 71-43-2     | W    |
| Bromobenzene   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 108-86-1    | W    |
| Bromochloromethane   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 74-97-5     | W    |
| Bromodichloromethane   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 75-27-4     | W    |
| Bromoform  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 75-25-2     | W    |
| Bromomethane   | <74.4   | ug/kg | 266  | 74.4 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 74-83-9     | W    |
| Carbon tetrachloride   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 56-23-5     | W    |
| Chlorobenzene  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 108-90-7    | W    |
| Chloroethane   | <71.3   | ug/kg | 266  | 71.3 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 75-00-3     | W    |
| Chloroform   | <49.4   | ug/kg | 266  | 49.4 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 67-66-3     | W    |
| Chloromethane  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 74-87-3     | W    |
| Dibromochloromethane   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 124-48-1    | W    |
| Dibromomethane   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 74-95-3     | W    |
| Dichlorodifluoromethane  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 75-71-8     | W    |
| Diisopropyl ether  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 108-20-3    | W    |
| Ethylbenzene   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 100-41-4    | W    |
| Hexachloro-1,3-butadiene   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 87-68-3     | W    |
| Isopropylbenzene (Cumene)  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 98-82-8     | W    |
| Methyl-tert-butyl ether  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 1634-04-4   | W    |
| Methylene Chloride   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 75-09-2     | W    |
| Naphthalene  | 81.5J   | ug/kg | 310  | 49.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 91-20-3     |      |
| Styrene  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 100-42-5    | W    |
| Tetrachloroethene  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 127-18-4    | W    |
| Toluene  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 108-88-3    | W    |
| Trichloroethene  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 79-01-6     | W    |
| Trichlorofluoromethane   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 75-69-4     | W    |
| Vinyl chloride   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 75-01-4     | W    |
| cis-1,2-Dichloroethene   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 156-59-2    | W    |
| cis-1,3-Dichloropropene  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 10061-01-5  | W    |
| m&p-Xylene   | <53.2   | ug/kg | 128  | 53.2 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 179601-23-1 | W    |
| n-Butylbenzene   | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 104-51-8    | W    |
| n-Propylbenzene  | <26.6   | ug/kg | 63.8 | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 103-65-1    | W    |

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B1 (2-4)** **Lab ID: 40128386001** Collected: 02/16/16 10:22 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.    | Qual |
|--|---------|-------|--------|------|----|----------------|----------------|------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |         |       |        |      |    |                |                |            |      |
| o-Xylene   | <26.6   | ug/kg | 63.8   | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 95-47-6    | W    |
| p-Isopropyltoluene   | <26.6   | ug/kg | 63.8   | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 99-87-6    | W    |
| sec-Butylbenzene   | <26.6   | ug/kg | 63.8   | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 135-98-8   | W    |
| tert-Butylbenzene  | <26.6   | ug/kg | 63.8   | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 98-06-6    | W    |
| trans-1,2-Dichloroethene   | <26.6   | ug/kg | 63.8   | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 156-60-5   | W    |
| trans-1,3-Dichloropropene  | <26.6   | ug/kg | 63.8   | 26.6 | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 10061-02-6 | W    |
| <b>Surrogates</b>  |         |       |        |      |    |                |                |            |      |
| Dibromofluoromethane (S)   | 117     | %     | 49-157 |      | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 1868-53-7  |      |
| Toluene-d8 (S)   | 121     | %     | 61-148 |      | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 2037-26-5  |      |
| 4-Bromofluorobenzene (S)   | 112     | %     | 53-134 |      | 1  | 02/19/16 10:00 | 02/22/16 15:35 | 460-00-4   |      |
| <b>Percent Moisture</b> Analytical Method: ASTM D2974-87   |         |       |        |      |    |                |                |            |      |
| Percent Moisture   | 14.1    | %     | 0.10   | 0.10 | 1  |                | 02/18/16 16:48 |            |      |

**Sample: B1 (6-8)** **Lab ID: 40128386002** Collected: 02/16/16 10:29 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ   | LOD    | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|---|---------|-------|-------|--------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010 Preparation Method: EPA 3050                |         |       |       |        |    |                |                |           |      |
| Arsenic   | 3.9J    | mg/kg | 10.1  | 3.2    | 5  | 02/25/16 08:06 | 03/02/16 12:36 | 7440-38-2 | D3   |
| Barium  | 29.3    | mg/kg | 0.51  | 0.12   | 1  | 02/25/16 08:06 | 03/01/16 18:09 | 7440-39-3 |      |
| Cadmium   | 0.22J   | mg/kg | 0.51  | 0.067  | 1  | 02/25/16 08:06 | 03/01/16 18:09 | 7440-43-9 |      |
| Chromium  | 7.5     | mg/kg | 1.0   | 0.20   | 1  | 02/25/16 08:06 | 03/01/16 18:09 | 7440-47-3 |      |
| Lead  | 36.7    | mg/kg | 1.2   | 0.44   | 1  | 02/25/16 08:06 | 03/01/16 18:09 | 7439-92-1 |      |
| Selenium  | <0.78   | mg/kg | 2.0   | 0.78   | 1  | 02/25/16 08:06 | 03/01/16 18:09 | 7782-49-2 |      |
| Silver  | <0.28   | mg/kg | 1.0   | 0.28   | 1  | 02/25/16 08:06 | 03/01/16 18:09 | 7440-22-4 | L5   |
| <b>7471 Mercury</b> Analytical Method: EPA 7471 Preparation Method: EPA 7471                |         |       |       |        |    |                |                |           |      |
| Mercury   | 0.095   | mg/kg | 0.010 | 0.0031 | 1  | 03/01/16 10:40 | 03/02/16 09:20 | 7439-97-6 |      |
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 |         |       |       |        |    |                |                |           |      |
| Acenaphthene  | 69.6    | ug/kg | 36.9  | 18.4   | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 83-32-9   |      |
| Acenaphthylene  | 40.7    | ug/kg | 36.9  | 16.5   | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 208-96-8  |      |
| Anthracene  | 243     | ug/kg | 36.9  | 19.1   | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 120-12-7  |      |
| Benzo(a)anthracene  | 356     | ug/kg | 36.9  | 12.8   | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 56-55-3   |      |
| Benzo(a)pyrene  | 390     | ug/kg | 36.9  | 13.2   | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 50-32-8   |      |
| Benzo(b)fluoranthene  | 316     | ug/kg | 36.9  | 18.4   | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 205-99-2  |      |
| Benzo(g,h,i)perylene  | 240     | ug/kg | 36.9  | 14.0   | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 191-24-2  |      |
| Benzo(k)fluoranthene  | 352     | ug/kg | 36.9  | 20.4   | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 207-08-9  |      |
| Chrysene  | 428     | ug/kg | 36.9  | 17.0   | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 218-01-9  |      |
| Dibenz(a,h)anthracene   | 77.8    | ug/kg | 36.9  | 13.5   | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 53-70-3   |      |
| Fluoranthene  | 1050    | ug/kg | 36.9  | 18.4   | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 206-44-0  |      |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B1 (6-8)** **Lab ID: 40128386002** Collected: 02/16/16 10:29 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|--|---------|-------|--------|------|----|----------------|----------------|-----------|------|
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546          |         |       |        |      |    |                |                |           |      |
| Fluorene   | 79.8    | ug/kg | 36.9   | 18.4 | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 86-73-7   |      |
| Indeno(1,2,3-cd)pyrene   | 206     | ug/kg | 36.9   | 14.0 | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 193-39-5  |      |
| 1-Methylnaphthalene  | 43.1    | ug/kg | 36.9   | 18.4 | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 90-12-0   |      |
| 2-Methylnaphthalene  | 46.1    | ug/kg | 36.9   | 18.4 | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 91-57-6   |      |
| Naphthalene  | 108     | ug/kg | 36.9   | 18.4 | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 91-20-3   |      |
| Phenanthrene   | 1020    | ug/kg | 36.9   | 18.4 | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 85-01-8   |      |
| Pyrene   | 825     | ug/kg | 36.9   | 18.4 | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 129-00-0  |      |
| <b>Surrogates</b>  |         |       |        |      |    |                |                |           |      |
| 2-Fluorobiphenyl (S)   | 56      | %     | 26-130 |      | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 321-60-8  |      |
| Terphenyl-d14 (S)  | 66      | %     | 10-130 |      | 2  | 02/25/16 09:21 | 03/01/16 16:16 | 1718-51-0 |      |
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |         |       |        |      |    |                |                |           |      |
| 1,1,1,2-Tetrachloroethane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 630-20-6  | W    |
| 1,1,1-Trichloroethane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 71-55-6   | W    |
| 1,1,2,2-Tetrachloroethane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 79-34-5   | W    |
| 1,1,2-Trichloroethane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 79-00-5   | W    |
| 1,1-Dichloroethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 75-34-3   | W    |
| 1,1-Dichloroethene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 75-35-4   | W    |
| 1,1-Dichloropropene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 563-58-6  | W    |
| 1,2,3-Trichlorobenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 87-61-6   | W    |
| 1,2,3-Trichloropropane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 96-18-4   | W    |
| 1,2,4-Trichlorobenzene   | <47.6   | ug/kg | 250    | 47.6 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 120-82-1  | W    |
| 1,2,4-Trimethylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 95-63-6   | W    |
| 1,2-Dibromo-3-chloropropane  | <91.2   | ug/kg | 250    | 91.2 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 96-12-8   | W    |
| 1,2-Dibromoethane (EDB)  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 106-93-4  | W    |
| 1,2-Dichlorobenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 95-50-1   | W    |
| 1,2-Dichloroethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 107-06-2  | W    |
| 1,2-Dichloropropane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 78-87-5   | W    |
| 1,3,5-Trimethylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 108-67-8  | W    |
| 1,3-Dichlorobenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 541-73-1  | W    |
| 1,3-Dichloropropane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 142-28-9  | W    |
| 1,4-Dichlorobenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 106-46-7  | W    |
| 2,2-Dichloropropane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 594-20-7  | W    |
| 2-Chlorotoluene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 95-49-8   | W    |
| 4-Chlorotoluene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 106-43-4  | W    |
| Benzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 71-43-2   | W    |
| Bromobenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 108-86-1  | W    |
| Bromochloromethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 74-97-5   | W    |
| Bromodichloromethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 75-27-4   | W    |
| Bromoform  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 75-25-2   | W    |
| Bromomethane   | <69.9   | ug/kg | 250    | 69.9 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 74-83-9   | W    |
| Carbon tetrachloride   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 56-23-5   | W    |
| Chlorobenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 108-90-7  | W    |
| Chloroethane   | <67.0   | ug/kg | 250    | 67.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 75-00-3   | W    |
| Chloroform   | <46.4   | ug/kg | 250    | 46.4 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 67-66-3   | W    |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B1 (6-8)** **Lab ID: 40128386002** Collected: 02/16/16 10:29 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.     | Qual |
|--|---------|-------|--------|------|----|----------------|----------------|-------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |         |       |        |      |    |                |                |             |      |
| Chloromethane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 74-87-3     | W    |
| Dibromochloromethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 124-48-1    | W    |
| Dibromomethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 74-95-3     | W    |
| Dichlorodifluoromethane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 75-71-8     | W    |
| Diisopropyl ether  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 108-20-3    | W    |
| Ethylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 100-41-4    | W    |
| Hexachloro-1,3-butadiene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 87-68-3     | W    |
| Isopropylbenzene (Cumene)  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 98-82-8     | W    |
| Methyl-tert-butyl ether  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 1634-04-4   | W    |
| Methylene Chloride   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 75-09-2     | W    |
| Naphthalene  | <40.0   | ug/kg | 250    | 40.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 91-20-3     | W    |
| Styrene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 100-42-5    | W    |
| Tetrachloroethene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 127-18-4    | W    |
| Toluene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 108-88-3    | W    |
| Trichloroethene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 79-01-6     | W    |
| Trichlorofluoromethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 75-69-4     | W    |
| Vinyl chloride   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 75-01-4     | W    |
| cis-1,2-Dichloroethene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 156-59-2    | W    |
| cis-1,3-Dichloropropene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 10061-01-5  | W    |
| m&p-Xylene   | <50.0   | ug/kg | 120    | 50.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 179601-23-1 | W    |
| n-Butylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 104-51-8    | W    |
| n-Propylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 103-65-1    | W    |
| o-Xylene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 95-47-6     | W    |
| p-Isopropyltoluene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 99-87-6     | W    |
| sec-Butylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 135-98-8    | W    |
| tert-Butylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 98-06-6     | W    |
| trans-1,2-Dichloroethene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 156-60-5    | W    |
| trans-1,3-Dichloropropene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 10061-02-6  | W    |
| <b>Surrogates</b>  |         |       |        |      |    |                |                |             |      |
| Dibromofluoromethane (S)   | 109     | %     | 49-157 |      | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 1868-53-7   |      |
| Toluene-d8 (S)   | 114     | %     | 61-148 |      | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 2037-26-5   |      |
| 4-Bromofluorobenzene (S)   | 103     | %     | 53-134 |      | 1  | 02/19/16 10:00 | 02/22/16 15:12 | 460-00-4    |      |

### Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture **9.6** % 0.10 0.10 1 02/18/16 16:48

**Sample: B1 (14-16)** **Lab ID: 40128386003** Collected: 02/16/16 10:40 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ  | LOD | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|--|---------|-------|------|-----|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010 Preparation Method: EPA 3050 |         |       |      |     |    |                |                |           |      |
| Arsenic  | <3.3    | mg/kg | 10.3 | 3.3 | 5  | 02/25/16 08:06 | 03/02/16 12:38 | 7440-38-2 | D3   |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B1 (14-16)**      **Lab ID: 40128386003**      Collected: 02/16/16 10:40      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ  | LOD   | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|---|---------|-------|------|-------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010      Preparation Method: EPA 3050 |         |       |      |       |    |                |                |           |      |
| Barium  | 17.1    | mg/kg | 0.52 | 0.12  | 1  | 02/25/16 08:06 | 03/01/16 18:12 | 7440-39-3 |      |
| Cadmium   | 0.13J   | mg/kg | 0.52 | 0.068 | 1  | 02/25/16 08:06 | 03/01/16 18:12 | 7440-43-9 |      |
| Chromium  | 6.5     | mg/kg | 1.0  | 0.20  | 1  | 02/25/16 08:06 | 03/01/16 18:12 | 7440-47-3 |      |
| Lead  | 13.6    | mg/kg | 1.2  | 0.44  | 1  | 02/25/16 08:06 | 03/01/16 18:12 | 7439-92-1 |      |
| Selenium  | <0.79   | mg/kg | 2.1  | 0.79  | 1  | 02/25/16 08:06 | 03/01/16 18:12 | 7782-49-2 |      |
| Silver  | <0.29   | mg/kg | 1.0  | 0.29  | 1  | 02/25/16 08:06 | 03/01/16 18:12 | 7440-22-4 | L5   |

|   |       |       |       |        |   |                |                |           |  |
|---|-------|-------|-------|--------|---|----------------|----------------|-----------|--|
| <b>7471 Mercury</b> Analytical Method: EPA 7471      Preparation Method: EPA 7471 |       |       |       |        |   |                |                |           |  |
| Mercury   | 0.035 | mg/kg | 0.010 | 0.0030 | 1 | 03/01/16 10:40 | 03/02/16 09:22 | 7439-97-6 |  |

|  |       |       |        |      |   |                |                |           |  |
|--|-------|-------|--------|------|---|----------------|----------------|-----------|--|
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM      Preparation Method: EPA 3546 |       |       |        |      |   |                |                |           |  |
| Acenaphthene   | 9.2J  | ug/kg | 18.1   | 9.1  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 83-32-9   |  |
| Acenaphthylene   | <8.1  | ug/kg | 18.1   | 8.1  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 208-96-8  |  |
| Anthracene   | 29.9  | ug/kg | 18.1   | 9.4  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 120-12-7  |  |
| Benzo(a)anthracene   | 43.1  | ug/kg | 18.1   | 6.3  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 56-55-3   |  |
| Benzo(a)pyrene   | 41.0  | ug/kg | 18.1   | 6.5  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 50-32-8   |  |
| Benzo(b)fluoranthene   | 40.7  | ug/kg | 18.1   | 9.1  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 205-99-2  |  |
| Benzo(g,h,i)perylene   | 23.8  | ug/kg | 18.1   | 6.9  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 191-24-2  |  |
| Benzo(k)fluoranthene   | 33.0  | ug/kg | 18.1   | 10.0 | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 207-08-9  |  |
| Chrysene   | 47.5  | ug/kg | 18.1   | 8.4  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 218-01-9  |  |
| Dibenz(a,h)anthracene  | 8.3J  | ug/kg | 18.1   | 6.6  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 53-70-3   |  |
| Fluoranthene   | 106   | ug/kg | 18.1   | 9.1  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 206-44-0  |  |
| Fluorene   | 9.8J  | ug/kg | 18.1   | 9.1  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 86-73-7   |  |
| Indeno(1,2,3-cd)pyrene   | 20.9  | ug/kg | 18.1   | 6.9  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 193-39-5  |  |
| 1-Methylnaphthalene  | <9.1  | ug/kg | 18.1   | 9.1  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 90-12-0   |  |
| 2-Methylnaphthalene  | <9.1  | ug/kg | 18.1   | 9.1  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 91-57-6   |  |
| Naphthalene  | 10.0J | ug/kg | 18.1   | 9.1  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 91-20-3   |  |
| Phenanthrene   | 100   | ug/kg | 18.1   | 9.1  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 85-01-8   |  |
| Pyrene   | 80.0  | ug/kg | 18.1   | 9.1  | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 129-00-0  |  |
| <b>Surrogates</b>  |       |       |        |      |   |                |                |           |  |
| 2-Fluorobiphenyl (S)   | 56    | %     | 26-130 |      | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 321-60-8  |  |
| Terphenyl-d14 (S)  | 55    | %     | 10-130 |      | 1 | 02/25/16 09:21 | 03/01/16 11:16 | 1718-51-0 |  |

|   |       |       |      |      |   |                |                |          |   |
|---|-------|-------|------|------|---|----------------|----------------|----------|---|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |       |       |      |      |   |                |                |          |   |
| 1,1,1,2-Tetrachloroethane   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 19:20 | 630-20-6 | W |
| 1,1,1-Trichloroethane   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 19:20 | 71-55-6  | W |
| 1,1,2,2-Tetrachloroethane   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 19:20 | 79-34-5  | W |
| 1,1,2-Trichloroethane   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 19:20 | 79-00-5  | W |
| 1,1-Dichloroethane  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 19:20 | 75-34-3  | W |
| 1,1-Dichloroethene  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 19:20 | 75-35-4  | W |
| 1,1-Dichloropropene   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 19:20 | 563-58-6 | W |
| 1,2,3-Trichlorobenzene  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 19:20 | 87-61-6  | W |
| 1,2,3-Trichloropropane  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 19:20 | 96-18-4  | W |
| 1,2,4-Trichlorobenzene  | <47.6 | ug/kg | 250  | 47.6 | 1 | 02/22/16 07:00 | 02/22/16 19:20 | 120-82-1 | W |
| 1,2,4-Trimethylbenzene  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 19:20 | 95-63-6  | W |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

**Sample: B1 (14-16)**      **Lab ID: 40128386003**      Collected: 02/16/16 10:40      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ  | LOD  | DF | Prepared       | Analyzed       | CAS No.     | Qual |
|---|---------|-------|------|------|----|----------------|----------------|-------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |         |       |      |      |    |                |                |             |      |
| 1,2-Dibromo-3-chloropropane   | <91.2   | ug/kg | 250  | 91.2 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 96-12-8     | W    |
| 1,2-Dibromoethane (EDB)   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 106-93-4    | W    |
| 1,2-Dichlorobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 95-50-1     | W    |
| 1,2-Dichloroethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 107-06-2    | W    |
| 1,2-Dichloropropane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 78-87-5     | W    |
| 1,3,5-Trimethylbenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 108-67-8    | W    |
| 1,3-Dichlorobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 541-73-1    | W    |
| 1,3-Dichloropropane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 142-28-9    | W    |
| 1,4-Dichlorobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 106-46-7    | W    |
| 2,2-Dichloropropane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 594-20-7    | W    |
| 2-Chlorotoluene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 95-49-8     | W    |
| 4-Chlorotoluene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 106-43-4    | W    |
| Benzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 71-43-2     | W    |
| Bromobenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 108-86-1    | W    |
| Bromochloromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 74-97-5     | W    |
| Bromodichloromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 75-27-4     | W    |
| Bromoform   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 75-25-2     | W    |
| Bromomethane  | <69.9   | ug/kg | 250  | 69.9 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 74-83-9     | W    |
| Carbon tetrachloride  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 56-23-5     | W    |
| Chlorobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 108-90-7    | W    |
| Chloroethane  | <67.0   | ug/kg | 250  | 67.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 75-00-3     | W    |
| Chloroform  | <46.4   | ug/kg | 250  | 46.4 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 67-66-3     | W    |
| Chloromethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 74-87-3     | W    |
| Dibromochloromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 124-48-1    | W    |
| Dibromomethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 74-95-3     | W    |
| Dichlorodifluoromethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 75-71-8     | W    |
| Diisopropyl ether   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 108-20-3    | W    |
| Ethylbenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 100-41-4    | W    |
| Hexachloro-1,3-butadiene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 87-68-3     | W    |
| Isopropylbenzene (Cumene)   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 98-82-8     | W    |
| Methyl-tert-butyl ether   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 1634-04-4   | W    |
| Methylene Chloride  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 75-09-2     | W    |
| Naphthalene   | <40.0   | ug/kg | 250  | 40.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 91-20-3     | W    |
| Styrene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 100-42-5    | W    |
| Tetrachloroethene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 127-18-4    | W    |
| Toluene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 108-88-3    | W    |
| Trichloroethene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 79-01-6     | W    |
| Trichlorofluoromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 75-69-4     | W    |
| Vinyl chloride  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 75-01-4     | W    |
| cis-1,2-Dichloroethene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 156-59-2    | W    |
| cis-1,3-Dichloropropene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 10061-01-5  | W    |
| m&p-Xylene  | <50.0   | ug/kg | 120  | 50.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 179601-23-1 | W    |
| n-Butylbenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 104-51-8    | W    |
| n-Propylbenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 103-65-1    | W    |
| o-Xylene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 95-47-6     | W    |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B1 (14-16)**      **Lab ID: 40128386003**      Collected: 02/16/16 10:40      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.    | Qual |
|---|---------|-------|--------|------|----|----------------|----------------|------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |         |       |        |      |    |                |                |            |      |
| p-Isopropyltoluene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 99-87-6    | W    |
| sec-Butylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 135-98-8   | W    |
| tert-Butylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 98-06-6    | W    |
| trans-1,2-Dichloroethene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 156-60-5   | W    |
| trans-1,3-Dichloropropene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 10061-02-6 | W    |
| <b>Surrogates</b>   |         |       |        |      |    |                |                |            |      |
| Dibromofluoromethane (S)  | 123     | %     | 49-157 |      | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 1868-53-7  |      |
| Toluene-d8 (S)  | 116     | %     | 61-148 |      | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 2037-26-5  |      |
| 4-Bromofluorobenzene (S)  | 103     | %     | 53-134 |      | 1  | 02/22/16 07:00 | 02/22/16 19:20 | 460-00-4   |      |
| <b>Percent Moisture</b> Analytical Method: ASTM D2974-87  |         |       |        |      |    |                |                |            |      |
| Percent Moisture  | 8.0     | %     | 0.10   | 0.10 | 1  |                | 02/18/16 16:48 |            |      |

**Sample: B2 (2-4)**      **Lab ID: 40128386004**      Collected: 02/16/16 11:07      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ   | LOD    | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|--|---------|-------|-------|--------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010      Preparation Method: EPA 3050                |         |       |       |        |    |                |                |           |      |
| Arsenic  | 5.1J    | mg/kg | 10.6  | 3.4    | 5  | 02/25/16 08:06 | 03/02/16 12:40 | 7440-38-2 | D3   |
| Barium   | 47.1    | mg/kg | 0.53  | 0.13   | 1  | 02/25/16 08:06 | 03/01/16 18:14 | 7440-39-3 |      |
| Cadmium  | 0.51J   | mg/kg | 0.53  | 0.070  | 1  | 02/25/16 08:06 | 03/01/16 18:14 | 7440-43-9 |      |
| Chromium   | 11.2    | mg/kg | 1.1   | 0.21   | 1  | 02/25/16 08:06 | 03/01/16 18:14 | 7440-47-3 |      |
| Lead   | 54.8    | mg/kg | 1.3   | 0.46   | 1  | 02/25/16 08:06 | 03/01/16 18:14 | 7439-92-1 |      |
| Selenium   | <0.82   | mg/kg | 2.1   | 0.82   | 1  | 02/25/16 08:06 | 03/01/16 18:14 | 7782-49-2 |      |
| Silver   | <0.30   | mg/kg | 1.1   | 0.30   | 1  | 02/25/16 08:06 | 03/01/16 18:14 | 7440-22-4 | L5   |
| <b>7471 Mercury</b> Analytical Method: EPA 7471      Preparation Method: EPA 7471                |         |       |       |        |    |                |                |           |      |
| Mercury  | 0.059   | mg/kg | 0.010 | 0.0031 | 1  | 03/01/16 10:40 | 03/02/16 09:25 | 7439-97-6 |      |
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM      Preparation Method: EPA 3546 |         |       |       |        |    |                |                |           |      |
| Acenaphthene   | 51.4J   | ug/kg | 75.4  | 37.7   | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 83-32-9   |      |
| Acenaphthylene   | <33.7   | ug/kg | 75.4  | 33.7   | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 208-96-8  |      |
| Anthracene   | 171     | ug/kg | 75.4  | 39.1   | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 120-12-7  |      |
| Benzo(a)anthracene   | 430     | ug/kg | 75.4  | 26.1   | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 56-55-3   |      |
| Benzo(a)pyrene   | 500     | ug/kg | 75.4  | 27.0   | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 50-32-8   |      |
| Benzo(b)fluoranthene   | 477     | ug/kg | 75.4  | 37.7   | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 205-99-2  | Ip   |
| Benzo(g,h,i)perylene   | 185     | ug/kg | 75.4  | 28.7   | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 191-24-2  |      |
| Benzo(k)fluoranthene   | 558     | ug/kg | 75.4  | 41.7   | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 207-08-9  | Ip   |
| Chrysene   | 522     | ug/kg | 75.4  | 34.9   | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 218-01-9  |      |
| Dibenz(a,h)anthracene  | 76.4    | ug/kg | 75.4  | 27.7   | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 53-70-3   |      |
| Fluoranthene   | 1060    | ug/kg | 75.4  | 37.7   | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 206-44-0  |      |
| Fluorene   | 60.6J   | ug/kg | 75.4  | 37.7   | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 86-73-7   |      |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B2 (2-4)** **Lab ID: 40128386004** Collected: 02/16/16 11:07 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results         | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|--|-----------------|-------|--------|------|----|----------------|----------------|-----------|------|
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546          |                 |       |        |      |    |                |                |           |      |
| Indeno(1,2,3-cd)pyrene   | <b>183</b>      | ug/kg | 75.4   | 28.6 | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 193-39-5  |      |
| 1-Methylnaphthalene  | <b>&lt;37.7</b> | ug/kg | 75.4   | 37.7 | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 90-12-0   |      |
| 2-Methylnaphthalene  | <b>44.6J</b>    | ug/kg | 75.4   | 37.7 | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 91-57-6   |      |
| Naphthalene  | <b>47.5J</b>    | ug/kg | 75.4   | 37.7 | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 91-20-3   |      |
| Phenanthrene   | <b>643</b>      | ug/kg | 75.4   | 37.7 | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 85-01-8   |      |
| Pyrene   | <b>822</b>      | ug/kg | 75.4   | 37.7 | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 129-00-0  |      |
| <b>Surrogates</b>  |                 |       |        |      |    |                |                |           |      |
| 2-Fluorobiphenyl (S)   | 47              | %     | 26-130 |      | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 321-60-8  |      |
| Terphenyl-d14 (S)  | 47              | %     | 10-130 |      | 4  | 02/25/16 09:21 | 02/29/16 18:18 | 1718-51-0 |      |
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |                 |       |        |      |    |                |                |           |      |
| 1,1,1,2-Tetrachloroethane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 630-20-6  | W    |
| 1,1,1-Trichloroethane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 71-55-6   | W    |
| 1,1,2,2-Tetrachloroethane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 79-34-5   | W    |
| 1,1,2-Trichloroethane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 79-00-5   | W    |
| 1,1-Dichloroethane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 75-34-3   | W    |
| 1,1-Dichloroethene   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 75-35-4   | W    |
| 1,1-Dichloropropene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 563-58-6  | W    |
| 1,2,3-Trichlorobenzene   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 87-61-6   | W    |
| 1,2,3-Trichloropropane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 96-18-4   | W    |
| 1,2,4-Trichlorobenzene   | <b>&lt;47.6</b> | ug/kg | 250    | 47.6 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 120-82-1  | W    |
| 1,2,4-Trimethylbenzene   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 95-63-6   | W    |
| 1,2-Dibromo-3-chloropropane  | <b>&lt;91.2</b> | ug/kg | 250    | 91.2 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 96-12-8   | W    |
| 1,2-Dibromoethane (EDB)  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 106-93-4  | W    |
| 1,2-Dichlorobenzene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 95-50-1   | W    |
| 1,2-Dichloroethane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 107-06-2  | W    |
| 1,2-Dichloropropane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 78-87-5   | W    |
| 1,3,5-Trimethylbenzene   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 108-67-8  | W    |
| 1,3-Dichlorobenzene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 541-73-1  | W    |
| 1,3-Dichloropropane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 142-28-9  | W    |
| 1,4-Dichlorobenzene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 106-46-7  | W    |
| 2,2-Dichloropropane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 594-20-7  | W    |
| 2-Chlorotoluene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 95-49-8   | W    |
| 4-Chlorotoluene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 106-43-4  | W    |
| Benzene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 71-43-2   | W    |
| Bromobenzene   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 108-86-1  | W    |
| Bromochloromethane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 74-97-5   | W    |
| Bromodichloromethane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 75-27-4   | W    |
| Bromoform  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 75-25-2   | W    |
| Bromomethane   | <b>&lt;69.9</b> | ug/kg | 250    | 69.9 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 74-83-9   | W    |
| Carbon tetrachloride   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 56-23-5   | W    |
| Chlorobenzene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 108-90-7  | W    |
| Chloroethane   | <b>&lt;67.0</b> | ug/kg | 250    | 67.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 75-00-3   | W    |
| Chloroform   | <b>&lt;46.4</b> | ug/kg | 250    | 46.4 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 67-66-3   | W    |
| Chloromethane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 74-87-3   | W    |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B2 (2-4)** **Lab ID: 40128386004** Collected: 02/16/16 11:07 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.     | Qual |
|--|---------|-------|--------|------|----|----------------|----------------|-------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |         |       |        |      |    |                |                |             |      |
| Dibromochloromethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 124-48-1    | W    |
| Dibromomethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 74-95-3     | W    |
| Dichlorodifluoromethane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 75-71-8     | W    |
| Diisopropyl ether  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 108-20-3    | W    |
| Ethylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 100-41-4    | W    |
| Hexachloro-1,3-butadiene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 87-68-3     | W    |
| Isopropylbenzene (Cumene)  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 98-82-8     | W    |
| Methyl-tert-butyl ether  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 1634-04-4   | W    |
| Methylene Chloride   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 75-09-2     | W    |
| Naphthalene  | 68.6J   | ug/kg | 283    | 45.3 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 91-20-3     |      |
| Styrene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 100-42-5    | W    |
| Tetrachloroethene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 127-18-4    | W    |
| Toluene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 108-88-3    | W    |
| Trichloroethene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 79-01-6     | W    |
| Trichlorofluoromethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 75-69-4     | W    |
| Vinyl chloride   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 75-01-4     | W    |
| cis-1,2-Dichloroethene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 156-59-2    | W    |
| cis-1,3-Dichloropropene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 10061-01-5  | W    |
| m&p-Xylene   | <50.0   | ug/kg | 120    | 50.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 179601-23-1 | W    |
| n-Butylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 104-51-8    | W    |
| n-Propylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 103-65-1    | W    |
| o-Xylene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 95-47-6     | W    |
| p-Isopropyltoluene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 99-87-6     | W    |
| sec-Butylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 135-98-8    | W    |
| tert-Butylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 98-06-6     | W    |
| trans-1,2-Dichloroethene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 156-60-5    | W    |
| trans-1,3-Dichloropropene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 10061-02-6  | W    |
| <b>Surrogates</b>  |         |       |        |      |    |                |                |             |      |
| Dibromofluoromethane (S)   | 113     | %     | 49-157 |      | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 1868-53-7   |      |
| Toluene-d8 (S)   | 107     | %     | 61-148 |      | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 2037-26-5   |      |
| 4-Bromofluorobenzene (S)   | 94      | %     | 53-134 |      | 1  | 02/22/16 07:00 | 02/22/16 19:42 | 460-00-4    |      |

### Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture **11.6** % 0.10 0.10 1 02/18/16 16:49

**Sample: B2 (10-12)** **Lab ID: 40128386005** Collected: 02/16/16 11:15 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ  | LOD  | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|--|---------|-------|------|------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010 Preparation Method: EPA 3050 |         |       |      |      |    |                |                |           |      |
| Arsenic  | 4.9J    | mg/kg | 10.4 | 3.3  | 5  | 02/25/16 08:06 | 03/02/16 12:43 | 7440-38-2 | D3   |
| Barium   | 31.3    | mg/kg | 0.52 | 0.12 | 1  | 02/25/16 08:06 | 03/01/16 18:17 | 7440-39-3 |      |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B2 (10-12)**      **Lab ID: 40128386005**      Collected: 02/16/16 11:15      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results         | Units | LOQ  | LOD   | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|---|-----------------|-------|------|-------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010      Preparation Method: EPA 3050 |                 |       |      |       |    |                |                |           |      |
| Cadmium   | <b>0.50J</b>    | mg/kg | 0.52 | 0.069 | 1  | 02/25/16 08:06 | 03/01/16 18:17 | 7440-43-9 |      |
| Chromium  | <b>10.5</b>     | mg/kg | 1.0  | 0.20  | 1  | 02/25/16 08:06 | 03/01/16 18:17 | 7440-47-3 |      |
| Lead  | <b>37.7</b>     | mg/kg | 1.3  | 0.45  | 1  | 02/25/16 08:06 | 03/01/16 18:17 | 7439-92-1 |      |
| Selenium  | <b>&lt;0.80</b> | mg/kg | 2.1  | 0.80  | 1  | 02/25/16 08:06 | 03/01/16 18:17 | 7782-49-2 |      |
| Silver  | <b>&lt;0.29</b> | mg/kg | 1.0  | 0.29  | 1  | 02/25/16 08:06 | 03/01/16 18:17 | 7440-22-4 | L5   |

|   |             |       |        |        |   |                |                |           |  |
|---|-------------|-------|--------|--------|---|----------------|----------------|-----------|--|
| <b>7471 Mercury</b> Analytical Method: EPA 7471      Preparation Method: EPA 7471 |             |       |        |        |   |                |                |           |  |
| Mercury   | <b>0.12</b> | mg/kg | 0.0098 | 0.0029 | 1 | 03/01/16 10:40 | 03/02/16 09:27 | 7439-97-6 |  |

|  |                 |       |        |      |     |                |                |           |    |
|--|-----------------|-------|--------|------|-----|----------------|----------------|-----------|----|
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM      Preparation Method: EPA 3546 |                 |       |        |      |     |                |                |           |    |
| Acenaphthene   | <b>34000</b>    | ug/kg | 14300  | 7150 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 83-32-9   |    |
| Acenaphthylene   | <b>&lt;6400</b> | ug/kg | 14300  | 6400 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 208-96-8  |    |
| Anthracene   | <b>107000</b>   | ug/kg | 14300  | 7420 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 120-12-7  |    |
| Benzo(a)anthracene   | <b>75900</b>    | ug/kg | 14300  | 4960 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 56-55-3   |    |
| Benzo(a)pyrene   | <b>62600</b>    | ug/kg | 14300  | 5110 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 50-32-8   |    |
| Benzo(b)fluoranthene   | <b>45500</b>    | ug/kg | 14300  | 7150 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 205-99-2  |    |
| Benzo(g,h,i)perylene   | <b>28200</b>    | ug/kg | 14300  | 5450 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 191-24-2  |    |
| Benzo(k)fluoranthene   | <b>63000</b>    | ug/kg | 14300  | 7920 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 207-08-9  |    |
| Chrysene   | <b>76500</b>    | ug/kg | 14300  | 6610 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 218-01-9  |    |
| Dibenz(a,h)anthracene  | <b>11900J</b>   | ug/kg | 14300  | 5250 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 53-70-3   |    |
| Fluoranthene   | <b>213000</b>   | ug/kg | 14300  | 7150 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 206-44-0  |    |
| Fluorene   | <b>61400</b>    | ug/kg | 14300  | 7150 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 86-73-7   |    |
| Indeno(1,2,3-cd)pyrene   | <b>27500</b>    | ug/kg | 14300  | 5430 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 193-39-5  |    |
| 1-Methylnaphthalene  | <b>18200</b>    | ug/kg | 14300  | 7150 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 90-12-0   |    |
| 2-Methylnaphthalene  | <b>31900</b>    | ug/kg | 14300  | 7150 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 91-57-6   |    |
| Naphthalene  | <b>94700</b>    | ug/kg | 14300  | 7150 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 91-20-3   |    |
| Phenanthrene   | <b>307000</b>   | ug/kg | 14300  | 7150 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 85-01-8   |    |
| Pyrene   | <b>132000</b>   | ug/kg | 14300  | 7150 | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 129-00-0  |    |
| <b>Surrogates</b>  |                 |       |        |      |     |                |                |           |    |
| 2-Fluorobiphenyl (S)   | 0               | %     | 26-130 |      | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 321-60-8  | S4 |
| Terphenyl-d14 (S)  | 0               | %     | 10-130 |      | 400 | 02/25/16 09:21 | 03/01/16 10:51 | 1718-51-0 | S4 |

|   |                 |       |      |      |      |                |                |          |   |
|---|-----------------|-------|------|------|------|----------------|----------------|----------|---|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |                 |       |      |      |      |                |                |          |   |
| 1,1,1,2-Tetrachloroethane   | <b>&lt;312</b>  | ug/kg | 750  | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 630-20-6 | W |
| 1,1,1-Trichloroethane   | <b>&lt;312</b>  | ug/kg | 750  | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 71-55-6  | W |
| 1,1,2,2-Tetrachloroethane   | <b>&lt;312</b>  | ug/kg | 750  | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 79-34-5  | W |
| 1,1,2-Trichloroethane   | <b>&lt;312</b>  | ug/kg | 750  | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 79-00-5  | W |
| 1,1-Dichloroethane  | <b>&lt;312</b>  | ug/kg | 750  | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 75-34-3  | W |
| 1,1-Dichloroethene  | <b>&lt;312</b>  | ug/kg | 750  | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 75-35-4  | W |
| 1,1-Dichloropropene   | <b>&lt;312</b>  | ug/kg | 750  | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 563-58-6 | W |
| 1,2,3-Trichlorobenzene  | <b>&lt;312</b>  | ug/kg | 750  | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 87-61-6  | W |
| 1,2,3-Trichloropropane  | <b>&lt;312</b>  | ug/kg | 750  | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 96-18-4  | W |
| 1,2,4-Trichlorobenzene  | <b>&lt;594</b>  | ug/kg | 3120 | 594  | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 120-82-1 | W |
| 1,2,4-Trimethylbenzene  | <b>&lt;312</b>  | ug/kg | 750  | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 95-63-6  | W |
| 1,2-Dibromo-3-chloropropane   | <b>&lt;1140</b> | ug/kg | 3120 | 1140 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 96-12-8  | W |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

**Sample: B2 (10-12)** **Lab ID: 40128386005** Collected: 02/16/16 11:15 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ  | LOD | DF   | Prepared       | Analyzed       | CAS No.     | Qual |
|--|---------|-------|------|-----|------|----------------|----------------|-------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |         |       |      |     |      |                |                |             |      |
| 1,2-Dibromoethane (EDB)  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 106-93-4    | W    |
| 1,2-Dichlorobenzene  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 95-50-1     | W    |
| 1,2-Dichloroethane   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 107-06-2    | W    |
| 1,2-Dichloropropane  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 78-87-5     | W    |
| 1,3,5-Trimethylbenzene   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 108-67-8    | W    |
| 1,3-Dichlorobenzene  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 541-73-1    | W    |
| 1,3-Dichloropropane  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 142-28-9    | W    |
| 1,4-Dichlorobenzene  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 106-46-7    | W    |
| 2,2-Dichloropropane  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 594-20-7    | W    |
| 2-Chlorotoluene  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 95-49-8     | W    |
| 4-Chlorotoluene  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 106-43-4    | W    |
| Benzene  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 71-43-2     | W    |
| Bromobenzene   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 108-86-1    | W    |
| Bromochloromethane   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 74-97-5     | W    |
| Bromodichloromethane   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 75-27-4     | W    |
| Bromoform  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 75-25-2     | W    |
| Bromomethane   | <874    | ug/kg | 3120 | 874 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 74-83-9     | W    |
| Carbon tetrachloride   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 56-23-5     | W    |
| Chlorobenzene  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 108-90-7    | W    |
| Chloroethane   | <838    | ug/kg | 3120 | 838 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 75-00-3     | W    |
| Chloroform   | <581    | ug/kg | 3120 | 581 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 67-66-3     | W    |
| Chloromethane  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 74-87-3     | W    |
| Dibromochloromethane   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 124-48-1    | W    |
| Dibromomethane   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 74-95-3     | W    |
| Dichlorodifluoromethane  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 75-71-8     | W    |
| Diisopropyl ether  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 108-20-3    | W    |
| Ethylbenzene   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 100-41-4    | W    |
| Hexachloro-1,3-butadiene   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 87-68-3     | W    |
| Isopropylbenzene (Cumene)  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 98-82-8     | W    |
| Methyl-tert-butyl ether  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 1634-04-4   | W    |
| Methylene Chloride   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 75-09-2     | W    |
| Naphthalene  | 82900   | ug/kg | 3350 | 537 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 91-20-3     |      |
| Styrene  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 100-42-5    | W    |
| Tetrachloroethene  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 127-18-4    | W    |
| Toluene  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 108-88-3    | W    |
| Trichloroethene  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 79-01-6     | W    |
| Trichlorofluoromethane   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 75-69-4     | W    |
| Vinyl chloride   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 75-01-4     | W    |
| cis-1,2-Dichloroethene   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 156-59-2    | W    |
| cis-1,3-Dichloropropene  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 10061-01-5  | W    |
| m&p-Xylene   | <625    | ug/kg | 1500 | 625 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 179601-23-1 | W    |
| n-Butylbenzene   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 104-51-8    | W    |
| n-Propylbenzene  | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 103-65-1    | W    |
| o-Xylene   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 95-47-6     | W    |
| p-Isopropyltoluene   | <312    | ug/kg | 750  | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 99-87-6     | W    |

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B2 (10-12)**      **Lab ID: 40128386005**      Collected: 02/16/16 11:15      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ    | LOD | DF   | Prepared       | Analyzed       | CAS No.    | Qual |
|---|---------|-------|--------|-----|------|----------------|----------------|------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |         |       |        |     |      |                |                |            |      |
| sec-Butylbenzene  | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 135-98-8   | W    |
| tert-Butylbenzene   | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 98-06-6    | W    |
| trans-1,2-Dichloroethene  | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 156-60-5   | W    |
| trans-1,3-Dichloropropene   | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 10061-02-6 | W    |
| <b>Surrogates</b>   |         |       |        |     |      |                |                |            |      |
| Dibromofluoromethane (S)  | 0       | %     | 49-157 |     | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 1868-53-7  | S4   |
| Toluene-d8 (S)  | 0       | %     | 61-148 |     | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 2037-26-5  | S4   |
| 4-Bromofluorobenzene (S)  | 0       | %     | 53-134 |     | 12.5 | 02/22/16 07:00 | 02/23/16 09:16 | 460-00-4   | S4   |

**Percent Moisture**      Analytical Method: ASTM D2974-87

|                  |     |   |      |      |   |  |                |  |  |
|------------------|-----|---|------|------|---|--|----------------|--|--|
| Percent Moisture | 6.8 | % | 0.10 | 0.10 | 1 |  | 02/18/16 16:49 |  |  |
|------------------|-----|---|------|------|---|--|----------------|--|--|

**Sample: B2 (14-16)**      **Lab ID: 40128386006**      Collected: 02/16/16 11:19      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ  | LOD   | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|---|---------|-------|------|-------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010      Preparation Method: EPA 3050 |         |       |      |       |    |                |                |           |      |
| Arsenic   | 3.8J    | mg/kg | 10.3 | 3.3   | 5  | 02/25/16 08:06 | 03/02/16 12:45 | 7440-38-2 | D3   |
| Barium  | 33.8    | mg/kg | 0.51 | 0.12  | 1  | 02/25/16 08:06 | 03/01/16 18:19 | 7440-39-3 |      |
| Cadmium   | 0.34J   | mg/kg | 0.51 | 0.068 | 1  | 02/25/16 08:06 | 03/01/16 18:19 | 7440-43-9 |      |
| Chromium  | 8.1     | mg/kg | 1.0  | 0.20  | 1  | 02/25/16 08:06 | 03/01/16 18:19 | 7440-47-3 |      |
| Lead  | 48.2    | mg/kg | 1.2  | 0.44  | 1  | 02/25/16 08:06 | 03/01/16 18:19 | 7439-92-1 |      |
| Selenium  | <0.79   | mg/kg | 2.1  | 0.79  | 1  | 02/25/16 08:06 | 03/01/16 18:19 | 7782-49-2 |      |
| Silver  | <0.29   | mg/kg | 1.0  | 0.29  | 1  | 02/25/16 08:06 | 03/01/16 18:19 | 7440-22-4 | L5   |

**7471 Mercury**      Analytical Method: EPA 7471      Preparation Method: EPA 7471

|         |      |       |       |        |   |                |                |           |  |
|---------|------|-------|-------|--------|---|----------------|----------------|-----------|--|
| Mercury | 0.11 | mg/kg | 0.010 | 0.0031 | 1 | 03/01/16 10:40 | 03/02/16 09:29 | 7439-97-6 |  |
|---------|------|-------|-------|--------|---|----------------|----------------|-----------|--|

**8270 MSSV PAH by SIM**      Analytical Method: EPA 8270 by SIM      Preparation Method: EPA 3546

|                        |        |       |       |      |     |                |                |          |  |
|------------------------|--------|-------|-------|------|-----|----------------|----------------|----------|--|
| Acenaphthene           | 20600  | ug/kg | 11400 | 5710 | 625 | 02/25/16 09:21 | 03/03/16 17:17 | 83-32-9  |  |
| Acenaphthylene         | <5110  | ug/kg | 11400 | 5110 | 625 | 02/25/16 09:21 | 03/03/16 17:17 | 208-96-8 |  |
| Anthracene             | 65100  | ug/kg | 11400 | 5920 | 625 | 02/25/16 09:21 | 03/03/16 17:17 | 120-12-7 |  |
| Benzo(a)anthracene     | 48200  | ug/kg | 11400 | 3960 | 625 | 02/25/16 09:21 | 03/03/16 17:17 | 56-55-3  |  |
| Benzo(a)pyrene         | 37300  | ug/kg | 11400 | 4080 | 625 | 02/25/16 09:21 | 03/03/16 17:17 | 50-32-8  |  |
| Benzo(b)fluoranthene   | 30800  | ug/kg | 11400 | 5710 | 625 | 02/25/16 09:21 | 03/03/16 17:17 | 205-99-2 |  |
| Benzo(g,h,i)perylene   | 13200  | ug/kg | 11400 | 4350 | 625 | 02/25/16 09:21 | 03/03/16 17:17 | 191-24-2 |  |
| Benzo(k)fluoranthene   | 38100  | ug/kg | 11400 | 6320 | 625 | 02/25/16 09:21 | 03/03/16 17:17 | 207-08-9 |  |
| Chrysene               | 50300  | ug/kg | 11400 | 5280 | 625 | 02/25/16 09:21 | 03/03/16 17:17 | 218-01-9 |  |
| Dibenz(a,h)anthracene  | 5450J  | ug/kg | 11400 | 4190 | 625 | 02/25/16 09:21 | 03/03/16 17:17 | 53-70-3  |  |
| Fluoranthene           | 129000 | ug/kg | 11400 | 5710 | 625 | 02/25/16 09:21 | 03/03/16 17:17 | 206-44-0 |  |
| Fluorene               | 35300  | ug/kg | 11400 | 5710 | 625 | 02/25/16 09:21 | 03/03/16 17:17 | 86-73-7  |  |
| Indeno(1,2,3-cd)pyrene | 12900  | ug/kg | 11400 | 4340 | 625 | 02/25/16 09:21 | 03/03/16 17:17 | 193-39-5 |  |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B2 (14-16)** **Lab ID: 40128386006** Collected: 02/16/16 11:19 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results       | Units | LOQ    | LOD  | DF   | Prepared       | Analyzed       | CAS No.   | Qual |
|--|---------------|-------|--------|------|------|----------------|----------------|-----------|------|
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546          |               |       |        |      |      |                |                |           |      |
| 1-Methylnaphthalene  | <b>10800J</b> | ug/kg | 11400  | 5710 | 625  | 02/25/16 09:21 | 03/03/16 17:17 | 90-12-0   |      |
| 2-Methylnaphthalene  | <b>17600</b>  | ug/kg | 11400  | 5710 | 625  | 02/25/16 09:21 | 03/03/16 17:17 | 91-57-6   |      |
| Naphthalene  | <b>52400</b>  | ug/kg | 11400  | 5710 | 625  | 02/25/16 09:21 | 03/03/16 17:17 | 91-20-3   |      |
| Phenanthrene   | <b>186000</b> | ug/kg | 11400  | 5710 | 625  | 02/25/16 09:21 | 03/03/16 17:17 | 85-01-8   |      |
| Pyrene   | <b>87500</b>  | ug/kg | 11400  | 5710 | 625  | 02/25/16 09:21 | 03/03/16 17:17 | 129-00-0  |      |
| <b>Surrogates</b>  |               |       |        |      |      |                |                |           |      |
| 2-Fluorobiphenyl (S)   | 0             | %     | 26-130 |      | 625  | 02/25/16 09:21 | 03/03/16 17:17 | 321-60-8  | S4   |
| Terphenyl-d14 (S)  | 0             | %     | 10-130 |      | 625  | 02/25/16 09:21 | 03/03/16 17:17 | 1718-51-0 | S4   |
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |               |       |        |      |      |                |                |           |      |
| 1,1,1,2-Tetrachloroethane  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 630-20-6  | W    |
| 1,1,1-Trichloroethane  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 71-55-6   | W    |
| 1,1,2,2-Tetrachloroethane  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 79-34-5   | W    |
| 1,1,2-Trichloroethane  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 79-00-5   | W    |
| 1,1-Dichloroethane   | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 75-34-3   | W    |
| 1,1-Dichloroethene   | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 75-35-4   | W    |
| 1,1-Dichloropropene  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 563-58-6  | W    |
| 1,2,3-Trichlorobenzene   | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 87-61-6   | W    |
| 1,2,3-Trichloropropane   | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 96-18-4   | W    |
| 1,2,4-Trichlorobenzene   | < <b>594</b>  | ug/kg | 3120   | 594  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 120-82-1  | W    |
| 1,2,4-Trimethylbenzene   | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 95-63-6   | W    |
| 1,2-Dibromo-3-chloropropane  | < <b>1140</b> | ug/kg | 3120   | 1140 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 96-12-8   | W    |
| 1,2-Dibromoethane (EDB)  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 106-93-4  | W    |
| 1,2-Dichlorobenzene  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 95-50-1   | W    |
| 1,2-Dichloroethane   | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 107-06-2  | W    |
| 1,2-Dichloropropane  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 78-87-5   | W    |
| 1,3,5-Trimethylbenzene   | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 108-67-8  | W    |
| 1,3-Dichlorobenzene  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 541-73-1  | W    |
| 1,3-Dichloropropane  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 142-28-9  | W    |
| 1,4-Dichlorobenzene  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 106-46-7  | W    |
| 2,2-Dichloropropane  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 594-20-7  | W    |
| 2-Chlorotoluene  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 95-49-8   | W    |
| 4-Chlorotoluene  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 106-43-4  | W    |
| Benzene  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 71-43-2   | W    |
| Bromobenzene   | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 108-86-1  | W    |
| Bromochloromethane   | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 74-97-5   | W    |
| Bromodichloromethane   | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 75-27-4   | W    |
| Bromoform  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 75-25-2   | W    |
| Bromomethane   | < <b>874</b>  | ug/kg | 3120   | 874  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 74-83-9   | W    |
| Carbon tetrachloride   | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 56-23-5   | W    |
| Chlorobenzene  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 108-90-7  | W    |
| Chloroethane   | < <b>838</b>  | ug/kg | 3120   | 838  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 75-00-3   | W    |
| Chloroform   | < <b>581</b>  | ug/kg | 3120   | 581  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 67-66-3   | W    |
| Chloromethane  | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 74-87-3   | W    |
| Dibromochloromethane   | < <b>312</b>  | ug/kg | 750    | 312  | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 124-48-1  | W    |

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B2 (14-16)**      **Lab ID: 40128386006**      Collected: 02/16/16 11:19      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ    | LOD | DF   | Prepared       | Analyzed       | CAS No.     | Qual |
|---|---------|-------|--------|-----|------|----------------|----------------|-------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |         |       |        |     |      |                |                |             |      |
| Dibromomethane  | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 74-95-3     | W    |
| Dichlorodifluoromethane   | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 75-71-8     | W    |
| Diisopropyl ether   | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 108-20-3    | W    |
| Ethylbenzene  | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 100-41-4    | W    |
| Hexachloro-1,3-butadiene  | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 87-68-3     | W    |
| Isopropylbenzene (Cumene)   | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 98-82-8     | W    |
| Methyl-tert-butyl ether   | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 1634-04-4   | W    |
| Methylene Chloride  | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 75-09-2     | W    |
| Naphthalene   | 96000   | ug/kg | 3420   | 549 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 91-20-3     |      |
| Styrene   | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 100-42-5    | W    |
| Tetrachloroethene   | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 127-18-4    | W    |
| Toluene   | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 108-88-3    | W    |
| Trichloroethene   | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 79-01-6     | W    |
| Trichlorofluoromethane  | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 75-69-4     | W    |
| Vinyl chloride  | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 75-01-4     | W    |
| cis-1,2-Dichloroethene  | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 156-59-2    | W    |
| cis-1,3-Dichloropropene   | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 10061-01-5  | W    |
| m&p-Xylene  | <625    | ug/kg | 1500   | 625 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 179601-23-1 | W    |
| n-Butylbenzene  | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 104-51-8    | W    |
| n-Propylbenzene   | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 103-65-1    | W    |
| o-Xylene  | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 95-47-6     | W    |
| p-Isopropyltoluene  | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 99-87-6     | W    |
| sec-Butylbenzene  | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 135-98-8    | W    |
| tert-Butylbenzene   | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 98-06-6     | W    |
| trans-1,2-Dichloroethene  | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 156-60-5    | W    |
| trans-1,3-Dichloropropene   | <312    | ug/kg | 750    | 312 | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 10061-02-6  | W    |
| <b>Surrogates</b>   |         |       |        |     |      |                |                |             |      |
| Dibromofluoromethane (S)  | 0       | %     | 49-157 |     | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 1868-53-7   | S4   |
| Toluene-d8 (S)  | 0       | %     | 61-148 |     | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 2037-26-5   | S4   |
| 4-Bromofluorobenzene (S)  | 0       | %     | 53-134 |     | 12.5 | 02/22/16 07:00 | 02/23/16 09:39 | 460-00-4    | S4   |

### Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture      **8.7**      %      0.10      0.10      1      02/18/16 16:49

**Sample: B3 (2-4)**      **Lab ID: 40128386007**      Collected: 02/16/16 11:43      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results    | Units | LOQ  | LOD   | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|---|------------|-------|------|-------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010      Preparation Method: EPA 3050 |            |       |      |       |    |                |                |           |      |
| Arsenic   | <b>6.6</b> | mg/kg | 2.0  | 0.63  | 1  | 02/25/16 08:06 | 03/01/16 18:22 | 7440-38-2 |      |
| Barium  | <b>287</b> | mg/kg | 0.50 | 0.12  | 1  | 02/25/16 08:06 | 03/01/16 18:22 | 7440-39-3 |      |
| Cadmium   | <b>1.0</b> | mg/kg | 0.50 | 0.066 | 1  | 02/25/16 08:06 | 03/01/16 18:22 | 7440-43-9 |      |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B3 (2-4)** **Lab ID: 40128386007** Collected: 02/16/16 11:43 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ | LOD  | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|--|---------|-------|-----|------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010 Preparation Method: EPA 3050 |         |       |     |      |    |                |                |           |      |
| Chromium   | 11.8    | mg/kg | 1.0 | 0.19 | 1  | 02/25/16 08:06 | 03/01/16 18:22 | 7440-47-3 |      |
| Lead   | 358     | mg/kg | 1.2 | 0.43 | 1  | 02/25/16 08:06 | 03/01/16 18:22 | 7439-92-1 |      |
| Selenium   | <0.77   | mg/kg | 2.0 | 0.77 | 1  | 02/25/16 08:06 | 03/01/16 18:22 | 7782-49-2 |      |
| Silver   | <0.28   | mg/kg | 1.0 | 0.28 | 1  | 02/25/16 08:06 | 03/01/16 18:22 | 7440-22-4 | L5   |

|  |      |       |       |        |   |                |                |           |  |
|--|------|-------|-------|--------|---|----------------|----------------|-----------|--|
| <b>7471 Mercury</b> Analytical Method: EPA 7471 Preparation Method: EPA 7471 |      |       |       |        |   |                |                |           |  |
| Mercury  | 0.15 | mg/kg | 0.011 | 0.0032 | 1 | 03/01/16 10:40 | 03/02/16 09:42 | 7439-97-6 |  |

|   |       |       |        |     |    |                |                |           |  |
|---|-------|-------|--------|-----|----|----------------|----------------|-----------|--|
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 |       |       |        |     |    |                |                |           |  |
| Acenaphthene  | 544J  | ug/kg | 768    | 384 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 83-32-9   |  |
| Acenaphthylene  | <344  | ug/kg | 768    | 344 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 208-96-8  |  |
| Anthracene  | 2560  | ug/kg | 768    | 398 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 120-12-7  |  |
| Benzo(a)anthracene  | 10900 | ug/kg | 768    | 266 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 56-55-3   |  |
| Benzo(a)pyrene  | 14100 | ug/kg | 768    | 275 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 50-32-8   |  |
| Benzo(b)fluoranthene  | 13200 | ug/kg | 768    | 384 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 205-99-2  |  |
| Benzo(g,h,i)perylene  | 6300  | ug/kg | 768    | 293 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 191-24-2  |  |
| Benzo(k)fluoranthene  | 12100 | ug/kg | 768    | 425 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 207-08-9  |  |
| Chrysene  | 12000 | ug/kg | 768    | 355 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 218-01-9  |  |
| Dibenz(a,h)anthracene   | 2760  | ug/kg | 768    | 282 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 53-70-3   |  |
| Fluoranthene  | 22000 | ug/kg | 768    | 384 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 206-44-0  |  |
| Fluorene  | 516J  | ug/kg | 768    | 384 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 86-73-7   |  |
| Indeno(1,2,3-cd)pyrene  | 6500  | ug/kg | 768    | 292 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 193-39-5  |  |
| 1-Methylnaphthalene   | <384  | ug/kg | 768    | 384 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 90-12-0   |  |
| 2-Methylnaphthalene   | <384  | ug/kg | 768    | 384 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 91-57-6   |  |
| Naphthalene   | <384  | ug/kg | 768    | 384 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 91-20-3   |  |
| Phenanthrene  | 8160  | ug/kg | 768    | 384 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 85-01-8   |  |
| Pyrene  | 16900 | ug/kg | 768    | 384 | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 129-00-0  |  |
| <b>Surrogates</b>   |       |       |        |     |    |                |                |           |  |
| 2-Fluorobiphenyl (S)  | 43    | %     | 26-130 |     | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 321-60-8  |  |
| Terphenyl-d14 (S)   | 64    | %     | 10-130 |     | 40 | 02/25/16 09:21 | 03/02/16 19:19 | 1718-51-0 |  |

|  |       |       |      |      |   |                |                |          |   |
|--|-------|-------|------|------|---|----------------|----------------|----------|---|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |       |       |      |      |   |                |                |          |   |
| 1,1,1,2-Tetrachloroethane  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 20:05 | 630-20-6 | W |
| 1,1,1-Trichloroethane  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 20:05 | 71-55-6  | W |
| 1,1,2,2-Tetrachloroethane  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 20:05 | 79-34-5  | W |
| 1,1,2-Trichloroethane  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 20:05 | 79-00-5  | W |
| 1,1-Dichloroethane   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 20:05 | 75-34-3  | W |
| 1,1-Dichloroethene   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 20:05 | 75-35-4  | W |
| 1,1-Dichloropropene  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 20:05 | 563-58-6 | W |
| 1,2,3-Trichlorobenzene   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 20:05 | 87-61-6  | W |
| 1,2,3-Trichloropropane   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 20:05 | 96-18-4  | W |
| 1,2,4-Trichlorobenzene   | <47.6 | ug/kg | 250  | 47.6 | 1 | 02/22/16 07:00 | 02/22/16 20:05 | 120-82-1 | W |
| 1,2,4-Trimethylbenzene   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 20:05 | 95-63-6  | W |
| 1,2-Dibromo-3-chloropropane  | <91.2 | ug/kg | 250  | 91.2 | 1 | 02/22/16 07:00 | 02/22/16 20:05 | 96-12-8  | W |
| 1,2-Dibromoethane (EDB)  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 20:05 | 106-93-4 | W |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B3 (2-4)**      **Lab ID: 40128386007**      Collected: 02/16/16 11:43      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ  | LOD  | DF | Prepared       | Analyzed       | CAS No.     | Qual |
|---|---------|-------|------|------|----|----------------|----------------|-------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |         |       |      |      |    |                |                |             |      |
| 1,2-Dichlorobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 95-50-1     | W    |
| 1,2-Dichloroethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 107-06-2    | W    |
| 1,2-Dichloropropane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 78-87-5     | W    |
| 1,3,5-Trimethylbenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 108-67-8    | W    |
| 1,3-Dichlorobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 541-73-1    | W    |
| 1,3-Dichloropropane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 142-28-9    | W    |
| 1,4-Dichlorobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 106-46-7    | W    |
| 2,2-Dichloropropane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 594-20-7    | W    |
| 2-Chlorotoluene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 95-49-8     | W    |
| 4-Chlorotoluene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 106-43-4    | W    |
| Benzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 71-43-2     | W    |
| Bromobenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 108-86-1    | W    |
| Bromochloromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 74-97-5     | W    |
| Bromodichloromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 75-27-4     | W    |
| Bromoform   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 75-25-2     | W    |
| Bromomethane  | <69.9   | ug/kg | 250  | 69.9 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 74-83-9     | W    |
| Carbon tetrachloride  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 56-23-5     | W    |
| Chlorobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 108-90-7    | W    |
| Chloroethane  | <67.0   | ug/kg | 250  | 67.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 75-00-3     | W    |
| Chloroform  | <46.4   | ug/kg | 250  | 46.4 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 67-66-3     | W    |
| Chloromethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 74-87-3     | W    |
| Dibromochloromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 124-48-1    | W    |
| Dibromomethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 74-95-3     | W    |
| Dichlorodifluoromethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 75-71-8     | W    |
| Diisopropyl ether   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 108-20-3    | W    |
| Ethylbenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 100-41-4    | W    |
| Hexachloro-1,3-butadiene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 87-68-3     | W    |
| Isopropylbenzene (Cumene)   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 98-82-8     | W    |
| Methyl-tert-butyl ether   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 1634-04-4   | W    |
| Methylene Chloride  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 75-09-2     | W    |
| Naphthalene   | 157J    | ug/kg | 288  | 46.1 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 91-20-3     |      |
| Styrene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 100-42-5    | W    |
| Tetrachloroethene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 127-18-4    | W    |
| Toluene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 108-88-3    | W    |
| Trichloroethene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 79-01-6     | W    |
| Trichlorofluoromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 75-69-4     | W    |
| Vinyl chloride  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 75-01-4     | W    |
| cis-1,2-Dichloroethene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 156-59-2    | W    |
| cis-1,3-Dichloropropene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 10061-01-5  | W    |
| m&p-Xylene  | <50.0   | ug/kg | 120  | 50.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 179601-23-1 | W    |
| n-Butylbenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 104-51-8    | W    |
| n-Propylbenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 103-65-1    | W    |
| o-Xylene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 95-47-6     | W    |
| p-Isopropyltoluene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 99-87-6     | W    |
| sec-Butylbenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 135-98-8    | W    |

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B3 (2-4)** **Lab ID: 40128386007** Collected: 02/16/16 11:43 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.    | Qual |
|--|---------|-------|--------|------|----|----------------|----------------|------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |         |       |        |      |    |                |                |            |      |
| tert-Butylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 98-06-6    | W    |
| trans-1,2-Dichloroethene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 156-60-5   | W    |
| trans-1,3-Dichloropropene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 10061-02-6 | W    |
| <b>Surrogates</b>  |         |       |        |      |    |                |                |            |      |
| Dibromofluoromethane (S)   | 129     | %     | 49-157 |      | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 1868-53-7  |      |
| Toluene-d8 (S)   | 131     | %     | 61-148 |      | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 2037-26-5  |      |
| 4-Bromofluorobenzene (S)   | 116     | %     | 53-134 |      | 1  | 02/22/16 07:00 | 02/22/16 20:05 | 460-00-4   |      |
| <b>Percent Moisture</b> Analytical Method: ASTM D2974-87   |         |       |        |      |    |                |                |            |      |
| Percent Moisture   | 13.2    | %     | 0.10   | 0.10 | 1  |                | 02/18/16 16:49 |            |      |

**Sample: B3 (10-12)** **Lab ID: 40128386008** Collected: 02/16/16 11:50 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ   | LOD    | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|---|---------|-------|-------|--------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010 Preparation Method: EPA 3050                |         |       |       |        |    |                |                |           |      |
| Arsenic   | 3.6J    | mg/kg | 9.8   | 3.1    | 5  | 02/25/16 08:06 | 03/02/16 12:48 | 7440-38-2 | D3   |
| Barium  | 52.4    | mg/kg | 0.49  | 0.12   | 1  | 02/25/16 08:06 | 03/01/16 18:24 | 7440-39-3 |      |
| Cadmium   | 0.20J   | mg/kg | 0.49  | 0.065  | 1  | 02/25/16 08:06 | 03/01/16 18:24 | 7440-43-9 |      |
| Chromium  | 9.3     | mg/kg | 0.98  | 0.19   | 1  | 02/25/16 08:06 | 03/01/16 18:24 | 7440-47-3 |      |
| Lead  | 42.2    | mg/kg | 1.2   | 0.42   | 1  | 02/25/16 08:06 | 03/01/16 18:24 | 7439-92-1 |      |
| Selenium  | <0.76   | mg/kg | 2.0   | 0.76   | 1  | 02/25/16 08:06 | 03/01/16 18:24 | 7782-49-2 |      |
| Silver  | <0.27   | mg/kg | 0.98  | 0.27   | 1  | 02/25/16 08:06 | 03/01/16 18:24 | 7440-22-4 | L5   |
| <b>7471 Mercury</b> Analytical Method: EPA 7471 Preparation Method: EPA 7471                |         |       |       |        |    |                |                |           |      |
| Mercury   | 0.065   | mg/kg | 0.010 | 0.0031 | 1  | 03/01/16 10:40 | 03/02/16 11:27 | 7439-97-6 |      |
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 |         |       |       |        |    |                |                |           |      |
| Acenaphthene  | 28.2    | ug/kg | 18.8  | 9.4    | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 83-32-9   |      |
| Acenaphthylene  | 14.1J   | ug/kg | 18.8  | 8.4    | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 208-96-8  |      |
| Anthracene  | 88.4    | ug/kg | 18.8  | 9.8    | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 120-12-7  |      |
| Benzo(a)anthracene  | 225     | ug/kg | 18.8  | 6.5    | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 56-55-3   |      |
| Benzo(a)pyrene  | 278     | ug/kg | 18.8  | 6.7    | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 50-32-8   |      |
| Benzo(b)fluoranthene  | 248     | ug/kg | 18.8  | 9.4    | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 205-99-2  | Ip   |
| Benzo(g,h,i)perylene  | 94.3    | ug/kg | 18.8  | 7.2    | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 191-24-2  |      |
| Benzo(k)fluoranthene  | 285     | ug/kg | 18.8  | 10.4   | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 207-08-9  | Ip   |
| Chrysene  | 262     | ug/kg | 18.8  | 8.7    | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 218-01-9  |      |
| Dibenz(a,h)anthracene   | 37.1    | ug/kg | 18.8  | 6.9    | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 53-70-3   |      |
| Fluoranthene  | 587     | ug/kg | 18.8  | 9.4    | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 206-44-0  |      |
| Fluorene  | 31.2    | ug/kg | 18.8  | 9.4    | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 86-73-7   |      |
| Indeno(1,2,3-cd)pyrene  | 93.8    | ug/kg | 18.8  | 7.2    | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 193-39-5  |      |
| 1-Methylnaphthalene   | 12.1J   | ug/kg | 18.8  | 9.4    | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 90-12-0   |      |

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

**Sample: B3 (10-12)**      **Lab ID: 40128386008**      Collected: 02/16/16 11:50      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results         | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|---|-----------------|-------|--------|------|----|----------------|----------------|-----------|------|
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM      Preparation Method: EPA 3546          |                 |       |        |      |    |                |                |           |      |
| 2-Methylnaphthalene   | <b>13.2J</b>    | ug/kg | 18.8   | 9.4  | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 91-57-6   |      |
| Naphthalene   | <b>23.4</b>     | ug/kg | 18.8   | 9.4  | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 91-20-3   |      |
| Phenanthrene  | <b>359</b>      | ug/kg | 18.8   | 9.4  | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 85-01-8   |      |
| Pyrene  | <b>454</b>      | ug/kg | 18.8   | 9.4  | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 129-00-0  |      |
| <b>Surrogates</b>   |                 |       |        |      |    |                |                |           |      |
| 2-Fluorobiphenyl (S)  | 67              | %     | 26-130 |      | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 321-60-8  |      |
| Terphenyl-d14 (S)   | 68              | %     | 10-130 |      | 1  | 02/25/16 09:21 | 02/29/16 17:43 | 1718-51-0 |      |
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |                 |       |        |      |    |                |                |           |      |
| 1,1,1,2-Tetrachloroethane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 630-20-6  | W    |
| 1,1,1-Trichloroethane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 71-55-6   | W    |
| 1,1,2,2-Tetrachloroethane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 79-34-5   | W    |
| 1,1,2-Trichloroethane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 79-00-5   | W    |
| 1,1-Dichloroethane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 75-34-3   | W    |
| 1,1-Dichloroethene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 75-35-4   | W    |
| 1,1-Dichloropropene   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 563-58-6  | W    |
| 1,2,3-Trichlorobenzene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 87-61-6   | W    |
| 1,2,3-Trichloropropane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 96-18-4   | W    |
| 1,2,4-Trichlorobenzene  | <b>&lt;47.6</b> | ug/kg | 250    | 47.6 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 120-82-1  | W    |
| 1,2,4-Trimethylbenzene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 95-63-6   | W    |
| 1,2-Dibromo-3-chloropropane   | <b>&lt;91.2</b> | ug/kg | 250    | 91.2 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 96-12-8   | W    |
| 1,2-Dibromoethane (EDB)   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 106-93-4  | W    |
| 1,2-Dichlorobenzene   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 95-50-1   | W    |
| 1,2-Dichloroethane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 107-06-2  | W    |
| 1,2-Dichloropropane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 78-87-5   | W    |
| 1,3,5-Trimethylbenzene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 108-67-8  | W    |
| 1,3-Dichlorobenzene   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 541-73-1  | W    |
| 1,3-Dichloropropane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 142-28-9  | W    |
| 1,4-Dichlorobenzene   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 106-46-7  | W    |
| 2,2-Dichloropropane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 594-20-7  | W    |
| 2-Chlorotoluene   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 95-49-8   | W    |
| 4-Chlorotoluene   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 106-43-4  | W    |
| Benzene   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 71-43-2   | W    |
| Bromobenzene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 108-86-1  | W    |
| Bromochloromethane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 74-97-5   | W    |
| Bromodichloromethane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 75-27-4   | W    |
| Bromoform   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 75-25-2   | W    |
| Bromomethane  | <b>&lt;69.9</b> | ug/kg | 250    | 69.9 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 74-83-9   | W    |
| Carbon tetrachloride  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 56-23-5   | W    |
| Chlorobenzene   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 108-90-7  | W    |
| Chloroethane  | <b>&lt;67.0</b> | ug/kg | 250    | 67.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 75-00-3   | W    |
| Chloroform  | <b>&lt;46.4</b> | ug/kg | 250    | 46.4 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 67-66-3   | W    |
| Chloromethane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 74-87-3   | W    |
| Dibromochloromethane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 124-48-1  | W    |
| Dibromomethane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 74-95-3   | W    |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B3 (10-12)**      **Lab ID: 40128386008**      Collected: 02/16/16 11:50      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.     | Qual |
|---|---------|-------|--------|------|----|----------------|----------------|-------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |         |       |        |      |    |                |                |             |      |
| Dichlorodifluoromethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 75-71-8     | W    |
| Diisopropyl ether   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 108-20-3    | W    |
| Ethylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 100-41-4    | W    |
| Hexachloro-1,3-butadiene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 87-68-3     | W    |
| Isopropylbenzene (Cumene)   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 98-82-8     | W    |
| Methyl-tert-butyl ether   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 1634-04-4   | W    |
| Methylene Chloride  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 75-09-2     | W    |
| Naphthalene   | <40.0   | ug/kg | 250    | 40.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 91-20-3     | W    |
| Styrene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 100-42-5    | W    |
| Tetrachloroethene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 127-18-4    | W    |
| Toluene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 108-88-3    | W    |
| Trichloroethene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 79-01-6     | W    |
| Trichlorofluoromethane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 75-69-4     | W    |
| Vinyl chloride  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 75-01-4     | W    |
| cis-1,2-Dichloroethene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 156-59-2    | W    |
| cis-1,3-Dichloropropene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 10061-01-5  | W    |
| m&p-Xylene  | <50.0   | ug/kg | 120    | 50.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 179601-23-1 | W    |
| n-Butylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 104-51-8    | W    |
| n-Propylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 103-65-1    | W    |
| o-Xylene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 95-47-6     | W    |
| p-Isopropyltoluene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 99-87-6     | W    |
| sec-Butylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 135-98-8    | W    |
| tert-Butylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 98-06-6     | W    |
| trans-1,2-Dichloroethene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 156-60-5    | W    |
| trans-1,3-Dichloropropene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 10061-02-6  | W    |
| <b>Surrogates</b>   |         |       |        |      |    |                |                |             |      |
| Dibromofluoromethane (S)  | 107     | %     | 49-157 |      | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 1868-53-7   |      |
| Toluene-d8 (S)  | 112     | %     | 61-148 |      | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 2037-26-5   |      |
| 4-Bromofluorobenzene (S)  | 98      | %     | 53-134 |      | 1  | 02/22/16 07:00 | 02/22/16 20:28 | 460-00-4    |      |

**Percent Moisture**      Analytical Method: ASTM D2974-87

|                  |      |   |      |      |   |  |                |  |  |
|------------------|------|---|------|------|---|--|----------------|--|--|
| Percent Moisture | 11.5 | % | 0.10 | 0.10 | 1 |  | 02/18/16 16:49 |  |  |
|------------------|------|---|------|------|---|--|----------------|--|--|

**Sample: B3 (14-16)**      **Lab ID: 40128386009**      Collected: 02/16/16 11:54      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ  | LOD   | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|---|---------|-------|------|-------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010      Preparation Method: EPA 3050 |         |       |      |       |    |                |                |           |      |
| Arsenic   | 4.5J    | mg/kg | 10.5 | 3.3   | 5  | 02/25/16 08:06 | 03/02/16 12:50 | 7440-38-2 | D3   |
| Barium  | 48.6    | mg/kg | 0.52 | 0.12  | 1  | 02/25/16 08:06 | 03/01/16 18:31 | 7440-39-3 |      |
| Cadmium   | 0.16J   | mg/kg | 0.52 | 0.069 | 1  | 02/25/16 08:06 | 03/01/16 18:31 | 7440-43-9 |      |
| Chromium  | 11.0    | mg/kg | 1.0  | 0.20  | 1  | 02/25/16 08:06 | 03/01/16 18:31 | 7440-47-3 |      |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B3 (14-16)**      **Lab ID: 40128386009**      Collected: 02/16/16 11:54      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results         | Units | LOQ    | LOD    | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|---|-----------------|-------|--------|--------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010      Preparation Method: EPA 3050                         |                 |       |        |        |    |                |                |           |      |
| Lead  | <b>41.3</b>     | mg/kg | 1.3    | 0.45   | 1  | 02/25/16 08:06 | 03/01/16 18:31 | 7439-92-1 |      |
| Selenium  | <b>1.3J</b>     | mg/kg | 2.1    | 0.81   | 1  | 02/25/16 08:06 | 03/01/16 18:31 | 7782-49-2 |      |
| Silver  | <b>&lt;0.29</b> | mg/kg | 1.0    | 0.29   | 1  | 02/25/16 08:06 | 03/01/16 18:31 | 7440-22-4 | L5   |
| <b>7471 Mercury</b> Analytical Method: EPA 7471      Preparation Method: EPA 7471                         |                 |       |        |        |    |                |                |           |      |
| Mercury   | <b>0.11</b>     | mg/kg | 0.010  | 0.0031 | 1  | 03/01/16 10:40 | 03/02/16 09:47 | 7439-97-6 |      |
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM      Preparation Method: EPA 3546          |                 |       |        |        |    |                |                |           |      |
| Acenaphthene  | <b>73.5</b>     | ug/kg | 37.9   | 19.0   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 83-32-9   |      |
| Acenaphthylene  | <b>&lt;17.0</b> | ug/kg | 37.9   | 17.0   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 208-96-8  |      |
| Anthracene  | <b>194</b>      | ug/kg | 37.9   | 19.7   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 120-12-7  |      |
| Benzo(a)anthracene  | <b>384</b>      | ug/kg | 37.9   | 13.1   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 56-55-3   |      |
| Benzo(a)pyrene  | <b>432</b>      | ug/kg | 37.9   | 13.6   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 50-32-8   |      |
| Benzo(b)fluoranthene  | <b>494</b>      | ug/kg | 37.9   | 19.0   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 205-99-2  | Ip   |
| Benzo(g,h,i)perylene  | <b>154</b>      | ug/kg | 37.9   | 14.4   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 191-24-2  |      |
| Benzo(k)fluoranthene  | <b>362</b>      | ug/kg | 37.9   | 21.0   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 207-08-9  | Ip   |
| Chrysene  | <b>440</b>      | ug/kg | 37.9   | 17.5   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 218-01-9  |      |
| Dibenz(a,h)anthracene   | <b>59.8</b>     | ug/kg | 37.9   | 13.9   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 53-70-3   |      |
| Fluoranthene  | <b>1090</b>     | ug/kg | 37.9   | 19.0   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 206-44-0  |      |
| Fluorene  | <b>70.9</b>     | ug/kg | 37.9   | 19.0   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 86-73-7   |      |
| Indeno(1,2,3-cd)pyrene  | <b>154</b>      | ug/kg | 37.9   | 14.4   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 193-39-5  |      |
| 1-Methylnaphthalene   | <b>24.6J</b>    | ug/kg | 37.9   | 19.0   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 90-12-0   |      |
| 2-Methylnaphthalene   | <b>25.1J</b>    | ug/kg | 37.9   | 19.0   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 91-57-6   |      |
| Naphthalene   | <b>51.2</b>     | ug/kg | 37.9   | 19.0   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 91-20-3   |      |
| Phenanthrene  | <b>884</b>      | ug/kg | 37.9   | 19.0   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 85-01-8   |      |
| Pyrene  | <b>864</b>      | ug/kg | 37.9   | 19.0   | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 129-00-0  |      |
| <b>Surrogates</b>   |                 |       |        |        |    |                |                |           |      |
| 2-Fluorobiphenyl (S)  | 57              | %     | 26-130 |        | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 321-60-8  |      |
| Terphenyl-d14 (S)   | 64              | %     | 10-130 |        | 2  | 02/25/16 09:21 | 02/29/16 18:35 | 1718-51-0 |      |
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |                 |       |        |        |    |                |                |           |      |
| 1,1,1,2-Tetrachloroethane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 630-20-6  | W    |
| 1,1,1-Trichloroethane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 71-55-6   | W    |
| 1,1,2,2-Tetrachloroethane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 79-34-5   | W    |
| 1,1,2-Trichloroethane   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 79-00-5   | W    |
| 1,1-Dichloroethane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 75-34-3   | W    |
| 1,1-Dichloroethene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 75-35-4   | W    |
| 1,1-Dichloropropene   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 563-58-6  | W    |
| 1,2,3-Trichlorobenzene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 87-61-6   | W    |
| 1,2,3-Trichloropropane  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 96-18-4   | W    |
| 1,2,4-Trichlorobenzene  | <b>&lt;47.6</b> | ug/kg | 250    | 47.6   | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 120-82-1  | W    |
| 1,2,4-Trimethylbenzene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 95-63-6   | W    |
| 1,2-Dibromo-3-chloropropane   | <b>&lt;91.2</b> | ug/kg | 250    | 91.2   | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 96-12-8   | W    |
| 1,2-Dibromoethane (EDB)   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 106-93-4  | W    |
| 1,2-Dichlorobenzene   | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 95-50-1   | W    |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B3 (14-16)**      **Lab ID: 40128386009**      Collected: 02/16/16 11:54      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ  | LOD  | DF | Prepared       | Analyzed       | CAS No.     | Qual |
|---|---------|-------|------|------|----|----------------|----------------|-------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |         |       |      |      |    |                |                |             |      |
| 1,2-Dichloroethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 107-06-2    | W    |
| 1,2-Dichloropropane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 78-87-5     | W    |
| 1,3,5-Trimethylbenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 108-67-8    | W    |
| 1,3-Dichlorobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 541-73-1    | W    |
| 1,3-Dichloropropane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 142-28-9    | W    |
| 1,4-Dichlorobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 106-46-7    | W    |
| 2,2-Dichloropropane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 594-20-7    | W    |
| 2-Chlorotoluene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 95-49-8     | W    |
| 4-Chlorotoluene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 106-43-4    | W    |
| Benzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 71-43-2     | W    |
| Bromobenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 108-86-1    | W    |
| Bromochloromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 74-97-5     | W    |
| Bromodichloromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 75-27-4     | W    |
| Bromoform   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 75-25-2     | W    |
| Bromomethane  | <69.9   | ug/kg | 250  | 69.9 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 74-83-9     | W    |
| Carbon tetrachloride  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 56-23-5     | W    |
| Chlorobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 108-90-7    | W    |
| Chloroethane  | <67.0   | ug/kg | 250  | 67.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 75-00-3     | W    |
| Chloroform  | <46.4   | ug/kg | 250  | 46.4 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 67-66-3     | W    |
| Chloromethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 74-87-3     | W    |
| Dibromochloromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 124-48-1    | W    |
| Dibromomethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 74-95-3     | W    |
| Dichlorodifluoromethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 75-71-8     | W    |
| Diisopropyl ether   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 108-20-3    | W    |
| Ethylbenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 100-41-4    | W    |
| Hexachloro-1,3-butadiene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 87-68-3     | W    |
| Isopropylbenzene (Cumene)   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 98-82-8     | W    |
| Methyl-tert-butyl ether   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 1634-04-4   | W    |
| Methylene Chloride  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 75-09-2     | W    |
| Naphthalene   | <40.0   | ug/kg | 250  | 40.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 91-20-3     | W    |
| Styrene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 100-42-5    | W    |
| Tetrachloroethene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 127-18-4    | W    |
| Toluene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 108-88-3    | W    |
| Trichloroethene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 79-01-6     | W    |
| Trichlorofluoromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 75-69-4     | W    |
| Vinyl chloride  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 75-01-4     | W    |
| cis-1,2-Dichloroethene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 156-59-2    | W    |
| cis-1,3-Dichloropropene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 10061-01-5  | W    |
| m&p-Xylene  | <50.0   | ug/kg | 120  | 50.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 179601-23-1 | W    |
| n-Butylbenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 104-51-8    | W    |
| n-Propylbenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 103-65-1    | W    |
| o-Xylene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 95-47-6     | W    |
| p-Isopropyltoluene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 99-87-6     | W    |
| sec-Butylbenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 135-98-8    | W    |
| tert-Butylbenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 98-06-6     | W    |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B3 (14-16)** **Lab ID: 40128386009** Collected: 02/16/16 11:54 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.    | Qual |
|--|---------|-------|--------|------|----|----------------|----------------|------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |         |       |        |      |    |                |                |            |      |
| trans-1,2-Dichloroethene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 156-60-5   | W    |
| trans-1,3-Dichloropropene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 10061-02-6 | W    |
| <b>Surrogates</b>  |         |       |        |      |    |                |                |            |      |
| Dibromofluoromethane (S)   | 113     | %     | 49-157 |      | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 1868-53-7  |      |
| Toluene-d8 (S)   | 112     | %     | 61-148 |      | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 2037-26-5  |      |
| 4-Bromofluorobenzene (S)   | 96      | %     | 53-134 |      | 1  | 02/22/16 07:00 | 02/22/16 20:50 | 460-00-4   |      |
| <b>Percent Moisture</b> Analytical Method: ASTM D2974-87   |         |       |        |      |    |                |                |            |      |
| Percent Moisture   | 12.1    | %     | 0.10   | 0.10 | 1  |                | 02/20/16 11:34 |            |      |

**Sample: B4 (2-4)** **Lab ID: 40128386010** Collected: 02/16/16 12:19 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ  | LOD   | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|--|---------|-------|------|-------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010 Preparation Method: EPA 3050 |         |       |      |       |    |                |                |           |      |
| Arsenic  | <3.1    | mg/kg | 9.7  | 3.1   | 5  | 02/25/16 08:06 | 03/02/16 12:57 | 7440-38-2 | D3   |
| Barium   | 37.0    | mg/kg | 0.49 | 0.12  | 1  | 02/25/16 08:06 | 03/01/16 18:33 | 7440-39-3 |      |
| Cadmium  | 0.14J   | mg/kg | 0.49 | 0.064 | 1  | 02/25/16 08:06 | 03/01/16 18:33 | 7440-43-9 |      |
| Chromium   | 7.6     | mg/kg | 0.97 | 0.19  | 1  | 02/25/16 08:06 | 03/01/16 18:33 | 7440-47-3 |      |
| Lead   | 9.9     | mg/kg | 1.2  | 0.42  | 1  | 02/25/16 08:06 | 03/01/16 18:33 | 7439-92-1 |      |
| Selenium   | <0.75   | mg/kg | 1.9  | 0.75  | 1  | 02/25/16 08:06 | 03/01/16 18:33 | 7782-49-2 |      |
| Silver   | <0.27   | mg/kg | 0.97 | 0.27  | 1  | 02/25/16 08:06 | 03/01/16 18:33 | 7440-22-4 | L5   |

**7471 Mercury** Analytical Method: EPA 7471 Preparation Method: EPA 7471

Mercury **0.029** mg/kg 0.011 0.0032 1 03/01/16 10:40 03/02/16 09:49 7439-97-6

**8270 MSSV PAH by SIM** Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546

|                        |       |       |     |      |   |                |                |          |  |
|------------------------|-------|-------|-----|------|---|----------------|----------------|----------|--|
| Acenaphthene           | 176   | ug/kg | 152 | 76.0 | 8 | 02/25/16 09:21 | 03/01/16 10:34 | 83-32-9  |  |
| Acenaphthylene         | <68.0 | ug/kg | 152 | 68.0 | 8 | 02/25/16 09:21 | 03/01/16 10:34 | 208-96-8 |  |
| Anthracene             | 450   | ug/kg | 152 | 78.8 | 8 | 02/25/16 09:21 | 03/01/16 10:34 | 120-12-7 |  |
| Benzo(a)anthracene     | 757   | ug/kg | 152 | 52.7 | 8 | 02/25/16 09:21 | 03/01/16 10:34 | 56-55-3  |  |
| Benzo(a)pyrene         | 829   | ug/kg | 152 | 54.3 | 8 | 02/25/16 09:21 | 03/01/16 10:34 | 50-32-8  |  |
| Benzo(b)fluoranthene   | 592   | ug/kg | 152 | 76.0 | 8 | 02/25/16 09:21 | 03/01/16 10:34 | 205-99-2 |  |
| Benzo(g,h,i)perylene   | 481   | ug/kg | 152 | 57.9 | 8 | 02/25/16 09:21 | 03/01/16 10:34 | 191-24-2 |  |
| Benzo(k)fluoranthene   | 751   | ug/kg | 152 | 84.1 | 8 | 02/25/16 09:21 | 03/01/16 10:34 | 207-08-9 |  |
| Chrysene               | 866   | ug/kg | 152 | 70.3 | 8 | 02/25/16 09:21 | 03/01/16 10:34 | 218-01-9 |  |
| Dibenz(a,h)anthracene  | 151J  | ug/kg | 152 | 55.7 | 8 | 02/25/16 09:21 | 03/01/16 10:34 | 53-70-3  |  |
| Fluoranthene           | 2180  | ug/kg | 152 | 76.0 | 8 | 02/25/16 09:21 | 03/01/16 10:34 | 206-44-0 |  |
| Fluorene               | 155   | ug/kg | 152 | 76.0 | 8 | 02/25/16 09:21 | 03/01/16 10:34 | 86-73-7  |  |
| Indeno(1,2,3-cd)pyrene | 416   | ug/kg | 152 | 57.7 | 8 | 02/25/16 09:21 | 03/01/16 10:34 | 193-39-5 |  |
| 1-Methylnaphthalene    | <76.0 | ug/kg | 152 | 76.0 | 8 | 02/25/16 09:21 | 03/01/16 10:34 | 90-12-0  |  |
| 2-Methylnaphthalene    | <76.0 | ug/kg | 152 | 76.0 | 8 | 02/25/16 09:21 | 03/01/16 10:34 | 91-57-6  |  |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

**Sample: B4 (2-4)** **Lab ID: 40128386010** Collected: 02/16/16 12:19 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results     | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|---|-------------|-------|--------|------|----|----------------|----------------|-----------|------|
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 |             |       |        |      |    |                |                |           |      |
| Naphthalene   | <b>117J</b> | ug/kg | 152    | 76.0 | 8  | 02/25/16 09:21 | 03/01/16 10:34 | 91-20-3   |      |
| Phenanthrene  | <b>2220</b> | ug/kg | 152    | 76.0 | 8  | 02/25/16 09:21 | 03/01/16 10:34 | 85-01-8   |      |
| Pyrene  | <b>1830</b> | ug/kg | 152    | 76.0 | 8  | 02/25/16 09:21 | 03/01/16 10:34 | 129-00-0  |      |
| <b>Surrogates</b>   |             |       |        |      |    |                |                |           |      |
| 2-Fluorobiphenyl (S)  | 46          | %     | 26-130 |      | 8  | 02/25/16 09:21 | 03/01/16 10:34 | 321-60-8  |      |
| Terphenyl-d14 (S)   | 49          | %     | 10-130 |      | 8  | 02/25/16 09:21 | 03/01/16 10:34 | 1718-51-0 |      |

|  |       |       |      |      |   |                |                |          |   |
|--|-------|-------|------|------|---|----------------|----------------|----------|---|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |       |       |      |      |   |                |                |          |   |
| 1,1,1,2-Tetrachloroethane  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 630-20-6 | W |
| 1,1,1-Trichloroethane  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 71-55-6  | W |
| 1,1,2,2-Tetrachloroethane  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 79-34-5  | W |
| 1,1,2-Trichloroethane  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 79-00-5  | W |
| 1,1-Dichloroethane   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 75-34-3  | W |
| 1,1-Dichloroethene   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 75-35-4  | W |
| 1,1-Dichloropropene  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 563-58-6 | W |
| 1,2,3-Trichlorobenzene   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 87-61-6  | W |
| 1,2,3-Trichloropropane   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 96-18-4  | W |
| 1,2,4-Trichlorobenzene   | <47.6 | ug/kg | 250  | 47.6 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 120-82-1 | W |
| 1,2,4-Trimethylbenzene   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 95-63-6  | W |
| 1,2-Dibromo-3-chloropropane  | <91.2 | ug/kg | 250  | 91.2 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 96-12-8  | W |
| 1,2-Dibromoethane (EDB)  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 106-93-4 | W |
| 1,2-Dichlorobenzene  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 95-50-1  | W |
| 1,2-Dichloroethane   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 107-06-2 | W |
| 1,2-Dichloropropane  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 78-87-5  | W |
| 1,3,5-Trimethylbenzene   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 108-67-8 | W |
| 1,3-Dichlorobenzene  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 541-73-1 | W |
| 1,3-Dichloropropane  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 142-28-9 | W |
| 1,4-Dichlorobenzene  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 106-46-7 | W |
| 2,2-Dichloropropane  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 594-20-7 | W |
| 2-Chlorotoluene  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 95-49-8  | W |
| 4-Chlorotoluene  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 106-43-4 | W |
| Benzene  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 71-43-2  | W |
| Bromobenzene   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 108-86-1 | W |
| Bromochloromethane   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 74-97-5  | W |
| Bromodichloromethane   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 75-27-4  | W |
| Bromoform  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 75-25-2  | W |
| Bromomethane   | <69.9 | ug/kg | 250  | 69.9 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 74-83-9  | W |
| Carbon tetrachloride   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 56-23-5  | W |
| Chlorobenzene  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 108-90-7 | W |
| Chloroethane   | <67.0 | ug/kg | 250  | 67.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 75-00-3  | W |
| Chloroform   | <46.4 | ug/kg | 250  | 46.4 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 67-66-3  | W |
| Chloromethane  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 74-87-3  | W |
| Dibromochloromethane   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 124-48-1 | W |
| Dibromomethane   | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 74-95-3  | W |
| Dichlorodifluoromethane  | <25.0 | ug/kg | 60.0 | 25.0 | 1 | 02/22/16 07:00 | 02/22/16 21:13 | 75-71-8  | W |

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B4 (2-4)** **Lab ID: 40128386010** Collected: 02/16/16 12:19 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.     | Qual |
|--|---------|-------|--------|------|----|----------------|----------------|-------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |         |       |        |      |    |                |                |             |      |
| Diisopropyl ether  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 108-20-3    | W    |
| Ethylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 100-41-4    | W    |
| Hexachloro-1,3-butadiene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 87-68-3     | W    |
| Isopropylbenzene (Cumene)  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 98-82-8     | W    |
| Methyl-tert-butyl ether  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 1634-04-4   | W    |
| Methylene Chloride   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 75-09-2     | W    |
| Naphthalene  | <40.0   | ug/kg | 250    | 40.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 91-20-3     | W    |
| Styrene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 100-42-5    | W    |
| Tetrachloroethene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 127-18-4    | W    |
| Toluene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 108-88-3    | W    |
| Trichloroethene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 79-01-6     | W    |
| Trichlorofluoromethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 75-69-4     | W    |
| Vinyl chloride   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 75-01-4     | W    |
| cis-1,2-Dichloroethene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 156-59-2    | W    |
| cis-1,3-Dichloropropene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 10061-01-5  | W    |
| m&p-Xylene   | <50.0   | ug/kg | 120    | 50.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 179601-23-1 | W    |
| n-Butylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 104-51-8    | W    |
| n-Propylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 103-65-1    | W    |
| o-Xylene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 95-47-6     | W    |
| p-Isopropyltoluene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 99-87-6     | W    |
| sec-Butylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 135-98-8    | W    |
| tert-Butylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 98-06-6     | W    |
| trans-1,2-Dichloroethene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 156-60-5    | W    |
| trans-1,3-Dichloropropene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 10061-02-6  | W    |
| <b>Surrogates</b>  |         |       |        |      |    |                |                |             |      |
| Dibromofluoromethane (S)   | 119     | %     | 49-157 |      | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 1868-53-7   |      |
| Toluene-d8 (S)   | 110     | %     | 61-148 |      | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 2037-26-5   |      |
| 4-Bromofluorobenzene (S)   | 98      | %     | 53-134 |      | 1  | 02/22/16 07:00 | 02/22/16 21:13 | 460-00-4    |      |

### Percent Moisture

Analytical Method: ASTM D2974-87

|                  |      |   |      |      |   |  |                |  |  |
|------------------|------|---|------|------|---|--|----------------|--|--|
| Percent Moisture | 12.3 | % | 0.10 | 0.10 | 1 |  | 02/20/16 11:34 |  |  |
|------------------|------|---|------|------|---|--|----------------|--|--|

**Sample: B4 (10-12)** **Lab ID: 40128386011** Collected: 02/16/16 12:25 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results | Units | LOQ  | LOD   | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|--|---------|-------|------|-------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010 Preparation Method: EPA 3050 |         |       |      |       |    |                |                |           |      |
| Arsenic  | 5.3J    | mg/kg | 10.4 | 3.3   | 5  | 02/25/16 08:06 | 03/02/16 13:00 | 7440-38-2 | D3   |
| Barium   | 20.4    | mg/kg | 0.52 | 0.12  | 1  | 02/25/16 08:06 | 03/01/16 18:36 | 7440-39-3 |      |
| Cadmium  | 0.21J   | mg/kg | 0.52 | 0.069 | 1  | 02/25/16 08:06 | 03/01/16 18:36 | 7440-43-9 |      |
| Chromium   | 7.0     | mg/kg | 1.0  | 0.20  | 1  | 02/25/16 08:06 | 03/01/16 18:36 | 7440-47-3 |      |
| Lead   | 11.1    | mg/kg | 1.3  | 0.45  | 1  | 02/25/16 08:06 | 03/01/16 18:36 | 7439-92-1 |      |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B4 (10-12)**      **Lab ID: 40128386011**      Collected: 02/16/16 12:25      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ    | LOD    | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|---|---------|-------|--------|--------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010      Preparation Method: EPA 3050                         |         |       |        |        |    |                |                |           |      |
| Selenium  | <0.80   | mg/kg | 2.1    | 0.80   | 1  | 02/25/16 08:06 | 03/01/16 18:36 | 7782-49-2 |      |
| Silver  | <0.29   | mg/kg | 1.0    | 0.29   | 1  | 02/25/16 08:06 | 03/01/16 18:36 | 7440-22-4 | L5   |
| <b>7471 Mercury</b> Analytical Method: EPA 7471      Preparation Method: EPA 7471                         |         |       |        |        |    |                |                |           |      |
| Mercury   | 0.015   | mg/kg | 0.010  | 0.0031 | 1  | 03/01/16 10:40 | 03/02/16 09:51 | 7439-97-6 |      |
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM      Preparation Method: EPA 3546          |         |       |        |        |    |                |                |           |      |
| Acenaphthene  | 42.3    | ug/kg | 18.0   | 9.0    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 83-32-9   |      |
| Acenaphthylene  | 12.6J   | ug/kg | 18.0   | 8.1    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 208-96-8  |      |
| Anthracene  | 90.1    | ug/kg | 18.0   | 9.3    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 120-12-7  |      |
| Benzo(a)anthracene  | 167     | ug/kg | 18.0   | 6.2    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 56-55-3   |      |
| Benzo(a)pyrene  | 181     | ug/kg | 18.0   | 6.4    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 50-32-8   |      |
| Benzo(b)fluoranthene  | 175     | ug/kg | 18.0   | 9.0    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 205-99-2  |      |
| Benzo(g,h,i)perylene  | 101     | ug/kg | 18.0   | 6.9    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 191-24-2  |      |
| Benzo(k)fluoranthene  | 129     | ug/kg | 18.0   | 10     | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 207-08-9  |      |
| Chrysene  | 201     | ug/kg | 18.0   | 8.3    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 218-01-9  |      |
| Dibenz(a,h)anthracene   | 31.1    | ug/kg | 18.0   | 6.6    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 53-70-3   |      |
| Fluoranthene  | 541     | ug/kg | 18.0   | 9.0    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 206-44-0  |      |
| Fluorene  | 41.5    | ug/kg | 18.0   | 9.0    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 86-73-7   |      |
| Indeno(1,2,3-cd)pyrene  | 87.2    | ug/kg | 18.0   | 6.8    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 193-39-5  |      |
| 1-Methylnaphthalene   | 31.8    | ug/kg | 18.0   | 9.0    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 90-12-0   |      |
| 2-Methylnaphthalene   | 27.7    | ug/kg | 18.0   | 9.0    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 91-57-6   |      |
| Naphthalene   | 41.8    | ug/kg | 18.0   | 9.0    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 91-20-3   |      |
| Phenanthrene  | 650     | ug/kg | 18.0   | 9.0    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 85-01-8   |      |
| Pyrene  | 467     | ug/kg | 18.0   | 9.0    | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 129-00-0  |      |
| <b>Surrogates</b>   |         |       |        |        |    |                |                |           |      |
| 2-Fluorobiphenyl (S)  | 68      | %     | 26-130 |        | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 321-60-8  |      |
| Terphenyl-d14 (S)   | 77      | %     | 10-130 |        | 1  | 02/25/16 09:21 | 03/01/16 12:07 | 1718-51-0 |      |
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |         |       |        |        |    |                |                |           |      |
| 1,1,1,2-Tetrachloroethane   | <25.0   | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 630-20-6  | W    |
| 1,1,1-Trichloroethane   | <25.0   | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 71-55-6   | W    |
| 1,1,2,2-Tetrachloroethane   | <25.0   | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 79-34-5   | W    |
| 1,1,2-Trichloroethane   | <25.0   | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 79-00-5   | W    |
| 1,1-Dichloroethane  | <25.0   | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 75-34-3   | W    |
| 1,1-Dichloroethene  | <25.0   | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 75-35-4   | W    |
| 1,1-Dichloropropene   | <25.0   | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 563-58-6  | W    |
| 1,2,3-Trichlorobenzene  | <25.0   | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 87-61-6   | W    |
| 1,2,3-Trichloropropane  | <25.0   | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 96-18-4   | W    |
| 1,2,4-Trichlorobenzene  | <47.6   | ug/kg | 250    | 47.6   | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 120-82-1  | W    |
| 1,2,4-Trimethylbenzene  | <25.0   | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 95-63-6   | W    |
| 1,2-Dibromo-3-chloropropane   | <91.2   | ug/kg | 250    | 91.2   | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 96-12-8   | W    |
| 1,2-Dibromoethane (EDB)   | <25.0   | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 106-93-4  | W    |
| 1,2-Dichlorobenzene   | <25.0   | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 95-50-1   | W    |
| 1,2-Dichloroethane  | <25.0   | ug/kg | 60.0   | 25.0   | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 107-06-2  | W    |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B4 (10-12)**      **Lab ID: 40128386011**      Collected: 02/16/16 12:25      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ  | LOD  | DF | Prepared       | Analyzed       | CAS No.     | Qual |
|---|---------|-------|------|------|----|----------------|----------------|-------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |         |       |      |      |    |                |                |             |      |
| 1,2-Dichloropropane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 78-87-5     | W    |
| 1,3,5-Trimethylbenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 108-67-8    | W    |
| 1,3-Dichlorobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 541-73-1    | W    |
| 1,3-Dichloropropane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 142-28-9    | W    |
| 1,4-Dichlorobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 106-46-7    | W    |
| 2,2-Dichloropropane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 594-20-7    | W    |
| 2-Chlorotoluene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 95-49-8     | W    |
| 4-Chlorotoluene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 106-43-4    | W    |
| Benzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 71-43-2     | W    |
| Bromobenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 108-86-1    | W    |
| Bromochloromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 74-97-5     | W    |
| Bromodichloromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 75-27-4     | W    |
| Bromoform   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 75-25-2     | W    |
| Bromomethane  | <69.9   | ug/kg | 250  | 69.9 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 74-83-9     | W    |
| Carbon tetrachloride  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 56-23-5     | W    |
| Chlorobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 108-90-7    | W    |
| Chloroethane  | <67.0   | ug/kg | 250  | 67.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 75-00-3     | W    |
| Chloroform  | <46.4   | ug/kg | 250  | 46.4 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 67-66-3     | W    |
| Chloromethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 74-87-3     | W    |
| Dibromochloromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 124-48-1    | W    |
| Dibromomethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 74-95-3     | W    |
| Dichlorodifluoromethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 75-71-8     | W    |
| Diisopropyl ether   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 108-20-3    | W    |
| Ethylbenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 100-41-4    | W    |
| Hexachloro-1,3-butadiene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 87-68-3     | W    |
| Isopropylbenzene (Cumene)   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 98-82-8     | W    |
| Methyl-tert-butyl ether   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 1634-04-4   | W    |
| Methylene Chloride  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 75-09-2     | W    |
| Naphthalene   | <40.0   | ug/kg | 250  | 40.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 91-20-3     | W    |
| Styrene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 100-42-5    | W    |
| Tetrachloroethene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 127-18-4    | W    |
| Toluene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 108-88-3    | W    |
| Trichloroethene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 79-01-6     | W    |
| Trichlorofluoromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 75-69-4     | W    |
| Vinyl chloride  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 75-01-4     | W    |
| cis-1,2-Dichloroethene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 156-59-2    | W    |
| cis-1,3-Dichloropropene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 10061-01-5  | W    |
| m&p-Xylene  | <50.0   | ug/kg | 120  | 50.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 179601-23-1 | W    |
| n-Butylbenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 104-51-8    | W    |
| n-Propylbenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 103-65-1    | W    |
| o-Xylene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 95-47-6     | W    |
| p-Isopropyltoluene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 99-87-6     | W    |
| sec-Butylbenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 135-98-8    | W    |
| tert-Butylbenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 98-06-6     | W    |
| trans-1,2-Dichloroethene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 156-60-5    | W    |

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B4 (10-12)** **Lab ID: 40128386011** Collected: 02/16/16 12:25 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters   | Results         | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.    | Qual |
|--|-----------------|-------|--------|------|----|----------------|----------------|------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |                 |       |        |      |    |                |                |            |      |
| trans-1,3-Dichloropropene  | <b>&lt;25.0</b> | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 10061-02-6 | W    |
| <b>Surrogates</b>  |                 |       |        |      |    |                |                |            |      |
| Dibromofluoromethane (S)   | 110             | %     | 49-157 |      | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 1868-53-7  |      |
| Toluene-d8 (S)   | 111             | %     | 61-148 |      | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 2037-26-5  |      |
| 4-Bromofluorobenzene (S)   | 95              | %     | 53-134 |      | 1  | 02/22/16 07:00 | 02/22/16 21:36 | 460-00-4   |      |
| <b>Percent Moisture</b> Analytical Method: ASTM D2974-87   |                 |       |        |      |    |                |                |            |      |
| Percent Moisture   | <b>7.5</b>      | %     | 0.10   | 0.10 | 1  |                | 02/20/16 11:34 |            |      |

**Sample: B4 (14-16)** **Lab ID: 40128386012** Collected: 02/16/16 12:25 Received: 02/18/16 09:40 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results         | Units | LOQ    | LOD    | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|---|-----------------|-------|--------|--------|----|----------------|----------------|-----------|------|
| <b>6010 MET ICP</b> Analytical Method: EPA 6010 Preparation Method: EPA 3050                |                 |       |        |        |    |                |                |           |      |
| Arsenic   | <b>4.1J</b>     | mg/kg | 9.4    | 3.0    | 5  | 02/25/16 08:06 | 03/02/16 13:02 | 7440-38-2 | D3   |
| Barium  | <b>14.0</b>     | mg/kg | 0.47   | 0.11   | 1  | 02/25/16 08:06 | 03/01/16 18:38 | 7440-39-3 |      |
| Cadmium   | <b>0.16J</b>    | mg/kg | 0.47   | 0.062  | 1  | 02/25/16 08:06 | 03/01/16 18:38 | 7440-43-9 |      |
| Chromium  | <b>5.6</b>      | mg/kg | 0.94   | 0.18   | 1  | 02/25/16 08:06 | 03/01/16 18:38 | 7440-47-3 |      |
| Lead  | <b>6.5</b>      | mg/kg | 1.1    | 0.40   | 1  | 02/25/16 08:06 | 03/01/16 18:38 | 7439-92-1 |      |
| Selenium  | <b>&lt;0.72</b> | mg/kg | 1.9    | 0.72   | 1  | 02/25/16 08:06 | 03/01/16 18:38 | 7782-49-2 |      |
| Silver  | <b>&lt;0.26</b> | mg/kg | 0.94   | 0.26   | 1  | 02/25/16 08:06 | 03/01/16 18:38 | 7440-22-4 | L5   |
| <b>7471 Mercury</b> Analytical Method: EPA 7471 Preparation Method: EPA 7471                |                 |       |        |        |    |                |                |           |      |
| Mercury   | <b>0.0098</b>   | mg/kg | 0.0094 | 0.0028 | 1  | 03/01/16 10:40 | 03/02/16 09:54 | 7439-97-6 |      |
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 |                 |       |        |        |    |                |                |           |      |
| Acenaphthene  | <b>&lt;8.9</b>  | ug/kg | 17.9   | 8.9    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 83-32-9   |      |
| Acenaphthylene  | <b>&lt;8.0</b>  | ug/kg | 17.9   | 8.0    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 208-96-8  |      |
| Anthracene  | <b>17.0J</b>    | ug/kg | 17.9   | 9.3    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 120-12-7  |      |
| Benzo(a)anthracene  | <b>38.8</b>     | ug/kg | 17.9   | 6.2    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 56-55-3   |      |
| Benzo(a)pyrene  | <b>42.9</b>     | ug/kg | 17.9   | 6.4    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 50-32-8   |      |
| Benzo(b)fluoranthene  | <b>39.1</b>     | ug/kg | 17.9   | 8.9    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 205-99-2  |      |
| Benzo(g,h,i)perylene  | <b>26.7</b>     | ug/kg | 17.9   | 6.8    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 191-24-2  |      |
| Benzo(k)fluoranthene  | <b>36.8</b>     | ug/kg | 17.9   | 9.9    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 207-08-9  |      |
| Chrysene  | <b>45.2</b>     | ug/kg | 17.9   | 8.3    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 218-01-9  |      |
| Dibenz(a,h)anthracene   | <b>8.9J</b>     | ug/kg | 17.9   | 6.5    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 53-70-3   |      |
| Fluoranthene  | <b>96.1</b>     | ug/kg | 17.9   | 8.9    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 206-44-0  |      |
| Fluorene  | <b>&lt;8.9</b>  | ug/kg | 17.9   | 8.9    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 86-73-7   |      |
| Indeno(1,2,3-cd)pyrene  | <b>23.3</b>     | ug/kg | 17.9   | 6.8    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 193-39-5  |      |
| 1-Methylnaphthalene   | <b>&lt;8.9</b>  | ug/kg | 17.9   | 8.9    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 90-12-0   |      |
| 2-Methylnaphthalene   | <b>&lt;8.9</b>  | ug/kg | 17.9   | 8.9    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 91-57-6   |      |
| Naphthalene   | <b>&lt;8.9</b>  | ug/kg | 17.9   | 8.9    | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 91-20-3   |      |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B4 (14-16)**      **Lab ID: 40128386012**      Collected: 02/16/16 12:25      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|---|---------|-------|--------|------|----|----------------|----------------|-----------|------|
| <b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM      Preparation Method: EPA 3546          |         |       |        |      |    |                |                |           |      |
| Phenanthrene  | 75.9    | ug/kg | 17.9   | 8.9  | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 85-01-8   |      |
| Pyrene  | 77.5    | ug/kg | 17.9   | 8.9  | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 129-00-0  |      |
| <b>Surrogates</b>   |         |       |        |      |    |                |                |           |      |
| 2-Fluorobiphenyl (S)  | 61      | %     | 26-130 |      | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 321-60-8  |      |
| Terphenyl-d14 (S)   | 63      | %     | 10-130 |      | 1  | 02/25/16 09:21 | 03/01/16 10:17 | 1718-51-0 |      |
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |         |       |        |      |    |                |                |           |      |
| 1,1,1,2-Tetrachloroethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 630-20-6  | W    |
| 1,1,1-Trichloroethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 71-55-6   | W    |
| 1,1,2,2-Tetrachloroethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 79-34-5   | W    |
| 1,1,2-Trichloroethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 79-00-5   | W    |
| 1,1-Dichloroethane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 75-34-3   | W    |
| 1,1-Dichloroethene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 75-35-4   | W    |
| 1,1-Dichloropropene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 563-58-6  | W    |
| 1,2,3-Trichlorobenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 87-61-6   | W    |
| 1,2,3-Trichloropropane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 96-18-4   | W    |
| 1,2,4-Trichlorobenzene  | <47.6   | ug/kg | 250    | 47.6 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 120-82-1  | W    |
| 1,2,4-Trimethylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 95-63-6   | W    |
| 1,2-Dibromo-3-chloropropane   | <91.2   | ug/kg | 250    | 91.2 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 96-12-8   | W    |
| 1,2-Dibromoethane (EDB)   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 106-93-4  | W    |
| 1,2-Dichlorobenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 95-50-1   | W    |
| 1,2-Dichloroethane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 107-06-2  | W    |
| 1,2-Dichloropropane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 78-87-5   | W    |
| 1,3,5-Trimethylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 108-67-8  | W    |
| 1,3-Dichlorobenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 541-73-1  | W    |
| 1,3-Dichloropropane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 142-28-9  | W    |
| 1,4-Dichlorobenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 106-46-7  | W    |
| 2,2-Dichloropropane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 594-20-7  | W    |
| 2-Chlorotoluene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 95-49-8   | W    |
| 4-Chlorotoluene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 106-43-4  | W    |
| Benzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 71-43-2   | W    |
| Bromobenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 108-86-1  | W    |
| Bromochloromethane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 74-97-5   | W    |
| Bromodichloromethane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 75-27-4   | W    |
| Bromoform   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 75-25-2   | W    |
| Bromomethane  | <69.9   | ug/kg | 250    | 69.9 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 74-83-9   | W    |
| Carbon tetrachloride  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 56-23-5   | W    |
| Chlorobenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 108-90-7  | W    |
| Chloroethane  | <67.0   | ug/kg | 250    | 67.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 75-00-3   | W    |
| Chloroform  | <46.4   | ug/kg | 250    | 46.4 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 67-66-3   | W    |
| Chloromethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 74-87-3   | W    |
| Dibromochloromethane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 124-48-1  | W    |
| Dibromomethane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 74-95-3   | W    |
| Dichlorodifluoromethane   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 75-71-8   | W    |
| Diisopropyl ether   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 108-20-3  | W    |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample: B4 (14-16)**      **Lab ID: 40128386012**      Collected: 02/16/16 12:25      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

| Parameters  | Results | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.     | Qual |
|---|---------|-------|--------|------|----|----------------|----------------|-------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |         |       |        |      |    |                |                |             |      |
| Ethylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 100-41-4    | W    |
| Hexachloro-1,3-butadiene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 87-68-3     | W    |
| Isopropylbenzene (Cumene)   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 98-82-8     | W    |
| Methyl-tert-butyl ether   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 1634-04-4   | W    |
| Methylene Chloride  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 75-09-2     | W    |
| Naphthalene   | <40.0   | ug/kg | 250    | 40.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 91-20-3     | W    |
| Styrene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 100-42-5    | W    |
| Tetrachloroethene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 127-18-4    | W    |
| Toluene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 108-88-3    | W    |
| Trichloroethene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 79-01-6     | W    |
| Trichlorofluoromethane  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 75-69-4     | W    |
| Vinyl chloride  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 75-01-4     | W    |
| cis-1,2-Dichloroethene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 156-59-2    | W    |
| cis-1,3-Dichloropropene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 10061-01-5  | W    |
| m&p-Xylene  | <50.0   | ug/kg | 120    | 50.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 179601-23-1 | W    |
| n-Butylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 104-51-8    | W    |
| n-Propylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 103-65-1    | W    |
| o-Xylene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 95-47-6     | W    |
| p-Isopropyltoluene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 99-87-6     | W    |
| sec-Butylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 135-98-8    | W    |
| tert-Butylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 98-06-6     | W    |
| trans-1,2-Dichloroethene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 156-60-5    | W    |
| trans-1,3-Dichloropropene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 10061-02-6  | W    |
| <b>Surrogates</b>   |         |       |        |      |    |                |                |             |      |
| Dibromofluoromethane (S)  | 120     | %     | 49-157 |      | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 1868-53-7   |      |
| Toluene-d8 (S)  | 116     | %     | 61-148 |      | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 2037-26-5   |      |
| 4-Bromofluorobenzene (S)  | 100     | %     | 53-134 |      | 1  | 02/22/16 07:00 | 02/22/16 21:58 | 460-00-4    |      |
| <b>Percent Moisture</b> Analytical Method: ASTM D2974-87  |         |       |        |      |    |                |                |             |      |
| Percent Moisture  | 6.7     | %     | 0.10   | 0.10 | 1  |                | 02/20/16 11:34 |             |      |

**Sample: TRIP**      **Lab ID: 40128386013**      Collected: 02/16/16 12:30      Received: 02/18/16 09:40      Matrix: Solid

*Results reported on a "wet-weight" basis*

| Parameters  | Results | Units | LOQ  | LOD  | DF | Prepared       | Analyzed       | CAS No.  | Qual |
|---|---------|-------|------|------|----|----------------|----------------|----------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260      Preparation Method: EPA 5035/5030B |         |       |      |      |    |                |                |          |      |
| 1,1,1,2-Tetrachloroethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 630-20-6 | W    |
| 1,1,1-Trichloroethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 71-55-6  | W    |
| 1,1,2,2-Tetrachloroethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 79-34-5  | W    |
| 1,1,2-Trichloroethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 79-00-5  | W    |
| 1,1-Dichloroethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 75-34-3  | W    |
| 1,1-Dichloroethene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 75-35-4  | W    |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

**Sample:** TRIP **Lab ID:** 40128386013 **Collected:** 02/16/16 12:30 **Received:** 02/18/16 09:40 **Matrix:** Solid

**Results reported on a "wet-weight" basis**

| Parameters   | Results | Units | LOQ  | LOD  | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|--|---------|-------|------|------|----|----------------|----------------|-----------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |         |       |      |      |    |                |                |           |      |
| 1,1-Dichloropropene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 563-58-6  | W    |
| 1,2,3-Trichlorobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 87-61-6   | W    |
| 1,2,3-Trichloropropane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 96-18-4   | W    |
| 1,2,4-Trichlorobenzene   | <47.6   | ug/kg | 250  | 47.6 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 120-82-1  | W    |
| 1,2,4-Trimethylbenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 95-63-6   | W    |
| 1,2-Dibromo-3-chloropropane  | <91.2   | ug/kg | 250  | 91.2 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 96-12-8   | W    |
| 1,2-Dibromoethane (EDB)  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 106-93-4  | W    |
| 1,2-Dichlorobenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 95-50-1   | W    |
| 1,2-Dichloroethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 107-06-2  | W    |
| 1,2-Dichloropropane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 78-87-5   | W    |
| 1,3,5-Trimethylbenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 108-67-8  | W    |
| 1,3-Dichlorobenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 541-73-1  | W    |
| 1,3-Dichloropropane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 142-28-9  | W    |
| 1,4-Dichlorobenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 106-46-7  | W    |
| 2,2-Dichloropropane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 594-20-7  | W    |
| 2-Chlorotoluene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 95-49-8   | W    |
| 4-Chlorotoluene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 106-43-4  | W    |
| Benzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 71-43-2   | W    |
| Bromobenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 108-86-1  | W    |
| Bromochloromethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 74-97-5   | W    |
| Bromodichloromethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 75-27-4   | W    |
| Bromoform  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 75-25-2   | W    |
| Bromomethane   | <69.9   | ug/kg | 250  | 69.9 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 74-83-9   | W    |
| Carbon tetrachloride   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 56-23-5   | W    |
| Chlorobenzene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 108-90-7  | W    |
| Chloroethane   | <67.0   | ug/kg | 250  | 67.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 75-00-3   | W    |
| Chloroform   | <46.4   | ug/kg | 250  | 46.4 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 67-66-3   | W    |
| Chloromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 74-87-3   | W    |
| Dibromochloromethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 124-48-1  | W    |
| Dibromomethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 74-95-3   | W    |
| Dichlorodifluoromethane  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 75-71-8   | W    |
| Diisopropyl ether  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 108-20-3  | W    |
| Ethylbenzene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 100-41-4  | W    |
| Hexachloro-1,3-butadiene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 87-68-3   | W    |
| Isopropylbenzene (Cumene)  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 98-82-8   | W    |
| Methyl-tert-butyl ether  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 1634-04-4 | W    |
| Methylene Chloride   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 75-09-2   | W    |
| Naphthalene  | <40.0   | ug/kg | 250  | 40.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 91-20-3   | W    |
| Styrene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 100-42-5  | W    |
| Tetrachloroethene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 127-18-4  | W    |
| Toluene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 108-88-3  | W    |
| Trichloroethene  | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 79-01-6   | W    |
| Trichlorofluoromethane   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 75-69-4   | W    |
| Vinyl chloride   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 75-01-4   | W    |
| cis-1,2-Dichloroethene   | <25.0   | ug/kg | 60.0 | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 156-59-2  | W    |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

**Sample:** TRIP **Lab ID:** 40128386013 **Collected:** 02/16/16 12:30 **Received:** 02/18/16 09:40 **Matrix:** Solid

**Results reported on a "wet-weight" basis**

| Parameters   | Results | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.     | Qual |
|--|---------|-------|--------|------|----|----------------|----------------|-------------|------|
| <b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B |         |       |        |      |    |                |                |             |      |
| cis-1,3-Dichloropropene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 10061-01-5  | W    |
| m&p-Xylene   | <50.0   | ug/kg | 120    | 50.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 179601-23-1 | W    |
| n-Butylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 104-51-8    | W    |
| n-Propylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 103-65-1    | W    |
| o-Xylene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 95-47-6     | W    |
| p-Isopropyltoluene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 99-87-6     | W    |
| sec-Butylbenzene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 135-98-8    | W    |
| tert-Butylbenzene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 98-06-6     | W    |
| trans-1,2-Dichloroethene   | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 156-60-5    | W    |
| trans-1,3-Dichloropropene  | <25.0   | ug/kg | 60.0   | 25.0 | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 10061-02-6  | W    |
| <b>Surrogates</b>  |         |       |        |      |    |                |                |             |      |
| Dibromofluoromethane (S)   | 102     | %     | 49-157 |      | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 1868-53-7   |      |
| Toluene-d8 (S)   | 97      | %     | 61-148 |      | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 2037-26-5   |      |
| 4-Bromofluorobenzene (S)   | 94      | %     | 53-134 |      | 1  | 02/22/16 07:00 | 02/22/16 18:35 | 460-00-4    |      |

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

|                         |  |                       |              |
|-------------------------|--|-----------------------|--------------|
| QC Batch:               | MERP/5589  | Analysis Method:      | EPA 7471     |
| QC Batch Method:        | EPA 7471   | Analysis Description: | 7471 Mercury |
| Associated Lab Samples: | 40128386001, 40128386002, 40128386003, 40128386004, 40128386005, 40128386006, 40128386007, 40128386008, 40128386009, 40128386010, 40128386011, 40128386012 |                       |              |

|                         |  |         |       |
|-------------------------|--|---------|-------|
| METHOD BLANK:           | 1299716  | Matrix: | Solid |
| Associated Lab Samples: | 40128386001, 40128386002, 40128386003, 40128386004, 40128386005, 40128386006, 40128386007, 40128386008, 40128386009, 40128386010, 40128386011, 40128386012 |         |       |

| Parameter | Units | Blank Result | Reporting Limit | Analyzed       | Qualifiers |
|-----------|-------|--------------|-----------------|----------------|------------|
| Mercury   | mg/kg | <0.0029      | 0.0097          | 03/02/16 09:08 |            |

LABORATORY CONTROL SAMPLE: 1299717

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Mercury   | mg/kg | .17         | 0.18       | 107       | 85-115       |            |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1299718 1299719

| Parameter | Units | 40128386001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Mercury   | mg/kg | 0.57               | .2             | .19             | 0.79      | 0.72       | 117      | 80        | 85-115       | 10  | 20      | M0   |

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

|                         |  |                       |          |
|-------------------------|--|-----------------------|----------|
| QC Batch:               | MPRP/13381   | Analysis Method:      | EPA 6010 |
| QC Batch Method:        | EPA 3050   | Analysis Description: | 6010 MET |
| Associated Lab Samples: | 40128386001, 40128386002, 40128386003, 40128386004, 40128386005, 40128386006, 40128386007, 40128386008, 40128386009, 40128386010, 40128386011, 40128386012 |                       |          |

|                         |  |         |       |
|-------------------------|--|---------|-------|
| METHOD BLANK:           | 1298822  | Matrix: | Solid |
| Associated Lab Samples: | 40128386001, 40128386002, 40128386003, 40128386004, 40128386005, 40128386006, 40128386007, 40128386008, 40128386009, 40128386010, 40128386011, 40128386012 |         |       |

| Parameter | Units | Blank Result | Reporting Limit | Analyzed       | Qualifiers |
|-----------|-------|--------------|-----------------|----------------|------------|
| Arsenic   | mg/kg | <0.64        | 2.0             | 03/01/16 17:53 |            |
| Barium    | mg/kg | <0.12        | 0.50            | 03/01/16 17:53 |            |
| Cadmium   | mg/kg | <0.066       | 0.50            | 03/01/16 17:53 |            |
| Chromium  | mg/kg | <0.19        | 1.0             | 03/01/16 17:53 |            |
| Lead      | mg/kg | <0.43        | 1.2             | 03/01/16 17:53 |            |
| Selenium  | mg/kg | <0.77        | 2.0             | 03/01/16 17:53 |            |
| Silver    | mg/kg | <0.28        | 1.0             | 03/01/16 17:53 |            |

LABORATORY CONTROL SAMPLE: 1298823

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Arsenic   | mg/kg | 50          | 48.4       | 97        | 80-120       |            |
| Barium    | mg/kg | 50          | 50.5       | 101       | 80-120       |            |
| Cadmium   | mg/kg | 50          | 49.9       | 100       | 80-120       |            |
| Chromium  | mg/kg | 50          | 50.1       | 100       | 80-120       |            |
| Lead      | mg/kg | 50          | 48.9       | 98        | 80-120       |            |
| Selenium  | mg/kg | 50          | 49.2       | 98        | 80-120       |            |
| Silver    | mg/kg | 25          | 19.1       | 76        | 80-120       |            |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1299080 1299081

| Parameter | Units | 40128386001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Arsenic   | mg/kg | 9.9                | 57.9           | 58              | 63.3      | 63.8       | 92       | 93        | 75-125       | 1   | 20      |      |
| Barium    | mg/kg | 89.4               | 57.9           | 58              | 164       | 165        | 129      | 130       | 75-125       | 0   | 20 M0   |      |
| Cadmium   | mg/kg | 0.49J              | 57.9           | 58              | 58.5      | 58.1       | 100      | 99        | 75-125       | 1   | 20      |      |
| Chromium  | mg/kg | 11.9               | 57.9           | 58              | 73.4      | 68.3       | 106      | 97        | 75-125       | 7   | 20      |      |
| Lead      | mg/kg | 119                | 57.9           | 58              | 163       | 151        | 77       | 57        | 75-125       | 7   | 20 M0   |      |
| Selenium  | mg/kg | <0.89              | 57.9           | 58              | 55.3      | 55.0       | 95       | 94        | 75-125       | 1   | 20      |      |
| Silver    | mg/kg | <0.32              | 29             | 29              | 28.3      | 28.5       | 98       | 98        | 75-125       | 1   | 20      |      |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

QC Batch: MSV/32287

Analysis Method: EPA 8260

QC Batch Method: EPA 5035/5030B

Analysis Description: 8260 MSV Med Level Normal List

Associated Lab Samples: 40128386001, 40128386002

METHOD BLANK: 1297293

Matrix: Solid

Associated Lab Samples: 40128386001, 40128386002

| Parameter                   | Units | Blank Result | Reporting Limit | Analyzed       | Qualifiers |
|-----------------------------|-------|--------------|-----------------|----------------|------------|
| 1,1,1,2-Tetrachloroethane   | ug/kg | <13.7        | 50.0            | 02/22/16 12:53 |            |
| 1,1,1-Trichloroethane       | ug/kg | <14.4        | 50.0            | 02/22/16 12:53 |            |
| 1,1,2,2-Tetrachloroethane   | ug/kg | <17.5        | 50.0            | 02/22/16 12:53 |            |
| 1,1,2-Trichloroethane       | ug/kg | <20.2        | 50.0            | 02/22/16 12:53 |            |
| 1,1-Dichloroethane          | ug/kg | <17.6        | 50.0            | 02/22/16 12:53 |            |
| 1,1-Dichloroethene          | ug/kg | <17.6        | 50.0            | 02/22/16 12:53 |            |
| 1,1-Dichloropropene         | ug/kg | <14.0        | 50.0            | 02/22/16 12:53 |            |
| 1,2,3-Trichlorobenzene      | ug/kg | <17.0        | 50.0            | 02/22/16 12:53 |            |
| 1,2,3-Trichloropropane      | ug/kg | <22.3        | 50.0            | 02/22/16 12:53 |            |
| 1,2,4-Trichlorobenzene      | ug/kg | <47.6        | 250             | 02/22/16 12:53 |            |
| 1,2,4-Trimethylbenzene      | ug/kg | <12.2        | 50.0            | 02/22/16 12:53 |            |
| 1,2-Dibromo-3-chloropropane | ug/kg | <91.2        | 250             | 02/22/16 12:53 |            |
| 1,2-Dibromoethane (EDB)     | ug/kg | <14.7        | 50.0            | 02/22/16 12:53 |            |
| 1,2-Dichlorobenzene         | ug/kg | <16.2        | 50.0            | 02/22/16 12:53 |            |
| 1,2-Dichloroethane          | ug/kg | <15.0        | 50.0            | 02/22/16 12:53 |            |
| 1,2-Dichloropropane         | ug/kg | <16.8        | 50.0            | 02/22/16 12:53 |            |
| 1,3,5-Trimethylbenzene      | ug/kg | <14.5        | 50.0            | 02/22/16 12:53 |            |
| 1,3-Dichlorobenzene         | ug/kg | <13.2        | 50.0            | 02/22/16 12:53 |            |
| 1,3-Dichloropropane         | ug/kg | <12.0        | 50.0            | 02/22/16 12:53 |            |
| 1,4-Dichlorobenzene         | ug/kg | <15.9        | 50.0            | 02/22/16 12:53 |            |
| 2,2-Dichloropropane         | ug/kg | <12.6        | 50.0            | 02/22/16 12:53 |            |
| 2-Chlorotoluene             | ug/kg | <15.8        | 50.0            | 02/22/16 12:53 |            |
| 4-Chlorotoluene             | ug/kg | <13.0        | 50.0            | 02/22/16 12:53 |            |
| Benzene                     | ug/kg | <9.2         | 20.0            | 02/22/16 12:53 |            |
| Bromobenzene                | ug/kg | <20.6        | 50.0            | 02/22/16 12:53 |            |
| Bromochloromethane          | ug/kg | <21.4        | 50.0            | 02/22/16 12:53 |            |
| Bromodichloromethane        | ug/kg | <9.8         | 50.0            | 02/22/16 12:53 |            |
| Bromoform                   | ug/kg | <19.8        | 50.0            | 02/22/16 12:53 |            |
| Bromomethane                | ug/kg | <69.9        | 250             | 02/22/16 12:53 |            |
| Carbon tetrachloride        | ug/kg | <12.1        | 50.0            | 02/22/16 12:53 |            |
| Chlorobenzene               | ug/kg | <14.8        | 50.0            | 02/22/16 12:53 |            |
| Chloroethane                | ug/kg | <67.0        | 250             | 02/22/16 12:53 |            |
| Chloroform                  | ug/kg | <46.4        | 250             | 02/22/16 12:53 |            |
| Chloromethane               | ug/kg | <20.4        | 50.0            | 02/22/16 12:53 |            |
| cis-1,2-Dichloroethene      | ug/kg | <16.6        | 50.0            | 02/22/16 12:53 |            |
| cis-1,3-Dichloropropene     | ug/kg | <16.6        | 50.0            | 02/22/16 12:53 |            |
| Dibromochloromethane        | ug/kg | <17.9        | 50.0            | 02/22/16 12:53 |            |
| Dibromomethane              | ug/kg | <19.3        | 50.0            | 02/22/16 12:53 |            |
| Dichlorodifluoromethane     | ug/kg | <12.3        | 50.0            | 02/22/16 12:53 |            |
| Diisopropyl ether           | ug/kg | <17.7        | 50.0            | 02/22/16 12:53 |            |
| Ethylbenzene                | ug/kg | <12.4        | 50.0            | 02/22/16 12:53 |            |

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

METHOD BLANK: 1297293

Matrix: Solid

Associated Lab Samples: 40128386001, 40128386002

| Parameter                 | Units | Blank Result | Reporting Limit | Analyzed       | Qualifiers |
|---------------------------|-------|--------------|-----------------|----------------|------------|
| Hexachloro-1,3-butadiene  | ug/kg | <24.5        | 50.0            | 02/22/16 12:53 |            |
| Isopropylbenzene (Cumene) | ug/kg | <12.6        | 50.0            | 02/22/16 12:53 |            |
| m&p-Xylene                | ug/kg | <34.4        | 100             | 02/22/16 12:53 |            |
| Methyl-tert-butyl ether   | ug/kg | <12.7        | 50.0            | 02/22/16 12:53 |            |
| Methylene Chloride        | ug/kg | <16.2        | 50.0            | 02/22/16 12:53 |            |
| n-Butylbenzene            | ug/kg | <10.5        | 50.0            | 02/22/16 12:53 |            |
| n-Propylbenzene           | ug/kg | <11.6        | 50.0            | 02/22/16 12:53 |            |
| Naphthalene               | ug/kg | <40.0        | 250             | 02/22/16 12:53 |            |
| o-Xylene                  | ug/kg | <14.0        | 50.0            | 02/22/16 12:53 |            |
| p-Isopropyltoluene        | ug/kg | <12.0        | 50.0            | 02/22/16 12:53 |            |
| sec-Butylbenzene          | ug/kg | <11.9        | 50.0            | 02/22/16 12:53 |            |
| Styrene                   | ug/kg | <9.0         | 50.0            | 02/22/16 12:53 |            |
| tert-Butylbenzene         | ug/kg | <9.5         | 50.0            | 02/22/16 12:53 |            |
| Tetrachloroethene         | ug/kg | <12.9        | 50.0            | 02/22/16 12:53 |            |
| Toluene                   | ug/kg | <11.2        | 50.0            | 02/22/16 12:53 |            |
| trans-1,2-Dichloroethene  | ug/kg | <16.5        | 50.0            | 02/22/16 12:53 |            |
| trans-1,3-Dichloropropene | ug/kg | <14.4        | 50.0            | 02/22/16 12:53 |            |
| Trichloroethene           | ug/kg | <23.6        | 50.0            | 02/22/16 12:53 |            |
| Trichlorofluoromethane    | ug/kg | <24.7        | 50.0            | 02/22/16 12:53 |            |
| Vinyl chloride            | ug/kg | <21.1        | 50.0            | 02/22/16 12:53 |            |
| 4-Bromofluorobenzene (S)  | %     | 97           | 53-134          | 02/22/16 12:53 |            |
| Dibromofluoromethane (S)  | %     | 100          | 49-157          | 02/22/16 12:53 |            |
| Toluene-d8 (S)            | %     | 106          | 61-148          | 02/22/16 12:53 |            |

LABORATORY CONTROL SAMPLE: 1297294

| Parameter                   | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------------------------|-------|-------------|------------|-----------|--------------|------------|
| 1,1,1-Trichloroethane       | ug/kg | 2500        | 2420       | 97        | 70-130       |            |
| 1,1,2,2-Tetrachloroethane   | ug/kg | 2500        | 2470       | 99        | 70-130       |            |
| 1,1,2-Trichloroethane       | ug/kg | 2500        | 2450       | 98        | 70-130       |            |
| 1,1-Dichloroethane          | ug/kg | 2500        | 2370       | 95        | 70-130       |            |
| 1,1-Dichloroethene          | ug/kg | 2500        | 2390       | 95        | 70-132       |            |
| 1,2,4-Trichlorobenzene      | ug/kg | 2500        | 2510       | 100       | 70-130       |            |
| 1,2-Dibromo-3-chloropropane | ug/kg | 2500        | 2210       | 88        | 45-150       |            |
| 1,2-Dibromoethane (EDB)     | ug/kg | 2500        | 2530       | 101       | 70-130       |            |
| 1,2-Dichlorobenzene         | ug/kg | 2500        | 2470       | 99        | 70-130       |            |
| 1,2-Dichloroethane          | ug/kg | 2500        | 2430       | 97        | 70-134       |            |
| 1,2-Dichloropropane         | ug/kg | 2500        | 2480       | 99        | 70-130       |            |
| 1,3-Dichlorobenzene         | ug/kg | 2500        | 2370       | 95        | 70-130       |            |
| 1,4-Dichlorobenzene         | ug/kg | 2500        | 2420       | 97        | 70-130       |            |
| Benzene                     | ug/kg | 2500        | 2430       | 97        | 70-130       |            |
| Bromodichloromethane        | ug/kg | 2500        | 2320       | 93        | 70-130       |            |
| Bromoform                   | ug/kg | 2500        | 2230       | 89        | 48-130       |            |
| Bromomethane                | ug/kg | 2500        | 2320       | 93        | 70-169       |            |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

LABORATORY CONTROL SAMPLE: 1297294

| Parameter                 | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---------------------------|-------|-------------|------------|-----------|--------------|------------|
| Carbon tetrachloride      | ug/kg | 2500        | 2430       | 97        | 67-130       |            |
| Chlorobenzene             | ug/kg | 2500        | 2480       | 99        | 70-130       |            |
| Chloroethane              | ug/kg | 2500        | 2150       | 86        | 70-191       |            |
| Chloroform                | ug/kg | 2500        | 2410       | 96        | 70-130       |            |
| Chloromethane             | ug/kg | 2500        | 2030       | 81        | 52-132       |            |
| cis-1,2-Dichloroethene    | ug/kg | 2500        | 2380       | 95        | 70-130       |            |
| cis-1,3-Dichloropropene   | ug/kg | 2500        | 2280       | 91        | 70-130       |            |
| Dibromochloromethane      | ug/kg | 2500        | 2350       | 94        | 65-130       |            |
| Dichlorodifluoromethane   | ug/kg | 2500        | 1560       | 63        | 12-150       |            |
| Ethylbenzene              | ug/kg | 2500        | 2520       | 101       | 70-130       |            |
| Isopropylbenzene (Cumene) | ug/kg | 2500        | 2680       | 107       | 70-130       |            |
| m&p-Xylene                | ug/kg | 5000        | 5270       | 105       | 70-130       |            |
| Methyl-tert-butyl ether   | ug/kg | 2500        | 2400       | 96        | 70-130       |            |
| Methylene Chloride        | ug/kg | 2500        | 2430       | 97        | 70-131       |            |
| o-Xylene                  | ug/kg | 2500        | 2590       | 104       | 70-130       |            |
| Styrene                   | ug/kg | 2500        | 2710       | 109       | 70-130       |            |
| Tetrachloroethene         | ug/kg | 2500        | 2280       | 91        | 70-130       |            |
| Toluene                   | ug/kg | 2500        | 2520       | 101       | 70-130       |            |
| trans-1,2-Dichloroethene  | ug/kg | 2500        | 2410       | 97        | 69-130       |            |
| trans-1,3-Dichloropropene | ug/kg | 2500        | 2290       | 91        | 65-130       |            |
| Trichloroethene           | ug/kg | 2500        | 2500       | 100       | 70-130       |            |
| Trichlorofluoromethane    | ug/kg | 2500        | 2140       | 85        | 50-150       |            |
| Vinyl chloride            | ug/kg | 2500        | 2250       | 90        | 67-134       |            |
| 4-Bromofluorobenzene (S)  | %     |             |            | 102       | 53-134       |            |
| Dibromofluoromethane (S)  | %     |             |            | 104       | 49-157       |            |
| Toluene-d8 (S)            | %     |             |            | 103       | 61-148       |            |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1297295 1297296

| Parameter                   | Units | 40128386002 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------------------------|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| 1,1,1-Trichloroethane       | ug/kg | <25.0              | 1380           | 1380            | 1290      | 1340       | 93       | 97        | 63-130       | 4   | 20      |      |
| 1,1,2,2-Tetrachloroethane   | ug/kg | <25.0              | 1380           | 1380            | 1420      | 1430       | 103      | 103       | 57-136       | 1   | 20      |      |
| 1,1,2-Trichloroethane       | ug/kg | <25.0              | 1380           | 1380            | 1440      | 1450       | 104      | 105       | 70-130       | 1   | 20      |      |
| 1,1-Dichloroethane          | ug/kg | <25.0              | 1380           | 1380            | 1310      | 1310       | 95       | 95        | 62-131       | 1   | 23      |      |
| 1,1-Dichloroethene          | ug/kg | <25.0              | 1380           | 1380            | 1180      | 1190       | 85       | 86        | 42-137       | 1   | 20      |      |
| 1,2,4-Trichlorobenzene      | ug/kg | <47.6              | 1380           | 1380            | 1580      | 1550       | 114      | 112       | 59-137       | 2   | 21      |      |
| 1,2-Dibromo-3-chloropropane | ug/kg | <91.2              | 1380           | 1380            | 1350      | 1340       | 98       | 97        | 33-150       | 1   | 25      |      |
| 1,2-Dibromoethane (EDB)     | ug/kg | <25.0              | 1380           | 1380            | 1420      | 1430       | 103      | 104       | 70-130       | 0   | 20      |      |
| 1,2-Dichlorobenzene         | ug/kg | <25.0              | 1380           | 1380            | 1440      | 1460       | 104      | 106       | 70-130       | 1   | 20      |      |
| 1,2-Dichloroethane          | ug/kg | <25.0              | 1380           | 1380            | 1430      | 1390       | 103      | 100       | 68-134       | 3   | 20      |      |
| 1,2-Dichloropropane         | ug/kg | <25.0              | 1380           | 1380            | 1380      | 1390       | 100      | 101       | 70-130       | 1   | 20      |      |
| 1,3-Dichlorobenzene         | ug/kg | <25.0              | 1380           | 1380            | 1370      | 1380       | 99       | 100       | 70-130       | 1   | 20      |      |
| 1,4-Dichlorobenzene         | ug/kg | <25.0              | 1380           | 1380            | 1380      | 1420       | 100      | 103       | 69-130       | 3   | 20      |      |

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1297295 1297296 |       |             |       |       |       |         |        |       |       |        |     |
|--|-------|-------------|-------|-------|-------|---------|--------|-------|-------|--------|-----|
| Parameter  | Units | 40128386002 |       | MS    | MSD   | 1297296 |        | MS    | MSD   | % Rec  | Max |
|  |       | Result      | Conc. | Spike | Spike | Result  | Result | % Rec | % Rec | Limits | RPD |
| Benzene  | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1350    | 1350   | 98    | 98    | 56-131 | 0   |
| Bromodichloromethane                                   | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1330    | 1350   | 97    | 97    | 64-130 | 1   |
| Bromoform  | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1320    | 1310   | 96    | 95    | 48-130 | 1   |
| Bromomethane   | ug/kg | <69.9       | 1380  | 1380  | 1380  | 1160    | 1220   | 84    | 88    | 18-169 | 5   |
| Carbon tetrachloride                                   | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1250    | 1260   | 90    | 91    | 59-130 | 1   |
| Chlorobenzene  | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1470    | 1440   | 107   | 104   | 70-130 | 2   |
| Chloroethane   | ug/kg | <67.0       | 1380  | 1380  | 1380  | 1080    | 1050   | 78    | 76    | 10-191 | 3   |
| Chloroform   | ug/kg | <46.4       | 1380  | 1380  | 1380  | 1380    | 1380   | 100   | 100   | 65-130 | 0   |
| Chloromethane  | ug/kg | <25.0       | 1380  | 1380  | 1380  | 912     | 883    | 66    | 64    | 36-132 | 3   |
| cis-1,2-Dichloroethene                                 | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1370    | 1370   | 99    | 99    | 59-136 | 0   |
| cis-1,3-Dichloropropene                                | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1270    | 1280   | 92    | 93    | 60-130 | 1   |
| Dibromochloromethane                                   | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1420    | 1370   | 103   | 99    | 59-130 | 3   |
| Dichlorodifluoromethane                                | ug/kg | <25.0       | 1380  | 1380  | 1380  | 555     | 587    | 40    | 42    | 10-150 | 6   |
| Ethylbenzene   | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1400    | 1400   | 101   | 102   | 64-130 | 0   |
| Isopropylbenzene (Cumene)                              | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1480    | 1480   | 107   | 107   | 69-138 | 0   |
| m&p-Xylene   | ug/kg | <50.0       | 2760  | 2760  | 2760  | 2900    | 2940   | 105   | 106   | 61-130 | 1   |
| Methyl-tert-butyl ether                                | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1350    | 1420   | 98    | 102   | 52-134 | 5   |
| Methylene Chloride                                     | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1360    | 1420   | 98    | 103   | 61-131 | 5   |
| o-Xylene   | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1460    | 1440   | 106   | 104   | 63-130 | 2   |
| Styrene  | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1530    | 1490   | 110   | 108   | 70-130 | 2   |
| Tetrachloroethene                                      | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1240    | 1280   | 90    | 93    | 65-130 | 3   |
| Toluene  | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1430    | 1430   | 104   | 103   | 65-130 | 0   |
| trans-1,2-Dichloroethene                               | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1240    | 1330   | 90    | 96    | 55-130 | 7   |
| trans-1,3-Dichloropropene                              | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1360    | 1380   | 99    | 100   | 54-130 | 1   |
| Trichloroethene  | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1310    | 1380   | 95    | 100   | 70-130 | 5   |
| Trichlorofluoromethane                                 | ug/kg | <25.0       | 1380  | 1380  | 1380  | 1050    | 1120   | 76    | 81    | 42-150 | 7   |
| Vinyl chloride   | ug/kg | <25.0       | 1380  | 1380  | 1380  | 986     | 1010   | 71    | 73    | 35-134 | 2   |
| 4-Bromofluorobenzene (S)                               | %     |             |       |       |       |         |        | 108   | 107   | 53-134 |     |
| Dibromofluoromethane (S)                               | %     |             |       |       |       |         |        | 114   | 111   | 49-157 |     |
| Toluene-d8 (S)   | %     |             |       |       |       |         |        | 111   | 111   | 61-148 |     |

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

|                         |   |                       |                                |
|-------------------------|---|-----------------------|--------------------------------|
| QC Batch:               | MSV/32299   | Analysis Method:      | EPA 8260                       |
| QC Batch Method:        | EPA 5035/5030B  | Analysis Description: | 8260 MSV Med Level Normal List |
| Associated Lab Samples: | 40128386003, 40128386004, 40128386005, 40128386006, 40128386007, 40128386008, 40128386009, 40128386010, 40128386011, 40128386012, 40128386013 |                       |                                |

|                         |   |         |       |
|-------------------------|---|---------|-------|
| METHOD BLANK:           | 1297916   | Matrix: | Solid |
| Associated Lab Samples: | 40128386003, 40128386004, 40128386005, 40128386006, 40128386007, 40128386008, 40128386009, 40128386010, 40128386011, 40128386012, 40128386013 |         |       |

| Parameter                   | Units | Blank Result | Reporting Limit | Analyzed       | Qualifiers |
|-----------------------------|-------|--------------|-----------------|----------------|------------|
| 1,1,1,2-Tetrachloroethane   | ug/kg | <13.7        | 50.0            | 02/22/16 16:19 |            |
| 1,1,1-Trichloroethane       | ug/kg | <14.4        | 50.0            | 02/22/16 16:19 |            |
| 1,1,2,2-Tetrachloroethane   | ug/kg | <17.5        | 50.0            | 02/22/16 16:19 |            |
| 1,1,2-Trichloroethane       | ug/kg | <20.2        | 50.0            | 02/22/16 16:19 |            |
| 1,1-Dichloroethane          | ug/kg | <17.6        | 50.0            | 02/22/16 16:19 |            |
| 1,1-Dichloroethene          | ug/kg | <17.6        | 50.0            | 02/22/16 16:19 |            |
| 1,1-Dichloropropene         | ug/kg | <14.0        | 50.0            | 02/22/16 16:19 |            |
| 1,2,3-Trichlorobenzene      | ug/kg | 36.9J        | 50.0            | 02/22/16 16:19 |            |
| 1,2,3-Trichloropropane      | ug/kg | <22.3        | 50.0            | 02/22/16 16:19 |            |
| 1,2,4-Trichlorobenzene      | ug/kg | <47.6        | 250             | 02/22/16 16:19 |            |
| 1,2,4-Trimethylbenzene      | ug/kg | 16.4J        | 50.0            | 02/22/16 16:19 |            |
| 1,2-Dibromo-3-chloropropane | ug/kg | <91.2        | 250             | 02/22/16 16:19 |            |
| 1,2-Dibromoethane (EDB)     | ug/kg | <14.7        | 50.0            | 02/22/16 16:19 |            |
| 1,2-Dichlorobenzene         | ug/kg | <16.2        | 50.0            | 02/22/16 16:19 |            |
| 1,2-Dichloroethane          | ug/kg | <15.0        | 50.0            | 02/22/16 16:19 |            |
| 1,2-Dichloropropane         | ug/kg | <16.8        | 50.0            | 02/22/16 16:19 |            |
| 1,3,5-Trimethylbenzene      | ug/kg | 15.4J        | 50.0            | 02/22/16 16:19 |            |
| 1,3-Dichlorobenzene         | ug/kg | 14.0J        | 50.0            | 02/22/16 16:19 |            |
| 1,3-Dichloropropane         | ug/kg | <12.0        | 50.0            | 02/22/16 16:19 |            |
| 1,4-Dichlorobenzene         | ug/kg | 16.6J        | 50.0            | 02/22/16 16:19 |            |
| 2,2-Dichloropropane         | ug/kg | <12.6        | 50.0            | 02/22/16 16:19 |            |
| 2-Chlorotoluene             | ug/kg | <15.8        | 50.0            | 02/22/16 16:19 |            |
| 4-Chlorotoluene             | ug/kg | <13.0        | 50.0            | 02/22/16 16:19 |            |
| Benzene                     | ug/kg | <9.2         | 20.0            | 02/22/16 16:19 |            |
| Bromobenzene                | ug/kg | <20.6        | 50.0            | 02/22/16 16:19 |            |
| Bromochloromethane          | ug/kg | <21.4        | 50.0            | 02/22/16 16:19 |            |
| Bromodichloromethane        | ug/kg | <9.8         | 50.0            | 02/22/16 16:19 |            |
| Bromoform                   | ug/kg | <19.8        | 50.0            | 02/22/16 16:19 |            |
| Bromomethane                | ug/kg | <69.9        | 250             | 02/22/16 16:19 |            |
| Carbon tetrachloride        | ug/kg | <12.1        | 50.0            | 02/22/16 16:19 |            |
| Chlorobenzene               | ug/kg | <14.8        | 50.0            | 02/22/16 16:19 |            |
| Chloroethane                | ug/kg | <67.0        | 250             | 02/22/16 16:19 |            |
| Chloroform                  | ug/kg | <46.4        | 250             | 02/22/16 16:19 |            |
| Chloromethane               | ug/kg | <20.4        | 50.0            | 02/22/16 16:19 |            |
| cis-1,2-Dichloroethene      | ug/kg | <16.6        | 50.0            | 02/22/16 16:19 |            |
| cis-1,3-Dichloropropene     | ug/kg | <16.6        | 50.0            | 02/22/16 16:19 |            |
| Dibromochloromethane        | ug/kg | <17.9        | 50.0            | 02/22/16 16:19 |            |
| Dibromomethane              | ug/kg | <19.3        | 50.0            | 02/22/16 16:19 |            |
| Dichlorodifluoromethane     | ug/kg | <12.3        | 50.0            | 02/22/16 16:19 |            |
| Diisopropyl ether           | ug/kg | <17.7        | 50.0            | 02/22/16 16:19 |            |

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

METHOD BLANK: 1297916

Matrix: Solid

Associated Lab Samples: 40128386003, 40128386004, 40128386005, 40128386006, 40128386007, 40128386008, 40128386009, 40128386010, 40128386011, 40128386012, 40128386013

| Parameter                 | Units | Blank Result | Reporting Limit | Analyzed       | Qualifiers |
|---------------------------|-------|--------------|-----------------|----------------|------------|
| Ethylbenzene              | ug/kg | <12.4        | 50.0            | 02/22/16 16:19 |            |
| Hexachloro-1,3-butadiene  | ug/kg | <24.5        | 50.0            | 02/22/16 16:19 |            |
| Isopropylbenzene (Cumene) | ug/kg | <12.6        | 50.0            | 02/22/16 16:19 |            |
| m&p-Xylene                | ug/kg | <34.4        | 100             | 02/22/16 16:19 |            |
| Methyl-tert-butyl ether   | ug/kg | <12.7        | 50.0            | 02/22/16 16:19 |            |
| Methylene Chloride        | ug/kg | <16.2        | 50.0            | 02/22/16 16:19 |            |
| n-Butylbenzene            | ug/kg | 31.4J        | 50.0            | 02/22/16 16:19 |            |
| n-Propylbenzene           | ug/kg | 16.2J        | 50.0            | 02/22/16 16:19 |            |
| Naphthalene               | ug/kg | <40.0        | 250             | 02/22/16 16:19 |            |
| o-Xylene                  | ug/kg | <14.0        | 50.0            | 02/22/16 16:19 |            |
| p-Isopropyltoluene        | ug/kg | <12.0        | 50.0            | 02/22/16 16:19 |            |
| sec-Butylbenzene          | ug/kg | 23.6J        | 50.0            | 02/22/16 16:19 |            |
| Styrene                   | ug/kg | <9.0         | 50.0            | 02/22/16 16:19 |            |
| tert-Butylbenzene         | ug/kg | 23.7J        | 50.0            | 02/22/16 16:19 |            |
| Tetrachloroethene         | ug/kg | <12.9        | 50.0            | 02/22/16 16:19 |            |
| Toluene                   | ug/kg | <11.2        | 50.0            | 02/22/16 16:19 |            |
| trans-1,2-Dichloroethene  | ug/kg | <16.5        | 50.0            | 02/22/16 16:19 |            |
| trans-1,3-Dichloropropene | ug/kg | <14.4        | 50.0            | 02/22/16 16:19 |            |
| Trichloroethene           | ug/kg | <23.6        | 50.0            | 02/22/16 16:19 |            |
| Trichlorofluoromethane    | ug/kg | <24.7        | 50.0            | 02/22/16 16:19 |            |
| Vinyl chloride            | ug/kg | <21.1        | 50.0            | 02/22/16 16:19 |            |
| 4-Bromofluorobenzene (S)  | %     | 97           | 53-134          | 02/22/16 16:19 |            |
| Dibromofluoromethane (S)  | %     | 115          | 49-157          | 02/22/16 16:19 |            |
| Toluene-d8 (S)            | %     | 108          | 61-148          | 02/22/16 16:19 |            |

LABORATORY CONTROL SAMPLE: 1297917

| Parameter                   | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------------------------|-------|-------------|------------|-----------|--------------|------------|
| 1,1,1-Trichloroethane       | ug/kg | 2500        | 2740       | 109       | 70-130       |            |
| 1,1,2,2-Tetrachloroethane   | ug/kg | 2500        | 2520       | 101       | 70-130       |            |
| 1,1,2-Trichloroethane       | ug/kg | 2500        | 2660       | 106       | 70-130       |            |
| 1,1-Dichloroethane          | ug/kg | 2500        | 2680       | 107       | 70-130       |            |
| 1,1-Dichloroethene          | ug/kg | 2500        | 2850       | 114       | 70-132       |            |
| 1,2,4-Trichlorobenzene      | ug/kg | 2500        | 2760       | 111       | 70-130       |            |
| 1,2-Dibromo-3-chloropropane | ug/kg | 2500        | 2410       | 97        | 45-150       |            |
| 1,2-Dibromoethane (EDB)     | ug/kg | 2500        | 2480       | 99        | 70-130       |            |
| 1,2-Dichlorobenzene         | ug/kg | 2500        | 2680       | 107       | 70-130       |            |
| 1,2-Dichloroethane          | ug/kg | 2500        | 2990       | 119       | 70-134       |            |
| 1,2-Dichloropropane         | ug/kg | 2500        | 2480       | 99        | 70-130       |            |
| 1,3-Dichlorobenzene         | ug/kg | 2500        | 2570       | 103       | 70-130       |            |
| 1,4-Dichlorobenzene         | ug/kg | 2500        | 2640       | 106       | 70-130       |            |
| Benzene                     | ug/kg | 2500        | 2670       | 107       | 70-130       |            |
| Bromodichloromethane        | ug/kg | 2500        | 2460       | 98        | 70-130       |            |

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

LABORATORY CONTROL SAMPLE: 1297917

| Parameter                 | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---------------------------|-------|-------------|------------|-----------|--------------|------------|
| Bromoform                 | ug/kg | 2500        | 2200       | 88        | 48-130       |            |
| Bromomethane              | ug/kg | 2500        | 3630       | 145       | 70-169       |            |
| Carbon tetrachloride      | ug/kg | 2500        | 2700       | 108       | 67-130       |            |
| Chlorobenzene             | ug/kg | 2500        | 2650       | 106       | 70-130       |            |
| Chloroethane              | ug/kg | 2500        | 3380       | 135       | 70-191       |            |
| Chloroform                | ug/kg | 2500        | 2860       | 114       | 70-130       |            |
| Chloromethane             | ug/kg | 2500        | 2420       | 97        | 52-132       |            |
| cis-1,2-Dichloroethene    | ug/kg | 2500        | 2510       | 100       | 70-130       |            |
| cis-1,3-Dichloropropene   | ug/kg | 2500        | 2480       | 99        | 70-130       |            |
| Dibromochloromethane      | ug/kg | 2500        | 2470       | 99        | 65-130       |            |
| Dichlorodifluoromethane   | ug/kg | 2500        | 1990       | 79        | 12-150       |            |
| Ethylbenzene              | ug/kg | 2500        | 2550       | 102       | 70-130       |            |
| Isopropylbenzene (Cumene) | ug/kg | 2500        | 2640       | 105       | 70-130       |            |
| m&p-Xylene                | ug/kg | 5000        | 5090       | 102       | 70-130       |            |
| Methyl-tert-butyl ether   | ug/kg | 2500        | 2700       | 108       | 70-130       |            |
| Methylene Chloride        | ug/kg | 2500        | 2900       | 116       | 70-131       |            |
| o-Xylene                  | ug/kg | 2500        | 2310       | 92        | 70-130       |            |
| Styrene                   | ug/kg | 2500        | 2520       | 101       | 70-130       |            |
| Tetrachloroethene         | ug/kg | 2500        | 2610       | 104       | 70-130       |            |
| Toluene                   | ug/kg | 2500        | 2530       | 101       | 70-130       |            |
| trans-1,2-Dichloroethene  | ug/kg | 2500        | 2540       | 102       | 69-130       |            |
| trans-1,3-Dichloropropene | ug/kg | 2500        | 2550       | 102       | 65-130       |            |
| Trichloroethene           | ug/kg | 2500        | 2540       | 102       | 70-130       |            |
| Trichlorofluoromethane    | ug/kg | 2500        | 2810       | 112       | 50-150       |            |
| Vinyl chloride            | ug/kg | 2500        | 2830       | 113       | 67-134       |            |
| 4-Bromofluorobenzene (S)  | %     |             |            | 102       | 53-134       |            |
| Dibromofluoromethane (S)  | %     |             |            | 105       | 49-157       |            |
| Toluene-d8 (S)            | %     |             |            | 106       | 61-148       |            |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1297918 1297919

| Parameter                   | Units | 40128386004<br>Result | MS             | MSD            | MS<br>Result | MSD<br>Result | MS<br>% Rec | MSD<br>% Rec | % Rec<br>Limits | Max<br>RPD | RPD | Qual |
|-----------------------------|-------|-----------------------|----------------|----------------|--------------|---------------|-------------|--------------|-----------------|------------|-----|------|
|                             |       |                       | Spike<br>Conc. | Spike<br>Conc. |              |               |             |              |                 |            |     |      |
| 1,1,1-Trichloroethane       | ug/kg | <25.0                 | 1410           | 1410           | 1360         | 1250          | 96          | 89           | 63-130          | 8          | 20  |      |
| 1,1,2,2-Tetrachloroethane   | ug/kg | <25.0                 | 1410           | 1410           | 1480         | 1450          | 105         | 103          | 57-136          | 2          | 20  |      |
| 1,1,2-Trichloroethane       | ug/kg | <25.0                 | 1410           | 1410           | 1420         | 1410          | 100         | 100          | 70-130          | 1          | 20  |      |
| 1,1-Dichloroethane          | ug/kg | <25.0                 | 1410           | 1410           | 1410         | 1410          | 99          | 99           | 62-131          | 0          | 23  |      |
| 1,1-Dichloroethene          | ug/kg | <25.0                 | 1410           | 1410           | 1150         | 1200          | 82          | 85           | 42-137          | 4          | 20  |      |
| 1,2,4-Trichlorobenzene      | ug/kg | <47.6                 | 1410           | 1410           | 1730         | 1700          | 120         | 118          | 59-137          | 2          | 21  |      |
| 1,2-Dibromo-3-chloropropane | ug/kg | <91.2                 | 1410           | 1410           | 1440         | 1350          | 102         | 95           | 33-150          | 7          | 25  |      |
| 1,2-Dibromoethane (EDB)     | ug/kg | <25.0                 | 1410           | 1410           | 1340         | 1280          | 95          | 91           | 70-130          | 4          | 20  |      |
| 1,2-Dichlorobenzene         | ug/kg | <25.0                 | 1410           | 1410           | 1640         | 1590          | 116         | 113          | 70-130          | 3          | 20  |      |
| 1,2-Dichloroethane          | ug/kg | <25.0                 | 1410           | 1410           | 1610         | 1630          | 114         | 116          | 68-134          | 2          | 20  |      |
| 1,2-Dichloropropane         | ug/kg | <25.0                 | 1410           | 1410           | 1410         | 1400          | 100         | 99           | 70-130          | 1          | 20  |      |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1297918 1297919 |       |             |             |             |        |        |       |       |        |     |         |
|--|-------|-------------|-------------|-------------|--------|--------|-------|-------|--------|-----|---------|
| Parameter  | Units | 40128386004 |             | MS          |        | MSD    |       | MS    |        | MSD |         |
|  |       | Result      | Spike Conc. | Spike Conc. | Result | Result | % Rec | % Rec | Limit  | RPD | Max RPD |
| 1,3-Dichlorobenzene                                    | ug/kg | <25.0       | 1410        | 1410        | 1560   | 1560   | 110   | 111   | 70-130 | 0   | 20      |
| 1,4-Dichlorobenzene                                    | ug/kg | <25.0       | 1410        | 1410        | 1600   | 1510   | 113   | 107   | 69-130 | 6   | 20      |
| Benzene  | ug/kg | <25.0       | 1410        | 1410        | 1450   | 1420   | 102   | 101   | 56-131 | 2   | 20      |
| Bromodichloromethane                                   | ug/kg | <25.0       | 1410        | 1410        | 1360   | 1350   | 96    | 96    | 64-130 | 1   | 20      |
| Bromoform  | ug/kg | <25.0       | 1410        | 1410        | 1200   | 1120   | 85    | 79    | 48-130 | 7   | 20      |
| Bromomethane   | ug/kg | <69.9       | 1410        | 1410        | 1670   | 1640   | 118   | 116   | 18-169 | 2   | 23      |
| Carbon tetrachloride                                   | ug/kg | <25.0       | 1410        | 1410        | 1280   | 1230   | 90    | 87    | 59-130 | 4   | 20      |
| Chlorobenzene  | ug/kg | <25.0       | 1410        | 1410        | 1450   | 1510   | 103   | 107   | 70-130 | 4   | 20      |
| Chloroethane   | ug/kg | <67.0       | 1410        | 1410        | 1610   | 1600   | 114   | 113   | 10-191 | 0   | 20      |
| Chloroform   | ug/kg | <46.4       | 1410        | 1410        | 1530   | 1500   | 108   | 106   | 65-130 | 2   | 20      |
| Chloromethane  | ug/kg | <25.0       | 1410        | 1410        | 1020   | 951    | 72    | 67    | 36-132 | 7   | 20      |
| cis-1,2-Dichloroethene                                 | ug/kg | <25.0       | 1410        | 1410        | 1340   | 1360   | 95    | 96    | 59-136 | 2   | 24      |
| cis-1,3-Dichloropropene                                | ug/kg | <25.0       | 1410        | 1410        | 1360   | 1310   | 96    | 93    | 60-130 | 4   | 20      |
| Dibromochloromethane                                   | ug/kg | <25.0       | 1410        | 1410        | 1310   | 1300   | 93    | 92    | 59-130 | 1   | 20      |
| Dichlorodifluoromethane                                | ug/kg | <25.0       | 1410        | 1410        | 514    | 522    | 36    | 37    | 10-150 | 2   | 27      |
| Ethylbenzene   | ug/kg | <25.0       | 1410        | 1410        | 1390   | 1340   | 98    | 95    | 64-130 | 4   | 20      |
| Isopropylbenzene (Cumene)                              | ug/kg | <25.0       | 1410        | 1410        | 1380   | 1370   | 97    | 97    | 69-138 | 1   | 20      |
| m&p-Xylene   | ug/kg | <50.0       | 2830        | 2830        | 2760   | 2690   | 98    | 95    | 61-130 | 3   | 20      |
| Methyl-tert-butyl ether                                | ug/kg | <25.0       | 1410        | 1410        | 1460   | 1440   | 103   | 102   | 52-134 | 2   | 20      |
| Methylene Chloride                                     | ug/kg | <25.0       | 1410        | 1410        | 1560   | 1560   | 110   | 110   | 61-131 | 0   | 20      |
| o-Xylene   | ug/kg | <25.0       | 1410        | 1410        | 1320   | 1250   | 93    | 88    | 63-130 | 5   | 20      |
| Styrene  | ug/kg | <25.0       | 1410        | 1410        | 1360   | 1330   | 96    | 94    | 70-130 | 2   | 20      |
| Tetrachloroethene                                      | ug/kg | <25.0       | 1410        | 1410        | 1400   | 1400   | 99    | 99    | 65-130 | 0   | 20      |
| Toluene  | ug/kg | <25.0       | 1410        | 1410        | 1380   | 1390   | 97    | 97    | 65-130 | 1   | 20      |
| trans-1,2-Dichloroethene                               | ug/kg | <25.0       | 1410        | 1410        | 1320   | 1290   | 93    | 92    | 55-130 | 2   | 20      |
| trans-1,3-Dichloropropene                              | ug/kg | <25.0       | 1410        | 1410        | 1350   | 1350   | 96    | 95    | 54-130 | 1   | 20      |
| Trichloroethene  | ug/kg | <25.0       | 1410        | 1410        | 1370   | 1330   | 97    | 94    | 70-130 | 3   | 20      |
| Trichlorofluoromethane                                 | ug/kg | <25.0       | 1410        | 1410        | 1150   | 1160   | 81    | 82    | 42-150 | 1   | 24      |
| Vinyl chloride   | ug/kg | <25.0       | 1410        | 1410        | 1080   | 1020   | 76    | 72    | 35-134 | 5   | 20      |
| 4-Bromofluorobenzene (S)                               | %     |             |             |             |        |        | 98    | 100   | 53-134 |     |         |
| Dibromofluoromethane (S)                               | %     |             |             |             |        |        | 105   | 107   | 49-157 |     |         |
| Toluene-d8 (S)   | %     |             |             |             |        |        | 105   | 107   | 61-148 |     |         |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

|                         |  |                       |                           |
|-------------------------|--|-----------------------|---------------------------|
| QC Batch:               | OEXT/29748   | Analysis Method:      | EPA 8270 by SIM           |
| QC Batch Method:        | EPA 3546   | Analysis Description: | 8270/3546 MSSV PAH by SIM |
| Associated Lab Samples: | 40128386001, 40128386002, 40128386003, 40128386004, 40128386005, 40128386006, 40128386007, 40128386008, 40128386009, 40128386010, 40128386011, 40128386012 |                       |                           |

|                         |  |         |       |
|-------------------------|--|---------|-------|
| METHOD BLANK:           | 1299229  | Matrix: | Solid |
| Associated Lab Samples: | 40128386001, 40128386002, 40128386003, 40128386004, 40128386005, 40128386006, 40128386007, 40128386008, 40128386009, 40128386010, 40128386011, 40128386012 |         |       |

| Parameter              | Units | Blank Result | Reporting Limit | Analyzed       | Qualifiers |
|------------------------|-------|--------------|-----------------|----------------|------------|
| 1-Methylnaphthalene    | ug/kg | <8.3         | 16.7            | 02/26/16 08:54 |            |
| 2-Methylnaphthalene    | ug/kg | <8.3         | 16.7            | 02/26/16 08:54 |            |
| Acenaphthene           | ug/kg | <8.3         | 16.7            | 02/26/16 08:54 |            |
| Acenaphthylene         | ug/kg | <7.5         | 16.7            | 02/26/16 08:54 |            |
| Anthracene             | ug/kg | <8.6         | 16.7            | 02/26/16 08:54 |            |
| Benzo(a)anthracene     | ug/kg | <5.8         | 16.7            | 02/26/16 08:54 |            |
| Benzo(a)pyrene         | ug/kg | <6.0         | 16.7            | 02/26/16 08:54 |            |
| Benzo(b)fluoranthene   | ug/kg | <8.3         | 16.7            | 02/26/16 08:54 |            |
| Benzo(g,h,i)perylene   | ug/kg | <6.3         | 16.7            | 02/26/16 08:54 |            |
| Benzo(k)fluoranthene   | ug/kg | <9.2         | 16.7            | 02/26/16 08:54 |            |
| Chrysene               | ug/kg | <7.7         | 16.7            | 02/26/16 08:54 |            |
| Dibenz(a,h)anthracene  | ug/kg | <6.1         | 16.7            | 02/26/16 08:54 |            |
| Fluoranthene           | ug/kg | <8.3         | 16.7            | 02/26/16 08:54 |            |
| Fluorene               | ug/kg | <8.3         | 16.7            | 02/26/16 08:54 |            |
| Indeno(1,2,3-cd)pyrene | ug/kg | <6.3         | 16.7            | 02/26/16 08:54 |            |
| Naphthalene            | ug/kg | <8.3         | 16.7            | 02/26/16 08:54 |            |
| Phenanthrene           | ug/kg | <8.3         | 16.7            | 02/26/16 08:54 |            |
| Pyrene                 | ug/kg | <8.3         | 16.7            | 02/26/16 08:54 |            |
| 2-Fluorobiphenyl (S)   | %     | 52           | 26-130          | 02/26/16 08:54 |            |
| Terphenyl-d14 (S)      | %     | 64           | 10-130          | 02/26/16 08:54 |            |

LABORATORY CONTROL SAMPLE: 1299230

| Parameter             | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------------------|-------|-------------|------------|-----------|--------------|------------|
| 1-Methylnaphthalene   | ug/kg | 333         | 198        | 60        | 48-130       |            |
| 2-Methylnaphthalene   | ug/kg | 333         | 202        | 60        | 49-130       |            |
| Acenaphthene          | ug/kg | 333         | 191        | 57        | 54-130       |            |
| Acenaphthylene        | ug/kg | 333         | 193        | 58        | 56-130       |            |
| Anthracene            | ug/kg | 333         | 253        | 76        | 70-130       |            |
| Benzo(a)anthracene    | ug/kg | 333         | 227        | 68        | 58-130       |            |
| Benzo(a)pyrene        | ug/kg | 333         | 263        | 79        | 58-130       |            |
| Benzo(b)fluoranthene  | ug/kg | 333         | 264        | 79        | 50-130       |            |
| Benzo(g,h,i)perylene  | ug/kg | 333         | 269        | 81        | 39-130       |            |
| Benzo(k)fluoranthene  | ug/kg | 333         | 256        | 77        | 57-130       |            |
| Chrysene              | ug/kg | 333         | 254        | 76        | 64-130       |            |
| Dibenz(a,h)anthracene | ug/kg | 333         | 279        | 84        | 44-130       |            |
| Fluoranthene          | ug/kg | 333         | 249        | 75        | 59-130       |            |
| Fluorene              | ug/kg | 333         | 202        | 60        | 56-130       |            |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

LABORATORY CONTROL SAMPLE: 1299230

| Parameter              | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Indeno(1,2,3-cd)pyrene | ug/kg | 333         | 281        | 84        | 45-130       |            |
| Naphthalene            | ug/kg | 333         | 191        | 57        | 46-130       |            |
| Phenanthrene           | ug/kg | 333         | 242        | 72        | 56-130       |            |
| Pyrene                 | ug/kg | 333         | 223        | 67        | 59-130       |            |
| 2-Fluorobiphenyl (S)   | %     |             |            | 58        | 26-130       |            |
| Terphenyl-d14 (S)      | %     |             |            | 75        | 10-130       |            |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1299231 1299232

| Parameter              | Units | 40128600001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|------------------------|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| 1-Methylnaphthalene    | ug/kg | <9.8               | 390            | 390             | 235       | 250        | 60       | 64        | 41-130       | 6   | 24      |      |
| 2-Methylnaphthalene    | ug/kg | <9.8               | 390            | 390             | 240       | 256        | 61       | 66        | 42-130       | 7   | 25      |      |
| Acenaphthene           | ug/kg | <9.8               | 390            | 390             | 229       | 238        | 59       | 61        | 49-130       | 4   | 27      |      |
| Acenaphthylene         | ug/kg | <8.7               | 390            | 390             | 231       | 241        | 59       | 62        | 52-130       | 4   | 26      |      |
| Anthracene             | ug/kg | <10.1              | 390            | 390             | 267       | 277        | 68       | 71        | 61-130       | 4   | 29      |      |
| Benzo(a)anthracene     | ug/kg | <6.8               | 390            | 390             | 237       | 236        | 61       | 61        | 45-130       | 0   | 28      |      |
| Benzo(a)pyrene         | ug/kg | <7.0               | 390            | 390             | 278       | 266        | 71       | 68        | 39-130       | 4   | 34      |      |
| Benzo(b)fluoranthene   | ug/kg | <9.8               | 390            | 390             | 274       | 267        | 70       | 68        | 30-130       | 3   | 43      |      |
| Benzo(g,h,i)perylene   | ug/kg | <7.4               | 390            | 390             | 269       | 257        | 69       | 66        | 24-130       | 5   | 34      |      |
| Benzo(k)fluoranthene   | ug/kg | <10.8              | 390            | 390             | 280       | 267        | 72       | 68        | 41-130       | 5   | 32      |      |
| Chrysene               | ug/kg | <9.0               | 390            | 390             | 271       | 276        | 69       | 71        | 46-130       | 2   | 37      |      |
| Dibenz(a,h)anthracene  | ug/kg | <7.2               | 390            | 390             | 281       | 266        | 72       | 68        | 33-130       | 6   | 34      |      |
| Fluoranthene           | ug/kg | <9.8               | 390            | 390             | 261       | 263        | 67       | 67        | 41-130       | 1   | 25      |      |
| Fluorene               | ug/kg | <9.8               | 390            | 390             | 230       | 235        | 59       | 60        | 49-130       | 2   | 30      |      |
| Indeno(1,2,3-cd)pyrene | ug/kg | <7.4               | 390            | 390             | 284       | 268        | 73       | 69        | 30-130       | 6   | 28      |      |
| Naphthalene            | ug/kg | <9.8               | 390            | 390             | 241       | 267        | 62       | 68        | 39-130       | 10  | 26      |      |
| Phenanthrene           | ug/kg | <9.8               | 390            | 390             | 256       | 253        | 66       | 65        | 47-130       | 1   | 26      |      |
| Pyrene                 | ug/kg | <9.8               | 390            | 390             | 229       | 229        | 59       | 59        | 37-130       | 0   | 30      |      |
| 2-Fluorobiphenyl (S)   | %     |                    |                |                 |           |            | 53       | 58        | 26-130       |     |         |      |
| Terphenyl-d14 (S)      | %     |                    |                |                 |           |            | 57       | 58        | 10-130       |     |         |      |

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

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|                         |  |                       |                             |
|-------------------------|--|-----------------------|-----------------------------|
| QC Batch:               | PMST/12435   | Analysis Method:      | ASTM D2974-87               |
| QC Batch Method:        | ASTM D2974-87  | Analysis Description: | Dry Weight/Percent Moisture |
| Associated Lab Samples: | 40128386001, 40128386002, 40128386003, 40128386004, 40128386005, 40128386006, 40128386007, 40128386008 |                       |                             |

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SAMPLE DUPLICATE: 1296976

| Parameter        | Units | 40128386001<br>Result | Dup<br>Result | RPD | Max<br>RPD | Qualifiers |
|------------------|-------|-----------------------|---------------|-----|------------|------------|
| Percent Moisture | %     | 14.1                  | 13.4          | 5   | 10         |            |

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

|                         |  |                       |                             |
|-------------------------|--|-----------------------|-----------------------------|
| QC Batch:               | PMST/12438   | Analysis Method:      | ASTM D2974-87               |
| QC Batch Method:        | ASTM D2974-87                                      | Analysis Description: | Dry Weight/Percent Moisture |
| Associated Lab Samples: | 40128386009, 40128386010, 40128386011, 40128386012 |                       |                             |

SAMPLE DUPLICATE: 1297657

| Parameter        | Units | 40128420001<br>Result | Dup<br>Result | RPD | Max<br>RPD | Qualifiers |
|------------------|-------|-----------------------|---------------|-----|------------|------------|
| Percent Moisture | %     | 8.8                   | 8.3           | 6   | 10         |            |

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## QUALIFIERS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128386

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

|    |   |
|----|---|
| D3 | Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.  |
| Ip | Benzo(b)fluoranthene and benzo(k)fluoranthene were separated in the check standard but did not meet the resolution criteria in SW846 8270C. Sample results included are reported as individual isomers, but the lab and the client must recognize them as an isomeric pair. |
| L5 | LCS recovery exceeded QC limits. Batch accepted based on matrix spike recovery within LCS limits.   |
| M0 | Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.   |
| S4 | Surrogate recovery not evaluated against control limits due to sample dilution.   |
| W  | Non-detect results are reported on a wet weight basis.  |

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

| Lab ID      | Sample ID  | QC Batch Method | QC Batch   | Analytical Method | Analytical Batch |
|-------------|------------|-----------------|------------|-------------------|------------------|
| 40128386001 | B1 (2-4)   | EPA 3050        | MPRP/13381 | EPA 6010          | ICP/11871        |
| 40128386002 | B1 (6-8)   | EPA 3050        | MPRP/13381 | EPA 6010          | ICP/11871        |
| 40128386003 | B1 (14-16) | EPA 3050        | MPRP/13381 | EPA 6010          | ICP/11871        |
| 40128386004 | B2 (2-4)   | EPA 3050        | MPRP/13381 | EPA 6010          | ICP/11871        |
| 40128386005 | B2 (10-12) | EPA 3050        | MPRP/13381 | EPA 6010          | ICP/11871        |
| 40128386006 | B2 (14-16) | EPA 3050        | MPRP/13381 | EPA 6010          | ICP/11871        |
| 40128386007 | B3 (2-4)   | EPA 3050        | MPRP/13381 | EPA 6010          | ICP/11871        |
| 40128386008 | B3 (10-12) | EPA 3050        | MPRP/13381 | EPA 6010          | ICP/11871        |
| 40128386009 | B3 (14-16) | EPA 3050        | MPRP/13381 | EPA 6010          | ICP/11871        |
| 40128386010 | B4 (2-4)   | EPA 3050        | MPRP/13381 | EPA 6010          | ICP/11871        |
| 40128386011 | B4 (10-12) | EPA 3050        | MPRP/13381 | EPA 6010          | ICP/11871        |
| 40128386012 | B4 (14-16) | EPA 3050        | MPRP/13381 | EPA 6010          | ICP/11871        |
| 40128386001 | B1 (2-4)   | EPA 7471        | MERP/5589  | EPA 7471          | MERC/7845        |
| 40128386002 | B1 (6-8)   | EPA 7471        | MERP/5589  | EPA 7471          | MERC/7845        |
| 40128386003 | B1 (14-16) | EPA 7471        | MERP/5589  | EPA 7471          | MERC/7845        |
| 40128386004 | B2 (2-4)   | EPA 7471        | MERP/5589  | EPA 7471          | MERC/7845        |
| 40128386005 | B2 (10-12) | EPA 7471        | MERP/5589  | EPA 7471          | MERC/7845        |
| 40128386006 | B2 (14-16) | EPA 7471        | MERP/5589  | EPA 7471          | MERC/7845        |
| 40128386007 | B3 (2-4)   | EPA 7471        | MERP/5589  | EPA 7471          | MERC/7845        |
| 40128386008 | B3 (10-12) | EPA 7471        | MERP/5589  | EPA 7471          | MERC/7845        |
| 40128386009 | B3 (14-16) | EPA 7471        | MERP/5589  | EPA 7471          | MERC/7845        |
| 40128386010 | B4 (2-4)   | EPA 7471        | MERP/5589  | EPA 7471          | MERC/7845        |
| 40128386011 | B4 (10-12) | EPA 7471        | MERP/5589  | EPA 7471          | MERC/7845        |
| 40128386012 | B4 (14-16) | EPA 7471        | MERP/5589  | EPA 7471          | MERC/7845        |
| 40128386001 | B1 (2-4)   | EPA 3546        | OEXT/29748 | EPA 8270 by SIM   | MSSV/8795        |
| 40128386002 | B1 (6-8)   | EPA 3546        | OEXT/29748 | EPA 8270 by SIM   | MSSV/8795        |
| 40128386003 | B1 (14-16) | EPA 3546        | OEXT/29748 | EPA 8270 by SIM   | MSSV/8795        |
| 40128386004 | B2 (2-4)   | EPA 3546        | OEXT/29748 | EPA 8270 by SIM   | MSSV/8795        |
| 40128386005 | B2 (10-12) | EPA 3546        | OEXT/29748 | EPA 8270 by SIM   | MSSV/8795        |
| 40128386006 | B2 (14-16) | EPA 3546        | OEXT/29748 | EPA 8270 by SIM   | MSSV/8795        |
| 40128386007 | B3 (2-4)   | EPA 3546        | OEXT/29748 | EPA 8270 by SIM   | MSSV/8795        |
| 40128386008 | B3 (10-12) | EPA 3546        | OEXT/29748 | EPA 8270 by SIM   | MSSV/8795        |
| 40128386009 | B3 (14-16) | EPA 3546        | OEXT/29748 | EPA 8270 by SIM   | MSSV/8795        |
| 40128386010 | B4 (2-4)   | EPA 3546        | OEXT/29748 | EPA 8270 by SIM   | MSSV/8795        |
| 40128386011 | B4 (10-12) | EPA 3546        | OEXT/29748 | EPA 8270 by SIM   | MSSV/8795        |
| 40128386012 | B4 (14-16) | EPA 3546        | OEXT/29748 | EPA 8270 by SIM   | MSSV/8795        |
| 40128386001 | B1 (2-4)   | EPA 5035/5030B  | MSV/32287  | EPA 8260          | MSV/32288        |
| 40128386002 | B1 (6-8)   | EPA 5035/5030B  | MSV/32287  | EPA 8260          | MSV/32288        |
| 40128386003 | B1 (14-16) | EPA 5035/5030B  | MSV/32299  | EPA 8260          | MSV/32300        |
| 40128386004 | B2 (2-4)   | EPA 5035/5030B  | MSV/32299  | EPA 8260          | MSV/32300        |
| 40128386005 | B2 (10-12) | EPA 5035/5030B  | MSV/32299  | EPA 8260          | MSV/32300        |
| 40128386006 | B2 (14-16) | EPA 5035/5030B  | MSV/32299  | EPA 8260          | MSV/32300        |
| 40128386007 | B3 (2-4)   | EPA 5035/5030B  | MSV/32299  | EPA 8260          | MSV/32300        |
| 40128386008 | B3 (10-12) | EPA 5035/5030B  | MSV/32299  | EPA 8260          | MSV/32300        |
| 40128386009 | B3 (14-16) | EPA 5035/5030B  | MSV/32299  | EPA 8260          | MSV/32300        |
| 40128386010 | B4 (2-4)   | EPA 5035/5030B  | MSV/32299  | EPA 8260          | MSV/32300        |
| 40128386011 | B4 (10-12) | EPA 5035/5030B  | MSV/32299  | EPA 8260          | MSV/32300        |

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128386

| Lab ID      | Sample ID  | QC Batch Method | QC Batch   | Analytical Method | Analytical Batch |
|-------------|------------|-----------------|------------|-------------------|------------------|
| 40128386012 | B4 (14-16) | EPA 5035/5030B  | MSV/32299  | EPA 8260          | MSV/32300        |
| 40128386013 | TRIP       | EPA 5035/5030B  | MSV/32299  | EPA 8260          | MSV/32300        |
| 40128386001 | B1 (2-4)   | ASTM D2974-87   | PMST/12435 |                   |                  |
| 40128386002 | B1 (6-8)   | ASTM D2974-87   | PMST/12435 |                   |                  |
| 40128386003 | B1 (14-16) | ASTM D2974-87   | PMST/12435 |                   |                  |
| 40128386004 | B2 (2-4)   | ASTM D2974-87   | PMST/12435 |                   |                  |
| 40128386005 | B2 (10-12) | ASTM D2974-87   | PMST/12435 |                   |                  |
| 40128386006 | B2 (14-16) | ASTM D2974-87   | PMST/12435 |                   |                  |
| 40128386007 | B3 (2-4)   | ASTM D2974-87   | PMST/12435 |                   |                  |
| 40128386008 | B3 (10-12) | ASTM D2974-87   | PMST/12435 |                   |                  |
| 40128386009 | B3 (14-16) | ASTM D2974-87   | PMST/12438 |                   |                  |
| 40128386010 | B4 (2-4)   | ASTM D2974-87   | PMST/12438 |                   |                  |
| 40128386011 | B4 (10-12) | ASTM D2974-87   | PMST/12438 |                   |                  |
| 40128386012 | B4 (14-16) | ASTM D2974-87   | PMST/12438 |                   |                  |

## REPORT OF LABORATORY ANALYSIS

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ORIGINAL

## **GROUNDWATER**



March 10, 2016

Travis Peterson  
Kapur & Associates, Inc.  
7711 N. Port Washington Road  
Milwaukee, WI 53217

RE: Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128832

Dear Travis Peterson:

Enclosed are the analytical results for sample(s) received by the laboratory on March 01, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Christopher Hyska  
christopher.hyska@pacelabs.com  
Project Manager

Enclosures

cc: Kapur ALL, Kapur & Associates, Inc.  
Nicholas Connor, Kapur & Associates, Inc.  
Trish Hermann, Kapur & Associates, Inc.



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128832

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### Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414  
525 N 8th Street, Salina, KS 67401  
A2LA Certification #: 2926.01  
Alaska Certification #: UST-078  
Alaska Certification #MN00064  
Alabama Certification #40770  
Arizona Certification #: AZ-0014  
Arkansas Certification #: 88-0680  
California Certification #: 01155CA  
Colorado Certification #Pace  
Connecticut Certification #: PH-0256  
EPA Region 8 Certification #: 8TMS-L  
Florida/NELAP Certification #: E87605  
Guam Certification #: 14-008r  
Georgia Certification #: 959  
Georgia EPD #: Pace  
Idaho Certification #: MN00064  
Hawaii Certification #MN00064  
Illinois Certification #: 200011  
Indiana Certification#C-MN-01  
Iowa Certification #: 368  
Kansas Certification #: E-10167  
Kentucky Dept of Envi. Protection - DW #90062  
Kentucky Dept of Envi. Protection - WW #:90062  
Louisiana DEQ Certification #: 3086  
Louisiana DHH #: LA140001  
Maine Certification #: 2013011  
Maryland Certification #: 322  
Michigan DEPH Certification #: 9909

Minnesota Certification #: 027-053-137  
Mississippi Certification #: Pace  
Montana Certification #: MT0092  
Nevada Certification #: MN\_00064  
Nebraska Certification #: Pace  
New Jersey Certification #: MN-002  
New York Certification #: 11647  
North Carolina Certification #: 530  
North Carolina State Public Health #: 27700  
North Dakota Certification #: R-036  
Ohio EPA #: 4150  
Ohio VAP Certification #: CL101  
Oklahoma Certification #: 9507  
Oregon Certification #: MN200001  
Oregon Certification #: MN300001  
Pennsylvania Certification #: 68-00563  
Puerto Rico Certification  
Saipan (CNMI) #:MP0003  
South Carolina #:74003001  
Texas Certification #: T104704192  
Tennessee Certification #: 02818  
Utah Certification #: MN000642013-4  
Virginia DGS Certification #: 251  
Virginia/VELAP Certification #: Pace  
Washington Certification #: C486  
West Virginia Certification #: 382  
West Virginia DHHR #:9952C  
Wisconsin Certification #: 999407970

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
Virginia VELAP ID: 460263  
North Dakota Certification #: R-150

South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Virginia VELAP Certification ID: 460263  
Virginia VELAP ID: 460263  
Wisconsin Certification #: 405132750  
Wisconsin DATCP Certification #: 105-444

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128832

| Lab ID      | Sample ID | Matrix | Date Collected | Date Received  |
|-------------|-----------|--------|----------------|----------------|
| 40128832001 | MW-1      | Water  | 02/29/16 12:45 | 03/01/16 16:20 |
| 40128832002 | MW-2      | Water  | 02/29/16 13:20 | 03/01/16 16:20 |
| 40128832003 | MW-3      | Water  | 02/29/16 11:45 | 03/01/16 16:20 |
| 40128832004 | TRIP      | Water  | 02/29/16 13:30 | 03/01/16 16:20 |

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128832

| Lab ID      | Sample ID | Method          | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|-----------------|----------|-------------------|------------|
| 40128832001 | MW-1      | 6010C Met       | DM       | 7                 | PASI-M     |
|             |           | EPA 7470        | AJT      | 1                 | PASI-G     |
|             |           | EPA 8270 by HVI | TPO      | 20                | PASI-G     |
|             |           | EPA 8260        | LAP      | 64                | PASI-G     |
| 40128832002 | MW-2      | 6010C Met       | DM       | 7                 | PASI-M     |
|             |           | EPA 7470        | AJT      | 1                 | PASI-G     |
|             |           | EPA 8270 by HVI | TPO      | 20                | PASI-G     |
|             |           | EPA 8260        | LAP      | 64                | PASI-G     |
| 40128832003 | MW-3      | 6010C Met       | DM       | 7                 | PASI-M     |
|             |           | EPA 7470        | AJT      | 1                 | PASI-G     |
|             |           | EPA 8270 by HVI | TPO      | 20                | PASI-G     |
|             |           | EPA 8260        | LAP      | 64                | PASI-G     |
| 40128832004 | TRIP      | EPA 8260        | LAP      | 64                | PASI-G     |

## REPORT OF LABORATORY ANALYSIS

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## SUMMARY OF DETECTION

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128832

| Lab Sample ID      | Client Sample ID       |         |       |              |                |            |
|--------------------|------------------------|---------|-------|--------------|----------------|------------|
| Method             | Parameters             | Result  | Units | Report Limit | Analyzed       | Qualifiers |
| <b>40128832001</b> | <b>MW-1</b>            |         |       |              |                |            |
| 6010C Met          | Barium, Dissolved      | 67.9    | ug/L  | 4.1          | 03/09/16 05:55 |            |
| EPA 8270 by HVI    | Benzo(a)anthracene     | 0.0088J | ug/L  | 0.045        | 03/04/16 15:06 |            |
| EPA 8270 by HVI    | Benzo(a)pyrene         | 0.0042J | ug/L  | 0.045        | 03/04/16 15:06 |            |
| EPA 8270 by HVI    | Benzo(b)fluoranthene   | 0.010J  | ug/L  | 0.045        | 03/04/16 15:06 |            |
| EPA 8270 by HVI    | Benzo(g,h,i)perylene   | 0.0040J | ug/L  | 0.045        | 03/04/16 15:06 |            |
| EPA 8270 by HVI    | Benzo(k)fluoranthene   | 0.0053J | ug/L  | 0.045        | 03/04/16 15:06 |            |
| EPA 8270 by HVI    | Chrysene               | 0.012J  | ug/L  | 0.045        | 03/04/16 15:06 |            |
| EPA 8270 by HVI    | Fluoranthene           | 0.018J  | ug/L  | 0.045        | 03/04/16 15:06 |            |
| EPA 8270 by HVI    | 1-Methylnaphthalene    | 0.0029J | ug/L  | 0.045        | 03/04/16 15:06 |            |
| EPA 8270 by HVI    | 2-Methylnaphthalene    | 0.0039J | ug/L  | 0.045        | 03/04/16 15:06 | B          |
| EPA 8270 by HVI    | Naphthalene            | 0.028J  | ug/L  | 0.045        | 03/04/16 15:06 | B          |
| EPA 8270 by HVI    | Phenanthrene           | 0.016J  | ug/L  | 0.045        | 03/04/16 15:06 |            |
| EPA 8270 by HVI    | Pyrene                 | 0.017J  | ug/L  | 0.045        | 03/04/16 15:06 |            |
| <b>40128832002</b> | <b>MW-2</b>            |         |       |              |                |            |
| 6010C Met          | Barium, Dissolved      | 66.0    | ug/L  | 4.1          | 03/09/16 05:58 |            |
| EPA 8270 by HVI    | Acenaphthene           | 0.32    | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | Acenaphthylene         | 0.018J  | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | Anthracene             | 0.85    | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | Benzo(a)anthracene     | 0.67    | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | Benzo(a)pyrene         | 0.51    | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | Benzo(b)fluoranthene   | 0.77    | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | Benzo(g,h,i)perylene   | 0.29    | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | Benzo(k)fluoranthene   | 0.42    | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | Chrysene               | 0.92    | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | Dibenz(a,h)anthracene  | 0.074   | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | Fluoranthene           | 2.1     | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | Fluorene               | 0.52    | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | Indeno(1,2,3-cd)pyrene | 0.25    | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | 1-Methylnaphthalene    | 0.074   | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | 2-Methylnaphthalene    | 0.087   | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | Naphthalene            | 0.23    | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | Phenanthrene           | 2.4     | ug/L  | 0.045        | 03/04/16 15:24 |            |
| EPA 8270 by HVI    | Pyrene                 | 1.5     | ug/L  | 0.045        | 03/04/16 15:24 |            |
| <b>40128832003</b> | <b>MW-3</b>            |         |       |              |                |            |
| 6010C Met          | Barium, Dissolved      | 67.1    | ug/L  | 4.1          | 03/09/16 06:01 |            |
| 6010C Met          | Chromium, Dissolved    | 2.0J    | ug/L  | 2.9          | 03/09/16 06:01 |            |
| EPA 8270 by HVI    | Anthracene             | 0.0041J | ug/L  | 0.045        | 03/04/16 15:43 |            |
| EPA 8270 by HVI    | Benzo(a)anthracene     | 0.020J  | ug/L  | 0.045        | 03/04/16 15:43 |            |
| EPA 8270 by HVI    | Benzo(a)pyrene         | 0.018J  | ug/L  | 0.045        | 03/04/16 15:43 |            |
| EPA 8270 by HVI    | Benzo(b)fluoranthene   | 0.038J  | ug/L  | 0.045        | 03/04/16 15:43 |            |
| EPA 8270 by HVI    | Benzo(g,h,i)perylene   | 0.018J  | ug/L  | 0.045        | 03/04/16 15:43 |            |
| EPA 8270 by HVI    | Benzo(k)fluoranthene   | 0.019J  | ug/L  | 0.045        | 03/04/16 15:43 |            |
| EPA 8270 by HVI    | Chrysene               | 0.038J  | ug/L  | 0.045        | 03/04/16 15:43 |            |
| EPA 8270 by HVI    | Fluoranthene           | 0.064   | ug/L  | 0.045        | 03/04/16 15:43 |            |
| EPA 8270 by HVI    | Fluorene               | 0.0046J | ug/L  | 0.045        | 03/04/16 15:43 |            |
| EPA 8270 by HVI    | Indeno(1,2,3-cd)pyrene | 0.013J  | ug/L  | 0.045        | 03/04/16 15:43 |            |

## REPORT OF LABORATORY ANALYSIS

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## SUMMARY OF DETECTION

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128832

| Lab Sample ID      | Client Sample ID    |         |       |              |                |            |
|--------------------|---------------------|---------|-------|--------------|----------------|------------|
| Method             | Parameters          | Result  | Units | Report Limit | Analyzed       | Qualifiers |
| <b>40128832003</b> | <b>MW-3</b>         |         |       |              |                |            |
| EPA 8270 by HVI    | 1-Methylnaphthalene | 0.0072J | ug/L  | 0.045        | 03/04/16 15:43 |            |
| EPA 8270 by HVI    | 2-Methylnaphthalene | 0.014J  | ug/L  | 0.045        | 03/04/16 15:43 | B          |
| EPA 8270 by HVI    | Naphthalene         | 0.0079J | ug/L  | 0.045        | 03/04/16 15:43 | B          |
| EPA 8270 by HVI    | Phenanthrene        | 0.043J  | ug/L  | 0.045        | 03/04/16 15:43 |            |
| EPA 8270 by HVI    | Pyrene              | 0.055   | ug/L  | 0.045        | 03/04/16 15:43 |            |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128832

**Sample:** MW-1 **Lab ID:** 40128832001 **Collected:** 02/29/16 12:45 **Received:** 03/01/16 16:20 **Matrix:** Water

| Parameters  | Results | Units | LOQ    | LOD    | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|---|---------|-------|--------|--------|----|----------------|----------------|-----------|------|
| <b>6010C MET ICP, Dissolved</b> Analytical Method: 6010C Met Preparation Method: EPA 3010   |         |       |        |        |    |                |                |           |      |
| Arsenic, Dissolved  | <4.0    | ug/L  | 13.4   | 4.0    | 1  | 03/08/16 08:40 | 03/09/16 05:55 | 7440-38-2 |      |
| Barium, Dissolved   | 67.9    | ug/L  | 4.1    | 1.2    | 1  | 03/08/16 08:40 | 03/09/16 05:55 | 7440-39-3 |      |
| Cadmium, Dissolved  | <0.65   | ug/L  | 2.2    | 0.65   | 1  | 03/08/16 08:40 | 03/09/16 05:55 | 7440-43-9 |      |
| Chromium, Dissolved   | <0.87   | ug/L  | 2.9    | 0.87   | 1  | 03/08/16 08:40 | 03/09/16 05:55 | 7440-47-3 |      |
| Lead, Dissolved   | <2.0    | ug/L  | 6.8    | 2.0    | 1  | 03/08/16 08:40 | 03/09/16 05:55 | 7439-92-1 |      |
| Selenium, Dissolved   | <8.3    | ug/L  | 27.5   | 8.3    | 1  | 03/08/16 08:40 | 03/09/16 05:55 | 7782-49-2 |      |
| Silver, Dissolved   | <2.4    | ug/L  | 7.8    | 2.4    | 1  | 03/08/16 08:40 | 03/09/16 05:55 | 7440-22-4 |      |
| <b>7470 Mercury, Dissolved</b> Analytical Method: EPA 7470 Preparation Method: EPA 7470     |         |       |        |        |    |                |                |           |      |
| Mercury, Dissolved  | <0.10   | ug/L  | 0.20   | 0.10   | 1  | 03/08/16 09:20 | 03/10/16 08:20 | 7439-97-6 |      |
| <b>8270 MSSV PAH by HVI</b> Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510 |         |       |        |        |    |                |                |           |      |
| Acenaphthene  | <0.0045 | ug/L  | 0.045  | 0.0045 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 83-32-9   |      |
| Acenaphthylene  | <0.0045 | ug/L  | 0.045  | 0.0045 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 208-96-8  |      |
| Anthracene  | <0.0037 | ug/L  | 0.045  | 0.0037 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 120-12-7  |      |
| Benzo(a)anthracene  | 0.0088J | ug/L  | 0.045  | 0.0047 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 56-55-3   |      |
| Benzo(a)pyrene  | 0.0042J | ug/L  | 0.045  | 0.0040 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 50-32-8   |      |
| Benzo(b)fluoranthene  | 0.010J  | ug/L  | 0.045  | 0.0048 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 205-99-2  |      |
| Benzo(g,h,i)perylene  | 0.0040J | ug/L  | 0.045  | 0.0032 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 191-24-2  |      |
| Benzo(k)fluoranthene  | 0.0053J | ug/L  | 0.045  | 0.0051 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 207-08-9  |      |
| Chrysene  | 0.012J  | ug/L  | 0.045  | 0.0039 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 218-01-9  |      |
| Dibenz(a,h)anthracene   | <0.0051 | ug/L  | 0.045  | 0.0051 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 53-70-3   |      |
| Fluoranthene  | 0.018J  | ug/L  | 0.045  | 0.0085 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 206-44-0  |      |
| Fluorene  | <0.0037 | ug/L  | 0.045  | 0.0037 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 86-73-7   |      |
| Indeno(1,2,3-cd)pyrene  | <0.0033 | ug/L  | 0.045  | 0.0033 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 193-39-5  |      |
| 1-Methylnaphthalene   | 0.0029J | ug/L  | 0.045  | 0.0028 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 90-12-0   |      |
| 2-Methylnaphthalene   | 0.0039J | ug/L  | 0.045  | 0.0025 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 91-57-6   | B    |
| Naphthalene   | 0.028J  | ug/L  | 0.045  | 0.0041 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 91-20-3   | B    |
| Phenanthrene  | 0.016J  | ug/L  | 0.045  | 0.0070 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 85-01-8   |      |
| Pyrene  | 0.017J  | ug/L  | 0.045  | 0.0070 | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 129-00-0  |      |
| <b>Surrogates</b>   |         |       |        |        |    |                |                |           |      |
| 2-Fluorobiphenyl (S)  | 59      | %     | 25-130 |        | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 321-60-8  |      |
| Terphenyl-d14 (S)   | 86      | %     | 13-158 |        | 1  | 03/04/16 08:30 | 03/04/16 15:06 | 1718-51-0 |      |
| <b>8260 MSV</b> Analytical Method: EPA 8260   |         |       |        |        |    |                |                |           |      |
| Benzene   | <0.50   | ug/L  | 1.0    | 0.50   | 1  |                | 03/04/16 12:03 | 71-43-2   |      |
| Bromobenzene  | <0.23   | ug/L  | 1.0    | 0.23   | 1  |                | 03/04/16 12:03 | 108-86-1  |      |
| Bromochloromethane  | <0.34   | ug/L  | 1.0    | 0.34   | 1  |                | 03/04/16 12:03 | 74-97-5   |      |
| Bromodichloromethane  | <0.50   | ug/L  | 1.0    | 0.50   | 1  |                | 03/04/16 12:03 | 75-27-4   |      |
| Bromoform   | <0.50   | ug/L  | 1.0    | 0.50   | 1  |                | 03/04/16 12:03 | 75-25-2   |      |
| Bromomethane  | <2.4    | ug/L  | 5.0    | 2.4    | 1  |                | 03/04/16 12:03 | 74-83-9   |      |
| n-Butylbenzene  | <0.50   | ug/L  | 1.0    | 0.50   | 1  |                | 03/04/16 12:03 | 104-51-8  |      |
| sec-Butylbenzene  | <2.2    | ug/L  | 5.0    | 2.2    | 1  |                | 03/04/16 12:03 | 135-98-8  |      |
| tert-Butylbenzene   | <0.18   | ug/L  | 1.0    | 0.18   | 1  |                | 03/04/16 12:03 | 98-06-6   |      |
| Carbon tetrachloride  | <0.50   | ug/L  | 1.0    | 0.50   | 1  |                | 03/04/16 12:03 | 56-23-5   |      |
| Chlorobenzene   | <0.50   | ug/L  | 1.0    | 0.50   | 1  |                | 03/04/16 12:03 | 108-90-7  |      |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128832

**Sample: MW-1**      **Lab ID: 40128832001**      Collected: 02/29/16 12:45      Received: 03/01/16 16:20      Matrix: Water

| Parameters                  | Results | Units                       | LOQ | LOD  | DF | Prepared | Analyzed       | CAS No.    | Qual |
|-----------------------------|---------|-----------------------------|-----|------|----|----------|----------------|------------|------|
| <b>8260 MSV</b>             |         | Analytical Method: EPA 8260 |     |      |    |          |                |            |      |
| Chloroethane                | <0.37   | ug/L                        | 1.0 | 0.37 | 1  |          | 03/04/16 12:03 | 75-00-3    |      |
| Chloroform                  | <2.5    | ug/L                        | 5.0 | 2.5  | 1  |          | 03/04/16 12:03 | 67-66-3    |      |
| Chloromethane               | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 74-87-3    |      |
| 2-Chlorotoluene             | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 95-49-8    |      |
| 4-Chlorotoluene             | <0.21   | ug/L                        | 1.0 | 0.21 | 1  |          | 03/04/16 12:03 | 106-43-4   |      |
| 1,2-Dibromo-3-chloropropane | <2.2    | ug/L                        | 5.0 | 2.2  | 1  |          | 03/04/16 12:03 | 96-12-8    |      |
| Dibromochloromethane        | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 124-48-1   |      |
| 1,2-Dibromoethane (EDB)     | <0.18   | ug/L                        | 1.0 | 0.18 | 1  |          | 03/04/16 12:03 | 106-93-4   |      |
| Dibromomethane              | <0.43   | ug/L                        | 1.0 | 0.43 | 1  |          | 03/04/16 12:03 | 74-95-3    |      |
| 1,2-Dichlorobenzene         | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 95-50-1    |      |
| 1,3-Dichlorobenzene         | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 541-73-1   |      |
| 1,4-Dichlorobenzene         | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 106-46-7   |      |
| Dichlorodifluoromethane     | <0.22   | ug/L                        | 1.0 | 0.22 | 1  |          | 03/04/16 12:03 | 75-71-8    |      |
| 1,1-Dichloroethane          | <0.24   | ug/L                        | 1.0 | 0.24 | 1  |          | 03/04/16 12:03 | 75-34-3    |      |
| 1,2-Dichloroethane          | <0.17   | ug/L                        | 1.0 | 0.17 | 1  |          | 03/04/16 12:03 | 107-06-2   |      |
| 1,1-Dichloroethene          | <0.41   | ug/L                        | 1.0 | 0.41 | 1  |          | 03/04/16 12:03 | 75-35-4    |      |
| cis-1,2-Dichloroethene      | <0.26   | ug/L                        | 1.0 | 0.26 | 1  |          | 03/04/16 12:03 | 156-59-2   |      |
| trans-1,2-Dichloroethene    | <0.26   | ug/L                        | 1.0 | 0.26 | 1  |          | 03/04/16 12:03 | 156-60-5   |      |
| 1,2-Dichloropropane         | <0.23   | ug/L                        | 1.0 | 0.23 | 1  |          | 03/04/16 12:03 | 78-87-5    |      |
| 1,3-Dichloropropane         | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 142-28-9   |      |
| 2,2-Dichloropropane         | <0.48   | ug/L                        | 1.0 | 0.48 | 1  |          | 03/04/16 12:03 | 594-20-7   |      |
| 1,1-Dichloropropene         | <0.44   | ug/L                        | 1.0 | 0.44 | 1  |          | 03/04/16 12:03 | 563-58-6   |      |
| cis-1,3-Dichloropropene     | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 10061-01-5 |      |
| trans-1,3-Dichloropropene   | <0.23   | ug/L                        | 1.0 | 0.23 | 1  |          | 03/04/16 12:03 | 10061-02-6 |      |
| Diisopropyl ether           | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 108-20-3   |      |
| Ethylbenzene                | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 100-41-4   |      |
| Hexachloro-1,3-butadiene    | <2.1    | ug/L                        | 5.0 | 2.1  | 1  |          | 03/04/16 12:03 | 87-68-3    |      |
| Isopropylbenzene (Cumene)   | <0.14   | ug/L                        | 1.0 | 0.14 | 1  |          | 03/04/16 12:03 | 98-82-8    |      |
| p-Isopropyltoluene          | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 99-87-6    |      |
| Methylene Chloride          | <0.23   | ug/L                        | 1.0 | 0.23 | 1  |          | 03/04/16 12:03 | 75-09-2    |      |
| Methyl-tert-butyl ether     | <0.17   | ug/L                        | 1.0 | 0.17 | 1  |          | 03/04/16 12:03 | 1634-04-4  |      |
| Naphthalene                 | <2.5    | ug/L                        | 5.0 | 2.5  | 1  |          | 03/04/16 12:03 | 91-20-3    |      |
| n-Propylbenzene             | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 103-65-1   |      |
| Styrene                     | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 100-42-5   |      |
| 1,1,1,2-Tetrachloroethane   | <0.18   | ug/L                        | 1.0 | 0.18 | 1  |          | 03/04/16 12:03 | 630-20-6   |      |
| 1,1,2,2-Tetrachloroethane   | <0.25   | ug/L                        | 1.0 | 0.25 | 1  |          | 03/04/16 12:03 | 79-34-5    |      |
| Tetrachloroethene           | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 127-18-4   |      |
| Toluene                     | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 108-88-3   |      |
| 1,2,3-Trichlorobenzene      | <2.1    | ug/L                        | 5.0 | 2.1  | 1  |          | 03/04/16 12:03 | 87-61-6    |      |
| 1,2,4-Trichlorobenzene      | <2.2    | ug/L                        | 5.0 | 2.2  | 1  |          | 03/04/16 12:03 | 120-82-1   |      |
| 1,1,1-Trichloroethane       | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 71-55-6    |      |
| 1,1,2-Trichloroethane       | <0.20   | ug/L                        | 1.0 | 0.20 | 1  |          | 03/04/16 12:03 | 79-00-5    |      |
| Trichloroethene             | <0.33   | ug/L                        | 1.0 | 0.33 | 1  |          | 03/04/16 12:03 | 79-01-6    |      |
| Trichlorofluoromethane      | <0.18   | ug/L                        | 1.0 | 0.18 | 1  |          | 03/04/16 12:03 | 75-69-4    |      |
| 1,2,3-Trichloropropane      | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 96-18-4    |      |
| 1,2,4-Trimethylbenzene      | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:03 | 95-63-6    |      |

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128832

| Sample: MW-1 Lab ID: 40128832001 Collected: 02/29/16 12:45 Received: 03/01/16 16:20 Matrix: Water |         |       |        |      |    |          |                |             |      |
|---|---------|-------|--------|------|----|----------|----------------|-------------|------|
| Parameters  | Results | Units | LOQ    | LOD  | DF | Prepared | Analyzed       | CAS No.     | Qual |
| 8260 MSV Analytical Method: EPA 8260  |         |       |        |      |    |          |                |             |      |
| 1,3,5-Trimethylbenzene  | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 12:03 | 108-67-8    |      |
| Vinyl chloride  | <0.18   | ug/L  | 1.0    | 0.18 | 1  |          | 03/04/16 12:03 | 75-01-4     |      |
| m&p-Xylene  | <1.0    | ug/L  | 2.0    | 1.0  | 1  |          | 03/04/16 12:03 | 179601-23-1 |      |
| o-Xylene  | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 12:03 | 95-47-6     |      |
| <b>Surrogates</b>   |         |       |        |      |    |          |                |             |      |
| 4-Bromofluorobenzene (S)  | 101     | %     | 70-130 |      | 1  |          | 03/04/16 12:03 | 460-00-4    |      |
| Dibromofluoromethane (S)  | 101     | %     | 70-130 |      | 1  |          | 03/04/16 12:03 | 1868-53-7   |      |
| Toluene-d8 (S)  | 98      | %     | 70-130 |      | 1  |          | 03/04/16 12:03 | 2037-26-5   |      |

| Sample: MW-2 Lab ID: 40128832002 Collected: 02/29/16 13:20 Received: 03/01/16 16:20 Matrix: Water |         |       |       |        |    |                |                |           |      |
|---|---------|-------|-------|--------|----|----------------|----------------|-----------|------|
| Parameters  | Results | Units | LOQ   | LOD    | DF | Prepared       | Analyzed       | CAS No.   | Qual |
| 6010C MET ICP, Dissolved Analytical Method: 6010C Met Preparation Method: EPA 3010                |         |       |       |        |    |                |                |           |      |
| Arsenic, Dissolved  | <4.0    | ug/L  | 13.4  | 4.0    | 1  | 03/08/16 08:40 | 03/09/16 05:58 | 7440-38-2 |      |
| Barium, Dissolved   | 66.0    | ug/L  | 4.1   | 1.2    | 1  | 03/08/16 08:40 | 03/09/16 05:58 | 7440-39-3 |      |
| Cadmium, Dissolved  | <0.65   | ug/L  | 2.2   | 0.65   | 1  | 03/08/16 08:40 | 03/09/16 05:58 | 7440-43-9 |      |
| Chromium, Dissolved   | <0.87   | ug/L  | 2.9   | 0.87   | 1  | 03/08/16 08:40 | 03/09/16 05:58 | 7440-47-3 |      |
| Lead, Dissolved   | <2.0    | ug/L  | 6.8   | 2.0    | 1  | 03/08/16 08:40 | 03/09/16 05:58 | 7439-92-1 |      |
| Selenium, Dissolved   | <8.3    | ug/L  | 27.5  | 8.3    | 1  | 03/08/16 08:40 | 03/09/16 05:58 | 7782-49-2 |      |
| Silver, Dissolved   | <2.4    | ug/L  | 7.8   | 2.4    | 1  | 03/08/16 08:40 | 03/09/16 05:58 | 7440-22-4 |      |
| 7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470                  |         |       |       |        |    |                |                |           |      |
| Mercury, Dissolved  | <0.10   | ug/L  | 0.20  | 0.10   | 1  | 03/08/16 09:20 | 03/10/16 08:22 | 7439-97-6 |      |
| 8270 MSSV PAH by HVI Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510              |         |       |       |        |    |                |                |           |      |
| Acenaphthene  | 0.32    | ug/L  | 0.045 | 0.0045 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 83-32-9   |      |
| Acenaphthylene  | 0.018J  | ug/L  | 0.045 | 0.0045 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 208-96-8  |      |
| Anthracene  | 0.85    | ug/L  | 0.045 | 0.0037 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 120-12-7  |      |
| Benzo(a)anthracene  | 0.67    | ug/L  | 0.045 | 0.0047 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 56-55-3   |      |
| Benzo(a)pyrene  | 0.51    | ug/L  | 0.045 | 0.0040 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 50-32-8   |      |
| Benzo(b)fluoranthene  | 0.77    | ug/L  | 0.045 | 0.0048 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 205-99-2  |      |
| Benzo(g,h,i)perylene  | 0.29    | ug/L  | 0.045 | 0.0032 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 191-24-2  |      |
| Benzo(k)fluoranthene  | 0.42    | ug/L  | 0.045 | 0.0051 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 207-08-9  |      |
| Chrysene  | 0.92    | ug/L  | 0.045 | 0.0039 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 218-01-9  |      |
| Dibenz(a,h)anthracene   | 0.074   | ug/L  | 0.045 | 0.0051 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 53-70-3   |      |
| Fluoranthene  | 2.1     | ug/L  | 0.045 | 0.0085 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 206-44-0  |      |
| Fluorene  | 0.52    | ug/L  | 0.045 | 0.0037 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 86-73-7   |      |
| Indeno(1,2,3-cd)pyrene  | 0.25    | ug/L  | 0.045 | 0.0033 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 193-39-5  |      |
| 1-Methylnaphthalene   | 0.074   | ug/L  | 0.045 | 0.0028 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 90-12-0   |      |
| 2-Methylnaphthalene   | 0.087   | ug/L  | 0.045 | 0.0025 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 91-57-6   |      |
| Naphthalene   | 0.23    | ug/L  | 0.045 | 0.0041 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 91-20-3   |      |
| Phenanthrene  | 2.4     | ug/L  | 0.045 | 0.0070 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 85-01-8   |      |
| Pyrene  | 1.5     | ug/L  | 0.045 | 0.0070 | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 129-00-0  |      |

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128832

**Sample: MW-2**      **Lab ID: 40128832002**      Collected: 02/29/16 13:20      Received: 03/01/16 16:20      Matrix: Water

| Parameters   | Results | Units | LOQ    | LOD  | DF | Prepared       | Analyzed       | CAS No.    | Qual |
|--|---------|-------|--------|------|----|----------------|----------------|------------|------|
| <b>8270 MSSV PAH by HVI</b> Analytical Method: EPA 8270 by HVI      Preparation Method: EPA 3510 |         |       |        |      |    |                |                |            |      |
| <b>Surrogates</b>  |         |       |        |      |    |                |                |            |      |
| 2-Fluorobiphenyl (S)   | 57      | %     | 25-130 |      | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 321-60-8   |      |
| Terphenyl-d 14 (S)   | 80      | %     | 13-158 |      | 1  | 03/04/16 08:30 | 03/04/16 15:24 | 1718-51-0  |      |
| <b>8260 MSV</b> Analytical Method: EPA 8260  |         |       |        |      |    |                |                |            |      |
| Benzene  | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 71-43-2    |      |
| Bromobenzene   | <0.23   | ug/L  | 1.0    | 0.23 | 1  |                | 03/04/16 14:42 | 108-86-1   |      |
| Bromochloromethane   | <0.34   | ug/L  | 1.0    | 0.34 | 1  |                | 03/04/16 14:42 | 74-97-5    |      |
| Bromodichloromethane   | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 75-27-4    |      |
| Bromoform  | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 75-25-2    |      |
| Bromomethane   | <2.4    | ug/L  | 5.0    | 2.4  | 1  |                | 03/04/16 14:42 | 74-83-9    |      |
| n-Butylbenzene   | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 104-51-8   |      |
| sec-Butylbenzene   | <2.2    | ug/L  | 5.0    | 2.2  | 1  |                | 03/04/16 14:42 | 135-98-8   |      |
| tert-Butylbenzene  | <0.18   | ug/L  | 1.0    | 0.18 | 1  |                | 03/04/16 14:42 | 98-06-6    |      |
| Carbon tetrachloride   | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 56-23-5    |      |
| Chlorobenzene  | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 108-90-7   |      |
| Chloroethane   | <0.37   | ug/L  | 1.0    | 0.37 | 1  |                | 03/04/16 14:42 | 75-00-3    |      |
| Chloroform   | <2.5    | ug/L  | 5.0    | 2.5  | 1  |                | 03/04/16 14:42 | 67-66-3    |      |
| Chloromethane  | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 74-87-3    |      |
| 2-Chlorotoluene  | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 95-49-8    |      |
| 4-Chlorotoluene  | <0.21   | ug/L  | 1.0    | 0.21 | 1  |                | 03/04/16 14:42 | 106-43-4   |      |
| 1,2-Dibromo-3-chloropropane  | <2.2    | ug/L  | 5.0    | 2.2  | 1  |                | 03/04/16 14:42 | 96-12-8    |      |
| Dibromochloromethane   | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 124-48-1   |      |
| 1,2-Dibromoethane (EDB)  | <0.18   | ug/L  | 1.0    | 0.18 | 1  |                | 03/04/16 14:42 | 106-93-4   |      |
| Dibromomethane   | <0.43   | ug/L  | 1.0    | 0.43 | 1  |                | 03/04/16 14:42 | 74-95-3    |      |
| 1,2-Dichlorobenzene  | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 95-50-1    |      |
| 1,3-Dichlorobenzene  | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 541-73-1   |      |
| 1,4-Dichlorobenzene  | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 106-46-7   |      |
| Dichlorodifluoromethane  | <0.22   | ug/L  | 1.0    | 0.22 | 1  |                | 03/04/16 14:42 | 75-71-8    |      |
| 1,1-Dichloroethane   | <0.24   | ug/L  | 1.0    | 0.24 | 1  |                | 03/04/16 14:42 | 75-34-3    |      |
| 1,2-Dichloroethane   | <0.17   | ug/L  | 1.0    | 0.17 | 1  |                | 03/04/16 14:42 | 107-06-2   |      |
| 1,1-Dichloroethene   | <0.41   | ug/L  | 1.0    | 0.41 | 1  |                | 03/04/16 14:42 | 75-35-4    |      |
| cis-1,2-Dichloroethene   | <0.26   | ug/L  | 1.0    | 0.26 | 1  |                | 03/04/16 14:42 | 156-59-2   |      |
| trans-1,2-Dichloroethene   | <0.26   | ug/L  | 1.0    | 0.26 | 1  |                | 03/04/16 14:42 | 156-60-5   |      |
| 1,2-Dichloropropane  | <0.23   | ug/L  | 1.0    | 0.23 | 1  |                | 03/04/16 14:42 | 78-87-5    |      |
| 1,3-Dichloropropane  | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 142-28-9   |      |
| 2,2-Dichloropropane  | <0.48   | ug/L  | 1.0    | 0.48 | 1  |                | 03/04/16 14:42 | 594-20-7   |      |
| 1,1-Dichloropropene  | <0.44   | ug/L  | 1.0    | 0.44 | 1  |                | 03/04/16 14:42 | 563-58-6   |      |
| cis-1,3-Dichloropropene  | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 10061-01-5 |      |
| trans-1,3-Dichloropropene  | <0.23   | ug/L  | 1.0    | 0.23 | 1  |                | 03/04/16 14:42 | 10061-02-6 |      |
| Diisopropyl ether  | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 108-20-3   |      |
| Ethylbenzene   | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 100-41-4   |      |
| Hexachloro-1,3-butadiene   | <2.1    | ug/L  | 5.0    | 2.1  | 1  |                | 03/04/16 14:42 | 87-68-3    |      |
| Isopropylbenzene (Cumene)  | <0.14   | ug/L  | 1.0    | 0.14 | 1  |                | 03/04/16 14:42 | 98-82-8    |      |
| p-Isopropyltoluene   | <0.50   | ug/L  | 1.0    | 0.50 | 1  |                | 03/04/16 14:42 | 99-87-6    |      |
| Methylene Chloride   | <0.23   | ug/L  | 1.0    | 0.23 | 1  |                | 03/04/16 14:42 | 75-09-2    |      |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128832

| Sample: MW-2              |         | Lab ID: 40128832002         |        | Collected: 02/29/16 13:20 |    | Received: 03/01/16 16:20 |                | Matrix: Water |      |
|---------------------------|---------|-----------------------------|--------|---------------------------|----|--------------------------|----------------|---------------|------|
| Parameters                | Results | Units                       | LOQ    | LOD                       | DF | Prepared                 | Analyzed       | CAS No.       | Qual |
| <b>8260 MSV</b>           |         | Analytical Method: EPA 8260 |        |                           |    |                          |                |               |      |
| Methyl-tert-butyl ether   | <0.17   | ug/L                        | 1.0    | 0.17                      | 1  |                          | 03/04/16 14:42 | 1634-04-4     |      |
| Naphthalene               | <2.5    | ug/L                        | 5.0    | 2.5                       | 1  |                          | 03/04/16 14:42 | 91-20-3       |      |
| n-Propylbenzene           | <0.50   | ug/L                        | 1.0    | 0.50                      | 1  |                          | 03/04/16 14:42 | 103-65-1      |      |
| Styrene                   | <0.50   | ug/L                        | 1.0    | 0.50                      | 1  |                          | 03/04/16 14:42 | 100-42-5      |      |
| 1,1,1,2-Tetrachloroethane | <0.18   | ug/L                        | 1.0    | 0.18                      | 1  |                          | 03/04/16 14:42 | 630-20-6      |      |
| 1,1,2,2-Tetrachloroethane | <0.25   | ug/L                        | 1.0    | 0.25                      | 1  |                          | 03/04/16 14:42 | 79-34-5       |      |
| Tetrachloroethene         | <0.50   | ug/L                        | 1.0    | 0.50                      | 1  |                          | 03/04/16 14:42 | 127-18-4      |      |
| Toluene                   | <0.50   | ug/L                        | 1.0    | 0.50                      | 1  |                          | 03/04/16 14:42 | 108-88-3      |      |
| 1,2,3-Trichlorobenzene    | <2.1    | ug/L                        | 5.0    | 2.1                       | 1  |                          | 03/04/16 14:42 | 87-61-6       |      |
| 1,2,4-Trichlorobenzene    | <2.2    | ug/L                        | 5.0    | 2.2                       | 1  |                          | 03/04/16 14:42 | 120-82-1      |      |
| 1,1,1-Trichloroethane     | <0.50   | ug/L                        | 1.0    | 0.50                      | 1  |                          | 03/04/16 14:42 | 71-55-6       |      |
| 1,1,2-Trichloroethane     | <0.20   | ug/L                        | 1.0    | 0.20                      | 1  |                          | 03/04/16 14:42 | 79-00-5       |      |
| Trichloroethene           | <0.33   | ug/L                        | 1.0    | 0.33                      | 1  |                          | 03/04/16 14:42 | 79-01-6       |      |
| Trichlorofluoromethane    | <0.18   | ug/L                        | 1.0    | 0.18                      | 1  |                          | 03/04/16 14:42 | 75-69-4       |      |
| 1,2,3-Trichloropropane    | <0.50   | ug/L                        | 1.0    | 0.50                      | 1  |                          | 03/04/16 14:42 | 96-18-4       |      |
| 1,2,4-Trimethylbenzene    | <0.50   | ug/L                        | 1.0    | 0.50                      | 1  |                          | 03/04/16 14:42 | 95-63-6       |      |
| 1,3,5-Trimethylbenzene    | <0.50   | ug/L                        | 1.0    | 0.50                      | 1  |                          | 03/04/16 14:42 | 108-67-8      |      |
| Vinyl chloride            | <0.18   | ug/L                        | 1.0    | 0.18                      | 1  |                          | 03/04/16 14:42 | 75-01-4       |      |
| m&p-Xylene                | <1.0    | ug/L                        | 2.0    | 1.0                       | 1  |                          | 03/04/16 14:42 | 179601-23-1   |      |
| o-Xylene                  | <0.50   | ug/L                        | 1.0    | 0.50                      | 1  |                          | 03/04/16 14:42 | 95-47-6       |      |
| <b>Surrogates</b>         |         |                             |        |                           |    |                          |                |               |      |
| 4-Bromofluorobenzene (S)  | 98      | %                           | 70-130 |                           | 1  |                          | 03/04/16 14:42 | 460-00-4      |      |
| Dibromofluoromethane (S)  | 102     | %                           | 70-130 |                           | 1  |                          | 03/04/16 14:42 | 1868-53-7     |      |
| Toluene-d8 (S)            | 96      | %                           | 70-130 |                           | 1  |                          | 03/04/16 14:42 | 2037-26-5     |      |

| Sample: MW-3                    |         | Lab ID: 40128832003   |       | Collected: 02/29/16 11:45 |    | Received: 03/01/16 16:20 |                | Matrix: Water |      |
|---------------------------------|---------|---|-------|---------------------------|----|--------------------------|----------------|---------------|------|
| Parameters                      | Results | Units   | LOQ   | LOD                       | DF | Prepared                 | Analyzed       | CAS No.       | Qual |
| <b>6010C MET ICP, Dissolved</b> |         | Analytical Method: 6010C Met Preparation Method: EPA 3010       |       |                           |    |                          |                |               |      |
| Arsenic, Dissolved              | <4.0    | ug/L  | 13.4  | 4.0                       | 1  | 03/08/16 08:40           | 03/09/16 06:01 | 7440-38-2     |      |
| Barium, Dissolved               | 67.1    | ug/L  | 4.1   | 1.2                       | 1  | 03/08/16 08:40           | 03/09/16 06:01 | 7440-39-3     |      |
| Cadmium, Dissolved              | <0.65   | ug/L  | 2.2   | 0.65                      | 1  | 03/08/16 08:40           | 03/09/16 06:01 | 7440-43-9     |      |
| Chromium, Dissolved             | 2.0J    | ug/L  | 2.9   | 0.87                      | 1  | 03/08/16 08:40           | 03/09/16 06:01 | 7440-47-3     |      |
| Lead, Dissolved                 | <2.0    | ug/L  | 6.8   | 2.0                       | 1  | 03/08/16 08:40           | 03/09/16 06:01 | 7439-92-1     |      |
| Selenium, Dissolved             | <8.3    | ug/L  | 27.5  | 8.3                       | 1  | 03/08/16 08:40           | 03/09/16 06:01 | 7782-49-2     |      |
| Silver, Dissolved               | <2.4    | ug/L  | 7.8   | 2.4                       | 1  | 03/08/16 08:40           | 03/09/16 06:01 | 7440-22-4     |      |
| <b>7470 Mercury, Dissolved</b>  |         | Analytical Method: EPA 7470 Preparation Method: EPA 7470        |       |                           |    |                          |                |               |      |
| Mercury, Dissolved              | <0.10   | ug/L  | 0.20  | 0.10                      | 1  | 03/08/16 09:20           | 03/10/16 08:24 | 7439-97-6     |      |
| <b>8270 MSSV PAH by HVI</b>     |         | Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510 |       |                           |    |                          |                |               |      |
| Acenaphthene                    | <0.0045 | ug/L  | 0.045 | 0.0045                    | 1  | 03/04/16 08:30           | 03/04/16 15:43 | 83-32-9       |      |
| Acenaphthylene                  | <0.0045 | ug/L  | 0.045 | 0.0045                    | 1  | 03/04/16 08:30           | 03/04/16 15:43 | 208-96-8      |      |

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128832

**Sample: MW-3**      **Lab ID: 40128832003**      Collected: 02/29/16 11:45      Received: 03/01/16 16:20      Matrix: Water

| Parameters   | Results | Units | LOQ    | LOD    | DF | Prepared       | Analyzed       | CAS No.   | Qual |
|--|---------|-------|--------|--------|----|----------------|----------------|-----------|------|
| <b>8270 MSSV PAH by HVI</b> Analytical Method: EPA 8270 by HVI      Preparation Method: EPA 3510 |         |       |        |        |    |                |                |           |      |
| Anthracene   | 0.0041J | ug/L  | 0.045  | 0.0037 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 120-12-7  |      |
| Benzo(a)anthracene   | 0.020J  | ug/L  | 0.045  | 0.0047 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 56-55-3   |      |
| Benzo(a)pyrene   | 0.018J  | ug/L  | 0.045  | 0.0040 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 50-32-8   |      |
| Benzo(b)fluoranthene   | 0.038J  | ug/L  | 0.045  | 0.0048 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 205-99-2  |      |
| Benzo(g,h,i)perylene   | 0.018J  | ug/L  | 0.045  | 0.0032 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 191-24-2  |      |
| Benzo(k)fluoranthene   | 0.019J  | ug/L  | 0.045  | 0.0051 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 207-08-9  |      |
| Chrysene   | 0.038J  | ug/L  | 0.045  | 0.0039 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 218-01-9  |      |
| Dibenz(a,h)anthracene  | <0.0051 | ug/L  | 0.045  | 0.0051 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 53-70-3   |      |
| Fluoranthene   | 0.064   | ug/L  | 0.045  | 0.0085 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 206-44-0  |      |
| Fluorene   | 0.0046J | ug/L  | 0.045  | 0.0037 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 86-73-7   |      |
| Indeno(1,2,3-cd)pyrene   | 0.013J  | ug/L  | 0.045  | 0.0033 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 193-39-5  |      |
| 1-Methylnaphthalene  | 0.0072J | ug/L  | 0.045  | 0.0028 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 90-12-0   |      |
| 2-Methylnaphthalene  | 0.014J  | ug/L  | 0.045  | 0.0025 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 91-57-6   | B    |
| Naphthalene  | 0.0079J | ug/L  | 0.045  | 0.0041 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 91-20-3   | B    |
| Phenanthrene   | 0.043J  | ug/L  | 0.045  | 0.0070 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 85-01-8   |      |
| Pyrene   | 0.055   | ug/L  | 0.045  | 0.0070 | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 129-00-0  |      |
| <b>Surrogates</b>  |         |       |        |        |    |                |                |           |      |
| 2-Fluorobiphenyl (S)   | 59      | %     | 25-130 |        | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 321-60-8  |      |
| Terphenyl-d14 (S)  | 90      | %     | 13-158 |        | 1  | 03/04/16 08:30 | 03/04/16 15:43 | 1718-51-0 |      |

|   |       |      |     |      |   |  |                |          |  |
|---|-------|------|-----|------|---|--|----------------|----------|--|
| <b>8260 MSV</b> Analytical Method: EPA 8260 |       |      |     |      |   |  |                |          |  |
| Benzene                                     | <0.50 | ug/L | 1.0 | 0.50 | 1 |  | 03/04/16 15:04 | 71-43-2  |  |
| Bromobenzene                                | <0.23 | ug/L | 1.0 | 0.23 | 1 |  | 03/04/16 15:04 | 108-86-1 |  |
| Bromochloromethane                          | <0.34 | ug/L | 1.0 | 0.34 | 1 |  | 03/04/16 15:04 | 74-97-5  |  |
| Bromodichloromethane                        | <0.50 | ug/L | 1.0 | 0.50 | 1 |  | 03/04/16 15:04 | 75-27-4  |  |
| Bromoform                                   | <0.50 | ug/L | 1.0 | 0.50 | 1 |  | 03/04/16 15:04 | 75-25-2  |  |
| Bromomethane                                | <2.4  | ug/L | 5.0 | 2.4  | 1 |  | 03/04/16 15:04 | 74-83-9  |  |
| n-Butylbenzene                              | <0.50 | ug/L | 1.0 | 0.50 | 1 |  | 03/04/16 15:04 | 104-51-8 |  |
| sec-Butylbenzene                            | <2.2  | ug/L | 5.0 | 2.2  | 1 |  | 03/04/16 15:04 | 135-98-8 |  |
| tert-Butylbenzene                           | <0.18 | ug/L | 1.0 | 0.18 | 1 |  | 03/04/16 15:04 | 98-06-6  |  |
| Carbon tetrachloride                        | <0.50 | ug/L | 1.0 | 0.50 | 1 |  | 03/04/16 15:04 | 56-23-5  |  |
| Chlorobenzene                               | <0.50 | ug/L | 1.0 | 0.50 | 1 |  | 03/04/16 15:04 | 108-90-7 |  |
| Chloroethane                                | <0.37 | ug/L | 1.0 | 0.37 | 1 |  | 03/04/16 15:04 | 75-00-3  |  |
| Chloroform                                  | <2.5  | ug/L | 5.0 | 2.5  | 1 |  | 03/04/16 15:04 | 67-66-3  |  |
| Chloromethane                               | <0.50 | ug/L | 1.0 | 0.50 | 1 |  | 03/04/16 15:04 | 74-87-3  |  |
| 2-Chlorotoluene                             | <0.50 | ug/L | 1.0 | 0.50 | 1 |  | 03/04/16 15:04 | 95-49-8  |  |
| 4-Chlorotoluene                             | <0.21 | ug/L | 1.0 | 0.21 | 1 |  | 03/04/16 15:04 | 106-43-4 |  |
| 1,2-Dibromo-3-chloropropane                 | <2.2  | ug/L | 5.0 | 2.2  | 1 |  | 03/04/16 15:04 | 96-12-8  |  |
| Dibromochloromethane                        | <0.50 | ug/L | 1.0 | 0.50 | 1 |  | 03/04/16 15:04 | 124-48-1 |  |
| 1,2-Dibromoethane (EDB)                     | <0.18 | ug/L | 1.0 | 0.18 | 1 |  | 03/04/16 15:04 | 106-93-4 |  |
| Dibromomethane                              | <0.43 | ug/L | 1.0 | 0.43 | 1 |  | 03/04/16 15:04 | 74-95-3  |  |
| 1,2-Dichlorobenzene                         | <0.50 | ug/L | 1.0 | 0.50 | 1 |  | 03/04/16 15:04 | 95-50-1  |  |
| 1,3-Dichlorobenzene                         | <0.50 | ug/L | 1.0 | 0.50 | 1 |  | 03/04/16 15:04 | 541-73-1 |  |
| 1,4-Dichlorobenzene                         | <0.50 | ug/L | 1.0 | 0.50 | 1 |  | 03/04/16 15:04 | 106-46-7 |  |
| Dichlorodifluoromethane                     | <0.22 | ug/L | 1.0 | 0.22 | 1 |  | 03/04/16 15:04 | 75-71-8  |  |
| 1,1-Dichloroethane                          | <0.24 | ug/L | 1.0 | 0.24 | 1 |  | 03/04/16 15:04 | 75-34-3  |  |

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128832

**Sample: MW-3**      **Lab ID: 40128832003**      Collected: 02/29/16 11:45      Received: 03/01/16 16:20      Matrix: Water

| Parameters                                  | Results | Units | LOQ    | LOD  | DF | Prepared | Analyzed       | CAS No.     | Qual |
|---|---------|-------|--------|------|----|----------|----------------|-------------|------|
| <b>8260 MSV</b> Analytical Method: EPA 8260 |         |       |        |      |    |          |                |             |      |
| 1,2-Dichloroethane                          | <0.17   | ug/L  | 1.0    | 0.17 | 1  |          | 03/04/16 15:04 | 107-06-2    |      |
| 1,1-Dichloroethene                          | <0.41   | ug/L  | 1.0    | 0.41 | 1  |          | 03/04/16 15:04 | 75-35-4     |      |
| cis-1,2-Dichloroethene                      | <0.26   | ug/L  | 1.0    | 0.26 | 1  |          | 03/04/16 15:04 | 156-59-2    |      |
| trans-1,2-Dichloroethene                    | <0.26   | ug/L  | 1.0    | 0.26 | 1  |          | 03/04/16 15:04 | 156-60-5    |      |
| 1,2-Dichloropropane                         | <0.23   | ug/L  | 1.0    | 0.23 | 1  |          | 03/04/16 15:04 | 78-87-5     |      |
| 1,3-Dichloropropane                         | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 15:04 | 142-28-9    |      |
| 2,2-Dichloropropane                         | <0.48   | ug/L  | 1.0    | 0.48 | 1  |          | 03/04/16 15:04 | 594-20-7    |      |
| 1,1-Dichloropropene                         | <0.44   | ug/L  | 1.0    | 0.44 | 1  |          | 03/04/16 15:04 | 563-58-6    |      |
| cis-1,3-Dichloropropene                     | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 15:04 | 10061-01-5  |      |
| trans-1,3-Dichloropropene                   | <0.23   | ug/L  | 1.0    | 0.23 | 1  |          | 03/04/16 15:04 | 10061-02-6  |      |
| Diisopropyl ether                           | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 15:04 | 108-20-3    |      |
| Ethylbenzene                                | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 15:04 | 100-41-4    |      |
| Hexachloro-1,3-butadiene                    | <2.1    | ug/L  | 5.0    | 2.1  | 1  |          | 03/04/16 15:04 | 87-68-3     |      |
| Isopropylbenzene (Cumene)                   | <0.14   | ug/L  | 1.0    | 0.14 | 1  |          | 03/04/16 15:04 | 98-82-8     |      |
| p-Isopropyltoluene                          | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 15:04 | 99-87-6     |      |
| Methylene Chloride                          | <0.23   | ug/L  | 1.0    | 0.23 | 1  |          | 03/04/16 15:04 | 75-09-2     |      |
| Methyl-tert-butyl ether                     | <0.17   | ug/L  | 1.0    | 0.17 | 1  |          | 03/04/16 15:04 | 1634-04-4   |      |
| Naphthalene                                 | <2.5    | ug/L  | 5.0    | 2.5  | 1  |          | 03/04/16 15:04 | 91-20-3     |      |
| n-Propylbenzene                             | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 15:04 | 103-65-1    |      |
| Styrene                                     | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 15:04 | 100-42-5    |      |
| 1,1,1,2-Tetrachloroethane                   | <0.18   | ug/L  | 1.0    | 0.18 | 1  |          | 03/04/16 15:04 | 630-20-6    |      |
| 1,1,2,2-Tetrachloroethane                   | <0.25   | ug/L  | 1.0    | 0.25 | 1  |          | 03/04/16 15:04 | 79-34-5     |      |
| Tetrachloroethene                           | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 15:04 | 127-18-4    |      |
| Toluene                                     | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 15:04 | 108-88-3    |      |
| 1,2,3-Trichlorobenzene                      | <2.1    | ug/L  | 5.0    | 2.1  | 1  |          | 03/04/16 15:04 | 87-61-6     |      |
| 1,2,4-Trichlorobenzene                      | <2.2    | ug/L  | 5.0    | 2.2  | 1  |          | 03/04/16 15:04 | 120-82-1    |      |
| 1,1,1-Trichloroethane                       | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 15:04 | 71-55-6     |      |
| 1,1,2-Trichloroethane                       | <0.20   | ug/L  | 1.0    | 0.20 | 1  |          | 03/04/16 15:04 | 79-00-5     |      |
| Trichloroethene                             | <0.33   | ug/L  | 1.0    | 0.33 | 1  |          | 03/04/16 15:04 | 79-01-6     |      |
| Trichlorofluoromethane                      | <0.18   | ug/L  | 1.0    | 0.18 | 1  |          | 03/04/16 15:04 | 75-69-4     |      |
| 1,2,3-Trichloropropane                      | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 15:04 | 96-18-4     |      |
| 1,2,4-Trimethylbenzene                      | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 15:04 | 95-63-6     |      |
| 1,3,5-Trimethylbenzene                      | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 15:04 | 108-67-8    |      |
| Vinyl chloride                              | <0.18   | ug/L  | 1.0    | 0.18 | 1  |          | 03/04/16 15:04 | 75-01-4     |      |
| m&p-Xylene                                  | <1.0    | ug/L  | 2.0    | 1.0  | 1  |          | 03/04/16 15:04 | 179601-23-1 |      |
| o-Xylene                                    | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 15:04 | 95-47-6     |      |
| <b>Surrogates</b>                           |         |       |        |      |    |          |                |             |      |
| 4-Bromofluorobenzene (S)                    | 97      | %     | 70-130 |      | 1  |          | 03/04/16 15:04 | 460-00-4    |      |
| Dibromofluoromethane (S)                    | 104     | %     | 70-130 |      | 1  |          | 03/04/16 15:04 | 1868-53-7   |      |
| Toluene-d8 (S)                              | 97      | %     | 70-130 |      | 1  |          | 03/04/16 15:04 | 2037-26-5   |      |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128832

**Sample:** TRIP **Lab ID:** 40128832004 **Collected:** 02/29/16 13:30 **Received:** 03/01/16 16:20 **Matrix:** Water

| Parameters                  | Results | Units                       | LOQ | LOD  | DF | Prepared | Analyzed       | CAS No.    | Qual |
|-----------------------------|---------|-----------------------------|-----|------|----|----------|----------------|------------|------|
| <b>8260 MSV</b>             |         | Analytical Method: EPA 8260 |     |      |    |          |                |            |      |
| Benzene                     | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 71-43-2    |      |
| Bromobenzene                | <0.23   | ug/L                        | 1.0 | 0.23 | 1  |          | 03/04/16 12:26 | 108-86-1   |      |
| Bromochloromethane          | <0.34   | ug/L                        | 1.0 | 0.34 | 1  |          | 03/04/16 12:26 | 74-97-5    |      |
| Bromodichloromethane        | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 75-27-4    |      |
| Bromoform                   | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 75-25-2    |      |
| Bromomethane                | <2.4    | ug/L                        | 5.0 | 2.4  | 1  |          | 03/04/16 12:26 | 74-83-9    |      |
| n-Butylbenzene              | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 104-51-8   |      |
| sec-Butylbenzene            | <2.2    | ug/L                        | 5.0 | 2.2  | 1  |          | 03/04/16 12:26 | 135-98-8   |      |
| tert-Butylbenzene           | <0.18   | ug/L                        | 1.0 | 0.18 | 1  |          | 03/04/16 12:26 | 98-06-6    |      |
| Carbon tetrachloride        | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 56-23-5    |      |
| Chlorobenzene               | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 108-90-7   |      |
| Chloroethane                | <0.37   | ug/L                        | 1.0 | 0.37 | 1  |          | 03/04/16 12:26 | 75-00-3    |      |
| Chloroform                  | <2.5    | ug/L                        | 5.0 | 2.5  | 1  |          | 03/04/16 12:26 | 67-66-3    |      |
| Chloromethane               | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 74-87-3    |      |
| 2-Chlorotoluene             | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 95-49-8    |      |
| 4-Chlorotoluene             | <0.21   | ug/L                        | 1.0 | 0.21 | 1  |          | 03/04/16 12:26 | 106-43-4   |      |
| 1,2-Dibromo-3-chloropropane | <2.2    | ug/L                        | 5.0 | 2.2  | 1  |          | 03/04/16 12:26 | 96-12-8    |      |
| Dibromochloromethane        | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 124-48-1   |      |
| 1,2-Dibromoethane (EDB)     | <0.18   | ug/L                        | 1.0 | 0.18 | 1  |          | 03/04/16 12:26 | 106-93-4   |      |
| Dibromomethane              | <0.43   | ug/L                        | 1.0 | 0.43 | 1  |          | 03/04/16 12:26 | 74-95-3    |      |
| 1,2-Dichlorobenzene         | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 95-50-1    |      |
| 1,3-Dichlorobenzene         | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 541-73-1   |      |
| 1,4-Dichlorobenzene         | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 106-46-7   |      |
| Dichlorodifluoromethane     | <0.22   | ug/L                        | 1.0 | 0.22 | 1  |          | 03/04/16 12:26 | 75-71-8    |      |
| 1,1-Dichloroethane          | <0.24   | ug/L                        | 1.0 | 0.24 | 1  |          | 03/04/16 12:26 | 75-34-3    |      |
| 1,2-Dichloroethane          | <0.17   | ug/L                        | 1.0 | 0.17 | 1  |          | 03/04/16 12:26 | 107-06-2   |      |
| 1,1-Dichloroethene          | <0.41   | ug/L                        | 1.0 | 0.41 | 1  |          | 03/04/16 12:26 | 75-35-4    |      |
| cis-1,2-Dichloroethene      | <0.26   | ug/L                        | 1.0 | 0.26 | 1  |          | 03/04/16 12:26 | 156-59-2   |      |
| trans-1,2-Dichloroethene    | <0.26   | ug/L                        | 1.0 | 0.26 | 1  |          | 03/04/16 12:26 | 156-60-5   |      |
| 1,2-Dichloropropane         | <0.23   | ug/L                        | 1.0 | 0.23 | 1  |          | 03/04/16 12:26 | 78-87-5    |      |
| 1,3-Dichloropropane         | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 142-28-9   |      |
| 2,2-Dichloropropane         | <0.48   | ug/L                        | 1.0 | 0.48 | 1  |          | 03/04/16 12:26 | 594-20-7   |      |
| 1,1-Dichloropropene         | <0.44   | ug/L                        | 1.0 | 0.44 | 1  |          | 03/04/16 12:26 | 563-58-6   |      |
| cis-1,3-Dichloropropene     | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 10061-01-5 |      |
| trans-1,3-Dichloropropene   | <0.23   | ug/L                        | 1.0 | 0.23 | 1  |          | 03/04/16 12:26 | 10061-02-6 |      |
| Diisopropyl ether           | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 108-20-3   |      |
| Ethylbenzene                | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 100-41-4   |      |
| Hexachloro-1,3-butadiene    | <2.1    | ug/L                        | 5.0 | 2.1  | 1  |          | 03/04/16 12:26 | 87-68-3    |      |
| Isopropylbenzene (Cumene)   | <0.14   | ug/L                        | 1.0 | 0.14 | 1  |          | 03/04/16 12:26 | 98-82-8    |      |
| p-Isopropyltoluene          | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 99-87-6    |      |
| Methylene Chloride          | <0.23   | ug/L                        | 1.0 | 0.23 | 1  |          | 03/04/16 12:26 | 75-09-2    |      |
| Methyl-tert-butyl ether     | <0.17   | ug/L                        | 1.0 | 0.17 | 1  |          | 03/04/16 12:26 | 1634-04-4  |      |
| Naphthalene                 | <2.5    | ug/L                        | 5.0 | 2.5  | 1  |          | 03/04/16 12:26 | 91-20-3    |      |
| n-Propylbenzene             | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 103-65-1   |      |
| Styrene                     | <0.50   | ug/L                        | 1.0 | 0.50 | 1  |          | 03/04/16 12:26 | 100-42-5   |      |
| 1,1,1,2-Tetrachloroethane   | <0.18   | ug/L                        | 1.0 | 0.18 | 1  |          | 03/04/16 12:26 | 630-20-6   |      |

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## ANALYTICAL RESULTS

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128832

**Sample:** TRIP **Lab ID:** 40128832004 Collected: 02/29/16 13:30 Received: 03/01/16 16:20 Matrix: Water

| Parameters                                  | Results | Units | LOQ    | LOD  | DF | Prepared | Analyzed       | CAS No.     | Qual |
|---|---------|-------|--------|------|----|----------|----------------|-------------|------|
| <b>8260 MSV</b> Analytical Method: EPA 8260 |         |       |        |      |    |          |                |             |      |
| 1,1,2,2-Tetrachloroethane                   | <0.25   | ug/L  | 1.0    | 0.25 | 1  |          | 03/04/16 12:26 | 79-34-5     |      |
| Tetrachloroethene                           | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 12:26 | 127-18-4    |      |
| Toluene                                     | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 12:26 | 108-88-3    |      |
| 1,2,3-Trichlorobenzene                      | <2.1    | ug/L  | 5.0    | 2.1  | 1  |          | 03/04/16 12:26 | 87-61-6     |      |
| 1,2,4-Trichlorobenzene                      | <2.2    | ug/L  | 5.0    | 2.2  | 1  |          | 03/04/16 12:26 | 120-82-1    |      |
| 1,1,1-Trichloroethane                       | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 12:26 | 71-55-6     |      |
| 1,1,2-Trichloroethane                       | <0.20   | ug/L  | 1.0    | 0.20 | 1  |          | 03/04/16 12:26 | 79-00-5     |      |
| Trichloroethene                             | <0.33   | ug/L  | 1.0    | 0.33 | 1  |          | 03/04/16 12:26 | 79-01-6     |      |
| Trichlorofluoromethane                      | <0.18   | ug/L  | 1.0    | 0.18 | 1  |          | 03/04/16 12:26 | 75-69-4     |      |
| 1,2,3-Trichloropropane                      | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 12:26 | 96-18-4     |      |
| 1,2,4-Trimethylbenzene                      | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 12:26 | 95-63-6     |      |
| 1,3,5-Trimethylbenzene                      | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 12:26 | 108-67-8    |      |
| Vinyl chloride                              | <0.18   | ug/L  | 1.0    | 0.18 | 1  |          | 03/04/16 12:26 | 75-01-4     |      |
| m&p-Xylene                                  | <1.0    | ug/L  | 2.0    | 1.0  | 1  |          | 03/04/16 12:26 | 179601-23-1 |      |
| o-Xylene                                    | <0.50   | ug/L  | 1.0    | 0.50 | 1  |          | 03/04/16 12:26 | 95-47-6     |      |
| <b>Surrogates</b>                           |         |       |        |      |    |          |                |             |      |
| 4-Bromofluorobenzene (S)                    | 98      | %     | 70-130 |      | 1  |          | 03/04/16 12:26 | 460-00-4    |      |
| Dibromofluoromethane (S)                    | 99      | %     | 70-130 |      | 1  |          | 03/04/16 12:26 | 1868-53-7   |      |
| Toluene-d8 (S)                              | 100     | %     | 70-130 |      | 1  |          | 03/04/16 12:26 | 2037-26-5   |      |

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128832

QC Batch: MERP/5619

Analysis Method: EPA 7470

QC Batch Method: EPA 7470

Analysis Description: 7470 Mercury Dissolved

Associated Lab Samples: 40128832001, 40128832002, 40128832003

METHOD BLANK: 1303245

Matrix: Water

Associated Lab Samples: 40128832001, 40128832002, 40128832003

| Parameter          | Units | Blank Result | Reporting Limit | Analyzed       | Qualifiers |
|--------------------|-------|--------------|-----------------|----------------|------------|
| Mercury, Dissolved | ug/L  | <0.10        | 0.20            | 03/10/16 07:40 |            |

LABORATORY CONTROL SAMPLE: 1303246

| Parameter          | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|--------------------|-------|-------------|------------|-----------|--------------|------------|
| Mercury, Dissolved | ug/L  | 5           | 5.2        | 105       | 85-115       |            |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1303247 1303248

| Parameter          | Units | 40128619001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|--------------------|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Mercury, Dissolved | ug/L  | <0.10              | 5              | 5               | 5.8       | 5.6        | 116      | 113       | 85-115       | 3   | 20      | M0   |

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128832

QC Batch: MPRP/61833

Analysis Method: 6010C Met

QC Batch Method: EPA 3010

Analysis Description: 6010C Water Dissolved

Associated Lab Samples: 40128832001, 40128832002, 40128832003

METHOD BLANK: 2205074

Matrix: Water

Associated Lab Samples: 40128832001, 40128832002, 40128832003

| Parameter           | Units | Blank Result | Reporting Limit | Analyzed       | Qualifiers |
|---------------------|-------|--------------|-----------------|----------------|------------|
| Arsenic, Dissolved  | ug/L  | <4.0         | 13.4            | 03/09/16 05:34 |            |
| Barium, Dissolved   | ug/L  | <1.2         | 4.1             | 03/09/16 05:34 |            |
| Cadmium, Dissolved  | ug/L  | <0.65        | 2.2             | 03/09/16 05:34 |            |
| Chromium, Dissolved | ug/L  | <0.87        | 2.9             | 03/09/16 05:34 |            |
| Lead, Dissolved     | ug/L  | <2.0         | 6.8             | 03/09/16 05:34 |            |
| Selenium, Dissolved | ug/L  | <8.3         | 27.5            | 03/09/16 05:34 |            |
| Silver, Dissolved   | ug/L  | <2.4         | 7.8             | 03/09/16 05:34 |            |

LABORATORY CONTROL SAMPLE & LCSD: 2205075

2205271

| Parameter           | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---------------------|-------|-------------|------------|-------------|-----------|------------|--------------|-----|---------|------------|
| Arsenic, Dissolved  | ug/L  | 1000        | 914        | 923         | 91        | 92         | 80-120       | 1   | 20      |            |
| Barium, Dissolved   | ug/L  | 1000        | 955        | 964         | 96        | 96         | 80-120       | 1   | 20      |            |
| Cadmium, Dissolved  | ug/L  | 1000        | 929        | 934         | 93        | 93         | 80-120       | 1   | 20      |            |
| Chromium, Dissolved | ug/L  | 1000        | 942        | 948         | 94        | 95         | 80-120       | 1   | 20      |            |
| Lead, Dissolved     | ug/L  | 1000        | 960        | 966         | 96        | 97         | 80-120       | 1   | 20      |            |
| Selenium, Dissolved | ug/L  | 1000        | 937        | 951         | 94        | 95         | 80-120       | 2   | 20      |            |
| Silver, Dissolved   | ug/L  | 500         | 473        | 475         | 95        | 95         | 80-120       | 1   | 20      |            |

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128832

QC Batch: MSV/32419

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Associated Lab Samples: 40128832001, 40128832002, 40128832003, 40128832004

METHOD BLANK: 1302003

Matrix: Water

Associated Lab Samples: 40128832001, 40128832002, 40128832003, 40128832004

| Parameter                   | Units | Blank Result | Reporting Limit | Analyzed       | Qualifiers |
|-----------------------------|-------|--------------|-----------------|----------------|------------|
| 1,1,1,2-Tetrachloroethane   | ug/L  | <0.18        | 1.0             | 03/04/16 10:10 |            |
| 1,1,1-Trichloroethane       | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| 1,1,2,2-Tetrachloroethane   | ug/L  | <0.25        | 1.0             | 03/04/16 10:10 |            |
| 1,1,2-Trichloroethane       | ug/L  | <0.20        | 1.0             | 03/04/16 10:10 |            |
| 1,1-Dichloroethane          | ug/L  | <0.24        | 1.0             | 03/04/16 10:10 |            |
| 1,1-Dichloroethene          | ug/L  | <0.41        | 1.0             | 03/04/16 10:10 |            |
| 1,1-Dichloropropene         | ug/L  | <0.44        | 1.0             | 03/04/16 10:10 |            |
| 1,2,3-Trichlorobenzene      | ug/L  | <2.1         | 5.0             | 03/04/16 10:10 |            |
| 1,2,3-Trichloropropane      | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| 1,2,4-Trichlorobenzene      | ug/L  | <2.2         | 5.0             | 03/04/16 10:10 |            |
| 1,2,4-Trimethylbenzene      | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| 1,2-Dibromo-3-chloropropane | ug/L  | <2.2         | 5.0             | 03/04/16 10:10 |            |
| 1,2-Dibromoethane (EDB)     | ug/L  | <0.18        | 1.0             | 03/04/16 10:10 |            |
| 1,2-Dichlorobenzene         | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| 1,2-Dichloroethane          | ug/L  | <0.17        | 1.0             | 03/04/16 10:10 |            |
| 1,2-Dichloropropane         | ug/L  | <0.23        | 1.0             | 03/04/16 10:10 |            |
| 1,3,5-Trimethylbenzene      | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| 1,3-Dichlorobenzene         | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| 1,3-Dichloropropane         | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| 1,4-Dichlorobenzene         | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| 2,2-Dichloropropane         | ug/L  | <0.48        | 1.0             | 03/04/16 10:10 |            |
| 2-Chlorotoluene             | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| 4-Chlorotoluene             | ug/L  | <0.21        | 1.0             | 03/04/16 10:10 |            |
| Benzene                     | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| Bromobenzene                | ug/L  | <0.23        | 1.0             | 03/04/16 10:10 |            |
| Bromochloromethane          | ug/L  | <0.34        | 1.0             | 03/04/16 10:10 |            |
| Bromodichloromethane        | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| Bromoform                   | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| Bromomethane                | ug/L  | <2.4         | 5.0             | 03/04/16 10:10 |            |
| Carbon tetrachloride        | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| Chlorobenzene               | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| Chloroethane                | ug/L  | <0.37        | 1.0             | 03/04/16 10:10 |            |
| Chloroform                  | ug/L  | <2.5         | 5.0             | 03/04/16 10:10 |            |
| Chloromethane               | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| cis-1,2-Dichloroethene      | ug/L  | <0.26        | 1.0             | 03/04/16 10:10 |            |
| cis-1,3-Dichloropropene     | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| Dibromochloromethane        | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| Dibromomethane              | ug/L  | <0.43        | 1.0             | 03/04/16 10:10 |            |
| Dichlorodifluoromethane     | ug/L  | <0.22        | 1.0             | 03/04/16 10:10 |            |
| Diisopropyl ether           | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| Ethylbenzene                | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128832

METHOD BLANK: 1302003

Matrix: Water

Associated Lab Samples: 40128832001, 40128832002, 40128832003, 40128832004

| Parameter                 | Units | Blank Result | Reporting Limit | Analyzed       | Qualifiers |
|---------------------------|-------|--------------|-----------------|----------------|------------|
| Hexachloro-1,3-butadiene  | ug/L  | <2.1         | 5.0             | 03/04/16 10:10 |            |
| Isopropylbenzene (Cumene) | ug/L  | <0.14        | 1.0             | 03/04/16 10:10 |            |
| m&p-Xylene                | ug/L  | <1.0         | 2.0             | 03/04/16 10:10 |            |
| Methyl-tert-butyl ether   | ug/L  | <0.17        | 1.0             | 03/04/16 10:10 |            |
| Methylene Chloride        | ug/L  | <0.23        | 1.0             | 03/04/16 10:10 |            |
| n-Butylbenzene            | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| n-Propylbenzene           | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| Naphthalene               | ug/L  | <2.5         | 5.0             | 03/04/16 10:10 |            |
| o-Xylene                  | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| p-Isopropyltoluene        | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| sec-Butylbenzene          | ug/L  | <2.2         | 5.0             | 03/04/16 10:10 |            |
| Styrene                   | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| tert-Butylbenzene         | ug/L  | <0.18        | 1.0             | 03/04/16 10:10 |            |
| Tetrachloroethene         | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| Toluene                   | ug/L  | <0.50        | 1.0             | 03/04/16 10:10 |            |
| trans-1,2-Dichloroethene  | ug/L  | <0.26        | 1.0             | 03/04/16 10:10 |            |
| trans-1,3-Dichloropropene | ug/L  | <0.23        | 1.0             | 03/04/16 10:10 |            |
| Trichloroethene           | ug/L  | <0.33        | 1.0             | 03/04/16 10:10 |            |
| Trichlorofluoromethane    | ug/L  | <0.18        | 1.0             | 03/04/16 10:10 |            |
| Vinyl chloride            | ug/L  | <0.18        | 1.0             | 03/04/16 10:10 |            |
| 4-Bromofluorobenzene (S)  | %     | 103          | 70-130          | 03/04/16 10:10 |            |
| Dibromofluoromethane (S)  | %     | 100          | 70-130          | 03/04/16 10:10 |            |
| Toluene-d8 (S)            | %     | 98           | 70-130          | 03/04/16 10:10 |            |

LABORATORY CONTROL SAMPLE: 1302004

| Parameter                   | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------------------------|-------|-------------|------------|-----------|--------------|------------|
| 1,1,1-Trichloroethane       | ug/L  | 50          | 55.8       | 112       | 70-130       |            |
| 1,1,2,2-Tetrachloroethane   | ug/L  | 50          | 49.8       | 100       | 70-130       |            |
| 1,1,2-Trichloroethane       | ug/L  | 50          | 52.4       | 105       | 70-130       |            |
| 1,1-Dichloroethane          | ug/L  | 50          | 53.4       | 107       | 70-130       |            |
| 1,1-Dichloroethene          | ug/L  | 50          | 52.5       | 105       | 70-130       |            |
| 1,2,4-Trichlorobenzene      | ug/L  | 50          | 48.5       | 97        | 70-130       |            |
| 1,2-Dibromo-3-chloropropane | ug/L  | 50          | 46.4       | 93        | 50-150       |            |
| 1,2-Dibromoethane (EDB)     | ug/L  | 50          | 52.0       | 104       | 70-130       |            |
| 1,2-Dichlorobenzene         | ug/L  | 50          | 52.7       | 105       | 70-130       |            |
| 1,2-Dichloroethane          | ug/L  | 50          | 51.4       | 103       | 70-131       |            |
| 1,2-Dichloropropane         | ug/L  | 50          | 54.2       | 108       | 70-130       |            |
| 1,3-Dichlorobenzene         | ug/L  | 50          | 53.4       | 107       | 70-130       |            |
| 1,4-Dichlorobenzene         | ug/L  | 50          | 51.9       | 104       | 70-130       |            |
| Benzene                     | ug/L  | 50          | 53.8       | 108       | 70-130       |            |
| Bromodichloromethane        | ug/L  | 50          | 53.2       | 106       | 70-130       |            |
| Bromoform                   | ug/L  | 50          | 47.0       | 94        | 68-130       |            |
| Bromomethane                | ug/L  | 50          | 38.7       | 77        | 38-137       |            |

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128832

LABORATORY CONTROL SAMPLE: 1302004

| Parameter                 | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---------------------------|-------|-------------|------------|-----------|--------------|------------|
| Carbon tetrachloride      | ug/L  | 50          | 56.8       | 114       | 70-130       |            |
| Chlorobenzene             | ug/L  | 50          | 54.6       | 109       | 70-130       |            |
| Chloroethane              | ug/L  | 50          | 45.8       | 92        | 70-136       |            |
| Chloroform                | ug/L  | 50          | 52.9       | 106       | 70-130       |            |
| Chloromethane             | ug/L  | 50          | 40.6       | 81        | 48-144       |            |
| cis-1,2-Dichloroethene    | ug/L  | 50          | 53.5       | 107       | 70-130       |            |
| cis-1,3-Dichloropropene   | ug/L  | 50          | 48.7       | 97        | 70-130       |            |
| Dibromochloromethane      | ug/L  | 50          | 49.7       | 99        | 70-130       |            |
| Dichlorodifluoromethane   | ug/L  | 50          | 42.4       | 85        | 33-157       |            |
| Ethylbenzene              | ug/L  | 50          | 55.7       | 111       | 70-132       |            |
| Isopropylbenzene (Cumene) | ug/L  | 50          | 57.6       | 115       | 70-130       |            |
| m&p-Xylene                | ug/L  | 100         | 112        | 112       | 70-131       |            |
| Methyl-tert-butyl ether   | ug/L  | 50          | 51.2       | 102       | 48-141       |            |
| Methylene Chloride        | ug/L  | 50          | 51.7       | 103       | 70-130       |            |
| o-Xylene                  | ug/L  | 50          | 55.7       | 111       | 70-131       |            |
| Styrene                   | ug/L  | 50          | 56.8       | 114       | 70-130       |            |
| Tetrachloroethene         | ug/L  | 50          | 54.3       | 109       | 70-130       |            |
| Toluene                   | ug/L  | 50          | 55.7       | 111       | 70-130       |            |
| trans-1,2-Dichloroethene  | ug/L  | 50          | 52.5       | 105       | 70-130       |            |
| trans-1,3-Dichloropropene | ug/L  | 50          | 48.9       | 98        | 70-130       |            |
| Trichloroethene           | ug/L  | 50          | 55.8       | 112       | 70-130       |            |
| Trichlorofluoromethane    | ug/L  | 50          | 52.7       | 105       | 50-150       |            |
| Vinyl chloride            | ug/L  | 50          | 47.1       | 94        | 65-142       |            |
| 4-Bromofluorobenzene (S)  | %     |             |            | 104       | 70-130       |            |
| Dibromofluoromethane (S)  | %     |             |            | 102       | 70-130       |            |
| Toluene-d8 (S)            | %     |             |            | 103       | 70-130       |            |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1302078 1302079

| Parameter                   | Units | 40128832001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------------------------|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| 1,1,1-Trichloroethane       | ug/L  | <0.50              | 50             | 50              | 56.2      | 57.5       | 112      | 115       | 70-130       | 2   | 20      |      |
| 1,1,2,2-Tetrachloroethane   | ug/L  | <0.25              | 50             | 50              | 50.2      | 51.3       | 100      | 103       | 70-130       | 2   | 20      |      |
| 1,1,2-Trichloroethane       | ug/L  | <0.20              | 50             | 50              | 53.9      | 54.9       | 108      | 110       | 70-130       | 2   | 20      |      |
| 1,1-Dichloroethane          | ug/L  | <0.24              | 50             | 50              | 54.1      | 53.7       | 108      | 107       | 70-134       | 1   | 20      |      |
| 1,1-Dichloroethene          | ug/L  | <0.41              | 50             | 50              | 54.1      | 55.0       | 108      | 110       | 70-139       | 2   | 20      |      |
| 1,2,4-Trichlorobenzene      | ug/L  | <2.2               | 50             | 50              | 50.2      | 51.3       | 100      | 102       | 70-130       | 2   | 20      |      |
| 1,2-Dibromo-3-chloropropane | ug/L  | <2.2               | 50             | 50              | 50.5      | 47.3       | 101      | 95        | 50-150       | 6   | 20      |      |
| 1,2-Dibromoethane (EDB)     | ug/L  | <0.18              | 50             | 50              | 52.4      | 54.4       | 105      | 109       | 70-130       | 4   | 20      |      |
| 1,2-Dichlorobenzene         | ug/L  | <0.50              | 50             | 50              | 53.1      | 52.4       | 106      | 104       | 70-130       | 1   | 20      |      |
| 1,2-Dichloroethane          | ug/L  | <0.17              | 50             | 50              | 52.8      | 52.8       | 106      | 106       | 70-132       | 0   | 20      |      |
| 1,2-Dichloropropane         | ug/L  | <0.23              | 50             | 50              | 54.2      | 54.8       | 108      | 110       | 70-130       | 1   | 20      |      |
| 1,3-Dichlorobenzene         | ug/L  | <0.50              | 50             | 50              | 53.4      | 54.3       | 106      | 108       | 70-130       | 2   | 20      |      |
| 1,4-Dichlorobenzene         | ug/L  | <0.50              | 50             | 50              | 52.8      | 53.3       | 105      | 106       | 70-130       | 1   | 20      |      |

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128832

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1302078 1302079 |       |                       |                      |                       |              |               |             |              |                 |     |     |
|--|-------|-----------------------|----------------------|-----------------------|--------------|---------------|-------------|--------------|-----------------|-----|-----|
| Parameter  | Units | 40128832001<br>Result | MS<br>Spike<br>Conc. | MSD<br>Spike<br>Conc. | MS<br>Result | MSD<br>Result | MS<br>% Rec | MSD<br>% Rec | % Rec<br>Limits | Max |     |
|  |       |                       |                      |                       |              |               |             |              |                 | RPD | RPD |
| Benzene  | ug/L  | <0.50                 | 50                   | 50                    | 55.4         | 56.6          | 111         | 113          | 70-130          | 2   | 20  |
| Bromodichloromethane                                   | ug/L  | <0.50                 | 50                   | 50                    | 53.0         | 53.6          | 106         | 107          | 70-132          | 1   | 20  |
| Bromoform  | ug/L  | <0.50                 | 50                   | 50                    | 46.4         | 48.0          | 93          | 96           | 68-130          | 4   | 20  |
| Bromomethane   | ug/L  | <2.4                  | 50                   | 50                    | 42.2         | 43.2          | 84          | 86           | 38-141          | 2   | 20  |
| Carbon tetrachloride                                   | ug/L  | <0.50                 | 50                   | 50                    | 58.4         | 58.0          | 117         | 116          | 70-130          | 1   | 20  |
| Chlorobenzene  | ug/L  | <0.50                 | 50                   | 50                    | 55.0         | 55.3          | 110         | 110          | 70-130          | 1   | 20  |
| Chloroethane   | ug/L  | <0.37                 | 50                   | 50                    | 47.1         | 45.3          | 94          | 91           | 66-152          | 4   | 20  |
| Chloroform   | ug/L  | <2.5                  | 50                   | 50                    | 54.2         | 54.4          | 108         | 109          | 70-130          | 0   | 20  |
| Chloromethane  | ug/L  | <0.50                 | 50                   | 50                    | 41.3         | 40.5          | 83          | 81           | 44-151          | 2   | 20  |
| cis-1,2-Dichloroethene                                 | ug/L  | <0.26                 | 50                   | 50                    | 54.1         | 54.3          | 108         | 109          | 70-130          | 0   | 20  |
| cis-1,3-Dichloropropene                                | ug/L  | <0.50                 | 50                   | 50                    | 48.6         | 49.5          | 97          | 99           | 70-130          | 2   | 20  |
| Dibromochloromethane                                   | ug/L  | <0.50                 | 50                   | 50                    | 48.5         | 50.6          | 97          | 101          | 70-130          | 4   | 20  |
| Dichlorodifluoromethane                                | ug/L  | <0.22                 | 50                   | 50                    | 42.9         | 42.7          | 86          | 85           | 29-160          | 0   | 20  |
| Ethylbenzene   | ug/L  | <0.50                 | 50                   | 50                    | 54.9         | 56.1          | 109         | 112          | 70-132          | 2   | 20  |
| Isopropylbenzene (Cumene)                              | ug/L  | <0.14                 | 50                   | 50                    | 56.9         | 57.9          | 114         | 116          | 70-130          | 2   | 20  |
| m&p-Xylene   | ug/L  | <1.0                  | 100                  | 100                   | 111          | 114           | 111         | 113          | 70-131          | 2   | 20  |
| Methyl-tert-butyl ether                                | ug/L  | <0.17                 | 50                   | 50                    | 52.3         | 52.3          | 105         | 105          | 48-143          | 0   | 20  |
| Methylene Chloride                                     | ug/L  | <0.23                 | 50                   | 50                    | 53.2         | 52.9          | 106         | 106          | 70-130          | 1   | 20  |
| o-Xylene   | ug/L  | <0.50                 | 50                   | 50                    | 54.1         | 54.5          | 108         | 109          | 70-131          | 1   | 20  |
| Styrene  | ug/L  | <0.50                 | 50                   | 50                    | 56.7         | 57.2          | 113         | 114          | 70-130          | 1   | 20  |
| Tetrachloroethene                                      | ug/L  | <0.50                 | 50                   | 50                    | 54.3         | 55.6          | 108         | 110          | 70-130          | 2   | 20  |
| Toluene  | ug/L  | <0.50                 | 50                   | 50                    | 55.6         | 55.9          | 111         | 112          | 70-130          | 0   | 20  |
| trans-1,2-Dichloroethene                               | ug/L  | <0.26                 | 50                   | 50                    | 55.0         | 54.7          | 110         | 109          | 70-132          | 1   | 20  |
| trans-1,3-Dichloropropene                              | ug/L  | <0.23                 | 50                   | 50                    | 48.0         | 49.0          | 96          | 98           | 70-130          | 2   | 20  |
| Trichloroethene  | ug/L  | <0.33                 | 50                   | 50                    | 55.0         | 56.3          | 110         | 112          | 70-130          | 2   | 20  |
| Trichlorofluoromethane                                 | ug/L  | <0.18                 | 50                   | 50                    | 54.0         | 54.4          | 108         | 109          | 50-153          | 1   | 20  |
| Vinyl chloride   | ug/L  | <0.18                 | 50                   | 50                    | 48.4         | 48.2          | 97          | 96           | 60-155          | 0   | 20  |
| 4-Bromofluorobenzene (S)                               | %     |                       |                      |                       |              |               | 101         | 102          | 70-130          |     |     |
| Dibromofluoromethane (S)                               | %     |                       |                      |                       |              |               | 104         | 104          | 70-130          |     |     |
| Toluene-d8 (S)   | %     |                       |                      |                       |              |               | 101         | 101          | 70-130          |     |     |

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128832

QC Batch: OEXT/29813 Analysis Method: EPA 8270 by HVI  
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH by HVI  
Associated Lab Samples: 40128832001, 40128832002, 40128832003

METHOD BLANK: 1301951 Matrix: Water  
Associated Lab Samples: 40128832001, 40128832002, 40128832003

| Parameter              | Units | Blank Result | Reporting Limit | Analyzed       | Qualifiers |
|------------------------|-------|--------------|-----------------|----------------|------------|
| 1-Methylnaphthalene    | ug/L  | <0.0031      | 0.050           | 03/04/16 13:16 |            |
| 2-Methylnaphthalene    | ug/L  | 0.0029J      | 0.050           | 03/04/16 13:16 |            |
| Acenaphthene           | ug/L  | <0.0050      | 0.050           | 03/04/16 13:16 |            |
| Acenaphthylene         | ug/L  | <0.0049      | 0.050           | 03/04/16 13:16 |            |
| Anthracene             | ug/L  | <0.0040      | 0.050           | 03/04/16 13:16 |            |
| Benzo(a)anthracene     | ug/L  | <0.0051      | 0.050           | 03/04/16 13:16 |            |
| Benzo(a)pyrene         | ug/L  | <0.0044      | 0.050           | 03/04/16 13:16 |            |
| Benzo(b)fluoranthene   | ug/L  | <0.0053      | 0.050           | 03/04/16 13:16 |            |
| Benzo(g,h,i)perylene   | ug/L  | <0.0035      | 0.050           | 03/04/16 13:16 |            |
| Benzo(k)fluoranthene   | ug/L  | <0.0056      | 0.050           | 03/04/16 13:16 |            |
| Chrysene               | ug/L  | <0.0042      | 0.050           | 03/04/16 13:16 |            |
| Dibenz(a,h)anthracene  | ug/L  | <0.0056      | 0.050           | 03/04/16 13:16 |            |
| Fluoranthene           | ug/L  | <0.0094      | 0.050           | 03/04/16 13:16 |            |
| Fluorene               | ug/L  | <0.0040      | 0.050           | 03/04/16 13:16 |            |
| Indeno(1,2,3-cd)pyrene | ug/L  | <0.0036      | 0.050           | 03/04/16 13:16 |            |
| Naphthalene            | ug/L  | 0.0091J      | 0.050           | 03/04/16 13:16 |            |
| Phenanthrene           | ug/L  | <0.0077      | 0.050           | 03/04/16 13:16 |            |
| Pyrene                 | ug/L  | <0.0077      | 0.050           | 03/04/16 13:16 |            |
| 2-Fluorobiphenyl (S)   | %     | 61           | 25-130          | 03/04/16 13:16 |            |
| Terphenyl-d14 (S)      | %     | 104          | 13-158          | 03/04/16 13:16 |            |

LABORATORY CONTROL SAMPLE: 1301952

| Parameter              | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| 1-Methylnaphthalene    | ug/L  | 2           | 1.3        | 65        | 35-130       |            |
| 2-Methylnaphthalene    | ug/L  | 2           | 1.3        | 66        | 36-130       |            |
| Acenaphthene           | ug/L  | 2           | 1.5        | 75        | 41-130       |            |
| Acenaphthylene         | ug/L  | 2           | 1.4        | 69        | 41-130       |            |
| Anthracene             | ug/L  | 2           | 1.8        | 90        | 38-130       |            |
| Benzo(a)anthracene     | ug/L  | 2           | 1.8        | 92        | 49-130       |            |
| Benzo(a)pyrene         | ug/L  | 2           | 2.2        | 109       | 69-143       |            |
| Benzo(b)fluoranthene   | ug/L  | 2           | 2.3        | 113       | 63-146       |            |
| Benzo(g,h,i)perylene   | ug/L  | 2           | 2.2        | 109       | 10-145       |            |
| Benzo(k)fluoranthene   | ug/L  | 2           | 2.3        | 115       | 64-152       |            |
| Chrysene               | ug/L  | 2           | 2.4        | 120       | 64-156       |            |
| Dibenz(a,h)anthracene  | ug/L  | 2           | 2.3        | 113       | 10-143       |            |
| Fluoranthene           | ug/L  | 2           | 2.1        | 107       | 54-134       |            |
| Fluorene               | ug/L  | 2           | 1.6        | 82        | 44-130       |            |
| Indeno(1,2,3-cd)pyrene | ug/L  | 2           | 2.3        | 114       | 39-140       |            |
| Naphthalene            | ug/L  | 2           | 1.2        | 60        | 35-130       |            |

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## QUALITY CONTROL DATA

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128832

LABORATORY CONTROL SAMPLE: 1301952

| Parameter            | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|----------------------|-------|-------------|------------|-----------|--------------|------------|
| Phenanthrene         | ug/L  | 2           | 1.9        | 97        | 51-130       |            |
| Pyrene               | ug/L  | 2           | 2.1        | 106       | 61-140       |            |
| 2-Fluorobiphenyl (S) | %     |             |            | 71        | 25-130       |            |
| Terphenyl-d14 (S)    | %     |             |            | 106       | 13-158       |            |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1301953 1301954

| Parameter              | Units | 40128780007 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|------------------------|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| 1-Methylnaphthalene    | ug/L  | 32.6               | 2              | 2               | 40.3      | 37.9       | 389      | 266       | 16-130       | 6   | 30      | M6   |
| 2-Methylnaphthalene    | ug/L  | 45.0               | 2              | 2               | 55.5      | 52.1       | 523      | 354       | 33-130       | 6   | 30      | M6   |
| Acenaphthene           | ug/L  | 0.13J              | 2              | 2               | 1.4       | 1.4        | 62       | 61        | 29-130       | 1   | 27      |      |
| Acenaphthylene         | ug/L  | <0.099             | 2              | 2               | 1.2       | 1.2        | 59       | 60        | 33-130       | 2   | 27      |      |
| Anthracene             | ug/L  | <0.081             | 2              | 2               | 0.94J     | 1.1        | 47       | 53        | 26-130       |     | 31      |      |
| Benzo(a)anthracene     | ug/L  | <0.10              | 2              | 2               | 0.82J     | 1.0        | 41       | 52        | 27-130       |     | 36      |      |
| Benzo(a)pyrene         | ug/L  | <0.088             | 2              | 2               | 0.77J     | 1.0        | 38       | 50        | 16-151       |     | 44      |      |
| Benzo(b)fluoranthene   | ug/L  | <0.11              | 2              | 2               | 0.88J     | 1.2        | 41       | 57        | 30-142       |     | 41      |      |
| Benzo(g,h,i)perylene   | ug/L  | <0.070             | 2              | 2               | 0.78J     | 1.1        | 39       | 54        | 10-130       |     | 50      |      |
| Benzo(k)fluoranthene   | ug/L  | <0.11              | 2              | 2               | 0.80J     | 1.1        | 40       | 57        | 24-152       |     | 41      |      |
| Chrysene               | ug/L  | <0.085             | 2              | 2               | 1.3       | 1.7        | 62       | 82        | 40-152       | 27  | 33      |      |
| Dibenz(a,h)anthracene  | ug/L  | <0.11              | 2              | 2               | 0.62J     | 0.81J      | 31       | 40        | 10-130       |     | 50      |      |
| Fluoranthene           | ug/L  | <0.19              | 2              | 2               | 1.1       | 1.3        | 55       | 66        | 39-140       | 19  | 30      |      |
| Fluorene               | ug/L  | <0.081             | 2              | 2               | 1.3       | 1.3        | 64       | 62        | 35-130       | 2   | 26      |      |
| Indeno(1,2,3-cd)pyrene | ug/L  | <0.072             | 2              | 2               | 0.70J     | 0.83J      | 35       | 42        | 10-130       |     | 50      |      |
| Naphthalene            | ug/L  | 226                | 2              | 2               | 273       | 260        | 2380     | 1710      | 29-130       | 5   | 31      | M6   |
| Phenanthrene           | ug/L  | <0.15              | 2              | 2               | 1.3       | 1.5        | 65       | 71        | 48-130       | 9   | 25      |      |
| Pyrene                 | ug/L  | <0.15              | 2              | 2               | 1.1       | 1.5        | 55       | 75        | 42-143       | 30  | 25      | R1   |
| 2-Fluorobiphenyl (S)   | %     |                    |                |                 |           |            | 63       | 59        | 25-130       |     |         |      |
| Terphenyl-d14 (S)      | %     |                    |                |                 |           |            | 34       | 35        | 13-158       |     |         |      |

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, Inc..

## QUALIFIERS

Project: 16.0131.01 HARWOOD AVE  
Pace Project No.: 40128832

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay  
PASI-M Pace Analytical Services - Minneapolis

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.  
M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.  
M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.  
R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, Inc..



## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 16.0131.01 HARWOOD AVE

Pace Project No.: 40128832

| Lab ID      | Sample ID | QC Batch Method | QC Batch   | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|------------|-------------------|------------------|
| 40128832001 | MW-1      | EPA 3010        | MPRP/61833 | 6010C Met         | ICP/27022        |
| 40128832002 | MW-2      | EPA 3010        | MPRP/61833 | 6010C Met         | ICP/27022        |
| 40128832003 | MW-3      | EPA 3010        | MPRP/61833 | 6010C Met         | ICP/27022        |
| 40128832001 | MW-1      | EPA 7470        | MERP/5619  | EPA 7470          | MERC/7879        |
| 40128832002 | MW-2      | EPA 7470        | MERP/5619  | EPA 7470          | MERC/7879        |
| 40128832003 | MW-3      | EPA 7470        | MERP/5619  | EPA 7470          | MERC/7879        |
| 40128832001 | MW-1      | EPA 3510        | OEXT/29813 | EPA 8270 by HVI   | MSSV/8815        |
| 40128832002 | MW-2      | EPA 3510        | OEXT/29813 | EPA 8270 by HVI   | MSSV/8815        |
| 40128832003 | MW-3      | EPA 3510        | OEXT/29813 | EPA 8270 by HVI   | MSSV/8815        |
| 40128832001 | MW-1      | EPA 8260        | MSV/32419  |                   |                  |
| 40128832002 | MW-2      | EPA 8260        | MSV/32419  |                   |                  |
| 40128832003 | MW-3      | EPA 8260        | MSV/32419  |                   |                  |
| 40128832004 | TRIP      | EPA 8260        | MSV/32419  |                   |                  |

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

(Please Print Clearly)

Company Name: Kapor Associates

Branch/Location: Milwaukee

Project Contact: Travis Peterson

Phone: 414 751 7279

Project Number: 16.D131.01

Project Name: Harwood Ave

Project State: WI

Sampled By (Print): Rachel Berger

Sampled By (Sign): Rachel Berger

PO #: Regulatory Program: RR

Data Package Options (billable)

☐ EPA Level III

☐ EPA Level IV

☐ On your sample (billable)

☐ NOT needed on your sample

Matrix Codes

A = Air

B = Biota

C = Charcoal

D = Oil

E = Soil

F = Sludge

G = Water

H = Drinking Water

I = Ground Water

J = Surface Water

K = Waste Water

L = Wipe

CLIENT FIELD ID

DATE

TIME

MATRIX

Analyses Requested

VOC

PAH

RCRA



www.paceanals.com

# CHAIN OF CUSTODY

A=None B=HCL C=H2SO4 D=HNO3 E=D1 Water F=Methanol G=NaOH  
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?  
(YES/NO)

PRESERVATION  
(CODE)

Quote #:

Mail To Contact:

Mail To Company:

Mail To Address:

Invoice To Contact:

Invoice To Company:

Invoice To Address:

Invoice To Phone:

CLIENT COMMENTS

LAB COMMENTS (Lab Use Only)

Profile #

1-350mlp 2-100mlbg 3-40mlv3  
1-40mlv3

Rush Turnaround Time Requested - Prelims

(Rush TAT subject to approval/surcharge)

Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:

Email #2:

Telephone:

Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Received By:

Received By:

Received By:

Received By:

Received By:

Received By:

Received By:

Received By:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

PAGE Project No.

40128832

Receipt Temp =

ROI °C

Sample Receipt pH

(OK/Adjusted)

Cooler Custody Seal

Present / (Not Present)

Intact / Not-Intact

UPPER MIDWEST REGION

MN: 612-607-1700 WI: 920-469-2436

Page 1 of

40128832

## **APPENDIX E**

### **METHODS OF INVESTIGATION**

# METHODS OF INVESTIGATION

## 1. Drilling and Collection of Soil Samples

### **Hydraulic Push (Geoprobe)**

Soil borings and 1 inch groundwater monitoring wells were installed at the site using hydraulic push sampling. During drilling, continuous soil samples were obtained from soil borings in general accordance with the Standard Penetration Test (SPT) procedure (ASTM D-1586) ensuring that no gaps appeared in soil column. The samples were examined for color, odor, texture, moistness, and other characteristics of the soil. These observations were used to prepare descriptive geologic logs for each boring and classify the soils according to Unified Soil Classification System (USCS).

## 2. Monitoring Well Installation

Monitoring wells were installed using a Hollow Stem Auger (HSA) equipped with a 2 inch diameter auger. Boreholes were advanced to 20 feet bgs before a 1 or 2 inch diameter PVC monitoring well was inserted. Monitoring wells were constructed using ten (10) feet of threaded PVC factory slotted screen and ten (10) feet of solid threaded PVC riser. Filter sand, fine sand, and granular bentonite were placed inside the annular space as the HSA was removed. The wells were capped with a PVC cover.

## 3. Decontamination Procedures

All downhole boring and sampling equipment was decontaminated before use and between the borings and sampling events. The macro-core sampler was decontaminated by the drilling contractor personnel between samples by scrubbing off soil particles with a brush and water in a bucket with an Alconox solution and then rinsing the sampler in a separate bucket of clean water. Two or more macro-core samplers were used alternately to minimize drilling delays during decontamination of the sampler.

## 4. Field-Screening of Soil Samples

A portion of each sample was field-screened for the presence of Volatile Organic Compounds (VOCs) using a Mini RAE 2000 Photoionization Detector (PID) equipped with an 11.7 eV probe. The samples were tested by filling a ziptight plastic freezer storage (zip-lock) bag half-full with desegregated soil and then sealing the bag. The bags were then set aside for a minimum of 20 minutes to allow any VOCs present within the soil to volatilize and equilibrate within headspace in the bag. If the ambient outside temperature was less than 700 Fahrenheit, then the sample was heated by storing the sample bag adjacent to the heating vent inside a heated truck cab. The VOC concentration in the bag headspace was then measured by gently piercing the bag with the tip of the PID probe and recording the highest meter response shown on the Mini RAE 2000 meter. A background measurement of ambient VOCs was also made immediately prior to each sample measurement and recorded on the PID forms. The PID was calibrated at the beginning using a standard of 100 parts per million (ppm) isobutylene gas and the manufacturer recommended calibration procedures.



## **5. Laboratory Analysis of Soil Samples**

In addition to the soil used for PID testing, a separate portion of each sample was preserved for possible laboratory analyses. These samples were preserved by placing the soil in a labeled zip-lock bag, and then placing the bag into a cooler with ice. One to two samples from each of the borings were selected for laboratory analyses of VOCs, Polynuclear Aromatic Hydrocarbons (PAHs), and Resource Conservation Recovery Act (RCRA) Metals.

The samples were collected in the laboratory provided jars. All samples were stored in a cooler with ice and maintained at a temperature of approximately 40 C until delivered under chain of custody procedures to the laboratory personnel. Analytical methods used for analyzing the soil samples were: EPA Method 8021 for VOCs, EPA Method 8310 for PAHs, and EPA Method 6010 for Metals.

## **6. Boring Abandonment Procedures**

After the completion of soil and groundwater sampling, the soil borings (not converted into monitoring wells) were properly abandoned in accordance with Chapter NR 141 of the Wisconsin Administrative Code (WAC). Each boring was backfilled to the ground surface with granular bentonite. The WDNR borehole abandonment forms were completed for each boring and are included as an appendix of this report.

## **7. Groundwater Sampling Procedures**

All sampling and test equipment were thoroughly cleaned before use with potable water and phosphate free laboratory detergent, and then rinsed with potable water, followed by further rinse with distilled water. The sampling and test equipment were thoroughly cleaned by distilled water between uses at different sampling locations to avoid cross contamination. This included the water level meter used to determine the static water level. Disposable down-hole tubing and groundwater filters were used and replaced between each temporary monitoring well. Samples were collected in the laboratory provided sampling containers using dedicated down-hole tubing. Dedicated 0.45 µm disposable filters and tubing was used to filter the water samples collected for dissolved Metals analysis using a peristaltic pump.

## **8. Laboratory Analysis of Groundwater Samples**

Groundwater samples were collected and analyzed for VOCs, PAHs, and Metals. Analytical methods used for analyzing the groundwater samples were EPA Method 8021 for VOCs, EPA Method 8310 for PAHs, and EPA Method 6010 for Metals.

In addition, a trip blank supplied by the laboratory accompanied the groundwater samples at all times until it was delivered to the laboratory personnel to provide quality assurance/quality control (QA/QC) data and was laboratory-analyzed for VOCs. The groundwater samples collected for VOC analysis were preserved with hydrochloric acid in the field; samples collected for dissolved Metals were filtered in the field through a 0.45 µm filter and preserved with nitric acid in the field; samples collected for PAH analysis were not filtered or preserved in the field.

## **C.2. Investigative Waste**

*Waste produced during investigation activities was minimal as borings and wells were installed utilizing direct push methods and one-inch diameter wells installed. The soil cutting were containerized and taken for proper disposal by Horizon Construction & Testing. Purge water was permitted to be disposed of in the City of Wauwatosa storm water system via an onsite inlet.*

### **C.3. NR 720.19 Analysis**

*Established NR 720 Residual Contaminant Levels (Spreadsheet) were utilized for contaminant standards.*

#### **C.4. Construction Documentation**

*The asphalt parking lot consists of a 3 inch thick layer of asphalt over 4-6 inches of compacted base material. It is located over the entire exterior of the subject site and on adjoining properties to the north, east and west.*



## **C.5. Decommissioning of Remedial Systems**

*Not Applicable to this Site.*

## C.6. Other

**COVER or BARRIER MAINTENANCE PLAN**  
*(to be included in Form 4400-202, as Attachment D)*

April 7, 2016

Property Located at:

7600-7610 W. Harwood Avenue, Wauwatosa, WI 53213

DNR BRRTS/Activity #02-41-576745

[LEGAL DESCRIPTION] **"7600"**

LEFEBER SUBD LOT 6 AND ELY STRIP OF ADJ LOT 7 7.5 IN WIDE ON ITS NLY LI AND 5.75 IN WIDE ON ITS SLY LI INCLDG EASEMENT SE 1/4 SEC 21

[TAX /Parcel Identification Number) 3710060000

**"7610"**

LEFEBER SUBD LOT 7 EX COM NELY COR SD LOT TH WLY 7.5 IN SLY PAR TO ITS ELY LI 22.54 FT SLY TO ITS SLY LI NELY 5.75 IN TO ITS SELY COR TH NLY TO BEG AND ELY 4 FT 7.5 IN LOT 8 AND PT LOT 10 LYING E OF A LI 25 FT E OF AND PAR WITH E LI LOT 11 INCLDG EASEMENT SE 1/.

[TAX /Parcel Identification Number) 3710061000

#### Introduction

This document is the Maintenance Plan for an asphalt parking lot and building at the above-referenced property in accordance with the requirements of s. NR 724.13 (2), Wis. Adm. Code. The maintenance activities relate to the existing asphalt parking lot and building which addresses or occupies the area over the contaminated groundwater plume or soil.

More site-specific information about this property/site may be found in:

- The case file in the DNR Southeast **Region** office
- [BRRTS on the Web](#) (DNR's internet based data base of contaminated sites)for the link to a PDF for site-specific information at the time of closure and on continuing obligations;
- [RR Sites Map/GIS Registry layer](#) for a map view of the site, and
- The DNR project manager for Milwaukee County.

#### **D.1. Descriptions:**

##### Description of Contamination

Analytical results indicate that subsurface contamination containing PAHs (1-Methylnaphthalene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, and pyrene), RCRA metals (arsenic, barium, cadmium, lead, and selenium), and VOCs (naphthalene) is present above the respective applicable NR 720 soil RCLs from approximately 2 to 16 feet bgs throughout the subject property with the highest concentrations occurring in B2 (NW property corner) from 10 to 16 feet bgs. The likely source for the impacted media likely stemming from both fill materials present at the property and an offsite source identified via historical information research including fire insurance maps. Groundwater contaminated by

PAHs is located at a depth of 15-16 feet. The extent of the soil and groundwater contamination is shown on the attached drawings(s) Figures D.2.a and D.2.b.

#### Description of the [Cover/Barrier] to be Maintained

The asphalt parking lot consists of 3 inches of asphalt over 4-6 inches of compacted base material and the onsite building is of masonry (cream city brick) construction with concrete basement floor and foundation walls. The asphalt parking lot and building is located over the entire subject site as shown on the **attached** drawings D.2.a, D.2.b and D.2.c.

#### Cover/Building/Slab/Barrier Purpose

The asphalt parking lot and building over the contaminated residual soil and contaminated groundwater plume serves as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. The cover/barrier also acts as a partial infiltration barrier to minimize future soil-to-groundwater contamination migration that would violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. Based on the current use of the property, commercial, the barrier should function as intended unless disturbed.

#### Annual Inspection

The asphalt parking lot and building overlying the residual soil and contaminated groundwater plume and as depicted in Figure 3 will be inspected once a year, normally in the spring after all snow and ice is gone, for deterioration, cracks and other potential problems that can cause [additional infiltration into] [or exposure to] underlying soils. The inspections will be performed by the property owner or their designated representative. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed [[and] where infiltration from the surface will not be effectively minimized] will be documented.

A log of the inspections and any repairs will be maintained by the property owner and is included as D.4, Form 4400-305, Continuing Obligations Inspection and Maintenance Log. The log will include recommendations for necessary repair of any areas where underlying soils are exposed and where infiltration from the surface will not be effectively minimized. Once repairs are completed, they will be documented in the inspection log. A copy of the maintenance plan and inspection log will be kept at the site; or, if there is no acceptable place (for example, no building is present) to keep it at the site, at the address of the property owner and available for submittal or inspection by Wisconsin Department of Natural Resources (DNR) representatives upon their request.

*[Note: The DNR may, in some instances, require in the case closure letter that the inspection log be submitted at least annually after every inspection. If the case closure letter requires that, then add the following sentence to the paragraph above: A copy of the inspection log must be submitted electronically to the DNR after every inspection, at least annually.]*

#### Maintenance Activities

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling or larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must



inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event the asphalt parking lot and building overlying the residual soil and contaminated groundwater plume is removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the DNR or its successor.

The property owner, in order to maintain the integrity of the asphalt parking lot and building, will maintain a copy of this Maintenance Plan at the site; or, if there is no acceptable place to keep it at the site (for example, no building is present), at the address of the property owner and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

#### Prohibition of Activities and Notification of DNR Prior to Actions Affecting a Cover/Barrier

The following activities are prohibited on any portion of the property where [pavement, a building foundation, soil cover, engineered cap or other barrier] is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure; 7) changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings.

If removal, replacement or other changes to a cover, or a building which is acting as a cover, are considered, the property owner will contact DNR at least 45 days before taking such an action, to determine whether further action may be necessary to protect human health, safety, or welfare or the environment, in accordance with s. NR 727.07, Wis. Adm. Code,

#### Amendment or Withdrawal of Maintenance Plan

This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of DNR.

#### Contact Information

*(Form 4400-202, Attachment D, Part 1.) Contact Information, including the name, address and phone number of the individual or facility who will be conducting the maintenance.)*

April 2016

Site Owner and Operator: Andrew Schneider, Quatre Chiens, LLC  
7610 W. Harwood Avenue, Wauwatosa, WI 53213  
414-778-3333

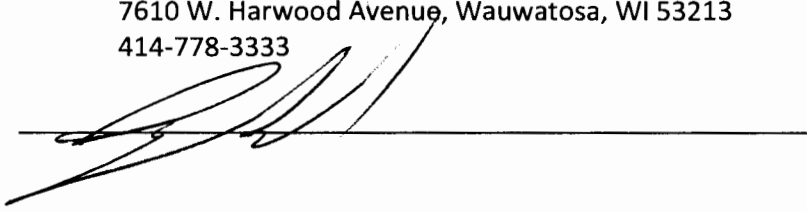
Signature: \_\_\_\_\_

(DNR may request signature of affected property owners, on a case-by-case basis)

Property Owner:

Andrew Schneider, Quatre Chiens, LLC  
7610 W. Harwood Avenue, Wauwatosa, WI 53213  
414-778-3333

Signature:

A handwritten signature in black ink, appearing to read 'Andrew Schneider', is written over a horizontal line.

Consultant:

Kapur & Associates, Inc.  
7711 N. Port Washington Road, Milwaukee, WI 53217  
414-751-7279

DNR:

Binyoti Amungwafor  
2300 N. Dr. MLK Jr. Drive, Milwaukee, WI 53218  
414-263-8607

## **D.2 Location Map(s)**

*Include a location map which shows:*

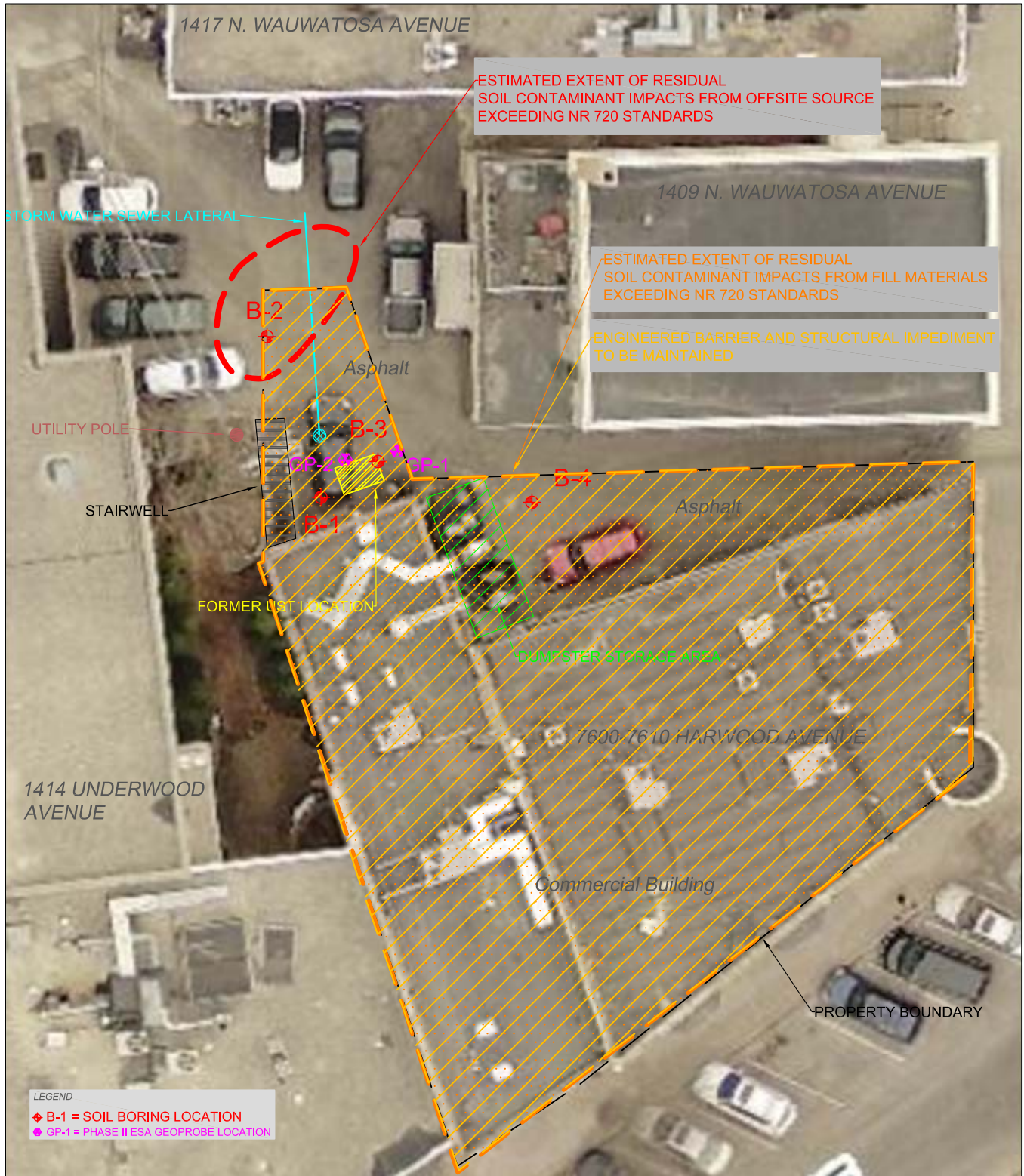
- (1) the feature that requires maintenance;*
- (2) the location of the feature(s) that require(s) maintenance: on and off the source property;*
- (3) the extent of the structure or feature(s) to be maintained, in relation to other structures or features on the site;*
- (4) the extent and type of residual contamination; and*
- (5) all property boundaries.*

## **D.3 Photographs of Cover/Barrier**

*Include one or more photographs documenting the condition and extent of the cover/barrier/building/slab at the time of the closure request. Pertinent features must be visible and discernible. Include a title on each photograph, which identifies the site name and location of the feature, and the date on which the photograph was taken.*

## **D.4 Continuing Obligations Inspection and Maintenance Log**

Use DNR Fillable Form Form 4400-305



**KAPUR & ASSOCIATES, INC.**  
CONSULTING ENGINEERS  
7711 N. PORT WASHINGTON ROAD  
MILWAUKEE, WISCONSIN 53217  
Phone: 414.351.8568 Fax: 414.351.4117

www.kapurengineers.com

SHEET:  
LOCATION MAP

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:  
D.2.a

NORTH ARROW:



SCALE:

1" = 20'

0 10 20

SEAL:

we listen... we innovate... we turn your vision into reality.

DRAWN BY: RAB CHECKED BY:

TWP APPROVED BY:

TWP PROJECT NO.:

16.0131.01 DATE:

3/9/2016 REVISION DATE:

06/28/2016

FILENAME: S:\\_Environ\160131-7610 Harwood Ave. Tosa ENV\Figs-Photos\0.2.a.dwg

PLOT DATE/TIME: 9/26/2016 2:56 PM

PLOTTED BY: TRAVIS W. PETERSON





SHEET:  
LOCATION MAP

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7600-7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

FIGURE:  
D.2.b

NORTH ARROW:



SCALE:

1" = 20'



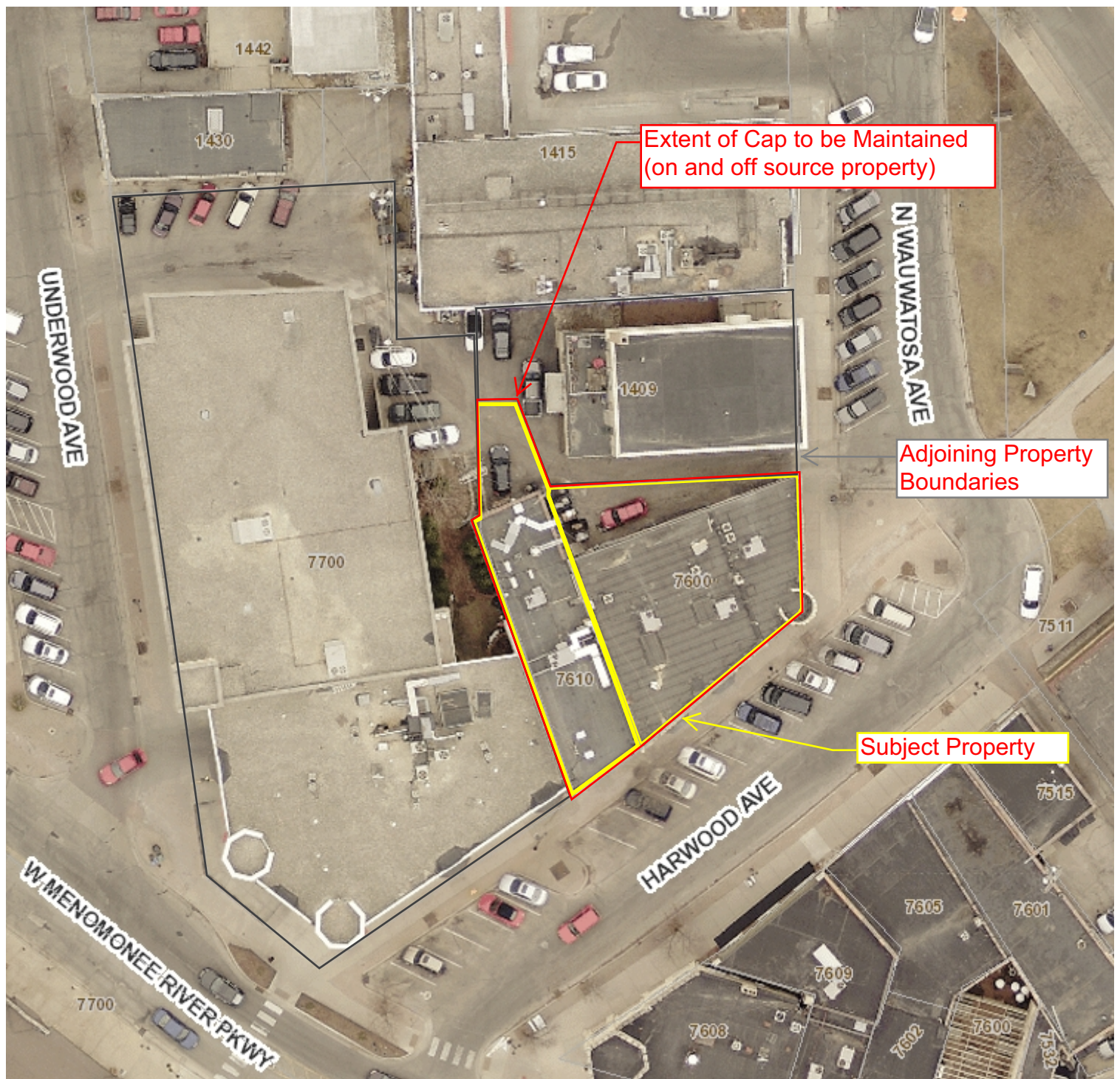
SEAL:

We listen. we innovate.  
We turn your vision into reality.





# MILWAUKEE COUNTY INTERACTIVE MAPPING SERVICE



Projection  
NAD\_1927\_StatePlane\_Wisconsin  
South\_FIPS\_4803

THIS MAP IS NOT TO BE  
USED FOR NAVIGATION

© MCAMLIS

**DISCLAIMER:** This map is a user generated static output from the Milwaukee County Land Information Office Interactive Mapping Service website. The contents herein are for reference purposes only and may or may not be accurate, current or otherwise reliable. No liability is assumed for the data delineated herein either expressed or implied by Milwaukee County or its employees.

Figure: D.2.c

Location Map



90 0 45 90 Feet

## Legend

1: 539

- ☐ Tax Parcels
- ☐ Subdivision Docs
- ☐ Condo Docs
- ☐ CSM Docs
- 2015 COLOR**
  - ☒ Red: Band\_1
  - ☒ Green: Band\_2
  - ☒ Blue: Band\_3
- ☐ County Boundary
- ☐ City Limits Outline

**Directions:** In accordance with s. NR 727.05 (1) (b) 3., Wis. Adm. Code, use of this form for documenting the inspections and maintenance of certain continuing obligations is required. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.]. When using this form, identify the condition that is being inspected. See the closure approval letter for this site for requirements regarding the submittal of this form to the Department of Natural Resources. A copy of this inspection log is required to be maintained either on the property, or at a location specified in the closure approval letter. Do NOT delete previous inspection results. This form was developed to provide a continuous history of site inspection results. The Department of Natural Resources project manager is identified in the closure letter. The project manager may also be identified from the database, BRRTS on the Web, at <http://dnr.wi.gov/botw/SetUpBasicSearchForm.do>, by searching for the site using the BRRTS ID number, and then looking in the "Who" section.

|   |                                  |
|---|----------------------------------|
| Activity (Site) Name<br><b>HARWOOD AVENUE COMMERCIAL PROPERTY</b> | BRRTS No.<br><b>02-41-576745</b> |
|---|----------------------------------|

Inspections are required to be conducted (see closure approval letter):

- ☒ annually  
☐ semi-annually  
☐ other – specify \_\_\_\_\_

When submittal of this form is required, submit the form electronically to the DNR project manager. An electronic version of this filled out form, or a scanned version may be sent to the following email address (see closure approval letter):

Binyoti.Amungwafor@wisconsin.gov

| Inspection Date | Inspector Name | Item  | Describe the condition of the item that is being inspected | Recommendations for repair or maintenance | Previous recommendations implemented?           | Photographs taken and attached?                 |
|-----------------|----------------|---|--|---|---|---|
|                 |                | <input type="checkbox"/> monitoring well<br><input type="checkbox"/> cover/barrier<br><input type="checkbox"/> vapor mitigation system<br><input type="checkbox"/> other: |  |   | <input type="radio"/> Y <input type="radio"/> N | <input type="radio"/> Y <input type="radio"/> N |
|                 |                | <input type="checkbox"/> monitoring well<br><input type="checkbox"/> cover/barrier<br><input type="checkbox"/> vapor mitigation system<br><input type="checkbox"/> other: |  |   | <input type="radio"/> Y <input type="radio"/> N | <input type="radio"/> Y <input type="radio"/> N |
|                 |                | <input type="checkbox"/> monitoring well<br><input type="checkbox"/> cover/barrier<br><input type="checkbox"/> vapor mitigation system<br><input type="checkbox"/> other: |  |   | <input type="radio"/> Y <input type="radio"/> N | <input type="radio"/> Y <input type="radio"/> N |
|                 |                | <input type="checkbox"/> monitoring well<br><input type="checkbox"/> cover/barrier<br><input type="checkbox"/> vapor mitigation system<br><input type="checkbox"/> other: |  |   | <input type="radio"/> Y <input type="radio"/> N | <input type="radio"/> Y <input type="radio"/> N |
|                 |                | <input type="checkbox"/> monitoring well<br><input type="checkbox"/> cover/barrier<br><input type="checkbox"/> vapor mitigation system<br><input type="checkbox"/> other: |  |   | <input type="radio"/> Y <input type="radio"/> N | <input type="radio"/> Y <input type="radio"/> N |
|                 |                | <input type="checkbox"/> monitoring well<br><input type="checkbox"/> cover/barrier<br><input type="checkbox"/> vapor mitigation system<br><input type="checkbox"/> other: |  |   | <input type="radio"/> Y <input type="radio"/> N | <input type="radio"/> Y <input type="radio"/> N |



{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap with subject property boundary marked (facing south)

{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap with subject property boundary marked (facing southwest)

{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap with MW-2 (facing south)

{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap on west adjoining property with MW-2 (facing west)

{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap on east adjoining property with MW-2 (facing northeast)

{Click to Add/Edit Image}

Date added: 04/12/2016



Title: Asphalt cap on east adjoining property with MW-3 (facing northwest)



## **ATTACHMENT E**

### **MONITORING WELL INFORMATION**

*All monitoring wells at the site have been properly abandoned per WDNR guidelines.  
Abandonment forms are included.*

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return this form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to:

☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment  
☐ Waste Management ☐ Other

| 1. Well Location Information   |  |  |                          | 2. Facility / Owner Information   |                      |   |   |
|--|--|--|--------------------------|---|----------------------|---|---|
| County<br><b>Milwaukee</b>   |  | WI Unique Well # of Removed Well                           |                          | Hicap #   |                      | Facility Name<br><b>Harwood Avenue Commercial Property</b>  |   |
| Latitude / Longitude (Degrees and Minutes)<br><b>43 ° 2' 59.2N</b><br><b>88 ° 0' 28.0W</b>   |  | Method Code (see instructions)                             |                          | Facility ID (FID or PWS)<br><b>341270710</b>  |                      | License/Permit/Monitoring #   |   |
| 1/4 NE or Gov't Lot #  |  | 1/4 SE   |                          | Section<br><b>21</b>  | Township<br><b>7</b> | Range<br><b>21</b>  | <input checked="" type="checkbox"/> E<br><input type="checkbox"/> W |
| Well Street Address  |  |  |                          | Original Well Owner   |                      |   |   |
| Well City, Village or Town   |  |  |                          | Present Well Owner<br><b>Andrew Schneider</b>   |                      |   |   |
| Subdivision Name   |  |  |                          | Mailing Address of Present Owner<br><b>7610 W. Harwood Avenue</b>   |                      |   |   |
| Lot #  |  |  |                          | City of Present Owner<br><b>Wauwatosa</b>   |                      | State<br><b>WI</b>  | ZIP Code<br><b>53213</b>  |
| 3. Well / Drillhole / Borehole Information   |  |  |                          | 4. Pump, Liner, Screen, Casing & Sealing Material   |                      |   |   |
| Reason For Removal From Service<br><b>Site Investigation Complete</b>  |  | WI Unique Well # of Replacement Well                       |                          | Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A<br>Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A<br>Screen removed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A<br>Casing left in place? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |                      |   |   |
| <input checked="" type="checkbox"/> Monitoring Well  |  | Original Construction Date<br><b>2/16/2016</b>             |                          | Was casing cut off below surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A  |                      |   |   |
| <input type="checkbox"/> Water Well  |  | If a Well Construction Report is available, please attach. |                          | Did sealing material rise to surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A  |                      |   |   |
| <input type="checkbox"/> Drillhole / Borehole  |  |  |                          | Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A  |                      |   |   |
| Construction Type:   |  |  |                          | If yes, was hole retopped? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A   |                      |   |   |
| <input type="checkbox"/> Drilled   |  | <input checked="" type="checkbox"/> Driven (Sandpoint)     |                          | <input type="checkbox"/> Dug  |                      | If bentonite chips were used, were they hydrated with water from a known safe source <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A |   |
| <input type="checkbox"/> Other (Specify)   |  |  |                          | Required Method of Placing Sealing Material   |                      |   |   |
| Formation Type:  |  |  |                          | <input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped  |                      |   |   |
| <input checked="" type="checkbox"/> Unconsolidated Formation   |  | <input type="checkbox"/> Bedrock                           |                          | <input checked="" type="checkbox"/> Screened & Poured <input type="checkbox"/> Other (Explain)  |                      |   |   |
| Total Well Depth From Ground Surface (ft)<br><b>20.0</b>   |  | Casing Diameter (in.)<br><b>1.00</b>                       |                          | Sealing Materials   |                      |   |   |
| Lower Drillhole Diameter (in.)<br><b>2.3</b>   |  | Casing Depth (ft.)<br><b>20.0</b>                          |                          | <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)  |                      |   |   |
| Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown |  |  |                          | <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry  |                      |   |   |
| If yes, to what depth (feet)?  |  | Depth to Water (feet)<br><b>15.5</b>                       |                          | <input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Chips  |                      |   |   |
| 5. Material Used to Fill Well / Drillhole  |  |  |                          | For Monitoring Wells and Monitoring Well Boreholes Only:  |                      |   |   |
|  |  |  |                          | From (ft.)  | To (ft.)             | No. Yards, Sacks Sealant or Volume (circle one)   | Mix Ratio or Mud Weight   |
| Granular Bentonite   |  |  |                          | Surface   | 20.0                 | 0.3   |   |
|  |  |  |                          |   |                      |   |   |
|  |  |  |                          |   |                      |   |   |
| 6. Comments  |  |  |                          |   |                      |   |   |
| <b>B1/MW-1</b>   |  |  |                          |   |                      |   |   |
| 7. Supervision of Work   |  |  |                          |   |                      | DNR Use Only  |   |
| Name of Person or Firm Doing Filling & Sealing<br><b>Horizon Construction</b>  |  | License #  |                          | Date of Filling & Sealing (mm/dd/yyyy)<br><b>9/22/2016</b>  |                      | Date Received   | Noted By  |
| Street or Route<br><b>764 Tower Drive</b>  |  |  |                          | Telephone Number<br><b>2623772896</b>   |                      | Comments  |   |
| City<br><b>Fredonia</b>  |  | State<br><b>WI</b>   | ZIP Code<br><b>53021</b> | Signature of Person Doing Work<br><i>C/O Rachel Bayn</i>  |                      | Date Signed<br><b>9/27/16</b>   |   |

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return this form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to:

☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment  
☐ Waste Management ☐ Other

| 1. Well Location Information   |  |  |  | 2. Facility / Owner Information  |                      |  |   |
|--|--|--|--|--|----------------------|--|---|
| County<br><b>Milwaukee</b>   |  | WI Unique Well # of Removed Well                           |  | Hicap #  |                      | Facility Name<br><b>Harwood Avenue Commercial Property</b> |   |
| Latitude / Longitude (Degrees and Minutes)<br><b>43° 2' 59.2N</b><br><b>88° 0' 28.0W</b>   |  |  |  | Method Code (see instructions)<br><b>341270710</b>   |                      |  |   |
| 1/4 1/4 NE or Gov't Lot #  |  | 1/4 SE   |  | Section<br><b>21</b>   | Township<br><b>7</b> | Range<br><b>21</b>   | <input checked="" type="checkbox"/> E<br><input type="checkbox"/> W |
| Well Street Address  |  |  |  | Original Well Owner  |                      |  |   |
| Well City, Village or Town   |  |  |  | Present Well Owner<br><b>Andrew Schneider</b>  |                      |  |   |
| Well ZIP Code  |  |  |  | Mailing Address of Present Owner<br><b>7610 W. Harwood Avenue</b>  |                      |  |   |
| Subdivision Name   |  |  |  | City of Present Owner<br><b>Wauwatosa</b>  |                      | State<br><b>WI</b>   | ZIP Code<br><b>53213</b>  |
| Reason For Removal From Service<br><b>Site Investigation Complete</b>  |  | WI Unique Well # of Replacement Well                       |  | 4. Pump, Liner, Screen, Casing & Sealing Material  |                      |  |   |
| <input checked="" type="checkbox"/> Monitoring Well  |  | Original Construction Date<br><b>2/16/2016</b>             |  | Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A  |                      |  |   |
| <input type="checkbox"/> Water Well  |  | If a Well Construction Report is available, please attach. |  | Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A   |                      |  |   |
| <input type="checkbox"/> Drillhole / Borehole  |  |  |  | Screen removed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A   |                      |  |   |
| Construction Type:<br><input type="checkbox"/> Drilled <input checked="" type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug<br><input type="checkbox"/> Other (Specify) _____ |  |  |  | Casing left in place? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   |                      |  |   |
| Formation Type:<br><input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock   |  |  |  | Was casing cut off below surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   |                      |  |   |
| Total Well Depth From Ground Surface (ft.)<br><b>20.0</b>  |  | Casing Diameter (in.)<br><b>1.00</b>                       |  | Did sealing material rise to surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A   |                      |  |   |
| Lower Drillhole Diameter (in.)<br><b>2.3</b>   |  | Casing Depth (ft.)<br><b>20.0</b>                          |  | Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A   |                      |  |   |
| Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown   |  | Depth to Water (feet)<br><b>15.9</b>                       |  | If yes, was hole retopped? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A  |                      |  |   |
| If yes, to what depth (feet)?  |  |  |  | If bentonite chips were used, were they hydrated with water from a known safe source <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A  |                      |  |   |
| 5. Material Used to Fill Well / Drillhole  |  |  |  | Required Method of Placing Sealing Material  |                      |  |   |
| Granular Bentonite   |  |  |  | <input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped   |                      |  |   |
|  |  |  |  | <input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain)   |                      |  |   |
|  |  |  |  | Sealing Materials  |                      |  |   |
|  |  |  |  | <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)<br><input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry " "<br><input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Chips |                      |  |   |
|  |  |  |  | For Monitoring Wells and Monitoring Well Boreholes Only:   |                      |  |   |
|  |  |  |  | <input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout<br><input checked="" type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry  |                      |  |   |
|  |  |  |  | From (ft.)   | To (ft.)             | No. Yards, Sacks Sealant or Volume (circle one)            | Mix Ratio or Mud Weight   |
|  |  |  |  | Surface  | 20.0                 | 0.3  |   |
|  |  |  |  |  |                      |  |   |
|  |  |  |  |  |                      |  |   |

6. Comments

**B2/MW-2**

7. Supervision of Work

|   |                    |                                       |  | DNR Use Only  |                               |
|---|--------------------|---------------------------------------|--|---------------|-------------------------------|
| Name of Person or Firm Doing Filling & Sealing<br><b>Horizon Construction</b> |                    | License #                             | Date of Filling & Sealing (mm/dd/yyyy)<br><b>9/22/2016</b> | Date Received | Noted By                      |
| Street or Route<br><b>764 Tower Drive</b>                                     |                    | Telephone Number<br><b>2623772896</b> | Comments   |               |                               |
| City<br><b>Fredonia</b>   | State<br><b>WI</b> | ZIP Code<br><b>53021</b>              | Signature of Person Doing Work<br><i>C/O Rachel Bayn</i>   |               | Date Signed<br><b>9/27/16</b> |

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☐ Verification Only of Fill and Seal

Route to:

☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment  
☐ Waste Management ☐ Other

| 1. Well Location Information   |          |  |                         | 2. Facility / Owner Information  |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
|--|----------|--|-------------------------|--|---|-----------------------------|--------------------------|------------|----------|---|-------------------------|---------|------|-----|--|--|--|--|--|--|--|--|--|
| County<br><b>Milwaukee</b>   |          | WI Unique Well # of Removed Well                           | Hicap #                 | Facility Name<br><b>Harwood Avenue Commercial Property</b>   |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| Latitude / Longitude (Degrees and Minutes)<br><b>43 ° 2' 59.2N</b><br><b>88 ° 0' 28.0W</b>   |          | Method Code (see instructions)                             |                         | Facility ID (FID or PWS)<br><b>341270710</b>   |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| 1/4 NE   | 1/4 SE   | Section<br><b>21</b>                                       | Township<br><b>7</b>    | Range<br><b>21</b>   | <input checked="" type="checkbox"/> E<br><input type="checkbox"/> W | License/Permit/Monitoring # |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| or Gov't Lot #   |          |  |                         | Original Well Owner  |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| Well Street Address  |          |  |                         | Present Well Owner<br><b>Andrew Schneider</b>  |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| Well City, Village or Town   |          |  |                         | Mailing Address of Present Owner<br><b>7610 W. Harwood Avenue</b>  |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| Subdivision Name   |          |  |                         | City of Present Owner<br><b>Wauwatosa</b>  |   | State<br><b>WI</b>          | ZIP Code<br><b>53213</b> |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| Reason For Removal From Service<br><b>Site Investigation Complete</b>  |          | WI Unique Well # of Replacement Well                       |                         | 4. Pump, Liner, Screen, Casing & Sealing Material  |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| <input checked="" type="checkbox"/> Monitoring Well  |          | Original Construction Date<br><b>2/16/2016</b>             |                         | Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A  |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| <input type="checkbox"/> Water Well  |          | If a Well Construction Report is available, please attach. |                         | Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A   |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| <input type="checkbox"/> Drillhole / Borehole  |          |  |                         | Screen removed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A   |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| Construction Type:<br><input type="checkbox"/> Drilled <input checked="" type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug<br><input type="checkbox"/> Other (Specify) _____ |          |  |                         | Casing left in place? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| Formation Type:<br><input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock   |          |  |                         | Was casing cut off below surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| Total Well Depth From Ground Surface (ft)<br><b>20.0</b>   |          | Casing Diameter (in.)<br><b>1.00</b>                       |                         | Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| Lower Drillhole Diameter (in.)<br><b>2.3</b>   |          | Casing Depth (ft)<br><b>20.0</b>                           |                         | Did material settle after 24 hours?<br>If yes, was hole retopped? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A   |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown   |          | Depth to Water (feet)<br><b>16.0</b>                       |                         | If bentonite chips were used, were they hydrated with water from a known safe source <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A  |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| If yes, to what depth (feet)?  |          |  |                         | Required Method of Placing Sealing Material<br><input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped<br><input checked="" type="checkbox"/> Screened & Poured <input type="checkbox"/> Other (Explain) _____<br>(Bentonite Chips)   |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| 5. Material Used to Fill Well / Drillhole  |          |  |                         | Sealing Materials<br><input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)<br><input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry " "<br><input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Chips  |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
|  |          |  |                         | For Monitoring Wells and Monitoring Well Boreholes Only:<br><input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout<br><input checked="" type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry  |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
|  |          |  |                         | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>From (ft.)</th> <th>To (ft.)</th> <th>No. Yards, Sacks Sealant or Volume (circle one)</th> <th>Mix Ratio or Mud Weight</th> </tr> <tr> <td>Surface</td> <td>20.0</td> <td>0.3</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table> |   |                             |                          | From (ft.) | To (ft.) | No. Yards, Sacks Sealant or Volume (circle one) | Mix Ratio or Mud Weight | Surface | 20.0 | 0.3 |  |  |  |  |  |  |  |  |  |
| From (ft.)   | To (ft.) | No. Yards, Sacks Sealant or Volume (circle one)            | Mix Ratio or Mud Weight |  |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
| Surface  | 20.0     | 0.3  |                         |  |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
|  |          |  |                         |  |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |
|  |          |  |                         |  |   |                             |                          |            |          |   |                         |         |      |     |  |  |  |  |  |  |  |  |  |

6. Comments

**B4 / MW-3**

| 7. Supervision of Work  |                    |                                       |  | DNR Use Only                  |          |
|---|--------------------|---------------------------------------|--|-------------------------------|----------|
| Name of Person or Firm Doing Filling & Sealing<br><b>Horizon Construction</b> |                    | License #                             | Date of Filling & Sealing (mm/dd/yyyy)<br><b>9/22/2016</b> | Date Received                 | Noted By |
| Street or Route<br><b>764 Tower Drive</b>                                     |                    | Telephone Number<br><b>2623772896</b> |  | Comments                      |          |
| City<br><b>Fredonia</b>   | State<br><b>WI</b> | ZIP Code<br><b>53021</b>              | Signature of Person Doing Work<br><i>40 Rachel Beyer</i>   | Date Signed<br><b>9/27/16</b> |          |



## **F.1. Deeds**

**Special Warranty Deed**

THIS DEED is made between HARWOOD, LLC, a Wisconsin limited liability company (hereinafter "Grantor"), and QUATRE CHIENS LLC, a Wisconsin limited liability company (hereinafter "Grantee").

**W I T N E S S E T H:**

THAT Grantor, in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, conveys to Grantee the real estate located in the City of Wauwatosa, County of Milwaukee, State of Wisconsin, which is more particularly described on Exhibit A attached hereto and incorporated herein, subject to the matters set forth on Exhibit B attached hereto and incorporated herein (the "Property").

TOGETHER with all and singular the hereditaments and appurtenances thereunto belonging.

Grantor warrants the title to the Property to Grantee against the lawful claims of all persons claiming by, through or under Grantor and none other, subject to the matters set forth on Exhibit B.

[SIGNATURE PAGE FOLLOWS]

**Name and Return Address:**

Reinhart Boerner Van Deuren

Attn: Steve Elliot

1000 N. Water Street, Suite 1700

Milwaukee, WI 53202

**Parcel Identification Numbers:**

371-0061-00

SIGNATURE PAGE TO SPECIAL WARRANTY DEED  
FROM HARWOOD, LLC TO QURTRE CHIENS LLC

IN WITNESS WHEREOF, the said Grantor has executed this Special Warranty  
Deed as of this 1<sup>st</sup> day of October, 2012.

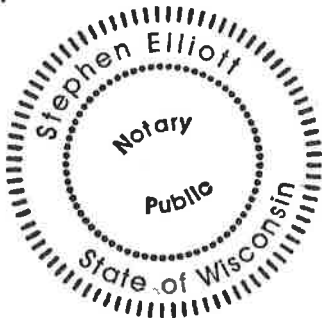
HARWOOD, LLC, a Wisconsin limited  
liability company

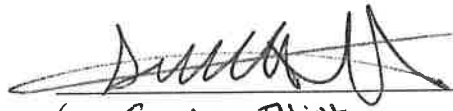
BY

  
Dennis Webb, manager

State of Wisconsin                    )  
  : SS  
Milwaukee County                    )

This instrument was acknowledged before me on October 8<sup>th</sup>, 2012  
by Dennis Webb, as manager of HARWOOD, LLC, a Wisconsin limited liability  
company.



  
( Stephen Elliott )  
Notary Public, State of Wisconsin  
My commission is permanent

This instrument was drafted by:

Leah R. Harrand  
Reinhart Boerner Van Deuren s.c.  
1000 North Water Street, Suite 1700  
Milwaukee, Wisconsin 53202

## EXHIBIT A

### Legal Description

PARCEL A:

PARCEL I:

LOT SEVEN (7) IN LEFEBER'S SUBDIVISION, IN THE SOUTHEAST ONE-QUARTER (SE  $\frac{1}{4}$ ) OF SECTION TWENTY-ONE (21), IN TOWNSHIP SEVEN NORTH (7N), RANGE TWENTY-ONE EAST (21E), IN THE CITY OF WAUWATOSA, EXCEPTING THEREFROM THAT PART OF LOT 7 BOUNDED AND DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF SAID LOT 7, RUNNING THENCE NORTHERLY ON THE EASTERLY LINE OF SAID LOT TO THE NORTHEAST CORNER OF SAID LOT, THENCE WESTERLY ON THE NORTH LINE OF SAID LOT, 7½ INCHES; THENCE SOUTHERLY ON A LINE AND PARALLEL TO THE EASTERLY LINE OF SAID LOT, 22.54 FEET TO A POINT; THENCE SOUTHERLY ON A LINE TO A POINT IN THE SOUTHERLY LINE OF SAID LOT, 5¾ INCHES FROM THE PLACE OF BEGINNING; THENCE ON THE SOUTHERLY LINE OF SAID LOT TO THE PLACE OF BEGINNING.

PARCEL II:

THE EASTERLY FOUR FEET (4'), SEVEN AND ONE-HALF INCHES (7½") IN WIDTH OF LOT EIGHT (8) IN LEFEBER'S SUBDIVISION, IN THE SOUTHEAST ONE-QUARTER (SE  $\frac{1}{4}$ ) OF SECTION TWENTY-ONE (21), IN TOWNSHIP SEVEN NORTH (7N), RANGE TWENTY-ONE EAST (21 E), IN THE CITY OF WAUWATOSA.

PARCEL III:

THAT PART OF LOT TEN (10) IN LEFEBER'S SUBDIVISION, IN THE SOUTHEAST ONE-QUARTER (SE  $\frac{1}{4}$ ) OF SECTION TWENTY-ONE (21), IN TOWNSHIP SEVEN NORTH (7N), RANGE TWENTY-ONE EAST (21E), IN THE CITY OF WAUWATOSA, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT A POINT IN THAT PART OF THE NORTH BOUNDARY LINE OF LOT 10 WHICH IS ALSO THE SOUTH BOUNDARY LINE OF LOT 4, IN SAID SUBDIVISION AND WHICH PART IS 25 FEET EAST OF THE SOUTHWEST CORNER OF SAID LOT 4; THENCE SOUTH ON A LINE WHICH IS 25 FEET EAST OF THE EAST BOUNDARY LINE OF LOT 12 IN SAID SUBDIVISION AND PARALLEL THERETO TO THE POINT WHERE SAID LINE INTERSECTS THE NORTHWESTERLY BOUNDARY LINE OF LOT 8 IN SAID SUBDIVISION; THENCE NORTHEASTERLY ALONG THE NORTHWESTERLY BOUNDARY LINE OF LOTS 8 & 7 IN SAID SUBDIVISION TO THE NORTHEASTERLY CORNER OF SAID LOT 7 AFORESAID; THENCE NORTHWESTERLY ALONG THE EASTERLY BOUNDARY LINE OF A PART OF SAID LOT 10, WHICH IS ALSO THE WESTERLY BOUNDARY LINE OF LOT 5 AND A PART OF THE WESTERLY BOUNDARY LINE OF LOT 6 IN SAID SUBDIVISION TO THE NORTHWESTERLY CORNER OF SAID LOT 5; THENCE WEST ON THE NORTH BOUNDARY LINE OF SAID LOT 10, WHICH IS ALSO THE SOUTH BOUNDARY LINE OF LOT 4 AFORESAID IN SAID SUBDIVISION TO THE PLACE OF BEGINNING.

PARCEL B:

A NON-EXCLUSIVE EASEMENT FOR THE BENEFIT OF PARCEL A CREATED BY QUIT CLAIM DEED RECORDED AS DOCUMENT NO. 2394546 FOR INGRESS AND EGRESS AS PROVIDED FOR THEREIN OVER AND ACROSS THE SOUTH TEN FEET (10') OF LOT FIVE (5) IN SAID LEFEBER'S SUBDIVISION.



## **EXHIBIT B**

### **Permitted Encumbrances**

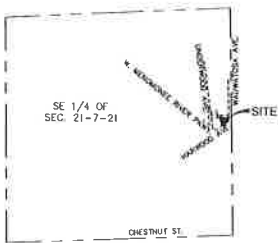
1. Zoning and all other applicable laws and standard governmental regulations which affect the Property.
2. Acts done or suffered by, through or under, or judgments against, Grantee.
3. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the title including, discrepancies, conflict in boundary lines, shortages in area, or any other facts that would be disclosed by an accurate and complete land survey of the property.
4. Special taxes, assessments or charges due after the date hereof.
5. Taxes, general and special for the year 2012 and beyond.
6. Current and future rights of the City of Wauwatosa to assess the Property as part of a Business Improvement District. Rights of Andrew Schneider and Therese Hittman (d/b/a La Reve Patisserie & Café) and parties claiming through or under them, as tenants in possession including any rights to tenant fixtures owned by such tenants located on the leased premises and any liens on such tenants' fixtures, and any parties having a lien on or claiming by through or under said tenants.
7. Terms, provisions and conditions, if any, and rights of others in and to the easement dated July 17, 1942 and recorded on October 2, 1942, in Volume 1854 of Deeds, Page 620, as Document No. 239456.
8. Distribution Easement Underground Joint granted to Wisconsin Electric Power Company by instrument dated June 25, 2001 and recorded on July 31, 2001, as Document No. 8108585.
9. Terms, provisions and conditions set forth in Indenture dated April 10, 2008 by Hardwood LLC and recorded on May 2, 2008, as Document No. 09595213.
10. A financing statement recorded April 23, 2008 as Document No. 09590843 of Official Records.

|                |  |
|----------------|--|
| Debtor:        | Le Rêve Patisserie & Café LLC          |
| Secured Party: | Wells Fargo Bank, National Association |

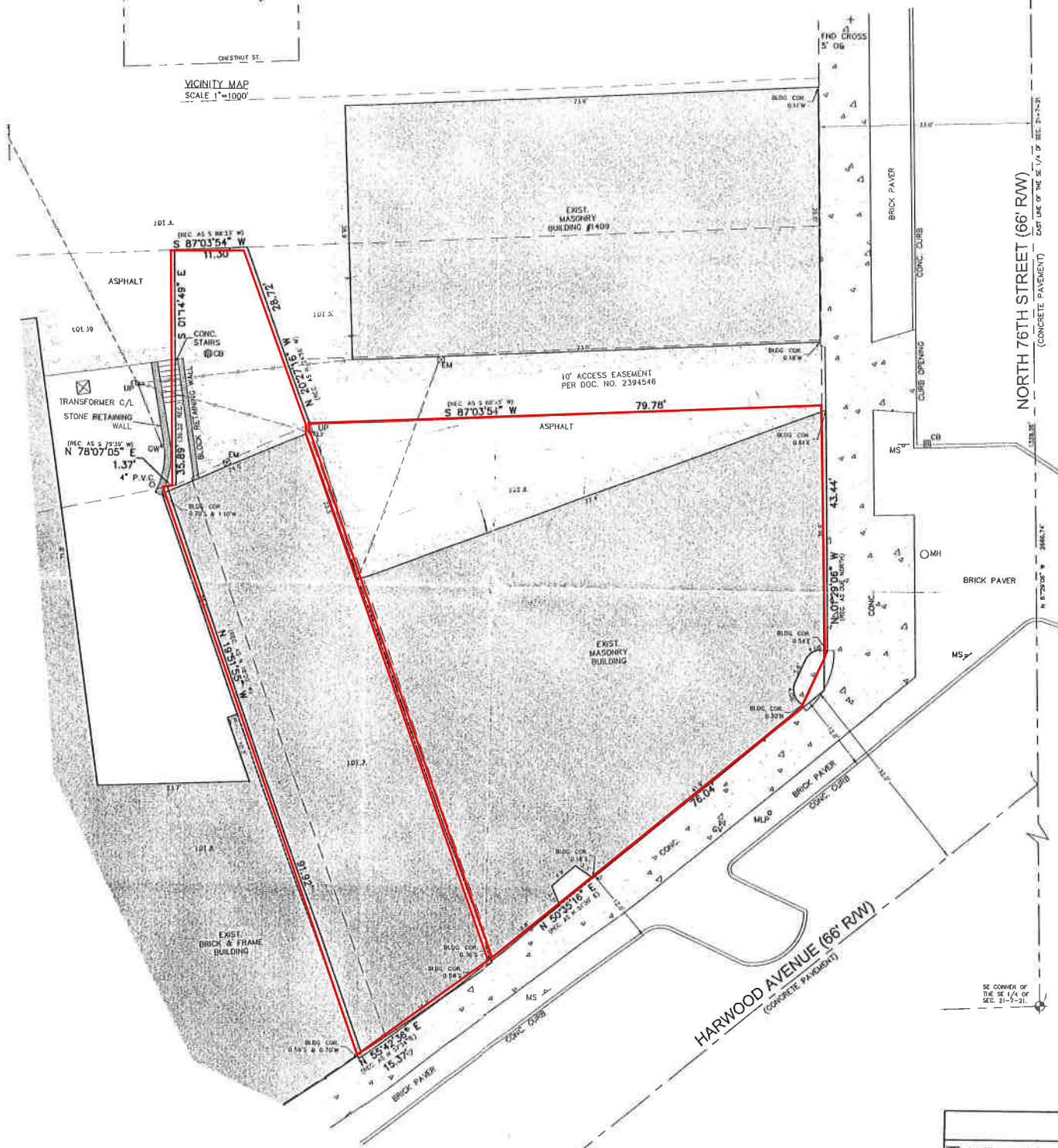
11. A financing statement recorded April 29, 2008 as Document No. 09593579 of Official Records.

|                |  |
|----------------|--|
| Debtor:        | Le Rêve Patisserie & Café LLC          |
| Secured Party: | Wells Fargo Bank, National Association |

## **F.2. Certified Survey Map**



VICINITY MAP  
SCALE 1"=1000'



GENERAL NOTES:

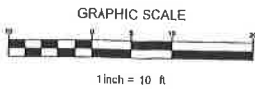
1. THE SUBJECT PROPERTY ADDRESS IS 7600 AND 7610 HARWOOD AVENUE.
2. ZONING: VILLAGE TRADE
3. BUILDING SETBACKS: NEGOTIABLE:
  - FRONT, SIDE & REAR - TO BE REVIEWED AND ESTABLISHED BY THE PLANNING COMMISSION AND APPROVED BY THE COMMON COUNCIL.
- BUILDING HEIGHT: 35' MAXIMUM PER CITY OF WAUWATOSA.
4. THE SUBJECT PROPERTY DOES NOT LIE WITHIN A 100-YEAR FLOOD PLAIN, PER FLOOD INSURANCE RATE MAP COMMUNITY PANEL NO. 550284 0005 B, DATED DECEMBER 1, 1978.
5. BEARINGS ARE REFERENCED TO THE EAST LINE OF THE SOUTHEAST 1/4 OF SECTION 21-7-21, WISCONSIN STATE PLANE COORDINATE SYSTEM GRID, SOUTH ZONE (JANUARY 2005).
6. SHOW COVER AT TIME OF SURVEY.

SCHEDULE B EXCEPTIONS:

EX. 14 - PARTY WALL RIGHTS SET FORTH IN THE FOREGOING DEEDS. TO VAGUE IN NATURE TO SHOW.



WARNING: ANY AND ALL UTILITIES AT ANY DEPTH MAY BE LOCATED BY ANY MEANS. IT IS THE RESPONSIBILITY OF THE USER TO OBTAIN THE NECESSARY INFORMATION TO AVOID DAMAGE TO ANY UTILITIES. THE USER SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITIES.



PARCEL A:

LOTS 6, 7 AND THE EASTERLY 4 FEET 7 1/2 INCHES, IN WIDTH, OF LOT 8, IN LEFEBER'S SUBDIVISION, IN THE SOUTHEAST 1/4 OF SECTION 21, TOWN 7 NORTH, RANGE 21 EAST, IN THE CITY OF WAUWATOSA, COUNTY OF MILWAUKEE, STATE OF WISCONSIN.

ALSO:

THAT PART OF LOT 10 IN SAID LEFEBER'S SUBDIVISION, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT A POINT IN THE NORTH LINE OF LOT 10 WHICH IS ALSO THE SOUTH LINE LOT 4, IN SAID SUBDIVISION, WHICH IS 25 FEET EAST OF THE SOUTHWEST CORNER OF SAID LOT 4; THENCE SOUTH ON A LINE WHICH IS 25 FEET EAST OF THE EAST LINE OF LOT 12 IN SAID SUBDIVISION AND PARALLEL THEREWITH, TO THE POINT WHERE SAID LINE INTERSECTS THE NORTHWESTERLY LINE OF LOT 8 IN SAID LOT SUBDIVISION; THENCE NORTHWESTERLY ALONG THE NORTHWESTERLY LINE OF SAID LOTS 8 AND 7 TO THE NORTHEASTERN CORNER OF SAID LOT 7; THENCE NORTHWESTERLY ALONG THE EASTERLY LINE OF SAID LOT 10, WHICH IS ALSO THE WESTERLY LINE OF LOT 5 AND A PART OF THE WESTERLY LINE OF LOT 6 IN SAID SUBDIVISION TO THE NORTHWESTERLY CORNER OF SAID LOT 5; THENCE WEST ON THE NORTH LINE OF SAID LOT 10, WHICH IS ALSO THE SOUTH BOUNDARY LINE OF SAID LOT 4 TO THE PLACE OF COMMENCEMENT.

PARCEL B:

NON-EXCLUSIVE EASEMENT FOR THE BENEFIT OF PARCEL A CREATED BY QUIT CLAIM DEED RECORDED AS DOCUMENT NO. 2394546 FOR INGRESS AND EGRESS AS PROVIDED FOR THEREIN OVER AND ACROSS THE SOUTH 10 FEET OF LOT 5 IN SAID LEFEBER'S SUBDIVISION.

CONTAINING 7,113 SQ.FT. OR 0.163 ACRES.

TO: A LEGALLY QUALIFIED GRANTEE TO BE NAMED AND CHICAGO TITLE INSURANCE COMPANY, the successors and assigns of any of the foregoing and any other person who purchases, mortgages or guarantees the title thereto within one year of the date of this survey.

I hereby certify that the survey was prepared from an actual on-the-ground instrument survey of the subject premises and the location of all streets, highways, ditches and public ways crossing and abutting said premises, that the boundaries of any improvements and the location thereof with respect to the boundaries are accurately shown on the same were effected on DECEMBER 8, 2005, that there are no encroachments by improvements appurtenant to or burdening the subject premises and (i) are referred to in the title commitment number.

CHICAGO TITLE INSURANCE COMPANY is not responsible for any errors or omissions in this survey or for any damage to any person or property resulting from the use of this survey. CHICAGO TITLE INSURANCE COMPANY is not responsible for any damage to any person or property resulting from the use of this survey.

Mark L. Wertz  
Registered Land Surveyor  
S-1015

LEGEND

|                   |                         |                   |                         |
|-------------------|-------------------------|-------------------|-------------------------|
| 1" BENCHMARK (BM) | 1" LIGHT POLE           | 1" BENCHMARK (BM) | 1" LIGHT POLE           |
| 1" BENCHMARK (BM) | 1" MONITORING WELL (MW) | 1" BENCHMARK (BM) | 1" MONITORING WELL (MW) |
| 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) | 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) |
| 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) | 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) |
| 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) | 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) |
| 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) | 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) |
| 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) | 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) |
| 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) | 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) |
| 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) | 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) |
| 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) | 1" BENCHMARK (BM) | 1" SIGN (TRAFFIC, ETC.) |



LAND INFORMATION SERVICES, INC.

ENGINEERS, SURVEYORS & CONSULTANTS

1111 WATERVIEW PLAZA, SUITE 200  
MILWAUKEE, WI 53212  
TEL: 414.481.1111 FAX: 414.481.1112

ALTA/ACSM LAND TITLE SURVEY  
**7600 HARWOOD AVENUE**  
WAUWATOSA, WISCONSIN.

DRAWN BY: J.D.H.  
CHECKED BY: M.L.W.  
DATE: 12/06/05  
JOB NUMBER: S05201R0AL



7600 HARWOOD AVE.  
ALTA

X:\SURVEY\2005\05201R0AL\05201R0AL.dwg, 1/15/14



### **F.3. Verification of Zoning**

# Milwaukee County Land Information Parcel Report

**TAXKEY: 3710060000**

Report generated 2/8/2016 7:36:40 AM



Parcel location within Milwaukee County



Selected parcel highlighted

## Parcel Information

**TAXKEY:** 3710060000

**Record Date:** 12/31/2014

**Owner(s):** HARWOOD LLC

**Address:** 7600 HARWOOD AVE

**Municipality:** Wauwatosa

**Acres:** 0.11

**Assessed Value:** \$723,000

**Parcel Description:** COMMERCIAL

**Zoning Description:**

**Legal Description:** LEFEBER SUBD LOT 6 AND ELY STRIP OF ADJ LOT 7 7.5 IN WIDE ON ITS NLY LI AND 5.75 IN WIDE ON ITS SLY LI INCLDG EASEMENT SE 1/4 SEC 21

Parcel Photo  
Not Available



Parcel photo

[Wauwatosa Home Page](#)[Login](#)[Home](#)[Return to Search Page](#)[Return to Results Page](#)

| PARCEL / OWNER DATA  |                                 |            |                       |              | PROPERTY IMAGE     |   |
|--|---------------------------------|------------|-----------------------|--------------|--------------------|---|
| NAME AND ADDRESS<br>HARWOOD LLC<br>172 N BROADWAY #2ND FL<br>MILWAUKEE, WI 53202   |                                 |            |                       |              | No Photo Available |   |
| PARCEL #   | 3710060000                      |            |                       |              |                    |   |
| PROPERTY ADDRESS   | 7600 HARWOOD AVE                |            |                       |              |                    |   |
| LAND USE   | Commercial Sites                |            |                       |              |                    |   |
| SUBDIVISION  |                                 |            |                       |              |                    |   |
| NEIGHBORHOOD   | 906                             |            |                       |              |                    |   |
| ZONING   | C1 - Neighborhood/Village Trade |            |                       |              |                    |   |
| ZONING (SECONDARY)   | -                               |            |                       |              |                    |   |
| SITE DATA  |                                 |            | RECENT PERMIT HISTORY |              |                    |   |
| FRONTAGE   | 0.0                             | DATE       | NUMBER                | AMOUNT       | PURPOSE            | NOTE  |
| DEPTH  | 0.0                             | 10/29/2013 | OC13-3467             | \$0          | OC                 | 7600 Harwood Ave - Soaps & Scents   candles, soap   candles, soap                           |
| SQUARE FOOTAGE   | 4,792.0                         | 8/16/2013  | EL13-3072             | \$0          | EL                 | 7600HarwoodAve-Soaps & Scents - electrical wiring   electrical wiring   electrical wiring   |
| ACREAGE  | 0.11                            | 1/3/2013   | SG13-0023             | \$0          | SG                 | 7606 Harwood Ave - Sandwich Board- Oro di oliva   sandwich board sign   sandwich board sign |
|  |                                 | 2/6/2012   | SG12-0234             | \$0          | SG                 | 7606 Harwood Ave - Sandwich Board- Oro di oliva   sandwich board sign   sandwich board sign |
| ASSESSED VALUE HISTORY   |                                 |            |                       |              |                    |   |
|  | YEAR                            | CLASS      | LAND                  | IMPROVEMENTS |                    | TOTAL   |
|  | 2016                            | 2          | \$222,300             | \$500,700    |                    | \$723,000   |
|  | 2016                            | 2          | \$222,300             | \$500,700    |                    | \$723,000   |
|  | 2015                            | 2          | \$222,300             | \$500,700    |                    | \$723,000   |
|  | 2014                            | 2          | \$222,300             | \$500,700    |                    | \$723,000   |
|  | 2013                            | 2          | \$222,300             | \$500,700    |                    | \$723,000   |
|  | 2012                            | 2          | \$54,300              | \$668,700    |                    | \$723,000   |
|  | 2011                            | 2          | \$54,300              | \$668,700    |                    | \$723,000   |
| LEGAL DESCRIPTION  |                                 |            |                       |              |                    |   |
| LEFEBER SUBD LOT 6 & ELY STRIP OF ADJ LOT 7 7.5 IN WIDE ON ITS NLY LI & 5.75 IN WIDE ON ITS SLY LI INCLDG EASEMENT SE 1/4 SEC 21 |                                 |            |                       |              |                    |   |
| BUILDING 1   |                                 |            |                       |              |                    |   |
| CLASS  | Com/Ind                         |            | LIVING AREA           | 10,904       |                    |   |
| STYLE  | Office/Parking                  |            | GROSS AREA            | 10,904       |                    |   |
| Commercial Building 1 Section 1  |                                 |            |                       |              |                    |   |
| OCCUPANCY  | Commercial Sites                |            | YEAR BUILT            | 1901         |                    |   |
| STORIES  | 1.00                            |            | AREA                  | 3621         |                    |   |
| EXT. WALL 1  | WOOD FRAME                      |            | PHYSICAL CONDITION    | A            |                    |   |
| Attached Improvements  |                                 |            | Detached Improvements |              |                    |   |
| DESCRIPTION  |                                 | AREA       | DESCRIPTION           |              | AREA               |   |
| Elevator Pass - Elec   |                                 | 2          | W/Triple Light        |              | 1                  |   |
| Open Area  |                                 | 40         |                       |              |                    |   |
| Open Area  |                                 | 12         |                       |              |                    |   |
| Living Area  |                                 |            |                       |              |                    |   |
| DESCRIPTION  |                                 |            |                       |              | AREA               |   |
| BASEMENT   |                                 |            |                       |              | 0                  |   |
| FINISHED BASEMENT LIVING AREA  |                                 |            |                       |              | 0                  |   |
| FIRST STORY  |                                 |            |                       |              | 3,621              |   |
| SECOND STORY   |                                 |            |                       |              | 0                  |   |
| ADDITIONAL STORY   |                                 |            |                       |              | 0                  |   |
| ATTIC / FINISHED   |                                 |            |                       |              | 0                  |   |
| HALF STORY / FINISHED  |                                 |            |                       |              | 0                  |   |
| ATTIC / UNFINISHED   |                                 |            |                       |              | 0                  |   |
| HALF STORY / UNFINISHED  |                                 |            |                       |              | 0                  |   |
| ROOM / UNFINISHED  |                                 |            |                       |              | 0                  |   |

|   |                  |                    |       |       |
|---|------------------|--------------------|-------|-------|
| TOTAL LIVING AREA   |                  |                    |       | 3,621 |
| Commercial Building 1 Section 2   |                  |                    |       |       |
| OCCUPANCY   | Commercial Sites | YEAR BUILT         | 1901  |       |
| STORIES   | 1.00             | AREA               | 3594  |       |
| EXT. WALL 1   | WOOD FRAME       | PHYSICAL CONDITION | VG    |       |
| Living Area   |                  |                    |       |       |
| DESCRIPTION   |                  |                    | AREA  |       |
| BASEMENT  |                  |                    | 0     |       |
| FINISHED BASEMENT LIVING AREA   |                  |                    | 0     |       |
| FIRST STORY   |                  |                    | 3,594 |       |
| SECOND STORY  |                  |                    | 0     |       |
| ADDITIONAL STORY  |                  |                    | 0     |       |
| ATTIC / FINISHED  |                  |                    | 0     |       |
| HALF STORY / FINISHED   |                  |                    | 0     |       |
| ATTIC / UNFINISHED  |                  |                    | 0     |       |
| HALF STORY / UNFINISHED   |                  |                    | 0     |       |
| ROOM / UNFINISHED   |                  |                    | 0     |       |
| TOTAL LIVING AREA   |                  |                    | 3,594 |       |
| Commercial Building 1 Section 3   |                  |                    |       |       |
| OCCUPANCY   | Commercial Sites | YEAR BUILT         | 1901  |       |
| STORIES   | 1.00             | AREA               | 3689  |       |
| EXT. WALL 1   | WOOD FRAME       | PHYSICAL CONDITION | VG    |       |
| Living Area   |                  |                    |       |       |
| DESCRIPTION   |                  |                    | AREA  |       |
| BASEMENT  |                  |                    | 0     |       |
| FINISHED BASEMENT LIVING AREA   |                  |                    | 0     |       |
| FIRST STORY   |                  |                    | 3,689 |       |
| SECOND STORY  |                  |                    | 0     |       |
| ADDITIONAL STORY  |                  |                    | 0     |       |
| ATTIC / FINISHED  |                  |                    | 0     |       |
| HALF STORY / FINISHED   |                  |                    | 0     |       |
| ATTIC / UNFINISHED  |                  |                    | 0     |       |
| HALF STORY / UNFINISHED   |                  |                    | 0     |       |
| ROOM / UNFINISHED   |                  |                    | 0     |       |
| TOTAL LIVING AREA   |                  |                    | 3,689 |       |
| Disclaimer: Information shown here is considered accurate but not guaranteed.<br>* Additional data may be available by contacting the <a href="#">Assessor's Office</a> . |                  |                    |       |       |
| Copyright © 2016 Ruekert/ Mielke. All rights reserved.<br>Please contact <a href="#">Webmaster</a> if you have any comments or questions about our site.                  |                  |                    |       |       |

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# Milwaukee County Land Information Parcel Report

**TAXKEY: 3710061000**

Report generated 2/8/2016 7:35:39 AM



Parcel location within Milwaukee County



Selected parcel highlighted

## Parcel Information

**TAXKEY:** 3710061000

**Record Date:** 12/31/2014

**Owner(s):** QUATRE CHIENS LLC

**Address:** 7610 HARWOOD AVE

**Municipality:** Wauwatosa

**Acres:** 0.06

**Assessed Value:** \$510,000

**Parcel Description:** COMMERCIAL

**Zoning Description:**

**Legal Description:** LEFEBER SUBD LOT 7 EX COM NELY COR SD LOT TH WLY 7.5 IN SLY PAR TO ITS ELY LI 22.54 FT SLY TO ITS SLY LI NELY 5.75 IN TO ITS SELY COR TH NLY TO BEG AND ELY 4 FT 7.5 IN LOT 8 AND PT LOT 10 LYING E OF A LI 25 FT E OF AND PAR WITH E LI LOT 11 INCLDG EASEMENT SE 1/

Parcel Photo  
Not Available



Parcel photo

[Wauwatosa Home Page](#)[Login](#)[Home](#)[Return to Search Page](#)[Return to Results Page](#)

| PARCEL / OWNER DATA   |                                 |                       |                    | PROPERTY IMAGE     |         |   |
|---|---------------------------------|-----------------------|--------------------|--------------------|---------|---|
| NAME AND ADDRESS<br>QUATRE CHIENS LLC<br>7610 HARWOOD AVENUE<br>WAUWATOSA, WI 53213   |                                 |                       |                    | No Photo Available |         |   |
| PARCEL #  | 3710061000                      |                       |                    |                    |         |   |
| PROPERTY ADDRESS  | 7610 HARWOOD AVE                |                       |                    |                    |         |   |
| LAND USE  | Commercial Sites                |                       |                    |                    |         |   |
| SUBDIVISION   |                                 |                       |                    |                    |         |   |
| NEIGHBORHOOD  | 903                             |                       |                    |                    |         |   |
| ZONING  | C1 - Neighborhood/Village Trade |                       |                    |                    |         |   |
| ZONING (SECONDARY)  | -                               |                       |                    |                    |         |   |
| SALES HISTORY   |                                 |                       |                    |                    |         |   |
| SALE DATE   | AMOUNT                          | CONVEYANCE            | BOOK               | PAGE               | TYPE    |   |
| 10/11/2012  | \$500,000                       |                       | 0                  | 0                  | WD      |   |
| SITE DATA   |                                 | RECENT PERMIT HISTORY |                    |                    |         |   |
| FRONTAGE  | DEPTH                           | DATE                  | NUMBER             | AMOUNT             | PURPOSE | NOTE  |
| 0.0   | 0.0                             | 11/5/2013             | PL13-4150          | \$0                | PL      | 7610HarwoodAve-Le Rev - grease trap   grease trap   grease trap                       |
| SQUARE FOOTAGE  | 2,614.0                         | 6/17/2013             | PL13-2173          | \$0                | PL      | 7610 Harwood Ave - Le Reve   water service   renovate kitchen and second floor dining |
| ACREAGE   | 0.06                            | 6/17/2013             | PL13-2183          | \$0                | PL      | 7610 Harwood Ave - Le Reve   water service   renovate kitchen and second floor dining |
|   |                                 | 3/6/2013              | MC13-0611          | \$0                | HV      | 7610 Harwood Ave - Le Reve   renovate kitchen and second floor dining -               |
| ASSESSED VALUE HISTORY  |                                 |                       |                    |                    |         |   |
| YEAR  | CLASS                           | LAND                  | IMPROVEMENTS       | TOTAL              |         |   |
| 2015  | 2                               | \$113,400             | \$396,600          | \$510,000          |         |   |
| 2014  | 2                               | \$113,400             | \$396,600          | \$510,000          |         |   |
| LEGAL DESCRIPTION   |                                 |                       |                    |                    |         |   |
| LEFEBER SUBD LOT 7 EX COM NELY COR SD LOT TH WLY 7.5 IN SLY PAR TO ITS ELY LI 22.54 FT SLY TO ITS SLY LI NELY 5.75 IN TO ITS SELY COR TH NLY TO BEG & ELY 4 FT 7.5 IN LOT 8 & PT LOT 10 LYING E OF A LI 25 FT E OF & PAR WITH E LI LOT 11 INCLDG EASEMENT SE 1/ |                                 |                       |                    |                    |         |   |
| BUILDING 1  |                                 |                       |                    |                    |         |   |
| CLASS   | Com/Ind                         |                       | LIVING AREA        | 5,541              |         |   |
| STYLE   | Warehouse                       |                       | GROSS AREA         | 5,541              |         |   |
| Commercial Building 1 Section 1   |                                 |                       |                    |                    |         |   |
| OCCUPANCY   | Commercial Sites                |                       | YEAR BUILT         | 1901               |         |   |
| STORIES   | 1.00                            |                       | AREA               | 2230               |         |   |
| EXT. WALL 1   | WOOD FRAME                      |                       | PHYSICAL CONDITION | A                  |         |   |
| Living Area   |                                 |                       |                    |                    |         |   |
| DESCRIPTION   |                                 |                       |                    | AREA               |         |   |
| BASEMENT  |                                 |                       |                    | 0                  |         |   |
| FINISHED BASEMENT LIVING AREA   |                                 |                       |                    | 0                  |         |   |
| FIRST STORY   |                                 |                       |                    | 2,230              |         |   |
| SECOND STORY  |                                 |                       |                    | 0                  |         |   |
| ADDITIONAL STORY  |                                 |                       |                    | 0                  |         |   |
| ATTIC / FINISHED  |                                 |                       |                    | 0                  |         |   |
| HALF STORY / FINISHED   |                                 |                       |                    | 0                  |         |   |
| ATTIC / UNFINISHED  |                                 |                       |                    | 0                  |         |   |
| HALF STORY / UNFINISHED   |                                 |                       |                    | 0                  |         |   |
| ROOM / UNFINISHED   |                                 |                       |                    | 0                  |         |   |
| TOTAL LIVING AREA   |                                 |                       |                    | 2,230              |         |   |

| Commercial Building 1 Section 2   |                  |                    |       |
|---|------------------|--------------------|-------|
| OCCUPANCY   | Commercial Sites | YEAR BUILT         | 1901  |
| STORIES   | 1.00             | AREA               | 2230  |
| EXT. WALL 1   | WOOD FRAME       | PHYSICAL CONDITION | VG    |
| Living Area   |                  |                    |       |
| DESCRIPTION   |                  | AREA               |       |
| BASEMENT  |                  |                    | 0     |
| FINISHED BASEMENT LIVING AREA   |                  |                    | 0     |
| FIRST STORY   |                  |                    | 2,230 |
| SECOND STORY  |                  |                    | 0     |
| ADDITIONAL STORY  |                  |                    | 0     |
| ATTIC / FINISHED  |                  |                    | 0     |
| HALF STORY / FINISHED   |                  |                    | 0     |
| ATTIC / UNFINISHED  |                  |                    | 0     |
| HALF STORY / UNFINISHED   |                  |                    | 0     |
| ROOM / UNFINISHED   |                  |                    | 0     |
| TOTAL LIVING AREA   |                  |                    | 2,230 |
| Commercial Building 1 Section 3   |                  |                    |       |
| OCCUPANCY   | Commercial Sites | YEAR BUILT         | 1901  |
| STORIES   | 1.00             | AREA               | 1081  |
| EXT. WALL 1   | NONE             | PHYSICAL CONDITION | VG    |
| Living Area   |                  |                    |       |
| DESCRIPTION   |                  | AREA               |       |
| BASEMENT  |                  |                    | 0     |
| FINISHED BASEMENT LIVING AREA   |                  |                    | 0     |
| FIRST STORY   |                  |                    | 1,081 |
| SECOND STORY  |                  |                    | 0     |
| ADDITIONAL STORY  |                  |                    | 0     |
| ATTIC / FINISHED  |                  |                    | 0     |
| HALF STORY / FINISHED   |                  |                    | 0     |
| ATTIC / UNFINISHED  |                  |                    | 0     |
| HALF STORY / UNFINISHED   |                  |                    | 0     |
| ROOM / UNFINISHED   |                  |                    | 0     |
| TOTAL LIVING AREA   |                  |                    | 1,081 |
| Disclaimer: Information shown here is considered accurate but not guaranteed.<br>* Additional data may be available by contacting the <a href="#">Assessor's Office</a> . |                  |                    |       |
| Copyright © 2016 Ruekert/ Mielke. All rights reserved.<br>Please contact <a href="#">Webmaster</a> if you have any comments or questions about our site.                  |                  |                    |       |

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#### **F.4. Signed Statement**



*INSERT THE FOLLOWING ONTO COMPANY LETTERHEAD (WHERE APPLICABLE)*

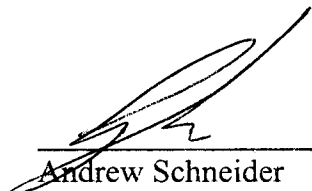
I, Andrew Schneider, owner and responsible party of the Harwood Avenue Commercial Property ERP site at 7600-7610 Harwood Avenue, located in the City of Wauwatosa, Milwaukee County, Wisconsin; certify that to the best of my knowledge, the legal description below accurately describes each property that is within, or partially within, the contaminated boundary.

7600

**LEFEBER SUBD LOT 6 AND ELY STRIP OF ADJ LOT 7 7.5 IN WIDE ON ITS NLY LI AND 5.75 IN WIDE ON ITS SLY LI INCLDG EASEMENT SE 1/4 SEC 21**

7610

**LEFEBER SUBD LOT 7 EX COM NELY COR SD LOT TH WLY 7.5 IN SLY PAR TO ITS ELY LI 22.54 FT SLY TO ITS SLY LI NELY 5.75 IN TO ITS SELY COR TH NLY TO BEG AND ELY 4 FT 7.5 IN LOT 8 AND PT LOT 10 LYING E OF A LI 25 FT E OF AND PAR WITH E LI LOT 11 INCLDG EASEMENT SE 1/4.**

  
\_\_\_\_\_  
Andrew Schneider  
Quatre Chiens, LLC

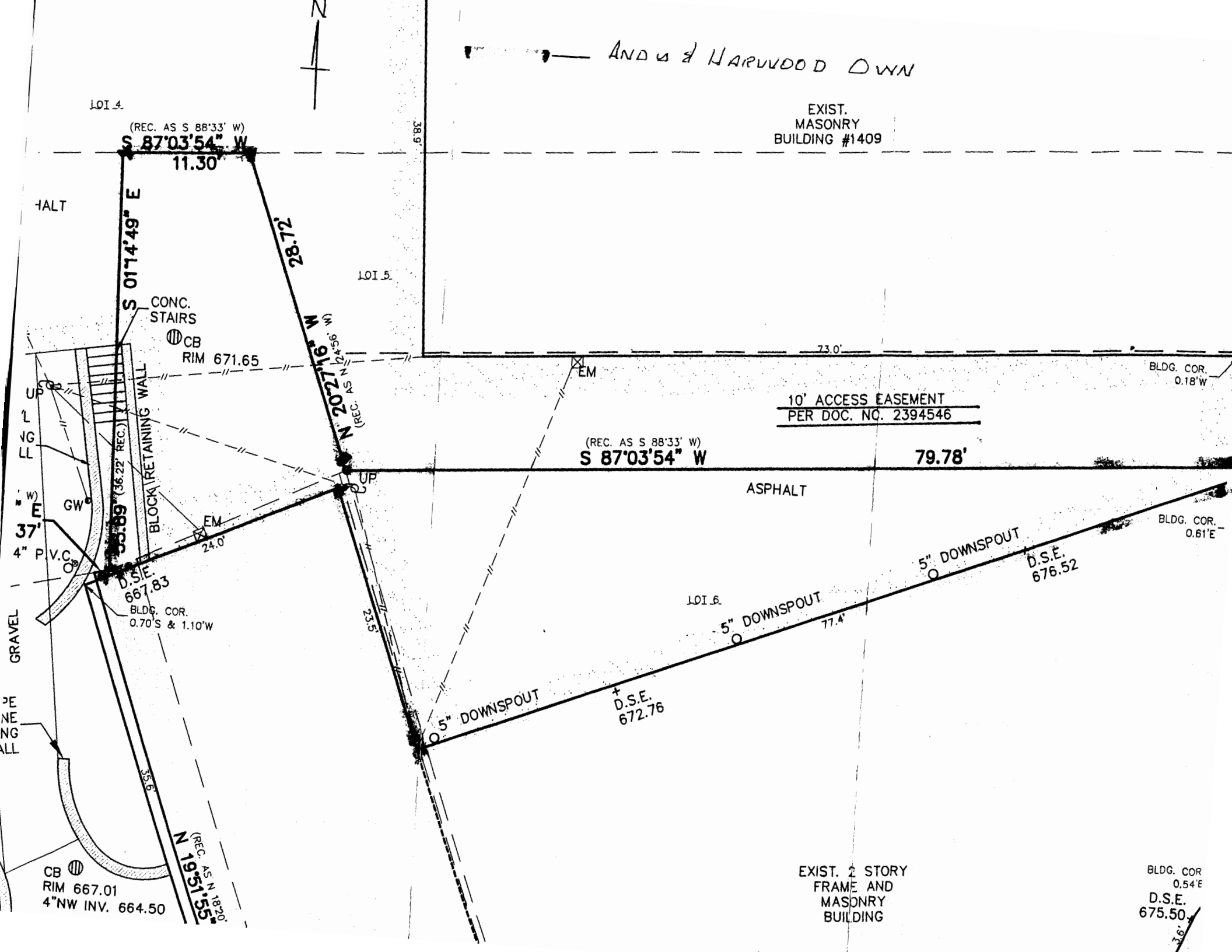
7/28/16  
\_\_\_\_\_  
Date

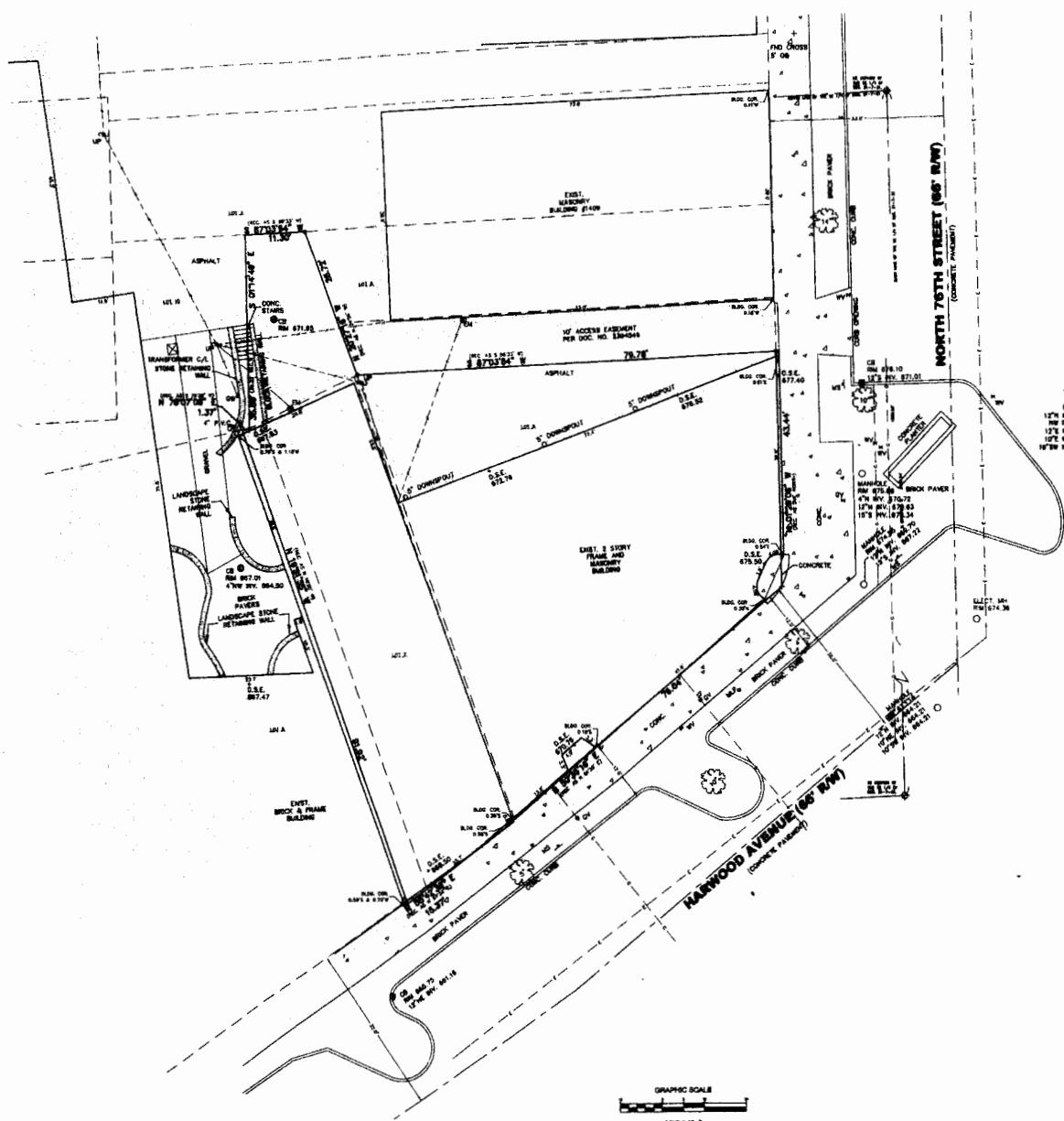
AND A HARVARD DOWN

EXIST.  
MASONRY  
BUILDING #1409

10' ACCESS EASEMENT  
PER DOC. NO. 2394546

EXIST. 2 STORY  
FRAME AND  
MASONRY  
BUILDING





PARCEL A  
LOT 1.2 AND THE SOUTHWEST 1/4 OF SECTION 16, T12N, R12E, S12W, L12, WISCONSIN, COUNTY OF WAUKESHA, STATE OF WISCONSIN.

PARCEL B  
THE SOUTHWEST 1/4 OF SECTION 16, T12N, R12E, S12W, L12, WISCONSIN, COUNTY OF WAUKESHA, STATE OF WISCONSIN.

PARCEL C  
THE SOUTHWEST 1/4 OF SECTION 16, T12N, R12E, S12W, L12, WISCONSIN, COUNTY OF WAUKESHA, STATE OF WISCONSIN.

- GENERAL NOTES
1. THE SUBJECT PROPERTY ADDRESS IS TWO AND TWO HARWOOD AVENUE.
  2. THE SOUTHWEST 1/4 OF SECTION 16, T12N, R12E, S12W, L12, WISCONSIN, COUNTY OF WAUKESHA, STATE OF WISCONSIN, IS THE SUBJECT PROPERTY.
  3. THE SOUTHWEST 1/4 OF SECTION 16, T12N, R12E, S12W, L12, WISCONSIN, COUNTY OF WAUKESHA, STATE OF WISCONSIN, IS THE SUBJECT PROPERTY.
  4. THE SOUTHWEST 1/4 OF SECTION 16, T12N, R12E, S12W, L12, WISCONSIN, COUNTY OF WAUKESHA, STATE OF WISCONSIN, IS THE SUBJECT PROPERTY.
  5. THE SOUTHWEST 1/4 OF SECTION 16, T12N, R12E, S12W, L12, WISCONSIN, COUNTY OF WAUKESHA, STATE OF WISCONSIN, IS THE SUBJECT PROPERTY.
  6. THE SOUTHWEST 1/4 OF SECTION 16, T12N, R12E, S12W, L12, WISCONSIN, COUNTY OF WAUKESHA, STATE OF WISCONSIN, IS THE SUBJECT PROPERTY.
  7. THE SOUTHWEST 1/4 OF SECTION 16, T12N, R12E, S12W, L12, WISCONSIN, COUNTY OF WAUKESHA, STATE OF WISCONSIN, IS THE SUBJECT PROPERTY.
  8. THE SOUTHWEST 1/4 OF SECTION 16, T12N, R12E, S12W, L12, WISCONSIN, COUNTY OF WAUKESHA, STATE OF WISCONSIN, IS THE SUBJECT PROPERTY.
  9. THE SOUTHWEST 1/4 OF SECTION 16, T12N, R12E, S12W, L12, WISCONSIN, COUNTY OF WAUKESHA, STATE OF WISCONSIN, IS THE SUBJECT PROPERTY.
  10. THE SOUTHWEST 1/4 OF SECTION 16, T12N, R12E, S12W, L12, WISCONSIN, COUNTY OF WAUKESHA, STATE OF WISCONSIN, IS THE SUBJECT PROPERTY.

TOPOGRAPHIC SURVEY  
**7600 HARWOOD AVENUE**  
WALWATOSA, WISCONSIN

DRAWN BY: JAC  
CHECKED BY: M.H.  
DATE: 06/05/00  
JOB NUMBER: 00000000

| LEGEND   |  |
|--|--|
| <ul style="list-style-type: none"> <li>1. EXISTING BUILDING</li> <li>2. PROPOSED BUILDING</li> <li>3. EXISTING ROAD</li> <li>4. PROPOSED ROAD</li> <li>5. EXISTING EASEMENT</li> <li>6. PROPOSED EASEMENT</li> <li>7. EXISTING CURB</li> <li>8. PROPOSED CURB</li> <li>9. EXISTING SIDEWALK</li> <li>10. PROPOSED SIDEWALK</li> <li>11. EXISTING UTILITY</li> <li>12. PROPOSED UTILITY</li> <li>13. EXISTING FENCE</li> <li>14. PROPOSED FENCE</li> <li>15. EXISTING TREES</li> <li>16. PROPOSED TREES</li> <li>17. EXISTING LANDSCAPE</li> <li>18. PROPOSED LANDSCAPE</li> <li>19. EXISTING ROCKS</li> <li>20. PROPOSED ROCKS</li> <li>21. EXISTING WATER</li> <li>22. PROPOSED WATER</li> <li>23. EXISTING DRAINAGE</li> <li>24. PROPOSED DRAINAGE</li> <li>25. EXISTING POWER</li> <li>26. PROPOSED POWER</li> <li>27. EXISTING TELEPHONE</li> <li>28. PROPOSED TELEPHONE</li> <li>29. EXISTING CABLE</li> <li>30. PROPOSED CABLE</li> <li>31. EXISTING GAS</li> <li>32. PROPOSED GAS</li> <li>33. EXISTING OIL</li> <li>34. 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PROPOSED SEWER</li> <li>37. EXISTING WATER</li> <li>38. PROPOSED WATER</li> <li>39. EXISTING DRAINAGE</li> <li>40. PROPOSED DRAINAGE</li> <li>41. EXISTING POWER</li> <li>42. PROPOSED POWER</li> <li>43. EXISTING TELEPHONE</li> <li>44. PROPOSED TELEPHONE</li> <li>45. EXISTING CABLE</li> <li>46. PROPOSED CABLE</li> <li>47. EXISTING GAS</li> <li>48. PROPOSED GAS</li> <li>49. EXISTING OIL</li> <li>50. PROPOSED OIL</li> <li>51. EXISTING SEWER</li> <li>52. PROPOSED SEWER</li> <li>53. EXISTING WATER</li> <li>54. PROPOSED WATER</li> <li>55. EXISTING DRAINAGE</li> <li>56. PROPOSED DRAINAGE</li> <li>57. EXISTING POWER</li> <li>58. PROPOSED POWER</li> <li>59. EXISTING TELEPHONE</li> <li>60. PROPOSED TELEPHONE</li> <li>61. EXISTING CABLE</li> <li>62. PROPOSED CABLE</li> <li>63. EXISTING GAS</li> <li>64. PROPOSED GAS</li> <li>65. EXISTING OIL</li> <li>66. PROPOSED OIL</li> <li>67. EXISTING SEWER</li> <li>68. PROPOSED SEWER</li> <li>69. EXISTING WATER</li> <li>70. PROPOSED WATER</li> <li>71. 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## **ATTACHMENT G**

### **NOTIFICATIONS TO PROPERTY OWNERS OF IMPACTED PROPERTIES**



**From:** [Dennis Webb](#)  
**To:** [Travis W. Peterson](#)  
**Cc:** [andy12874@gmail.com](mailto:andy12874@gmail.com)  
**Subject:** Re: WDNR Notification Requirements  
**Date:** Thursday, August 04, 2016 11:40:00 AM

---

Yes Andy and I have been in contact and I understand and agree with this document.

Regards,  
Dennis

---

Dennis Webb | Sage Water | Global Water Center | 247 W. Freshwater Way | Suite 100 | Mobile:  
414.630.0551 | [dennis@Sage-Water.com](mailto:dennis@Sage-Water.com) |

On Aug 3, 2016, at 9:00 AM, Travis W. Peterson <[tpeterson@kapur-assoc.com](mailto:tpeterson@kapur-assoc.com)> wrote:

Mr. Webb;

As part of the pending WDNR closure requirements, for investigative actions completed at the 7610 W. Harwood Avenue property located adjacent to the west of your property located at 7600 W. Harwood Avenue, Kapur on behalf of Mr. Andrew Schneider is submitting the attached 'Notification of Continuing Obligations and Residual Contamination' to inform you that subsurface contamination, likely stemming from imported fill materials, appears to be present on your property at 7600 W. Harwood Avenue. The continuing obligations require the asphalt drive and parking area to be maintained and inspected preventing direct contact and surface infiltration.

Upon receipt of this email and the attached notification, if you could respond to this email acknowledging as much and the continuing obligations outlined above. This will allow the WDNR to proceed with the granting of 'final closure.' If you have any questions, please feel free to call. I understand that Andrew and yourself may have already discussed this matter and are eager to wrap up the environmental actions and finalize the real estate transaction. The WDNR has indicated that upon receipt of your acceptance response (and other data requiring submittal), the review process should be expedited and closure issued within 30 days.

Again, thank you for your patience and assistance with this matter.

Cheers;

Travis W. Peterson  
Environmental Manager

<image001.jpg> <image002.png>

7711 North Port Washington Road | Milwaukee, WI 53217

Main: 414.351.6668 | Direct: **414.751.7279** | Cell: **414.254.6358**

[tpeterson@kapur-assoc.com](mailto:tpeterson@kapur-assoc.com) [www.kapurengineers.com](http://www.kapurengineers.com)

**Milwaukee | Burlington | Wausau | Green Bay | Chicago | Louisville | Philadelphia | Boston | El Paso | St. Louis**

<4400-286 signed.pdf>

# Milwaukee County Land Information Parcel Report

**TAXKEY: 3710060000**

Report generated 2/8/2016 7:36:40 AM



Parcel location within Milwaukee County



Selected parcel highlighted

## Parcel Information

**TAXKEY:** 3710060000

**Record Date:** 12/31/2014

**Owner(s):** HARWOOD LLC

**Address:** 7600 HARWOOD AVE

**Municipality:** Wauwatosa

**Acres:** 0.11

**Assessed Value:** \$723,000

**Parcel Description:** COMMERCIAL

**Zoning Description:**

**Legal Description:** LEFEBER SUBD LOT 6 AND ELY STRIP OF ADJ LOT 7 7.5 IN WIDE ON ITS NLY LI AND 5.75 IN WIDE ON ITS SLY LI INCLDG EASEMENT SE 1/4 SEC 21

Parcel Photo  
Not Available



Parcel photo

Notice: Pursuant to s. 292.12(4), Wis. Stats., written notification of parties affected by residual contamination is required. Pursuant to ch. NR 725, Wis. Adm. Code, this form is required to be completed for those sites meeting the criteria in s. NR 725.05 (see below), by a responsible party seeking case closure approval pursuant to ch. NR 726, Wis. Adm. Code or by those persons seeking a remedial action plan approval pursuant to ch. NR 722, Wis. Adm. Code, or by local government units or economic development corporations that are required to take an action pursuant to ch. NR 708, Wis. Adm. Code, when the Department of Natural Resources (DNR) determines that notification is necessary. Personally identifiable information collected will be used for program administration and may be provided to requesters to the extent required by Wisconsin's Open Records law (ss. 19.31-19.39, Wis. Stats.). (Unless otherwise noted, citations refer to Wis. Adm. Code.)

**Note:** A copy of each completed form must also be submitted to the WI Department of Natural Resources, in accordance with s. NR 726.09 (3), Wis. Adm. Code.

---

**Directions:**

1. Include the first page of this form, **Contact Information**, as an attachment with all notifications sent using Sections A and B. (*Filling out the Contact Information page allows for automatic entry of the contact information within the letter.*)
2. To notify affected parties about residual contamination and continuing obligations, use the appropriate section (A, B or C), based on the type of property to which the required notification is to be sent, per s. NR 725.05 and 725.07, Wis. Adm. Code:  
**Section A: Deeded Properties**  
**Section B: Right-of-Way (ROW) - non-Department of Transportation**  
**Section C: Department of Transportation (DOT) ROW**
3. Select and use the applicable paragraphs, based on the types of residual contamination and continuing obligations for the specific property. For the "Residual Contamination" and "Continuing Obligations on Your Property" sections, the applicable language will appear upon selection of the checkboxes.
4. Include the information requested within each paragraph. If requesting remedial action plan approval, or if the Department has directed a local governmental unit to take an action at a site, modify the language regarding a "closure request" to reflect the appropriate situation ("remedial action plan approval" or a "liability clarification letter").
5. Once completed, print the form for mailing.
6. Under s. NR 725.07, Wis. Adm. Code, notification letters under section A and B are required to be sent via certified mail, return receipt requested, or priority mail with signature confirmation. If the notifications are sent via priority mail with signature confirmation, you may use the signature waiver option if you have reason to believe that the owner of the property or other recipient may refuse to sign for the notification.

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**Situations for Which Notifications are Required:**

Under s. NR 725.07, Wis. Adm. Code, notification is required for the following situations:

- groundwater contamination that attains or exceeds applicable standards remains upon completion of the remedial action
- soil contamination that attains or exceeds applicable standards remains upon completion of the remedial action,
- one or more monitoring wells have not been located for abandonment (fill and seal), or
- one or more monitoring wells will be kept for future monitoring.  
*Do not use this option if the well/s are to be transferred to another site for continued monitoring. That will be addressed in the final closure letter, upon documentation that responsibility for the well/s has been accepted by the responsible party for the other site.*
- a cover (which may include soil covers, pavement, engineered cover, foundations) was used to address exposure by either direct contact or the groundwater pathway,
- a structural impediment (generally a building or other type of structure) prevented completion of a site investigation or remedial action. *This may also apply to site-specific situations which prevent a complete investigation or cleanup, such as an overhead power lines. Contact the agency with administrative authority first for site-specific situations.*
- soil contamination has only been cleaned up to industrial residual contaminant levels, and the property's land use has been classified as industrial under ch. NR 720,
- (vapor) the continued operation of a vapor mitigation system is necessary in order to limit or prevent vapor intrusion. *Notification is provided to the current property owner when that person is not the responsible party conducting the cleanup, and to any other property owners when sub-slab vapor risk screening levels are exceeded, and the operation and maintenance of a vapor mitigation system is necessary in order to limit or prevent vapor intrusion.*



- (vapor) vapor inhalation exposure assumptions for a non-residential setting will be applied for closure.

*Notification is provided to the current property owner when that person is not the responsible party conducting the cleanup, and to any other property owner where residential vapor action levels are exceeded, including at properties used for commercial or industrial purposes.*

- (vapor) contamination in soil or groundwater from volatile compounds remains after completion of the remedial action, that could lead to vapor intrusion upon new construction, reconstruction or occupation of an existing building.

*This is especially important in cases where elevated residual soil concentrations or large volumes of soil contaminated with volatile compounds remain. Notification is provided to the current property owner when that person is not the responsible party conducting the cleanup, and to any other property owner where vapors may pose a health issue if buildings are to be constructed in the future, or if other land use changes or actions could result in a completed vapor pathway. This includes expansion or reconstruction of existing buildings.*

The Department may also require a condition based on site-specific circumstances. In this case, consult with the project manager to determine what specific information to include in the notification of any affected property owner or right-of-way holder. *This has been used in limited situations where actions such as methane monitoring or fencing were required.*

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**Parties Receiving Notifications:**

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Under s. NR 725.05, Wis. Adm. Code, notification must be provided to:

- the owner of each property within or partially within the contaminated site or facility boundaries, other than properties owned by the responsible party,
- occupants of affected properties, as appropriate, *(consult with the project manager if you have questions)*
- the clerk of the county, town, village or city in which an affected public street or highway ROW is located, and municipal department or state agency that is responsible for the maintaining the public street or highway,
- the railroad that maintains the railroad right of way, and
- the owner of each property where a monitoring well will remain, for future abandonment or continued monitoring.

A summary of the notifications sent is to be provided in the case closure request form (4400-202). The attachment for "Notifications to Owners of Affected Properties", in Form 4400-202 includes a summary table of all notifications sent to all property owners or occupants of affected properties and to holders of affected ROWs, a copy of each letter sent, and a proof of receipt for each letter.

**Note:** A response to a closure request cannot be provided until at least 30 days after this notification letter has been sent. Documentation that this letter has been sent must be provided to the agency with administrative authority for an approval or decision under ch. NR 726, Wis. Adm. Code.

**List of Potential Attachments:**

(list all attachments to be included; include name of attachment and figure numbers)

**Maps**

**Section A**

Monitoring Well Location Map - (Filling & Sealing, Continue Sampling of Wells)

Location of Cover in relation to the extent of contamination ( Maintenance of a Cover)

**Section B**

Monitoring Well Location Map - (Filling & Sealing, Continue Sampling of Wells)

**Section C:**

Groundwater Isoconcentration Map

Soil Isoconcentration Map

**Maintenance plan**

**Section A**

Maintenance of Plan - (Maintenance of a cover, Barrier, and/or Vapor Mitigation System)

**Factsheets:**

**Section A**

RR 819, Continuing Obligations for Environmental Protection

RR 671, What Landowners Should Know: Information About Using Natural Attenuation to Clean Up Contaminated Groundwater

RR 892, Vapor Intrusion: What to Expect if Vapor Intrusion from Soil and Groundwater Contamination Exist on My Property

**Section B**

Groundwater RR 892, Vapor Intrusion: What to Expect if Vapor Intrusion from Soil and Groundwater Contamination Exist on My Property

**Notification of Continuing Obligations  
and Residual Contamination**

Form 4400-286 (9/15)

C. I. Page

**The affected property is:**

- ☐ the source property (the source of the hazardous substance discharge), but the property is not owned by the person who conducted the cleanup (a deeded property)
- ☒ a deeded property affected by contamination from the source property
- ☐ a right-of-way (ROW)
- ☐ a Department of Transportation (DOT) ROW

**Include this completed page as an attachment with all notifications provided under sections A and B.****Contact Information****Responsible Party:** The person responsible for sending this form, and for conducting the environmental investigation and cleanup is:Responsible Party Name Quatre Chiens, LLC

|                                       |                   |             |  |
|---------------------------------------|-------------------|-------------|--|
| Contact Person Last Name<br>Schneider | First<br>Andrew   | MI          | Phone Number (include area code)<br>(414) 778-3333 |
| Address<br>7610 W. Harwood Avenue     | City<br>Wauwatosa | State<br>WI | ZIP Code<br>53213                                  |
| E-mail andy12874@gmail.com            |                   |             |  |

**Name of Party Receiving Notification:**Business Name, if applicable: Harwood, LLC

|                                   |                   |                   |             |                                  |
|-----------------------------------|-------------------|-------------------|-------------|----------------------------------|
| Title<br>Mr.                      | Last Name<br>Webb | First<br>Dennis   | MI          | Phone Number (include area code) |
| Address<br>7610 W. Harwood Avenue |                   | City<br>Wauwatosa | State<br>WI | ZIP Code<br>53213                |

**Site Name and Source Property Information:**Site (Activity) Name Harwood Avenue Property

|                                   |                   |             |                   |
|-----------------------------------|-------------------|-------------|-------------------|
| Address<br>7610 W. Harwood Avenue | City<br>Wauwatosa | State<br>WI | ZIP Code<br>53213 |
| DNR ID # (BRRTS#)<br>02-41-576745 | (DATCP) ID #      |             |                   |

**Contacts for Questions:**

If you have any questions regarding the cleanup or about this notification, please contact the Responsible Party identified above, or contact:

**Environmental Consultant:** Kapur & Associates, Inc.

|   |                   |             |  |
|---|-------------------|-------------|--|
| Contact Person Last Name<br>Peterson    | First<br>Travis   | MI<br>W     | Phone Number (include area code)<br>(414) 751-7279 |
| Address<br>7711 N. Port Washington Road | City<br>Milwaukee | State<br>WI | ZIP Code<br>53217                                  |
| E-mail tpeterson@kapur-assoc.com        |                   |             |  |

**Department Contact:**

To review the Department's case file, or for questions on cleanups or closure requirements, contact:

**Department of:** Natural Resources (DNR)

|  |                   |             |  |
|--|-------------------|-------------|--|
| Address<br>2300 North Martin Luther King Drive                             | City<br>Milwaukee | State<br>WI | ZIP Code<br>53212                                  |
| Contact Person Last Name<br>Amungwafor                                     | First<br>Binyoti  | MI<br>F     | Phone Number (include area code)<br>(414) 263-8607 |
| E-mail (Firstname.Lastname@wisconsin.gov) Binyoti.Amungwafor@wisconsin.gov |                   |             |  |

**Section A: Deeded Property Notification: Residual Contamination and/or Continuing Obligations**

**KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS**

7610 W. Harwood Avenue  
Wauwatosa, WI, 53213

Dear Mr. Webb:

I am providing this letter to inform you of the location and extent of contamination remaining on your property, and of certain long-term responsibilities (continuing obligations) for which you may become responsible.

I have investigated a release of:

Fill material

on 7610 W. Harwood Avenue, Wauwatosa, WI, 53213 that has shown that contamination has migrated onto your property.

I have responded to the release and will be requesting that the Department of Natural Resources (DNR) grant case closure. Closure means that the DNR will not be requiring any further investigation or cleanup action to be taken. However, continuing obligations may be imposed as a condition of closure approval.

**You have 30 days to comment on the attached legal description of your property and on the proposed closure request:**

Please review the enclosed legal description of your property, and notify Travis Peterson at 7711 N. Port Washington Road, Milwaukee, WI, 53217 within the next 30 days if the legal description is incorrect.

The DNR will not review my closure request for at least 30 days after the date of receipt of this letter. As an affected property owner, you have a right to contact the DNR to provide any technical information that you may have that indicates that closure should not be granted for this site. If you would like to submit any information that is relevant to this closure request, or if you want to waive the 30 day comment period, you should mail that information to the DNR contact: 2300 North Martin Luther King Drive, Milwaukee, WI, 53212, or at [Binyoti.Amungwafor@wisconsin.gov](mailto:Binyoti.Amungwafor@wisconsin.gov).

**Your Long-Term Responsibilities as a Property Owner and Occupant:**

The responses included

testing of the subsurface soils and monitoring of the groundwater.

The continuing obligations I am proposing that affect your property are listed below, under the heading **Continuing Obligations**. Under s. 292.12 (5), Wis. Stats., current and future owners and occupants of this property are responsible for complying with continuing obligations imposed as part of an approved closure.

The fact sheet "Continuing Obligations for Environmental Protection" (DNR publication RR 819) has been included with this letter, to help explain the responsibilities you may have for maintenance of a certain continuing obligation, the limits of any liability for investigation and cleanup of contamination, and how these differ. If the fact sheet is lost, you may obtain copies at <http://dnr.wi.gov/files/PDF/pubs/rr/RR819.pdf>.

**Contract for responsibility for continuing obligation:**

Before I request closure, I will need to inform the DNR as to whom will be responsible for the continuing obligation/s on your property.

[Indicate which party will be responsible for the continuing obligation(s) on the property, and whether an agreement/contract has been worked out between the RP and affected party.]

Under s. 292.12, Wis. Stats., the responsibility for maintaining all necessary continuing obligations for your property will fall on you or any subsequent property owner, unless another person has a legally enforceable responsibility to comply with the requirements of the final closure letter. If you need more time to finalize an agreement on the responsibility for the continuing obligations on your Property, you may request additional time from the DNR contact identified in **Contact Information**.

*(Note: Future property owners would need to negotiate a new agreement.)*



**Remaining Contamination:**

***Soil Contamination:***

Soil contamination remains at :

Across the property at depths ranging from 2-15 feet below ground surface (bgs).

The remaining contaminants include:

PAH, RCRA Metals, naphthalene.

at levels which exceed the soil standards found in ch. NR 720, Wis. Adm. Code. The following steps have been taken to address any exposure to the remaining soil contamination.

The existing asphalt cap and onsite building serve as an engineered barrier preventing any exposure to the remaining soil contamination.

***Groundwater Contamination:***

Groundwater contamination originated at the property located at 7610 W. Harwood Avenue, Wauwatosa, WI, 53213 .

Contaminated groundwater has migrated onto your property at:

7600 W. Harwood Avenue, Wauwatosa, WI

The levels of

PAH

contamination in the groundwater on your property are above the state groundwater enforcement standards found in ch. NR 140, Wis. Adm. Code.

However, the environmental consultants who have investigated this contamination have informed me that this groundwater contaminant plume is stable or receding and will naturally degrade over time. I believe that allowing natural attenuation, or the breakdown of contaminants in groundwater due to naturally occurring processes, to complete the cleanup at this site will meet the case closure requirements of ch. NR 726, Wis. Adm. Code. As part of my request for case closure, I am requesting that the DNR accept natural attenuation as the final remedy for this site.

The following DNR fact sheet (RR 671, "What Landowners Should Know: Information About Using Natural Attenuation to Clean Up Contaminated Groundwater") has been included with this notification, to help explain the use of natural attenuation as a remedy. If the fact sheet is lost, you may obtain a copy at <http://dnr.wi.gov/files/PDF/pubs/rr/RR671.pdf>.

**Continuing Obligations on Your Property:** As part of the cleanup, I am proposing that the following continuing obligations be used at your property, to address future exposure to residual contamination. If my closure request is approved, you will be responsible for the following continuing obligations.

To construct a new well or to reconstruct an existing well, the property owner at the time of construction or reconstruction will need to obtain prior approval from the DNR. See the paragraph **GIS Registry and Well Construction Requirements**. Typically, this results in casing off a portion of the aquifer during drilling, when needed, to protect the water supply.

***Residual Soil Contamination:***

If soil is excavated from the areas with residual contamination, the property owner at the time of excavation will be responsible for the following:

- determine if contamination is present
- determine whether the material would be considered solid or hazardous waste
- ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules.

Contaminated soil may be managed in-place, in accordance with ch. NR 718, Wis. Adm. Code, with prior DNR approval. In addition, all current and future property owners and occupants of the property and right-of-way holders need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken during excavation activities to prevent a health threat to humans.

Depending on site-specific conditions, construction over contaminated soils or groundwater may result in vapor migration of contaminants into enclosed structures or migration along underground utility lines. The potential for vapor inhalation and means of mitigation should be evaluated when planning any future redevelopment, and measures should be taken to ensure the continued protection of public health, safety, welfare and the environment at the site.

***Maintenance of a Cover:***

A soil cover/engineered cover/other has been placed over remaining contamination to limit contact with the soil, and this cover will need to be maintained. Inspections will be required, and submittal of inspection reports may be required. Certain activities which would disturb the cover or barrier will be prohibited. If the cover was intended for industrial or commercial use, notification of the DNR may be required before changing the land use to a residential type use, to determine if the cover will be protective for that use. A maintenance plan is attached, which describes the maintenance activities likely to be required. An updated maintenance plan will be provided at closure, if the DNR requires changes to the maintenance plan.

A map, figure 1 & 2, is attached, which shows the location of the extent of contamination and the extent of the cover.

***Use of a Structural Impediment:***

A structural impediment building remains on the property, which inhibited a complete investigation and cleanup. If and when this structural impediment is removed, additional investigation will be required, and further cleanup may be necessary.

**Maintenance and Audits of Continuing Obligations:**

If compliance with a maintenance plan is required as part of a continuing obligation, an inspection log will need to be filled out periodically, and kept available for inspection by the DNR. Submittal of the inspection log may also be required. You will also need to notify any future owners or occupants of this property of the need to maintain the continuing obligation and to document that maintenance in the inspection log. Periodic audits of these continuing obligations may be conducted by the DNR, to ensure that potential exposure to residual contamination is being addressed. The DNR provides notification before conducting site visits as part of the audit.

**GIS Registry and Well Construction Requirements:**

If this site is closed, all properties within the site boundaries where contamination remains, or where a continuing obligation is applied, will be listed on the Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web, at <http://dnr.wi.gov/topic/Brownfields/clean.html>. Inclusion on this database provides public notice of remaining contamination and of any continuing obligations. Documents can be viewed on this database, and include final closure letters, site maps and any applicable maintenance plans. The location of the site may also be viewed on the Remediation and Redevelopment Sites Map (RR Sites Map), on the "GIS Registry" layer, at the same internet address listed above.

DNR approval prior to well construction or reconstruction is required for all sites included in the GIS Registry, in accordance with s. NR 812.09 (4) (w), Wis. Adm. Code. This requirement applies to private drinking water wells and high capacity wells. Special well construction standards may be necessary to protect the well from the remaining contamination. Well drillers need to first obtain approval from a regional water supply specialist in DNR's Drinking Water and Groundwater Program. The well construction application, form 3300-254, is on the internet at <http://dnr.wi.gov/topic/wells/documents/3300254.pdf>.

**Site Closure:**

If the DNR grants closure, you will receive a letter which defines the specific continuing obligations on your property. The status of the site (open or closed) may also be checked by searching BRRTS on the Web. You may view or download a copy of the closure letter (sent to the responsible party) from BRRTS on the Web. You may also request a copy of the closure letter from the **responsible party** or by writing to the DNR contact, at Binyoti Amungwafor, Binyoti. Amungwafor@wisconsin.gov, (414) 263-8607. The final closure letter will contain a description of the continuing obligation, any prohibitions on activities and will include any applicable maintenance plan.

If you have any questions regarding this notification, I can be reached at: (414) 751-7279  
[tpeterson@kapur-assoc.com](mailto:tpeterson@kapur-assoc.com)

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**Notification of Continuing Obligations  
and Residual Contamination**

Form 4400-286 (9/15)

Page 4 of 4



*Signature of responsible party/environmental consultant for the responsible party*

Date Signed

7/25/16

**Attachments**

**Contact Information**

**Legal Description for each Parcel:**

**Maps:**

**Maintenance plan**

Maintenance of a cover Maintenance of a Cover - Maintenance Plan

Date 7/25/16

**Factsheets:**

RR 819, Continuing Obligations for Environmental Protection

RR 671, What Landowners Should Know: Information About Using Natural Attenuation to Clean Up Contaminated Groundwater

| Parameter                                       | Units | WI NR 720 Soil to Groundwater Pathway | WI NR 720 Soil Cleanup Standards Direct Contact Industrial | WI NR 720 Soil Cleanup Standards Direct Contact Non-Industrial | B1 (2-4) | B1 (6-8) | B1 (14-16) | B2 (2-4) | B2 (10-12) | B2 (14-16) | B3 (2-4) | B3 (10-12) | B3 (14-16) | B4 (2-4) | B4 (10-12) | B4 (14-16) |
|---|-------|---------------------------------------|--|--|----------|----------|------------|----------|------------|------------|----------|------------|------------|----------|------------|------------|
| <b>Polynuclear Aromatic Hydrocarbons (PAHs)</b> |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| 1-Methylnaphthalene                             | ug/kg |                                       | 53,100   | 15,600   | <77.6    | 43.1     | <9.1       | <37.7    | 18,200     | 10,800 J   | <384     | 12.1 J     | 24.6 J     | <76.0    | 31.8       | <8.9       |
| Benzo(a)anthracene                              | ug/kg |                                       | 2,110  | 148  | 874      | 356      | 43.1       | 430      | 75,900     | 48,200     | 10,900   | 225        | 384        | 757      | 167        | 38.8       |
| Benzo(a)pyrene                                  | ug/kg | 470                                   | 211  | 15   | 990      | 390      | 41.0       | 500      | 62,600     | 37,300     | 14,100   | 278        | 432        | 829      | 181        | 42.9       |
| Benzo(b)fluoranthene                            | ug/kg | 479                                   | 2,110.00   | 148  | 876      | 316      | 40.7       | 477      | 45,500     | 30,800     | 13,200   | 248        | 494        | 592      | 175        | 39.1       |
| Benzo(k)fluoranthene                            | ug/kg |                                       | 21,100   | 1,480  | 1,020    | 352      | 33.0       | 558      | 63,000     | 38,100     | 12,100   | 285        | 362        | 751      | 129        | 36.8       |
| Chrysene  | ug/kg | 145                                   | 211,000  | 14,800   | 978      | 428      | 47.5       | 522      | 76,500     | 50,300     | 12,000   | 262        | 440        | 866      | 201        | 45.2       |
| Dibenz(a,h)anthracene                           | ug/kg |                                       | 211  | 15   | 135      | 77.8     | 8.3 J      | 76.4     | 11,900     | 5,450      | 2,760    | 37.1       | 59.8       | 151      | 31.1       | 8.9 J      |
| Fluoranthene                                    | ug/kg | 88,900                                | 22,000,000   | 2,290,000  | 2,160    | 1,050    | 106        | 1,060    | 213,000    | 129,000    | 22,000   | 587        | 1,090      | 2,180    | 541        | 96.1       |
| Fluorene  | ug/kg | 14,800                                | 22,000,000   | 2,290,000  | 132 J    | 79.8     | 9.8 J      | 60.6 J   | 61,400     | 35,300     | 516 J    | 31.2       | 70.9       | 155      | 41.5       | <8.9       |
| Indeno(1,2,3-cd)pyrene                          | ug/kg |                                       | 2,110  | 148  | 337      | 206      | 20.9       | 183      | 27,500     | 12,900     | 6,500    | 93.8       | 154        | 416      | 87.2       | 23.3       |
| Naphthalene                                     | ug/kg | 658                                   | 26,000   | 5,150  | 87.6 J   | 108      | 10.0 J     | 47.5 J   | 94,700     | 52,400     | <384     | 23.4       | 51.2       | 117 J    | 41.8       | <40.0      |
| Pyrene  | ug/kg | 54,100                                | 16,500,000   | 1,720,000  | 1,770    | 825      | 80.0       | 822      | 132,000    | 87,500     | 16,900   | 454        | 864        | 1,830    | 467        | 77.5       |
| <b>RCRA Metals</b>                              |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| Arsenic   | ug/kg | 584                                   | 2,390  | 613  | 9,900    | 3,900    | <3.3       | 5,100    | 4,900      | 3,800      | 6,600    | 3,600      | 4,500      | <3.1     | 5,300      | 4,100      |
| Barium  | ug/kg | 165,000                               | 100,000,000  | 15,300,000   | 89,400   | 29,300   | 17,100     | 47,100   | 31,300     | 33,800     | 287,000  | 52,400     | 48,600     | 37,000   | 20,400     | 14,000     |
| Cadmium   | ug/kg | 752                                   | 799,000  | 70,000   | 490 J    | 220 J    | 130 J      | 510 J    | 500 J      | 340 J      | 1,000    | 200 J      | 160 J      | 140 J    | 210 J      | 160 J      |
| Lead  | ug/kg | 27,000                                | 800,000  | 400,000  | 119,000  | 36,700   | 13,600     | 54,800   | 37,700     | 48,200     | 358,000  | 42,200     | 41,300     | 9,900    | 11,100     | 6,500      |
| <b>Volatile Organic Compounds (VOCs)</b>        |       |                                       |  |  |          |          |            |          |            |            |          |            |            |          |            |            |
| Naphthalene                                     | ug/kg | 658                                   | 26,000   | 5,150  | 81.5 J   | <40.0    | <40.0      | 68.6 J   | 82,900     | 96,000     | 157 J    | <40.0      | <40.0      | <40.0    | <40.0      | <40.0      |
| PID   | ppmv  |                                       |  |  | 0.8      | 0.7      | 0.9        | 2.2      | 2.7        | 1.2        | 1.2      | 0.5        | 0.5        | 1.5      | 0.6        | 20.8       |



SHEET:  
RESIDUAL SOIL CONTAMINATION

FIGURE:  
1

NORTH ARROW:



SCALE:

1" = 20'



SEAL:

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

DRAWN BY:

RAB CHECKED BY:

TWP APPROVED BY:

TWP PROJECT NO.

16.0131.01

DATE:

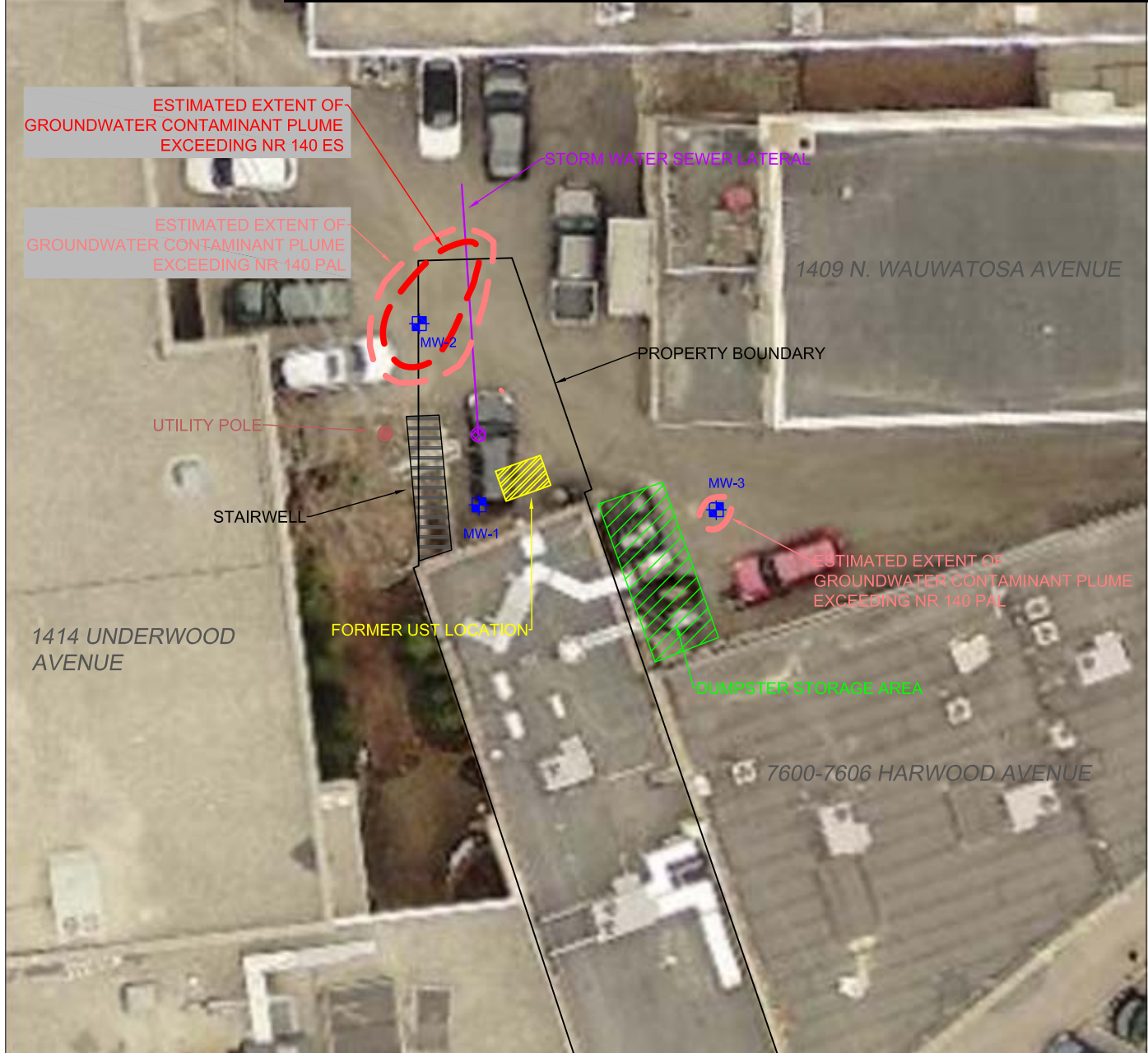
3/9/2016

REVISION DATE:

XXXXXX



| Parameter                                       | Units | WI NR 140 GW<br>Quality Enforcement<br>Standards | WI NR 140 GW<br>Quality Preventive<br>Action Limits | MW-1     | MW-2        | MW-3         |
|---|-------|--|---|----------|-------------|--------------|
| <b>Polynuclear Aromatic Hydrocarbons (PAHs)</b> |       |  |   |          |             |              |
| Benzo(a)pyrene                                  | ug/L  | .2   | .02   | 0.0042 J | <b>0.51</b> | 0.018 J      |
| Benzo(b)fluoranthene                            | ug/L  | .2   | .02   | 0.010 J  | <b>0.77</b> | <b>0.038</b> |
| Chrysene  | ug/L  | .2   | .02   | 0.012 J  | <b>0.92</b> | <b>0.038</b> |
| <b>RCRA Metals</b>                              |       |  |   |          |             |              |
| Barium, Dissolved                               | ug/L  | 2000   | 400   | 67.9     | 66.0        | 67.1         |
| Chromium, Dissolved                             | ug/L  | 100  | 10  | <0.87    | <0.87       | 2.0 J        |
| <b>Volatile Organic Compounds (VOCs)</b>        |       |  |   | <LDLs    |             |              |



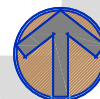
SHEET:  
GROUNDWATER CONTAMINANT PLUME

FIGURE:  
2

PROJECT:  
LE REVE PATISSERIE & CAFE

LOCATION:  
7610 HARWOOD AVENUE, WAUWATOSA, WISCONSIN 53213

NORTH ARROW:



SCALE: 1" = 20'



SEAL:

we listen. we innovate.  
we turn your vision into reality.

DRAWN BY: XXXX CHECKED BY: XXXX APPROVED BY: XXXX PROJECT NO. XXXXXXXX DATE: XXXX REVISION DATE: XXXXXXXX