

December 20, 2019

John Hnat Wisconsin Department of Natural Resources 2300 N. Dr. Martin Luther King Jr. Drive Milwaukee, WI 53212

Re: Project Update and Response to WDNR Comments/Questions Regarding the

Remedial Progress Report and Groundwater Treatment Plan

One Hour Martinizing 285 E. Hampton Ave Milwaukee, Wisconsin 53217 BRRTS#: 02-41-543260

FID#: 241176650

Dear Mr. Hnat:

EnviroForensics, LLC (EnviroForensics) has reviewed your comments and questions presented in your October 1, 2018 letter regarding our submittal of the Remedial Progress Report and Groundwater Treatment Plan for the One Hour Martinizing site located at 285 E. Hampton Avenue in Milwaukee, Wisconsin.

We have proceeded with the installation of monitoring wells MW-7R, MW-8R, and piezometer PZ-21R that we previously proposed and have installed MW-14 that you suggested for monitoring the plume edges. We have developed and sampled these wells one time, the results of which are provided on attached **Figure 1**. Historic results of groundwater sampling for the wells within and near the excavated area are presented in the attached **Table 1**. As can be seen in this table, the concentrations of chlorintated solvents in replacement wells MW-7R, MW-8R and nearby well MW-2 have diminished significantly. We intend to sample the wells up to another seven consequtive quarters to determine plume stability and the likelihood that natural attenuation mechanisms will eventually abate the chlorinated solvent impacts.

We have not in the past been able to gain access to the Aliota property to the west to sample soil (now under new ownership as Hampton WFB, LLC). We sent two (2) access requests, one on April 8, 2019, and a second on May 13, 2019 which were received by certified mail, but we did not get a response. We moved the location of B-35/MW-15 slightly north onto City of Milwaukee right of way in anticipation of continued access issues with Hampton WFB, LLC; however, we were still not able to complete B-35/MW-15 due to unacceptable language in the City of Milwaukee access agreement.

Recently, we have been able to meet with the new property owner and it appears that they are willing to move forward with the recommended soil borings and groundwater monitoring well. Although it appears that we will now be able to install the well on the Hampton WFB, LLC property, we have attached a letter from our client's attorney (Davis & Kuelthau) regarding their assessment of the City of Milwaukee Access Agreement for your future reference.

We currently have completed soil borings B-30 and B-31 shown on **Figure 1**, and the analytical results from these borings are shown on this figure. We have gained access for sampling at B-32 and B-33, and

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it appears that we will have access in the near future for sampling on the Hampton WFB, LLC property. We will submit a complete report of findings after all recommended investigations are completed.

In addition, we provide the following responses to your specific questions/comments below in the order that they appear in your letter dated October 1, 2018:

Question #1: An underground fiber optic line runs north-south between the One Hour Martinizing (OHM) and Confluence Graphics buildings. The fiber optic line may intersect the gas and water lines that are located above the groundwater table (see attached Figure 14 and 4) and has the potential to allow vapor migration westward along the gas and water lines. Soil gas locations SG-5 (PCE =  $20,000 \text{ ug/m}^3$ ) and SG-4 (PCE =  $30,000 \text{ ug/m}^3$ ) are nearest the fiber optic line. Soil data at boring SB-5 (PCE =  $176,000 \text{ ug/m}^3$  and TCE =  $1,520 \text{ ug/m}^3$ ), SG-4, and SG-5 are in areas that aren't near the source area. Determine the source of elevated soil gas and soil contamination in these areas.

Note: Vapor risk screening levels have changed since 2015. See the Miscellaneous section in this letter for the changes.

**Answer:** The concentration of PCE in soil gas at SB-5 was 176,000 micrograms per cubic meter ( $\mu$ g/m³). The concentration of PCE in soil at SB-5 was only 449 micrograms per kilogram ( $\mu$ g/kg) at a depth of 4-6 feet.

The locations of the old dry cleaning machines are presented on revised **Figure 14** (attached). During recent installation of a sub-slab depressurization system (SSDS) at the Site building in October, 2018, we noticed a significant open joint between the floor slab and outside wall at this location (it was sealed during installation of the SSDS). It is likely that if PCE (whether in pure or dilute form) was spilled on the floor near this open joint it would have leached into soil around the building footing and could have entered the nearby trench of the fiber optic cable. The cable trench may have acted as a conduit to transport PCE and associated PCE vapors further to the north as you have suggested.

In addition, we have also observed a roof drain that enters the ground vertically off the northwest corner of the building. It is likely that there is a storm conveyance lateral extending north to Hampton Avenue from this roof drain, although City utility maps do not show the connection from this storm lateral to the main in Hampton Avenue. The lateral would also have acted as a conduit for transport of vapors further to the north. If the storm lateral is leaky, then that would likely have acted to transport soil impacts from around the building foundation and distribute them further to the north to the locations of SB-5 and SB-26, and also contribute to the groundwater impacts seen at W-13 and MW-13.

As can be seen on **Figure 14**, concentrations of chlorinated volatile organic compounds (CVOCs) were not detected in soil gas at concentrations posing a vapor risk along the gas main at SG-6 and SG-7. These samples were collected at the depth of, and within six (6) feet laterally of the gas main. Also, sub-slab vapor sampling was performed at Confluence Graphics and all units within the multi-unit commercial building adjacent to the west of Confluence Graphics (former Aliota building). CVOC vapors were not detected at concentrations exceeding past or current vapor risk screening levels (VRSLs) in any of these buildings/commercial units. Therefore, the data suggests that widespread vapor migration to the west has not occurred along utility conduits.



Question #2: High PCE concentrations were identified in the excavation sidewall confirmation samples collected onsite and offsite on the Shovers property and residual solvent contamination extends onto the Clark Station property (see Figure 9). Prepare a figure delineating residual contamination in the source excavation and include sample depth and contaminant concentrations. Clearly identify where the extent is inferred and determine where additional sampling is needed to delineate the extent and degree of contamination offsite at concentrations above residual contaminant levels.

Answer: Attached Figure 8 provides the depths and location of soil samples collected prior to remedial excavating and the results of laboratory analysis for CVOC's. Attached Figure 9 provides the depths and location of soil samples collected from the sidewalls and floor of the remedial excavation and the results of laboratory analysis for CVOC's. It is evident from the data presented on these figures that CVOC impacts at concentrations exceeding the soil to groundwater residual contaminant level (RCL) exist upon the Shovers Realty and Clark Station properties. Recent soil sampling presented on Figure 1 indicates that soil impacts above the soil to groundwater RCL also exist on the south portion of the Confluence Graphics property. Upon resolving access issues, we will complete soil sampling at the locations indicated on Figure 1 to better define the areas needed for cap maintenance or where special soil handling and disposal methods may be needed if excavating is planned by property owners in the future. The extent of these soil impacts will be presented on one (1) figure combining all past detections from the various existing figures.

Question #3: Removal of the PCE source in the southern area was part of the remedial action for the site. Enviroforensics has proposed to treat groundwater through injection of an enhanced reductive dichlorination product to reduce the concentrations in the groundwater plume. Because groundwater samples have not been collected since the soil source removal, the DNR suggests that you consider reinstalling groundwater monitoring wells MW-7R, MW-8R, and PZ-2R and sample all wells to determine what effect the excavation has on groundwater quality before you proceed with the proposed injection. Quarterly groundwater monitoring as proposed may indicate that natural attenuation alone is sufficiently remediating the groundwater. The DNR also recommends installation of additional groundwater monitoring wells near the former SB-17/GW-1 location and west of the shed near the former SB-27/GW-7 location to bound the degree and extent of the groundwater plume (see Figure 10).

**Answer:** We will investigate the remaining groundwater impacts within the center and around the perimeter of the groundwater plume following the partial excavation of contaminated soil as you have requested. To accomplish this, we have installed wells MW-7R, MW-8R, MW-14, and PZ-2R at the locations shown on attached **Figure 1**. Upon resolving access issues, MW-15 will be installed on the Hampton WFB, LLC property.

Question #4: The goal of the proposal is reducing groundwater concentration values below the enforcement standard and/or preventative action limits. The DNR recommends evaluating whether groundwater monitoring for the next two to four years would achieve the same results by natural attenuation resulting in either a stable or decreasing concentration values in the groundwater plume leading to closure.

**Answer:** We will monitor groundwater to determine plume stability and potential for site closure using natural attenuation as a final remedy.

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# Question #5: Evaluate whether including injection points in the OHM building to reduce concentrations should be considered in the injection proposal.

**Answer:** Our plan included injecting amendments which will enhance subsurface reducing conditions along with the injection of live dehalococcoides microbes. We did not plan to inject within the building due to the disruptions that would be caused to the current business, and we anticipated that microbial populations would grow rapidly under amended subsurface conditions and would spread to areas beneath the building slab within several months.

Question #6: According to the report, groundwater monitoring wells MW-7, MW-8, and PZ-2 were destroyed. Explain if and how these wells were abandoned.

**Answer:** Wells MW-7 and MW-8 were completely removed from the ground during excavating and the holes did not stay open. PZ-2 was cut off at the depth of the excavation (11 feet) and the remaining screen and well casing filled with bentonite chips (see attached borehole abandonment forms).

Question #7: Vapor risk screening levels (VRSLs) have changed since sub-slab and soil gas samples were collected. Revise vapor tables and compare soil gas and sub-slab sample results to current VRSLs. New vapor results figures should be prepared using current standards.

Prior to case closure, the vapor intrusion pathway will need to be re-assessed to confirm where any standards are exceeded (based on residential, small commercial/industrial or large industrial property use) and identifying continuing obligations that would need to be applied at the time of closure. Additonal sub-slab samples may need to be collected to confirm the vapor intrusion risk, particularly at the Shovers Building, the Dairy Queen building and other locations where PCE/TCE were detected at elevated concentrations. Also provide details on the construction of the Shovers Building, i.e. does it have a basement, sump pump?

**Answer:** The establishment of a new attenuation factor for soil vapor has resulted in risk levels being raised, not lowered. Therefore, the risk of vapor intrusion to buildings has decreased, not increased. We have revised Figure 14 taken from the Site Investigation Report to reflect the revised VRSLs. We will present figures and tables with the new VRSLs as new documents are created. The Dairy Queen building does not appear to be at risk of vapor intrusion based on sub-slab vapor samples collected within all four (4) units of the Aliota-owned commercial strip building, and that the Dairy Queen is greater than 100 feet from the source area.

We agree that the vapor intrusion sampling guidance in PUB-RR-800 recommends collecting at least two (2) rounds of vapor samples with one (1) round collected in the heating months, and another round in the non-heating months. This was accomplished for the Confluence Graphics and Shovers Realty buildings and vapor intrusion risks were not identified for these buildings. However, two (2) rounds of vapor intrusion sampling were not performed at the Aliota commercial units because the owner denied access for a second round. During telephone communications with you and Theresa Evanson (prior to completing the Site Investigation Report) it was determined that one (1) round of vapor samples from the Aliota commercial units was adequate. Since there has been a change in ownership, we will attempt to collect another round of sub-slab samples in all of the commercial units. We will attempt to collect the additional round within the heating months of November through April.

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The Shovers building is slab on grade with no sump. The building owner demanded that we install an SSDS as a condition to granting us access for soil sampling and remedial excavating on his property, even though a vapor intrusion risk to this building was not identified.

#### **Miscellaneous**

The attached Figures 3, 4, 8, and 9 have been revised as you requested.

If you have any questions regarding this response, please feel free to contact me at (414) 982-3988 or by email at <a href="mailto:wfassbender@enviroforensics.com">wfassbender@enviroforensics.com</a>.

Sincerely,

**EnviroForensics, LLC** 

Wayne Fassbender, PG Senior Project Manager

Copy: Brian Cass, OHM Holdings LLC

Jennifer Dorman, WDNR

Andrew Skwierawski, Davis & Kuelthau

#### Attachments:

Table 1 – Monitoring Well Groundwater Analytical Results

Figure 1 – Recent Soil Boring and Monitoring Well Locations With Detected Chlorinated Compounds

Figure 3 – Geologic Cross-Section A-A' (revised)

Figure 4 – Geologic Cross-Section B-B' (revised)

Figure 8 – Remedial Characterization Sample Locations and Results (revised)

Figure 9 – Excavation Area with Sidewall and Floor Sample Results (revised)

Figure 14 – Vapor Sample Analytical Results Map (revised)

Davis & Kuelthau Letter Regarding City of Milwaukee Access Agreement

# Table 1 Monitoring Well Groundwater Sample Analytical Results

One Hour Martinizing 285 East Hampton Avenue Milwaukee, Wisconsin

Monitoring Well Identification	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride
Preventive Action Limit (μg/l)		0.5	0.5	7	20	0.7	0.02
Enforcement Standard (µg/l)		5	5	70	100	7	0.2
	1/4/2011	8.8	< 0.20	< 0.50	< 0.50	< 0.50	< 0.20
MW-2	4/26/2011	6.9	< 0.48	< 0.83	< 0.89	< 0.57	< 0.18
	9/9/2011	11.7	< 0.48	< 0.83	< 0.89	< 0.57	< 0.18
	12/20/2011	7.8	<0.20	<0.50	<0.50	<0.50	<0.20
	2/23/2012 5/25/2012	7.3	<0.20	<0.50	<0.50 <0.25	<0.50	<0.20
	6/13/2013	7.0	<0.19	<0.12	<0.25	<0.31	<0.10
	9/27/2013	6.9	0.38 J	<0.38	< 0.35	<0.4	<0.18
	12/18/2013	6.5	< 0.33	< 0.38	< 0.35	<0.4	< 0.18
	3/27/2014	3.7	< 0.33	< 0.38	< 0.35	< 0.4	< 0.18
	6/27/2014	6.8	< 0.33	< 0.38	< 0.35	< 0.4	< 0.18
	10/2/2014	7.3	< 0.33	< 0.38	< 0.35	< 0.4	< 0.18
	12/30/2014	7.1	< 0.47	< 0.45	< 0.54	< 0.65	< 0.17
	3/5/2015	4.5	< 0.47	< 0.45	< 0.54	NA	< 0.17
	6/11/2015	3.3	< 0.47	< 0.45	< 0.54	NA	< 0.17
	9/15/2015	8.7	< 0.47	< 0.45	< 0.54	< 0.65	< 0.17
	12/31/2015	7.0	<0.47	<0.45	<0.54	NA	<0.17
	10/14/2016	8.4	<0.47	<0.45	<0.54	NA 10.46	<0.17
	3/31/2017*	7.3	<0.45	<0.41	<0.35 <0.35	<0.46	<0.19
	5/3/2018	5.9	<0.43	<0.41	<0.34	<0.40	<0.19
	11/2/2018	10.2	<0.30	<0.37	<0.34	<0.42	<0.2
	6/26/2019	2.28	<0.30	<0.37	<0.34	<0.42	<0.2
MW-7	6/13/2013	62	16	17	< 0.25	< 0.31	< 0.10
	9/26/2013	3.7	9.3	12.5	< 0.35	<0.4	< 0.18
	12/18/2013	< 0.33	2.27	19.8	< 0.35	< 0.4	< 0.18
	3/27/2014	1.06	1.52	4.1	< 0.35	< 0.4	0.34 J
	6/26/2014	0.70 J	0.72 J	< 0.38	< 0.35	< 0.4	< 0.18
	10/2/2014	1.77	3.8	9.4	< 0.35	< 0.4	< 0.18
	6/11/2015	18.2	3.09	5.2	< 0.54	NA	< 0.17
	10/14/2016	19.1	19.1	14.2	<0.54	NA	< 0.17
MW 7D	11/8/2016	Abandoned					
MW-7R	6/26/2019 6/14/2013	<0.38 <b>16</b>	<0.3	<0.37	<0.34	<0.42	<0.2
MW-8	9/26/2013	680	32	1.29	<0.25	<0.31	<0.18
	12/18/2013	460	46	28.1	10.7 J	<4	<1.8
	3/28/2014	570	16.7	11.3 J	<3.5	<4	<1.8
	6/26/2014	90	14.9	15.8	<3.5	<4	<1.8
	10/2/2014	740	22	22.3	<3.5	<4	2.0 J
	12/30/2014	630	32	7.1 J	<5.4	<6.5	<1.7
	3/5/2015	640	12.2	13.6	<2.7	NA	< 0.85
	6/11/2015	590	8.0 J	11.6 J	<5.4	NA	<1.7
	9/14/2015	810	14.9 J	15.5	<5.4	<6.5	<1.7
	12/31/2015	303	44	47	<5.4	NA NA	5.5
	10/14/2016	950	9.9 J	<4.5 Δ han	<5.4 doned	NA	<1.7
MW-8R	6/26/2019	108	1.71	1.27	<0.34	< 0.42	0.28 J
PZ-2	6/14/2013	0.60 J	<0.19	<0.12	<0.25	<0.42	<0.10
	9/26/2013	6.1	0.41 J	0.40 J	< 0.35	<0.4	< 0.18
	12/18/2013	0.44 J	0.97 J	< 0.38	< 0.35	< 0.4	< 0.18
	3/28/2014	9.9	2.95	0.56 J	< 0.35	<0.4	< 0.18
	6/26/2014	0.57 J	2.47	1.4	<0.35	<0.4	<0.18
	10/2/2014	<0.33	0.34 J	0.78 J	<0.35	<0.4	<0.18
	12/30/2014 3/5/2015	<b>3.4</b> <0.74	0.59 J 1.98	<b>2.48</b> <0.45	<b>0.57 J</b> <0.54	<0.65 NA	<0.17
	6/11/2015	<0.74	2.1	0.65 J	<0.54	NA NA	<0.17
	9/14/2015	0.70 J	<0.47	0.59 J	<0.54	<0.65	<0.17
	12/31/2015	< 0.49	< 0.47	0.49 J	< 0.54	NA	< 0.17
	10/14/2016	< 0.49	< 0.47	7.6	2.04	NA	< 0.17
	11/8/2016	Abandoned					
PZ-2R	6/25/2019	0.74 J	0.70 J	1.62	< 0.34	< 0.42	0.48 J

## Notes:

All results reported in units of micrograms per liter ( $\mu$ g/L)

Samples analyzed using EPA SW-846 Method 8260

**Bolded** and orange shaded values exceed the Public Health Enforcement Standard

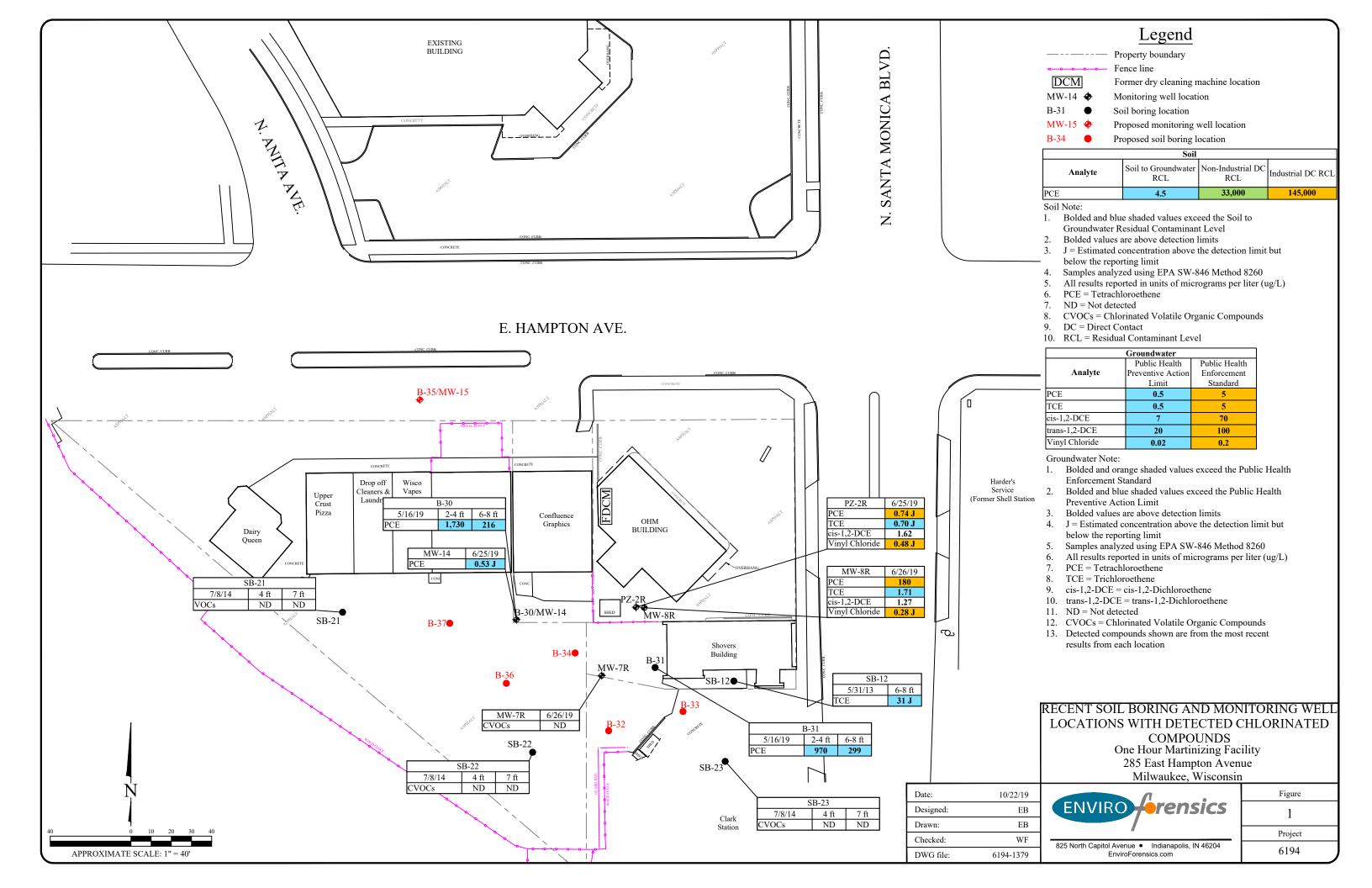
**Bolded** and blue shaded values exceed the Public Health Preventive Action Limit

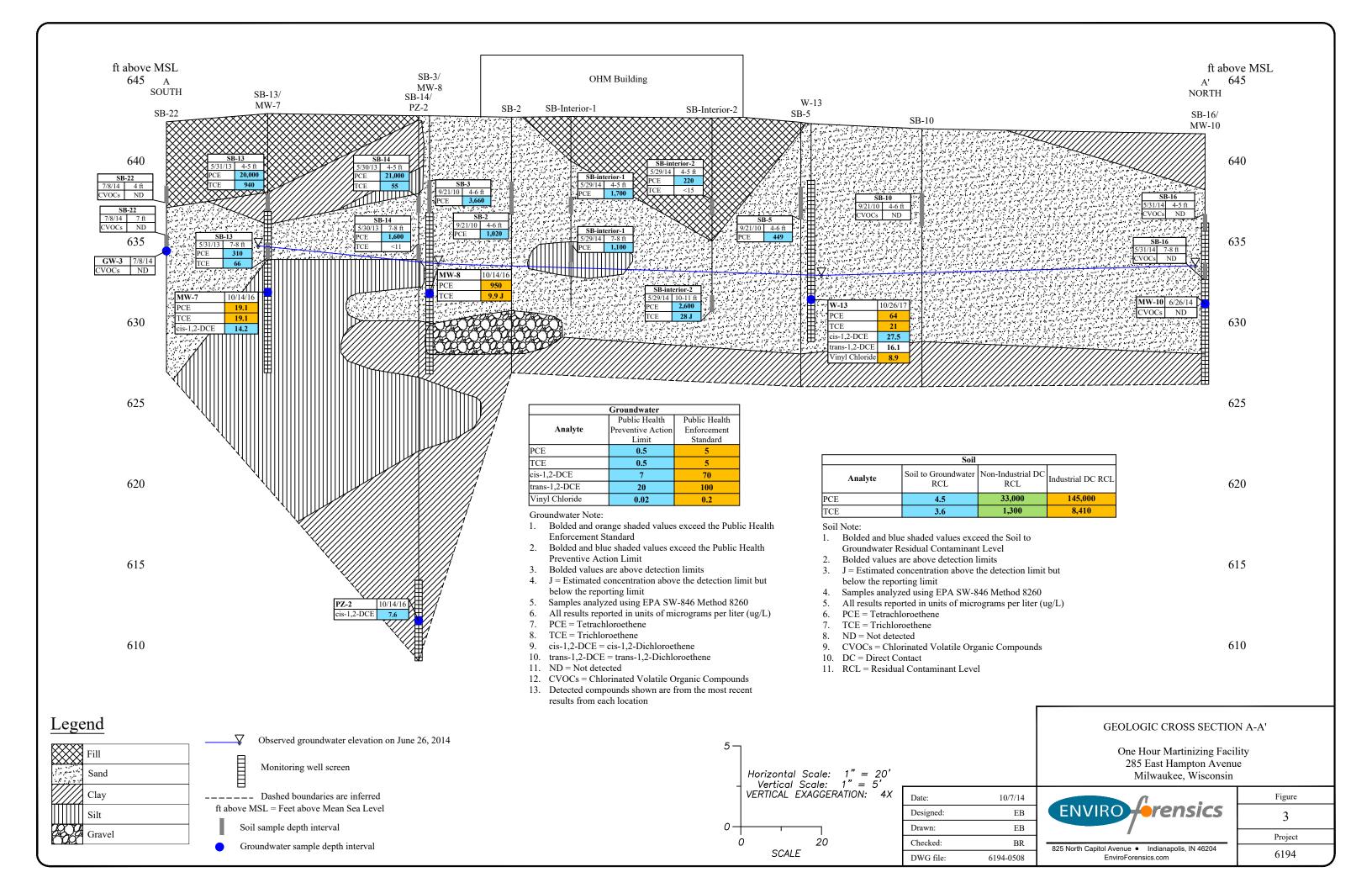
**Bolded** values are above detection limits

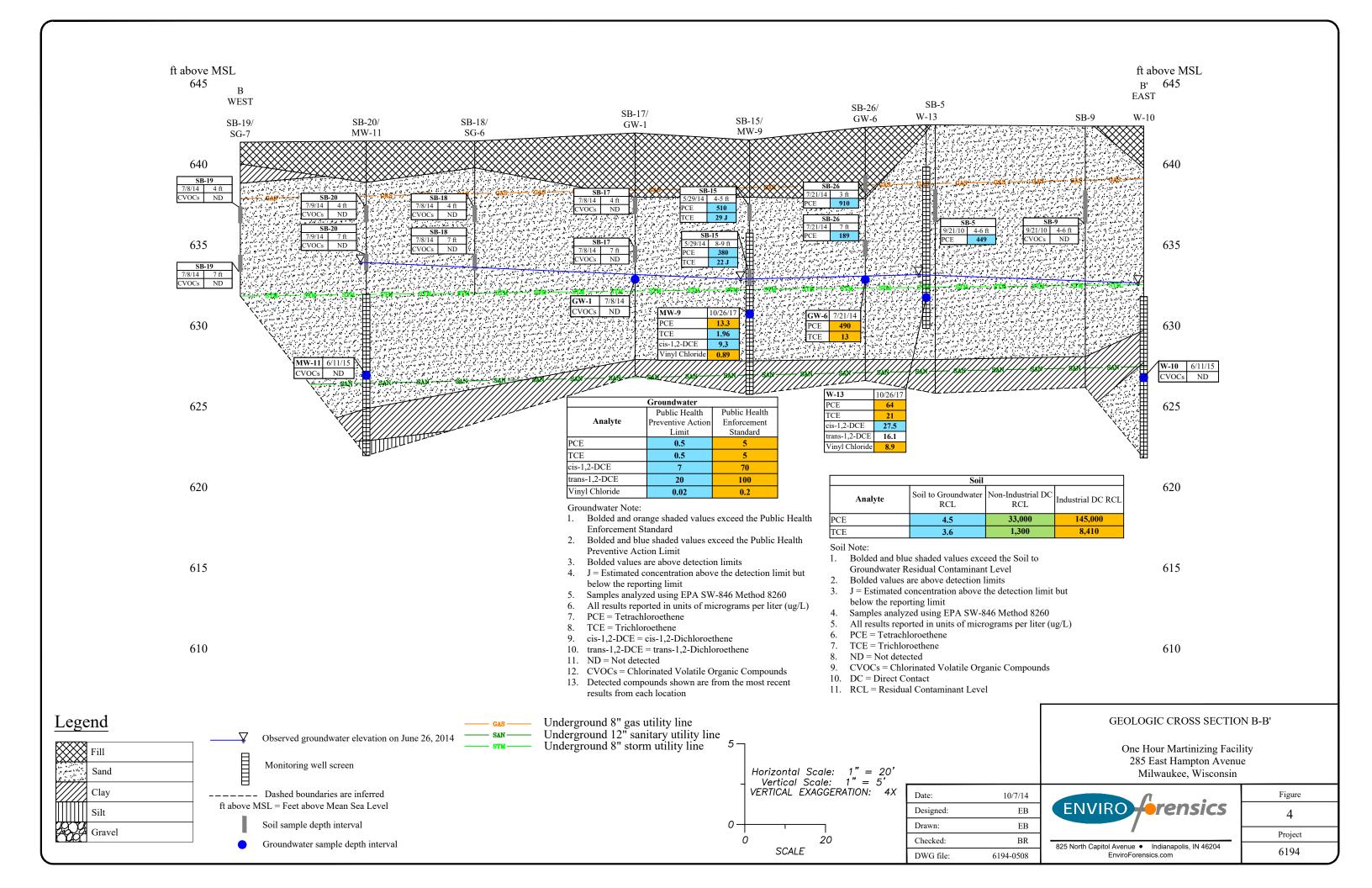
$$\label{eq:Jacobs} \begin{split} J = Analyte \ concentration \ reported \ between \ the \ laboratory \ Limit \ of \ Quantitation \ and \ the \ laboratory \ Method \ Detection \ Limit. \\ NE = Not \ Established \end{split}$$

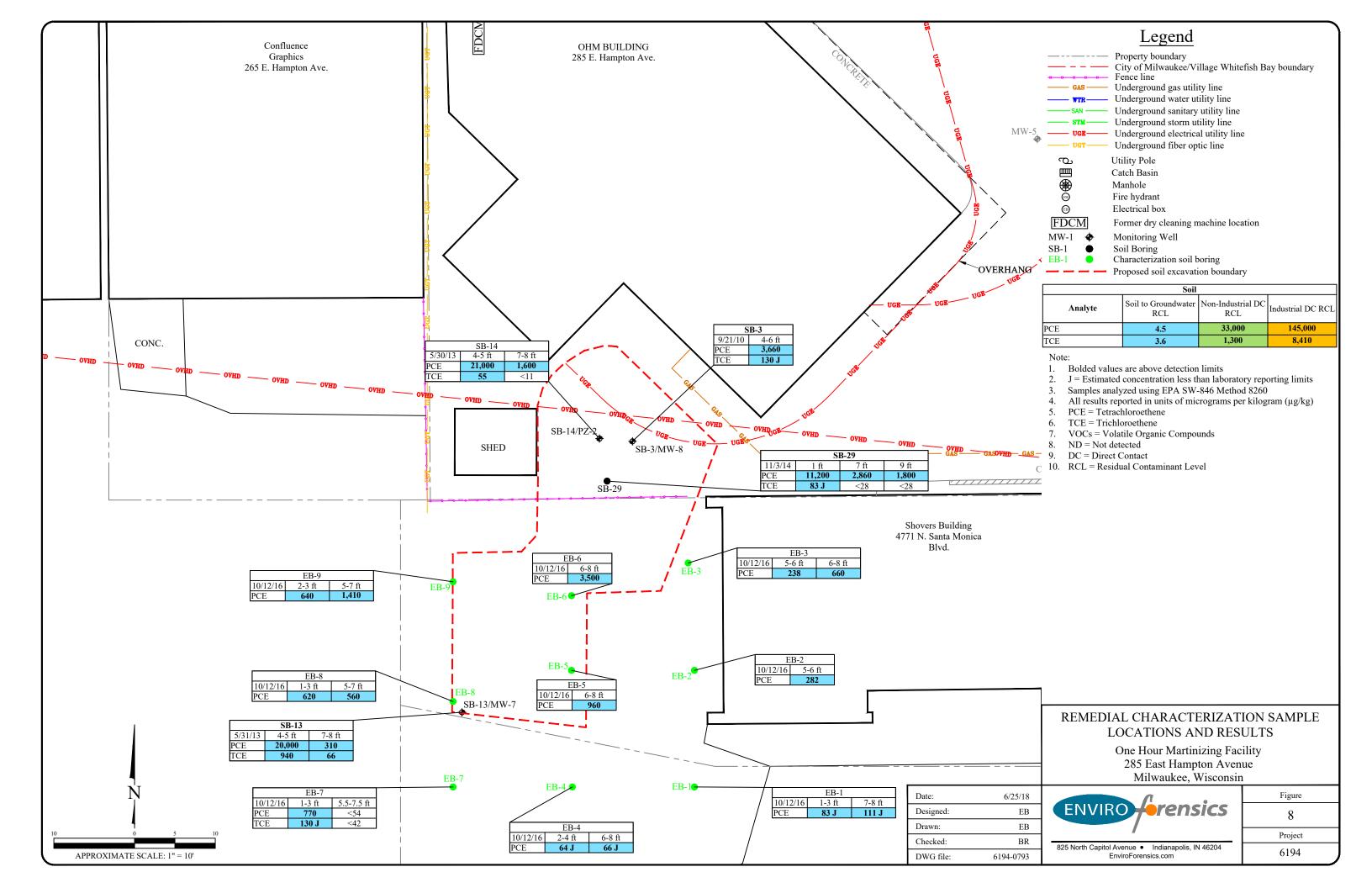


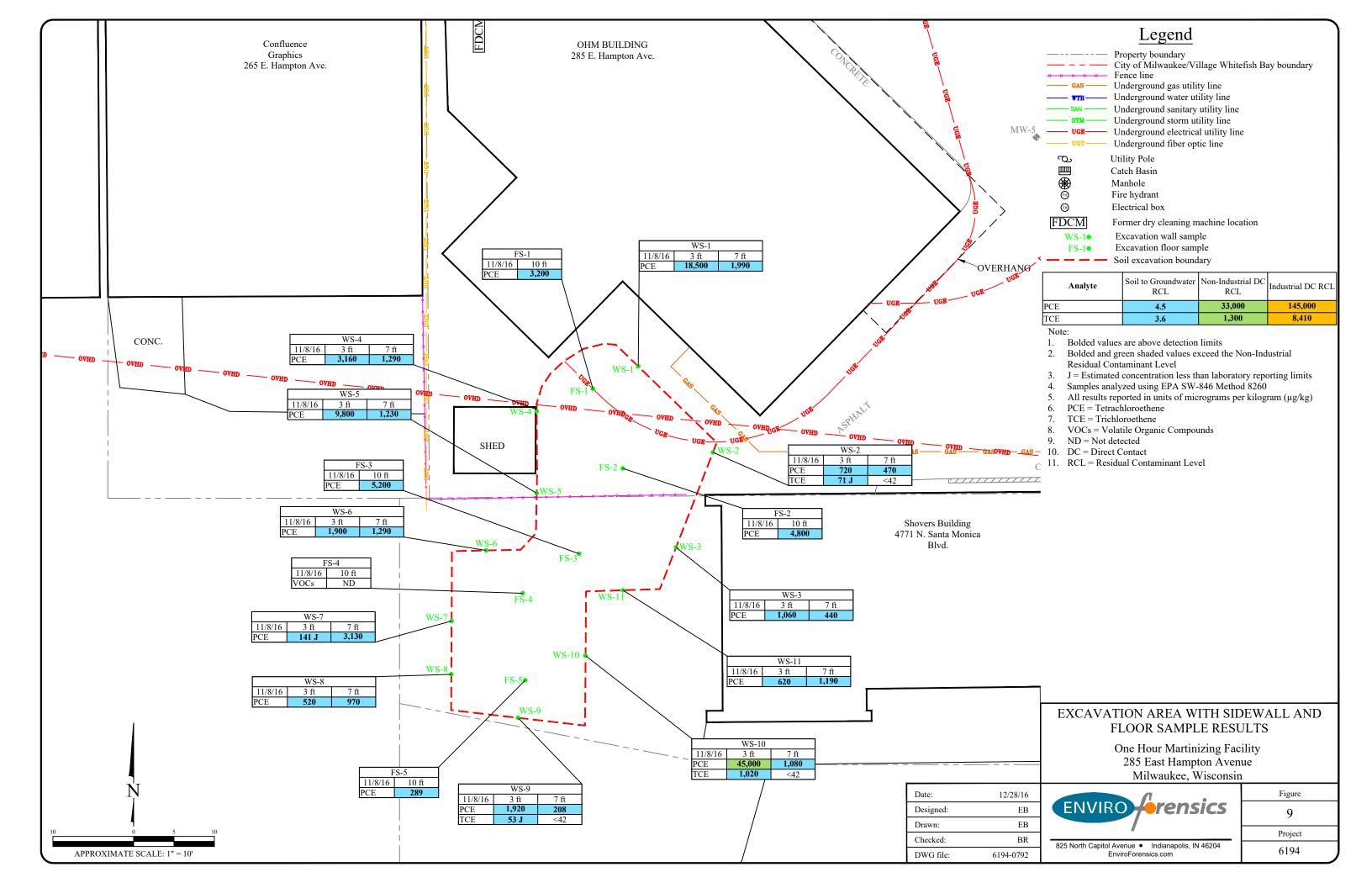
<sup>\* =</sup> Highest concentration recorded between sample and duplicate sample

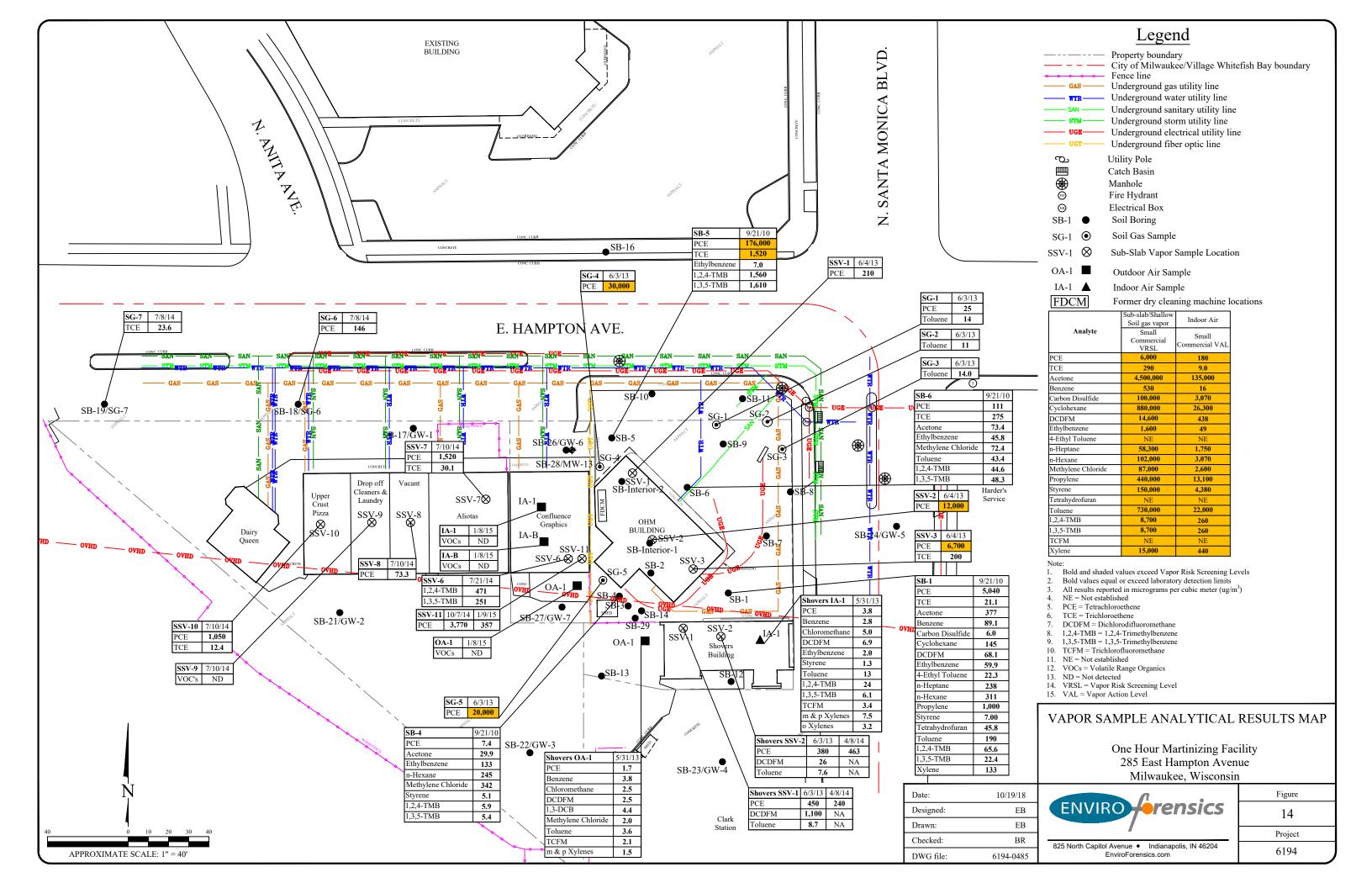














September 30, 2019

### **VIA EMAIL**

wfassbender@enviroforensics.com Mr. Wayne P. Fassbender Senior Project Manager EnviroForensics N16W23390 Stone Ridge Dr., Suite G Waukesha, WI 53188

Re: Explanation of Objections to City of Milwaukee's template access agreement for

environmental testing

Dear Mr. Fassbender:

You forwarded an email from Mr. Hnat requesting that we provide the reasons we object to the City of Milwaukee's standard access agreement for testing in the right of way, titled CONSENT TO ENTER ONTO PUBLIC RIGHT OF WAY FOR ENVIRONMENTAL INVESTIGATION ("Access Agreement"). We have reviewed the Access Agreement in the past and, while we understand that many RPs have signed the form, in our opinion, it is beyond what is reasonable or necessary.

In conducting our analysis, it is important to understand that off-site owners, like the City in this case, are exempt from liability under Section 292.12 provided they allow access to their property to those that are responsible to conduct the necessary investigation and clean up. Acknowledging the need for access agreements, the DNR issued publication 589, which provides some guidance on what sort of terms might be appropriate:

"It's important for off-site owners to reach agreement on access with the responsible party, because failure to provide access can nullify an off-site property owner's exemption from liability. The access agreement is an opportunity to negotiate terms such as the restoration of landscaping and scheduling the work."

The City's Access Agreement appears to go well beyond these sorts of terms and seeks to impose a contractual liability that may be greater that what exists under the Spill Law. For example, Paragraph 7 provides that the "permittee shall pay the full cost of the investigation and remediation of hazardous substance contamination that has migrated onto the public right of way from property that they own or are otherwise responsible for." While this may appear benign,

Mr. Wayne P. Fassbender September 30, 2019 Page 2

the obligation to investigate and remediate already exists under the Spill Law and paragraph 5 of the Access Agreement already states that permittee will pay for the investigation work so what the City is demanding in paragraph 7 is unnecessary and goes way beyond negotiating terms of restoration and scheduling of work as described in RR-589.

By attempting to impose a contractual requirement to pay the full cost of remediation of any hazardous substance that has "migrated onto the public right of way" from an RP's property, irrespective of the source of the hazardous substance, the City is forcing an RP to take on liability that may not be theirs. Moreover, it could arguably result in releasing liability the offsite owner may have to the extent they caused or contributed to the spread of contamination. Finally, such a contractual assumption of liability could also result in an RP waiving its insurance rights

Paragraph 8 is similarly flawed. In short, it provides that the "permittee...agrees not to commence any action...to ...seek: (a) any funds from the City for environmental testing or remediation...; or (b) to require the City to determine the source(s) or extent of any contamination unless it can be demonstrated that a source...is located on or beneath the public right of way and the City has been proven to have caused or contributed to the contamination." An RP should not be asked to prospectively waive their rights of recovery or otherwise be expected to limit the circumstances under which they may seek some sort of cost recovery. Whether or to what extent parties are responsible for other contamination should not be the subject of an access agreement like this and we cannot advise a client to agree to give up a potential contribution claim, particularly when there is a carrier involved.

In our opinion, these paragraphs should be removed. For the same reasons, paragraph 10 is also unnecessary.

Several years ago we communicated with then DNR legal counsel Lacey Cochart regarding this issue and provided her a copy of the access agreement, noting our objections. She concurred with our interpretation that the terms were unreasonable. If the City of Milwaukee is unwilling to modify these provisions of its access agreement, we do not advise an RP to sign and we generally request that the DNR either take steps to secure access or issue an RP letter transferring liability for any contamination in the right of way to the City.

Very truly yours,

Davis & Kuelthau, s.c.

M. Andrew Skwierawski

MAS:sif