ENVIROforensics

November 6, 2014

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

RE: Further Site Investigation 2 Work Scope
Former Hoffman Valet Cleaners
7215 West Center Street
Wauwatosa, Wisconsin
FID # 241083150
BRRTS # 02-41-307576

Dear Mr. Hnat:

Environmental Forensic Investigations, Inc. (EnviroForensics) is pleased to provide this work scope for interim remedial actions and additional investigative requirements needed to establish environmental site closure at the former Hoffman Valet Cleaners (Hoffman's) property located at 7215 W. Center Street, Wauwatosa, Wisconsin (Site).

BACKGROUND AND SITE CONDITIONS

The Site is located at 7215 W. Center Street in Wauwatosa, Wisconsin approximately seven (7) miles west of Lake Michigan. The Site is occupied by a two-story building, housing a dry cleaning business on the ground floor and a residential unit on the second floor. The building is constructed with a partial basement. A concrete parking area is present on the south side of the building. The Site is bound by Center Street to the north, a commercial property to the west, a residential property to the east, and an alley to the south. The Site is situated in an area of mixed commercial and residential land use. The Site is occupied by an active dry cleaning facility that uses tetrachloroethene (PCE) in the cleaning process. However, the property is currently up for sale, and future purchasers may not operate a dry cleaning business.

Site investigations were initially performed by Arcadis beginning in 2002. EnviroForensics continued the Site investigations beginning in 2010.

Site soil consists of clay with a 4 to 6-foot thick sand layer encountered at approximately 7 feet bgs. This sand layer may exist in contact with the basement slab of the dry cleaning building and may be in contact with floor drains, sanitary sewer connections, and other utilities associated with the dry cleaning building.

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The sand layer likely has a much higher permeability than the clay soil and may act as a preferential migration pathway for PCE and PCE vapors. Discontinuous seams of sand and silty sand are present within the clay and could also act as preferential migration pathways if PCE has entered them. Concentrations of PCE in soil appear to reside in a 2-4 feet thick sand layer located just beneath the basement slab of the dry cleaning building (refer to geologic cross-sections in **Attachment 1**). The highest concentration of PCE in soil previously detected was 5,200 micrograms per kilogram (ug/kg) within the sand layer at a depth of 2-4 feet below the basement slab. Lateral movement of the PCE appears limited within the sand layer

The water table is encountered at a depth of 14 to 16 feet below ground surface (bgs) and the direction of groundwater movement is to the south/southeast. Dolomite bedrock of the Niagara Formation is encountered at depths between 100 and 150 feet bgs in the vicinity of the Site. The primary compound detected in groundwater at the Site is PCE in relatively low concentrations. As can be seen in the groundwater analytical results table in **Attachment 2**, PCE was present in groundwater samples collected from monitoring wells MW-1 and MW-2 at concentrations just exceeding the Enforcement Standard (ES) on two occasions.

The lateral extents of impact in soil, groundwater, and vapor have not been defined to the north and there is a potential for migration to utilities corridors aligned east to west along Center Street.

VAPOR INTRUSION SAMPLING

Additional sampling of sub-slab vapor and indoor air was conducted at the adjacent commercial property located at 7219 W. Center Street and also at the Site building in February, 2014 to assess the potential for vapor intrusion to these buildings. Below are descriptions of the sampling procedures performed and a summary of the vapor intrusion assessment findings.

Background Conditions Screening

A visual inspection was conducted for cracks or other penetrations in the concrete basement floor (i.e. floor drains, sumps, etc.) that could act as direct conduits for impacted vapors to migrate into the occupied space, or conversely, could act as "short circuits" allowing indoor air to enter canisters during sub-slab sampling. Basement walls were also visually inspected for cracks and penetrations of subsurface utilities that may be conduits for vapors to migrate into the buildings. This information was incorporated into the sample port placement strategy to avoid damage to sub-slab utilities and reduce the possibility of "short circuiting", which could have biased sample results.

Building and room dimensions were measured and a scaled hand drawing of the layout with sample locations and other observed conditions was prepared in the field. The results of all pre-sampling

inspection activities were recorded on the Indoor Air Building Survey and field sampling forms found in **Attachment 3**.

Sub-Slab Vapor Sampling

The basement of the off-site commercial building at 7219 W. Center Street is divided into two sections. One (1) permanent Vapor Pin™ sub-slab vapor sampling port was installed in each basement space (refer to sketch in **Attachment 3**). In addition, two (2) permanent sampling ports were installed in the partial basement of the Site building (**Attachment 3**). The ports were capped during installation until sampling was initiated and left in place after sample collection for future use.

To ensure representative sub-slab vapor samples, leak testing was performed per methods presented in the *Standard Practice for Active Soil Gas Sampling in the Vadose Zone for Vapor Intrusion Evaluation*, ASTM Standard D7663-11 and in accordance with WDNR Publication RR-800. Testing the integrity of the sample ports was conducted utilizing helium tracer gas and the integrity of the sampling train was confirmed via a negative pressure test.

One (1) sample of sub-slab vapor was collected from each of the four (4) sub-slab vapor sampling ports using batch-certified 1-Liter vacuum canisters connected to the ports using compression fittings and Teflon-lined polyethylene tubing. Vacuum canisters were fitted with regulators to restrict flow rates to less than 200 ml/minute. Initial and final pressure readings were collected from the vacuum canisters and recorded on sub-slab vapor field sampling forms (**Attachment 3**), along with all other required information.

Following the completion of sub-slab vapor sampling activities, a total of four (4) vacuum canisters were submitted to EnvisionAir Laboratories, Inc. of Indianapolis, Indiana (EnvisionAir) for analysis of select chlorinated volatile organic compounds (CVOCs) according to US EPA Method TO-15. All samples were shipped under the appropriate chain-of-custody procedures.

Indoor/Outdoor Air Sampling

An indoor air sample was collected at the off-site commercial building prior to sub-slab vapor sampling to eliminate the possibility of sub-slab vapors from entering the building and influencing the indoor air sample results. The indoor air sample was collected from the breathable space (3-5 feet above the floor) using a 6-Liter vacuum canister, regulated to withdraw a time-integrated sample. In addition, an outdoor air sample was collected from the southwest corner the building, which was up-wind at the start of sampling and represented the most secure location on the property. Both air samples were collected over an 8-hour time period. The vacuum canisters were individually-certified clean by the analytical laboratory for QA/QC purposes.

Weather data, including temperature, wind speed, wind direction, humidity, barometric pressure, and rainfall was acquired from the nearest fixed weather station throughout the 8-hour sampling period to evaluate potential effects on the samples.

Initial and final pressure readings were collected from the vacuum canisters and recorded on indoor/outdoor field sampling forms provided in **Attachment 3**, along with all other pertinent information. Following the completion of the indoor/outdoor air sampling activities, a total of two (2) vacuum canisters were submitted to EnvisionAir under appropriate chain-of-custody procedures, for analysis of select chlorinated volatile organic compounds (CVOCs) according US EPA Method TO-15.

Vapor Intrusion Assessment Results

Site Building at 7215 W. Center Street

Samples 7215-SSV-1 and 7215-SSV-2 contained PCE at concentrations of 1,440 micrograms per cubic meter (ug/m^3) and 3,600 ug/m^3, respectively (refer to table of analytical results in **Attachment 4**). Samples 7215-SSV-1 and 7215-SSV-2 also contained trichloroethene (TCE) at concentrations of 48.9 ug/m^3 and 12.4 ug/m^3, respectively. The PCE concentration at 7215-SSV-2 exceeds the Vapor Risk Screening Level (VRSL) for a non-residential setting of 1,880 ug/m^3.

Off-site Commercial Property at 7219 W. Center Street

Samples 7219-SSV-1 and 7219-SSV-2 contained PCE at concentrations of 239 ug/m^3 and 118.0 ug/m^3, respectively, which is below the VRSL for a non-residential setting of 1,880 ug/m^3 (**Attachment 4**). Sample 7219-IA contained PCE at a concentration of 48.9 ug/m^3 which is below VAL for a non-residential setting of 180 ug/m^3. Sample 7219-OA did not contain laboratory detections of PCE or its break down products.

INTERIM REMEDIAL ACTIONS

The Site building was found to have a vapor intrusion risk based on the results of sub-slab sampling. A sub-slab depressurization system (SSDS) should be installed to mitigate this risk. If designed correctly with vertically extended extraction points, this mitigation system may also be effective in remediating unsaturated soil impacts within the sand layer located beneath the basement slab.

The horizontal and vertical extent of vacuum (negative pressure) influence will be tested either just prior to or during the installation of the SSDS to determine appropriate fan selection to provide influence on both the sub-slab environment and slightly deeper sand layer. A report will be submitted providing pictures and other details of the SSDS installation configuration, specifications, and operating statistics.

Details regarding the scope of work and costs associated with the testing and installation of the SSDS are described in Sub-phase 08c of the Work Scope that follows.

WORK SCOPE FOR ADDITIONAL SITE INVESTIGATIONS

Based on an evaluation of historical site investigation maps and data, utility corridors have not been specifically investigated as preferential pathways for contaminant migration. The locations and depths of Site utility laterals and connections with utility mains located in Center Street should be accurately identified and soil and soil gas samples should be collected to determine if they are acting as preferential migration pathways for PCE vapors. In addition soil and soil gas samples should be collected at a point close to where the sanitary lateral connects with the main in the alleyway behind the Site building to the south.

The locations of proposed soil and soil gas samples are presented on the figure in **Attachment 1**.

Sub-phase 08a: Work Scope Development

EnviroForensics has prepared this work scope that will serve as the procedures document for which the proposed activities will follow. The proposed investigations are divided into the following Sub-phases:

- Sub-phase 08a: Work Scope Development
- Sub-phase 08b: Utility Corridor Investigations
- Sub-phase 08c: System Installation & Installation Documentation
- Sub-phase 08d: Results Reports for Off-Site Property Owners
- Sub-phase 08e: Project Management

Sub-phase 08b: Utility Corridor Investigations

Access

EnviroForensics will pursue access from the City of Wauwatosa for the soil borings and will complete any permit requirements that are necessary.

Subsurface Utility Survey

In accordance with safe work practices and as required by Wisconsin State Law, EnviroForensics will contact the State of Wisconsin One Call subsurface utility protection service at least 48-hours prior to the anticipated onset of subsurface work at the Site. As a result, subsurface utilities and structures owned or managed by member companies (e.g. telecommunications, electric and gas utilities) will be located by an independent contractor service. Those common utilities that are not member companies of the One Call

protection service will be contacted directly and requested to provide information regarding the location of onsite, adjacent or nearby underground structures (e.g. municipal water, sanitary sewer, storm sewer).

EnviroForensics will also contract with a private underground utility locating service to provide additional confidence regarding the position of potential underground hazards at the Site. The private locating service will use geophysical and/or electromagnetic equipment, as appropriate; to assist in clearing each planned boring location prior to sampling activities.

Soil Gas Point Installation

In order to further asses potential vapor migration along preferential pathways, EnviroForensics proposes that a total of three (3) temporary utility soil gas points be installed in the City Right of Way (ROW). Two (2) soil gas points will be installed along gas and water utility lines that extend east and west along the southern ROW of West Center Street. One (1) will be installed along the sanitary offset in the alley behind the site building (refer to figure showing soil boring locations in **Attachment 1**).

The construction and sampling methods for the temporary soil gas monitoring points will be conducted in accordance with Appendix V of the WDNR VI guidance document. Soil gas points located along underground utility corridors will be advanced with hand-auger drilling methods in the high permeable utility backfill, typically encountered at the depths of approximately five (5) ft bgs. Each soil gas point will constructed of a 6-inch long stainless steel mesh screen set at the bottom of the boring with ¼-inch Teflon®-lined polyethylene tubing attached to the screen that extends to the surface. A sand pack will be placed around the screen in the borehole to approximately 6-inches above the top of the screen. The remaining annular space in the borehole above the sand pack was filled with hydrated bentonite chips. Following sampling activities, the three (3) shallow soil gas points will be abandoned. The tubing will be removed and the hole will be topped off with bentonite.

Soil Gas Sampling

One (1) soil gas sample will be collected from each of the newly installed utility corridor soil gas points. All the utility soil gas samples will be collected using batch-certified clean 1-Liter canisters, regulated to withdraw a sample at no more than 200 milliliter per minute (ml/min).

A total of 3 soil gas samples and one (1) QA/QC sample will be submitted to an environmental laboratory for analysis of VOCs using US EPA Method TO-15. All samples will be delivered or shipped under appropriate chain-of-custody procedures. The analytical results for the soil gas samples will be compared to the US EPA Regional Screening Levels (RSLs).

Soil Gas Field Quality Control Methods

There is a potential for ambient air to enter the sample through leaks in the sampling train and thus potentially into the sampling port, diluting the sample and leading to underestimation of contaminant

concentrations in the sample. To ensure that soil gas samples are representative of subsurface vapor conditions, helium and negative pressure leak testing will be performed per methods presented in *Standard Practice for Active Soil Gas Sampling in the Vadose Zone for Vapor Intrusion Evaluation*, American Society of Testing and Materials (ASTM) Standard D7663-11.

Sub-phase 08c: Modified Sub-Slab Depressurization System Installation and Reporting

EnviroForensics has partnered with a qualified subcontractor that specializes in the design and installation of vapor mitigation systems to perform diagnostic testing with oversight by EnviroForensics. On-site diagnostic testing will consist of pressure-field extension testing to determine appropriate fan sizing for the SSDS.

A test hole will be cored through the slab and the hole will be completed using a hand auger to a depth of between 2-4 feet below the slab. Screened PVC extraction piping will be placed in the hole and to terminate within the sand layer containing PCE impacts. Filter pack sand will be placed on around the screened section of the extraction pipe and the portion of pipe extending through the basement slab will be sealed with cement. A fan will be connected to the extraction piping and used to impart a negative pressure to the subsurface.

Permanent Vapor Pin ™ sampling ports will be installed at two (2) locations to measure negative pressure just below the slab, and two (2) additional ports will be installed to measure negative pressure within the sand layer. The ports for sampling vapor in the sand layer will be constructed in the same manner as the soil gas points described in previous Sub-phase 08b. These ports will be used to measure negative pressure during the test, and can also be used for periodic monitoring of sub-slab vapor and vapor within the sand layer over time to determine mass contaminant reduction. Final design configurations will be determined once diagnostic testing is complete.

It is anticipated that the SSDS will have between two (2) and four (4) extraction points pending diagnostics and observations. The extraction points will be installed through the concrete floor and the sub-slab material will be removed to facilitate air flow. The extraction points will have separate pipes that manifold in the basement. One (1) or more of the extraction pipes will be installed to vent the fill material directly under the slab, and one (1) or more extraction pipes will be installed to vent the underlying sand layer. A single pipe will extend through the side of the basement wall to the outside, where it will be connected to one (1) high volume fan. The fan will be installed outside and the exhaust routed to a minimum of three (3) feet above the roof-line. All SSDS piping will be 3-inch diameter schedule 40 PVC. The subcontractor cost estimate is attached.

The fan that is to be utilized in the system is designed and fabricated for outside installation. The housing will be factory sealed. The connection of the fan to the vent piping will also be sealed to prevent leakage. The final determination of the appropriate fan size will be made following diagnostic testing and tuning of

the system. The performance testing will optimize air pressure ratios to maximize the efficiency of the system. The pressure ratios will be measured in several extraction points. Negative pressure readings will be collected upon startup of the system to ensure that the system is properly operating and the installed fan and system configuration is adequate.

The WDNR recommends that verification samples be collected after the sub slab depressurization system has been installed and operating to confirm that the exposure pathway has been mitigated. Verification samples should be collected after the system has been running for at least 90 days. Once the post-mitigation verification testing results are available, EnviroForensics will provide the WDNR with the contractor's Vapor Mitigation System Installation Report that summarizes the work activities performed during system installation. The report will include details on the SSDS including as-built drawings, field measurements, manufacturer documentation for all components installed, and photographs. The report will also include tables, maps, figures, and appendices, as appropriate, to aid data presentations and interpretation and the findings of the mitigation activities.

Sub-phase 08d: Results Reports for Off-Site Property Owners

EnviroForensics will tabulate and evaluate the analytical data from soil and soil gas sampling within the City of Wauwatosa right-of-way. Sample results notifications will be prepared and submitted to the City of Wauwatosa and WDNR as required.

Sub-phase 08e: Project Management

Project management tasks must be completed to support execution of the proposed work scope activities, track and maintain the project budget, and ensure overall project progress. Project management tasks may include, but are not limited to: budget tracking; communication of project progress and budget status updates; communication with and responding to WDNR representatives, carriers, client and third parties; and unanticipated contingency items that may require attention. The estimated project management budget is based on costs incurred during previous phases of the site investigation and an assumed four (4) month work scope duration.

SCHEDULE

Ralph Hoffman has a WDNR approved revolving fund of $23,690 to utilize for necessary environmental site actions. This amount was previously used for site investigations and it is anticipated that he will be reimbursed this amount from the Drycleaner Environmental Response Fund (DERF) on or about February 1, 2015. Given your approval of this work scope, we anticipate that field work can be initiated in early January, 2015. Delays in DERF reimbursement beyond February 1, 2015 may delay the start of field work. Standard laboratory turn times will be utilized, which will provide analytical results within two (2) weeks of sample collection. Installation of the utility corridor soil gas sampling ports (Phase 08b) will be

performed prior to installation of the SSDS (Phase 06c). A letter report summarizing the findings of the soil gas activities will be submitted within four (4) weeks of receipt of all laboratory analytical data. Once the post-mitigation verification testing results are available, EnviroForensics will provide the WDNR with the contractor's Vapor Mitigation System Installation Report that summarizes the work activities performed during system installation.

COST ESTIMATE

All services provided in support of this proposal will be billed on a time-and-materials basis. The estimated cost to complete access, utility corridor investigations, building diagnostics, project management, system installation, and the documentation of the installation is $37,859. The estimated costs are itemized by Task in Table 1.

It should be recognized that some limitations are inherent in the evaluation of subsurface conditions, and that certain conditions may not be detected. Thus, this investigation cannot provide a guarantee that all possible Site contamination will be discovered. The proposed cost assumes that no additional access agreements are required; that permission will be granted by the City to conduct investigation activities; that normal conditions will be encountered; and that any delays, obstructions, or other limitations outside the control of EnviroForensics may result in additional cost to the Project.

We thank you for the opportunity to work with you on this project. If you have any questions regarding this FSI and Interim Remedial Action Work Scope, please do not hesitate to call us at (414) 982-3988.

Sincerely,
Environmental Forensic Investigations, Inc.

Kyle Heimstead

Wayne P. Fassbender

Kyle Heimstead,
Staff Geologist

Wayne Fassbender, PG, PMP
Senior Project Manager

Attachments

cc: John Hnat, WDNR Project Manager

TABLE 1

Cost Estimate for Site Investigations and SSDS Installation
Former Hoffman's Valet Cleaners
7215 W. Center Street, Wauwatosa, Wisconsin

TASK	LABOR COSTS	SUB-CONTRACTOR COSTS	DIRECT COSTS	TOTAL COST
PHASE 08a:				
Work Scope Development	$4,675	$0	$0	**$4,675**
PHASE 08b:				
Utility Corridor Investigations	$3,070	$2,767	$882	**$6,719**
PHASE 08c:				
Modified Sub-slab Depressuriztion System Installation & Reporting	$5,745	$15,100	$1,178	**$22,023**
PHASE 08d:				
Results Reports for Off-site Property Owners	$1,190	$0	$19	**$1,209**
PHASE 08e:				
Project Management (4-month duration)	$3,233	$0	$0	**$3,233**
TOTAL	**$17,913**	**$17,867**	**$2,079**	**$37,859**

Site Name: *Former Hoffman's Valet Cleaners*
BRRTS #: *02-41-307576*
Type of Action: *Site Investigation*

TASKS	BUDGET								
Bid / Budgeted Description	Bid / Budgeted Amount	Bid / Budgeted Amount	Total Approved Budget	Previous Claims (DC-581)	*EnviroForensics 07/13 Invoice #13657*	*EnviroForensics 08/13 Invoice #13798*	*EnviroForensics 09/13 Invoice #13869*	*EnviroForensics 10/13 Invoice #13916*	*EnviroForensics 11/13 Invoice #14043*
Consultant Costs									
Further Site Investigation 1									
Work Scope Development and Health and Safety Plan (06a)	$ 6,125.00		$ 6,125.00		$ 5,972.50	$ 65.00	$ -	$ -	$ -
Off-Site Access Agreements (06b)	$ 1,474.00		$ 1,474.00		$ -	$ 730.00	$ 722.50	$ -	$ -
Sub-Slab Vapor and Indoor/Outdoor Air Sampling (06c)	$ 3,641.00		$ 3,641.00		$ -	$ 225.00	$ 2,012.65	$ -	$ -
Groundwater Monitoring (06d)	$ 1,572.00		$ 1,572.00		$ -	$ 32.50	$ 1,516.25	$ -	$ -
Investigation-Derived Media Management (06e)	$ 895.00		$ 895.00		$ -	$ -	$ 47.50	$ -	$ 192.50
Data Evaluation and Reporting (06f)	$ 4,773.00		$ 4,773.00		$ -	$ 142.50	$ 1,652.50	$ 2,620.95	$ -
Project Management (06g)	$ 2,800.00		$ 2,800.00		$ -	$ 479.25	$ 394.00	$ 280.65	$ 575.00
Further Site Investigation 2 and SSDS Installation									
Work Scope Development (08a)		$ 4,675.00							
Utility Corridor Investigations (08b)		$ 3,952.00							
Modified SSDS Installation and Reporting (08c)		$ 6,923.00							
Results Reports for Off-Site Property Owners (08d)		$ 1,209.00							
Project Management (08e)		$ 3,233.00							
Consultant Cost Total	*$ 21,280.00*	*$ 19,992.00*	*$ 21,280.00*	*$ -*	*$ 5,972.50*	*$ 1,674.25*	*$ 6,345.40*	*$ 2,901.60*	*$ 767.50*
Sub-Contractor Costs									
Analytical	$ 2,410.00	$ 1,216.70	$ 2,410.00		$ -	$ -	$ 830.00		
Driller		$ 1,350.00							
Waste Disposal		$ 200.00							
SSDS Installation		$ 15,100.00							
Sub-Contractor Cost Total	*$ 2,410.00*	*$ 17,866.70*	*$ 2,410.00*	*$ -*	*$ -*	*$ -*	*$ 830.00*	*$ -*	*$ -*
DERF ELIGIBLE SUB-TOTALS	**$ 23,690.00**	**$ 37,858.70**	**$ 23,690.00**	**$ -**	**$ 5,972.50**	**$ 1,674.25**	**$ 7,175.40**	**$ 2,901.60**	**$ 767.50**
Non-DERF Eligible Expenses									
DERF Reimbursement 1 (07)									
Non-DERF Cost Total				*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
INVOICE GRAND TOTAL				**$ -**	**$ 5,972.50**	**$ 1,674.25**	**$ 7,175.40**	**$ 2,901.60**	**$ 767.50**
Check Numbers									

Site Name: *Former Hoffman's Valet Cleaners*
BRRTS #: *02-41-307576*
Type of Action: *Site Investigation*

TASKS	BUDGET									
Bid / Budgeted Description	Bid / Budgeted Amount	Bid / Budgeted Amount	Total Approved Budget	Previous Claims (DC-581)	*EnviroForensics 12/13 Invoice #14119*	*EnviroForensics 1/14 Invoice #14162*	*EnviroForensics 2/14 Invoice #14219*	*EnviroForensics 3/14 Invoice #14219*	*EnviroForensics 4/14 Invoice #14219*	Total Invoiced Costs
Consultant Costs										
Further Site Investigation 1										
Work Scope Development and Health and Safety Plan (06a)	$ 6,125.00		$ 6,125.00		$ -					$ 6,037.50
Off-Site Access Agreements (06b)	$ 1,474.00		$ 1,474.00		$ -		$ 456.20			$ 1,908.70
Sub-Slab Vapor and Indoor/Outdoor Air Sampling (06c)	$ 3,641.00		$ 3,641.00		$ -		$ 1,972.65			$ 4,210.30
Groundwater Monitoring (06d)	$ 1,572.00		$ 1,572.00		$ 411.00					$ 1,959.75
Investigation-Derived Media Management (06e)	$ 895.00		$ 895.00		$ 531.81					$ 771.81
Data Evaluation and Reporting (06f)	$ 4,773.00		$ 4,773.00		$ -					$ 4,415.95
Project Management (06g)	$ 2,800.00		$ 2,800.00		$ 233.50	$ 150.00	$ 268.50			$ 2,380.90
Further Site Investigation 2 and SSDS Installation										
Work Scope Development (08a)		$ 4,675.00								
Utility Corridor Investigations (08b)		$ 3,952.00								
Modified SSDS Installation and Reporting (08c)		$ 6,923.00								
Results Reports for Off-Site Property Owners (08d)		$ 1,209.00								
Project Management (08e)		$ 3,233.00								
Consultant Cost Total	*$ 21,280.00*	*$ 19,992.00*	*$ 21,280.00*	*$ -*	*$ 1,176.31*	*$ 150.00*	*$ 2,697.35*	*$ -*	*$ -*	*$ 21,684.91*
Sub-Contractor Costs										
Analytical	$ 2,410.00	$ 1,216.70	$ 2,410.00				$ 1,170.00			$ 2,000.00
Driller		$ 1,350.00								$ -
Waste Disposal		$ 200.00								$ -
SSDS Installation		$ 15,100.00								$ -
Sub-Contractor Cost Total	*$ 2,410.00*	*$ 17,866.70*	*$ 2,410.00*	*$ -*	*$ -*	*$ -*	*$ 1,170.00*	*$ -*	*$ -*	*$ 2,000.00*
DERF ELIGIBLE SUB-TOTALS	**$ 23,690.00**	**$ 37,858.70**	**$ 23,690.00**	**$ -**	**$ 1,176.31**	**$ 150.00**	**$ 3,867.35**	**$ -**	**$ -**	**$ 23,684.91**
Non-DERF Eligible Expenses										
DERF Reimbursement 1 (07)						$ 190.00		$ 248.75	$ 624.73	$ 1,063.48
										$ -
Non-DERF Cost Total				*$ -*	*$ -*	*$ 190.00*	*$ -*	*$ 248.75*	*$ 624.73*	*$ 1,063.48*
INVOICE GRAND TOTAL				**$ -**	**$ 1,176.31**	**$ 340.00**	**$ 3,867.35**	**$ 248.75**	**$ 624.73**	**$ 24,748.39**
Check Numbers										

Site Name: *Former Hoffman's Valet Cleaners*
BRRTS #: *02-41-307576*
Type of Action: *Site Investigation*

Dry Cleaner Environmental Response Program
Reimbursement Cost Detail Linking Spreadsheet Form 4400-214D (R 08/12)

TASKS	BUDGET				DERF COST BREAKOUT (this claim)									
Bid / Budgeted Description	Bid / Budgeted Amount	Bid / Budgeted Amount	Total Approved Budget	Previous Claims (DC-581)	A Soil Investigation	B Soil Remediation	C Groundwater Investigation	D Groundwater Remediation	E Air/Vapor Investigation	F Air/Vapor Remediation	G Lab & Other Analysis	H Miscellaneous Costs	Budget Remaining Use (-) to indicate cost over-run	% Task Complete, Remarks
Consultant Costs														
Further Site Investigation 1														Task % Complete
Work Scope Development and Health and Safety Plan (06a)	$ 6,125.00		$ 6,125.00				$ 1,992.00		$ 4,045.50				$ 87.50	100
Off-Site Access Agreements (06b)	$ 1,474.00		$ 1,474.00						$ 1,908.70				$ (434.70)	100
Sub-Slab Vapor and Indoor/Outdoor Air Sampling (06c)	$ 3,641.00		$ 3,641.00						$ 4,210.30				$ (569.30)	100
Groundwater Monitoring (06d)	$ 1,572.00		$ 1,572.00				$ 1,959.75						$ (387.75)	100
Investigation-Derived Media Management (06e)	$ 895.00		$ 895.00				$ 771.81						$ 123.19	100
Data Evaluation and Reporting (06f)	$ 4,773.00		$ 4,773.00				$ 1,455.00		$ 2,960.95				$ 357.05	100
Project Management (06g)	$ 2,800.00		$ 2,800.00				$ 785.00		$ 1,595.90				$ 419.10	100
Further Site Investigation 2 and SSDS Installation														
Work Scope Development (08a)		$ 4,675.00												
Utility Corridor Investigations (08b)		$ 3,952.00												
Modified SSDS Installation and Reporting (08c)		$ 6,923.00												
Results Reports for Off-Site Property Owners (08d)		$ 1,209.00												
Project Management (08e)		$ 3,233.00												
Consultant Cost Total	*$ 21,280.00*	*$ 19,992.00*	*$ 21,280.00*	*$ -*									*$ (404.91)*	
Sub-Contractor Costs														
Analytical	$ 2,410.00	$ 1,216.70	$ 2,410.00								$ 2,000.00		$ 410.00	
Driller		$ 1,350.00											$ -	
Waste Disposal		$ 200.00											$ -	
SSDS Installation		$ 15,100.00											$ -	
Sub-Contractor Cost Total	*$ 2,410.00*	*$ 17,866.70*	*$ 2,410.00*	*$ -*									*$ 410.00*	
DERF ELIGIBLE SUB-TOTALS	$ 23,690.00	$ 37,858.70	$ 23,690.00	$ -	$ -	$ -	$ 6,963.56	$ -	$ 14,721.35	$ -	$ 2,000.00	$ -	$ 5.09	

Non-DERF Eligible Expenses	
DERF Reimbursement 1 (07)	
Non-DERF Cost Total	$ -
INVOICE GRAND TOTAL	$ -

Total DERF Eligible Costs This Claim **$ 23,684.91**

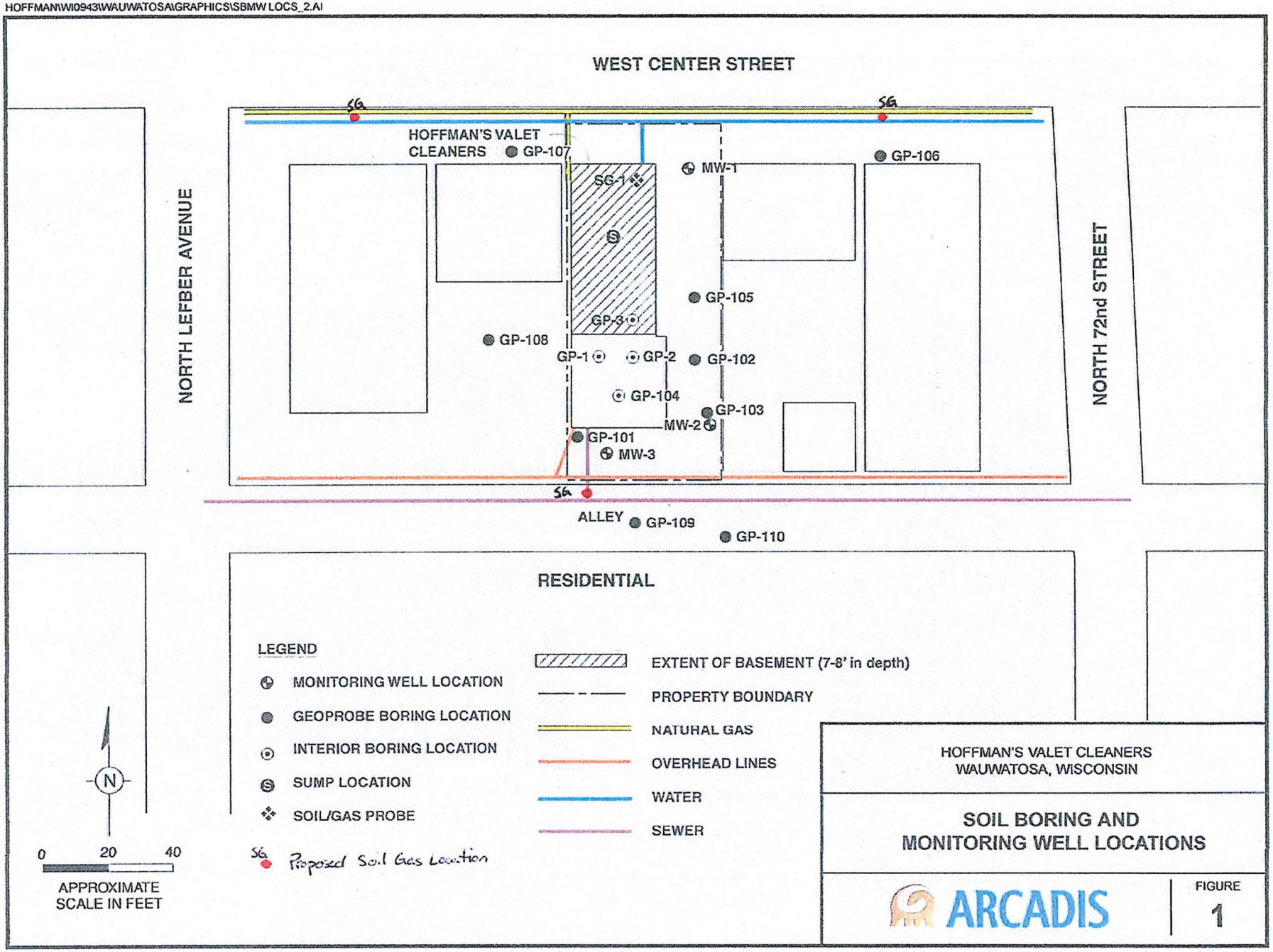
Check Numbers

ENVIRO forensics

ATTACHMENT 1

GEOLOGIC CROSS SECTION

12MAY09-ENVIRONMENT-EB\PL-LMB
HOFFMAN\WI0943\WAUWATOSA\GRAPHICS\SBMW LOCS_2.AI

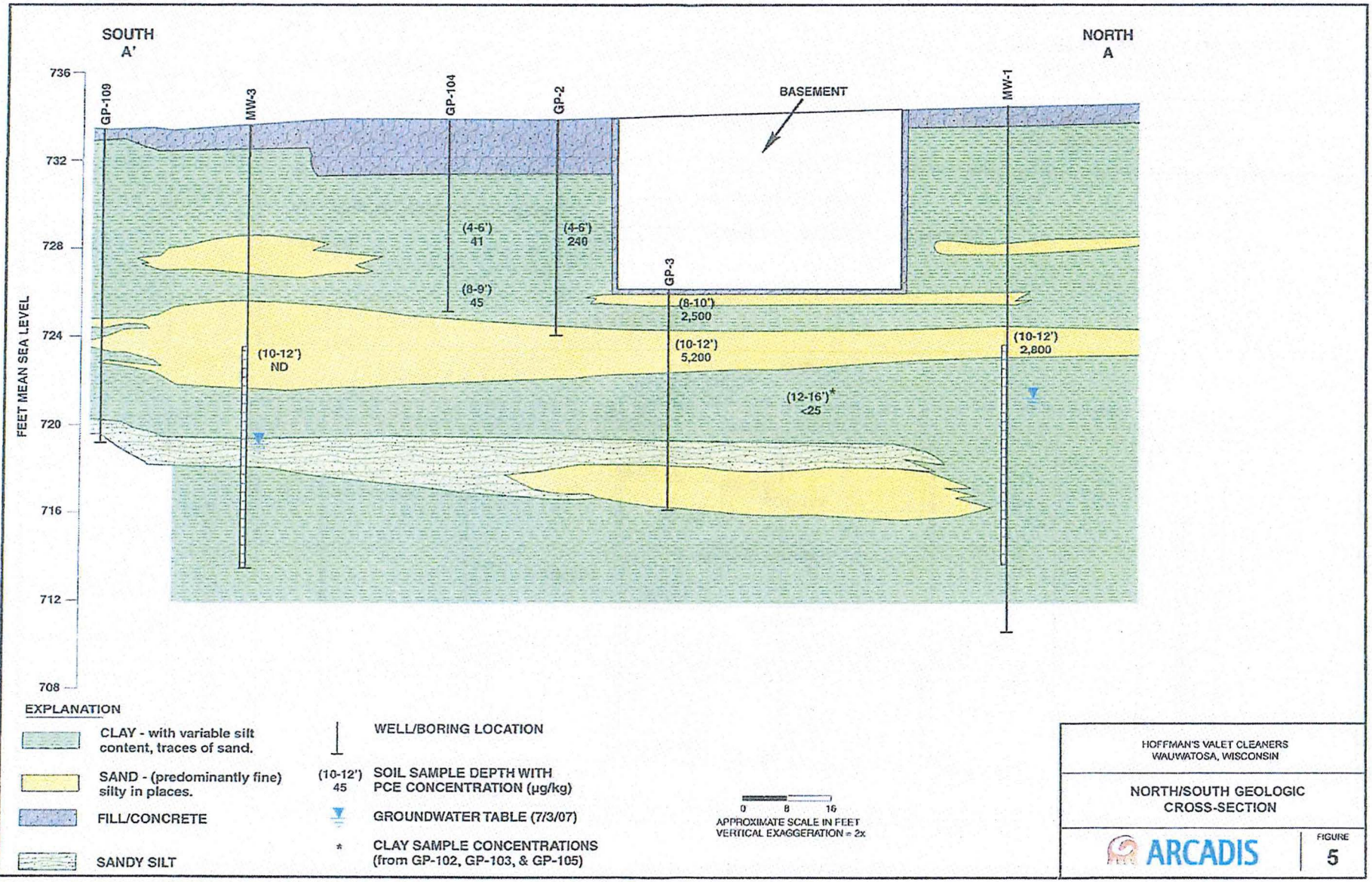


HOFFMAN'S VALET CLEANERS
WAUWATOSA, WISCONSIN

SOIL BORING AND MONITORING WELL LOCATIONS

ARCADIS

FIGURE
1

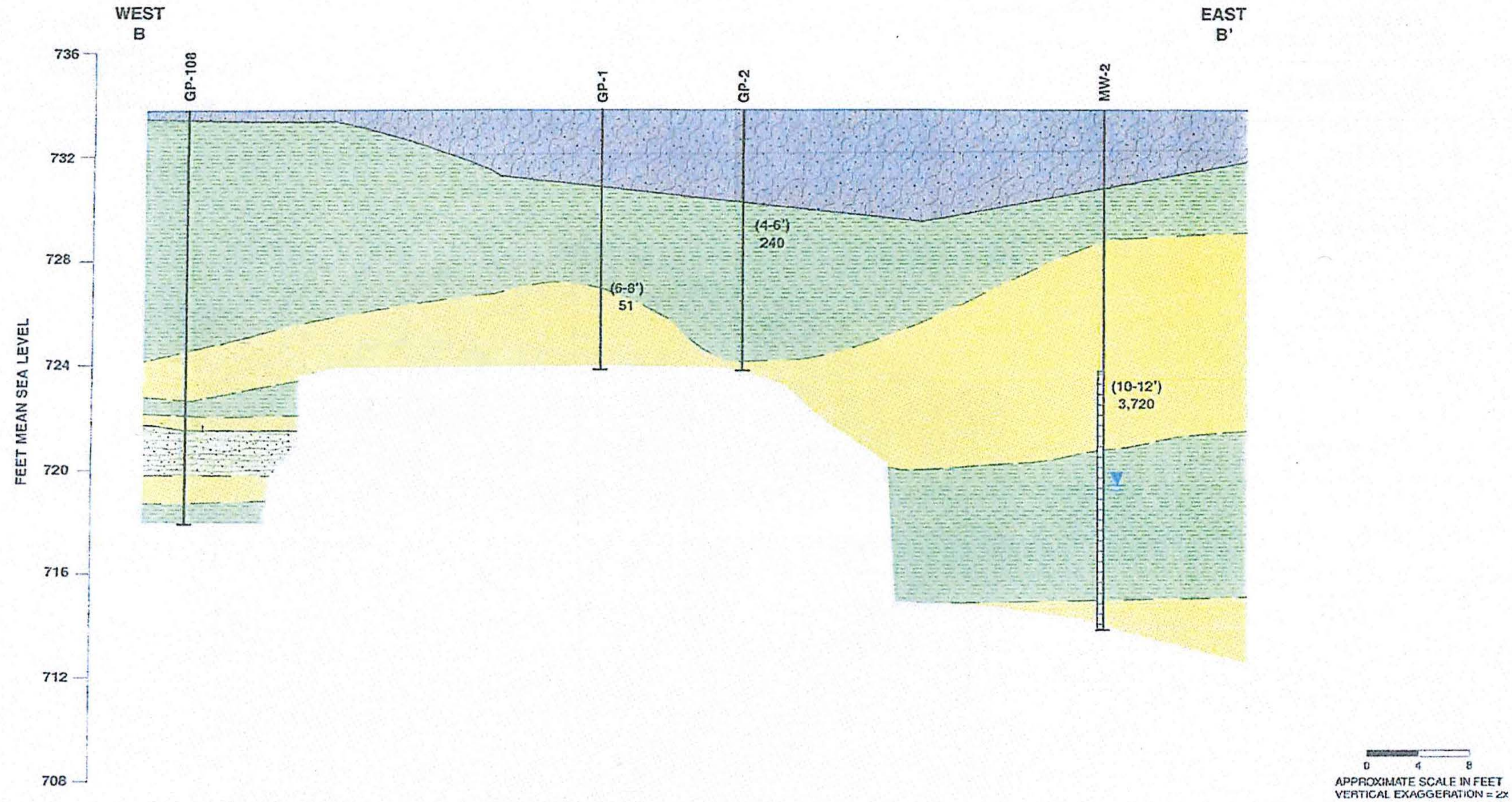


HOFFMAN'S VALET CLEANERS
WAUWATOSA, WISCONSIN

NORTH/SOUTH GEOLOGIC CROSS-SECTION

ARCADIS

FIGURE
5



EXPLANATION

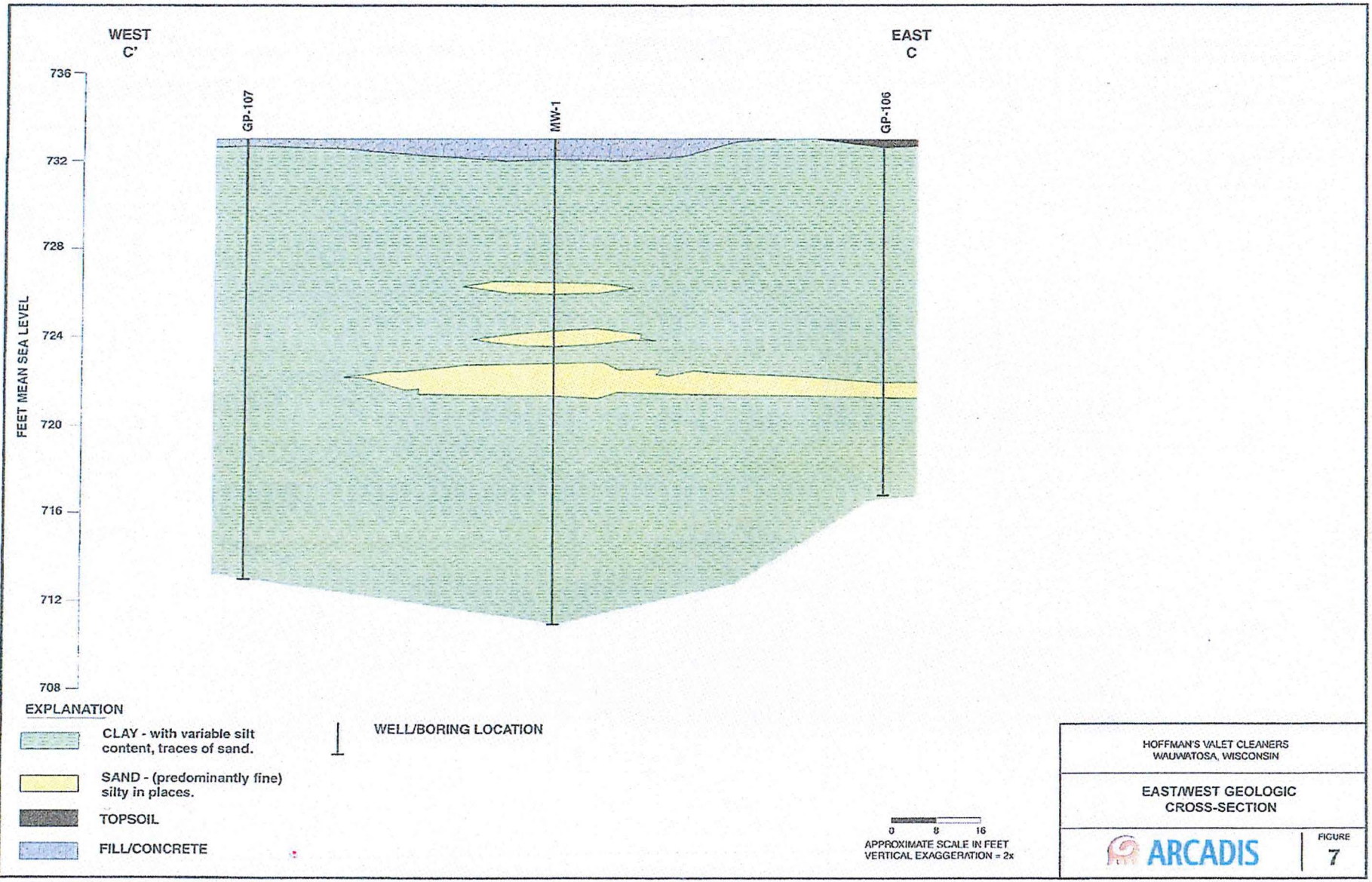
- CLAY - with variable silt content, traces of sand.
- SAND - (predominantly fine) silty in places.
- FILL/CONCRETE
- SAND & GRAVEL
- SANDY SILT
- WELL/BORING LOCATION
- (6-8') 51 — SOIL SAMPLE DEPTH WITH PCE CONCENTRATION (µg/kg)
- GROUNDWATER TABLE (7/3/07)

HOFFMAN'S VALET CLEANERS
WAUWATOSA, WISCONSIN

WEST/EAST GEOLOGIC CROSS-SECTION

ARCADIS

FIGURE 6


WEST
C'
EAST
C
736
732
728
724
720
716
712
708
FEET MEAN SEA LEVEL
GP-107
MW-1
GP-106
EXPLANATION
CLAY - with variable silt content, traces of sand.
SAND - (predominantly fine) silty in places.
TOPSOIL
FILL/CONCRETE
WELL/BORING LOCATION
0
8
16
APPROXIMATE SCALE IN FEET
VERTICAL EXAGGERATION = 2x
HOFFMAN'S VALET CLEANERS
WAUWATOSA, WISCONSIN
EAST/WEST GEOLOGIC CROSS-SECTION
ARCADIS
FIGURE
7

ATTACHMENT 2

GROUNDWATER LABORATORY REPORT

SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS

Former Hoffman's Valet Cleaners

Wauwatosa, Wisconsin

Sample Identification	Date Sampled	Tetrachloroethylene	Trichloroethylene	cis-1,2-Dichloroethylene	Methylene Chloride	Chloroform
GP-102	9/12/2002	<0.63	<0.48	ND	<0.43	ND
GP-103	9/12/2002	**2.9**	<0.48	ND	<0.43	ND
GP-105	9/12/2002	<0.63	<0.48	ND	<0.43	ND
MW-1	1/28/2005	<0.50	<0.48	<0.50	<1.0	<0.20
	1/8/2007 *	**1.1**	<0.48	ND	<0.43	ND
	4/5/2007 *	**1.4 Q**	<0.48	ND	<0.43	ND
	7/3/2007 *	**1.0 Q**	**0.81 Q**	ND	**0.73 Q**	ND
	9/5/2013	**5.2**	<0.33	<0.38	<0.5	<0.28
MW-2	1/28/2005	<0.50	<0.20	<0.50	<1.0	<0.20
	1/8/2007	<0.50	<0.20	ND	<1.0	ND
	4/5/2007	**5.5**	<0.48	ND	<0.43	ND
	7/3/2007	**1.7**	**0.95 Q**	ND	<0.43	ND
	9/5/2013 *	**3.9**	<0.33	**0.44 J**	<0.5	**0.30 J**
MW-3	1/28/2005	<0.50	<0.20	<0.50	<1.0	<0.20
	1/8/2007	<0.50	<0.20	ND	<1.0	ND
	4/5/2007	<0.45	<0.48	ND	<0.43	ND
	7/3/2007	<0.45	<0.48	ND	<0.43	ND
	9/5/2013	<0.33	<0.33	<0.38	<0.5	<0.28
Enforcement Standard		**5**	**5**	**70**	**5**	**6**
Preventive Action Limit		**0.5**	**0.5**	**7.0**	**0.5**	**0.6**

Notes:

All concentrations reported in units of micrograms per liter (ug/L)

2005 and 2007 data collected by ARCADIS

Samples analyzed using EPA SW-846 Method 8260

Bolded values are above detection limits

Bolded and orange shaded values are above NR 140 Public Health Enforcement Standards

Bolded and blue shaded values are above NR 140 Public Health Preventive Action Limits

* Indicates result is the highest concentration detected in duplicate samples

J = Concentration is greater than the method detection limit but less than the reporting limit

ND = Compound not detected; detection limit unknown

Q = One or more quality control criteria failed.

ENVIRO forensics

Synergy Environmental Lab, INC.

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

BRIAN KAPPEN
ENVIROFORENSICS
N16 W23390 STONE RIDGE DRIVE
WAUKESHA, WI 53188

Report Date *16-Sep-13*

Project Name HOFFMAN CLEANERS **Invoice #** E25721
Project #

Lab Code 5025721A
Sample ID 6200-MW-1
Sample Matrix Water
Sample Date 9/5/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		9/13/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		9/13/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		9/13/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		9/13/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		9/13/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		9/13/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		9/13/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		9/13/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		9/13/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		9/13/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		9/13/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		9/13/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		9/13/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		9/13/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		9/13/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		9/13/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		9/13/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		9/13/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		9/13/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		9/13/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		9/13/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		9/13/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		9/13/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		9/13/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		9/13/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		9/13/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		9/13/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		9/13/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		9/13/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		9/13/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		9/13/2013	CJR	1

Project Name HOFFMAN CLEANERS **Invoice #** E25721
Project #

Lab Code 5025721A
Sample ID 6200-MW-1
Sample Matrix Water
Sample Date 9/5/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		9/13/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		9/13/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		9/13/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		9/13/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		9/13/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		9/13/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		9/13/2013	CJR	1
Tetrachloroethene	5.2	ug/l	0.33	1.1	1	8260B		9/13/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		9/13/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		9/13/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		9/13/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		9/13/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		9/13/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		9/13/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		9/13/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		9/13/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		9/13/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		9/13/2013	CJR	1
SUR - 4-Bromofluorobenzene	105	REC %			1	8260B		9/13/2013	CJR	1
SUR - Dibromofluoromethane	96	REC %			1	8260B		9/13/2013	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		9/13/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	95	REC %			1	8260B		9/13/2013	CJR	1

Project Name HOFFMAN CLEANERS **Invoice #** E25721
Project #

Lab Code 5025721B
Sample ID 6200-MW-2
Sample Matrix Water
Sample Date 9/5/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		9/13/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		9/13/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		9/13/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		9/13/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		9/13/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		9/13/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		9/13/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		9/13/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		9/13/2013	CJR	1
Chloroform	0.30 "J"	ug/l	0.28	0.88	1	8260B		9/13/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		9/13/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		9/13/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		9/13/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		9/13/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		9/13/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		9/13/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		9/13/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		9/13/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		9/13/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		9/13/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		9/13/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		9/13/2013	CJR	1
cis-1,2-Dichloroethene	0.44 "J"	ug/l	0.38	1.2	1	8260B		9/13/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		9/13/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		9/13/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		9/13/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		9/13/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		9/13/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		9/13/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		9/13/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		9/13/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		9/13/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		9/13/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		9/13/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		9/13/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		9/13/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		9/13/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		9/13/2013	CJR	1
Tetrachloroethene	3.9	ug/l	0.33	1.1	1	8260B		9/13/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		9/13/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		9/13/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		9/13/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		9/13/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		9/13/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		9/13/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		9/13/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		9/13/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		9/13/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		9/13/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	100	REC %			1	8260B		9/13/2013	CJR	1
SUR - 4-Bromofluorobenzene	101	REC %			1	8260B		9/13/2013	CJR	1
SUR - Dibromofluoromethane	101	REC %			1	8260B		9/13/2013	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		9/13/2013	CJR	1

Project Name HOFFMAN CLEANERS **Invoice #** E25721
Project #

Lab Code 5025721C
Sample ID 6200-MW-3
Sample Matrix Water
Sample Date 9/5/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		9/13/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		9/13/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		9/13/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		9/13/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		9/13/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		9/13/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		9/13/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		9/13/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		9/13/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		9/13/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		9/13/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		9/13/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		9/13/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		9/13/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		9/13/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		9/13/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		9/13/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		9/13/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		9/13/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		9/13/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		9/13/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		9/13/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		9/13/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		9/13/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		9/13/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		9/13/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		9/13/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		9/13/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		9/13/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		9/13/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		9/13/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		9/13/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		9/13/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		9/13/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		9/13/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		9/13/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		9/13/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		9/13/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		9/13/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		9/13/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		9/13/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		9/13/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		9/13/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		9/13/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		9/13/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		9/13/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		9/13/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		9/13/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		9/13/2013	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		9/13/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	95	REC %			1	8260B		9/13/2013	CJR	1
SUR - 4-Bromofluorobenzene	106	REC %			1	8260B		9/13/2013	CJR	1
SUR - Toluene-d8	101	REC %			1	8260B		9/13/2013	CJR	1

Project Name HOFFMAN CLEANERS **Invoice #** E25721
Project #

Lab Code 5025721D
Sample ID 6200-MW-DUP
Sample Matrix Water
Sample Date 9/5/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		9/13/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		9/13/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		9/13/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		9/13/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		9/13/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		9/13/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		9/13/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		9/13/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		9/13/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		9/13/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		9/13/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		9/13/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		9/13/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		9/13/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		9/13/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		9/13/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		9/13/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		9/13/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		9/13/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		9/13/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		9/13/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		9/13/2013	CJR	1
cis-1,2-Dichloroethene	0.40 "J"	ug/l	0.38	1.2	1	8260B		9/13/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		9/13/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		9/13/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		9/13/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		9/13/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		9/13/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		9/13/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		9/13/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		9/13/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		9/13/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		9/13/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		9/13/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		9/13/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		9/13/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		9/13/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		9/13/2013	CJR	1
Tetrachloroethene	3.8	ug/l	0.33	1.1	1	8260B		9/13/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		9/13/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		9/13/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		9/13/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		9/13/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		9/13/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		9/13/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		9/13/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		9/13/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		9/13/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		9/13/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		9/13/2013	CJR	1
SUR - 4-Bromofluorobenzene	105	REC %			1	8260B		9/13/2013	CJR	1
SUR - Dibromofluoromethane	97	REC %			1	8260B		9/13/2013	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		9/13/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	96	REC %			1	8260B		9/13/2013	CJR	1

Project Name HOFFMAN CLEANERS **Invoice #** E25721
Project #

Lab Code 5025721E
Sample ID 6200-FIELD BLANK
Sample Matrix Water
Sample Date 9/5/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		9/12/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		9/12/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		9/12/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		9/12/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		9/12/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		9/12/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		9/12/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		9/12/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		9/12/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		9/12/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		9/12/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		9/12/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		9/12/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		9/12/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		9/12/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		9/12/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		9/12/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		9/12/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		9/12/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		9/12/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		9/12/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		9/12/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		9/12/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		9/12/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		9/12/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		9/12/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		9/12/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		9/12/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		9/12/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		9/12/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		9/12/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		9/12/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		9/12/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		9/12/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		9/12/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		9/12/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		9/12/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		9/12/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		9/12/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		9/12/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		9/12/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		9/12/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		9/12/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		9/12/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		9/12/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		9/12/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		9/12/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		9/12/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		9/12/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		9/12/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		9/12/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		9/12/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		9/12/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	93	REC %			1	8260B		9/12/2013	CJR	1
SUR - 4-Bromofluorobenzene	108	REC %			1	8260B		9/12/2013	CJR	1
SUR - Dibromofluoromethane	97	REC %			1	8260B		9/12/2013	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		9/12/2013	CJR	1

Project Name HOFFMAN CLEANERS **Invoice #** E25721
Project #

Lab Code 5025721F
Sample ID TRIP BLANK
Sample Matrix Water
Sample Date 9/5/2013

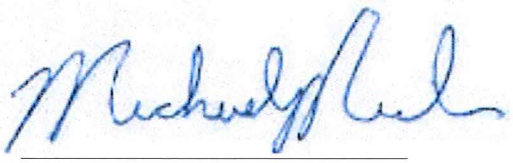
	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		9/12/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		9/12/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		9/12/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		9/12/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		9/12/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		9/12/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		9/12/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		9/12/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		9/12/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		9/12/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		9/12/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		9/12/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		9/12/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		9/12/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		9/12/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		9/12/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		9/12/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		9/12/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		9/12/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		9/12/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		9/12/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		9/12/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		9/12/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		9/12/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		9/12/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		9/12/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		9/12/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		9/12/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		9/12/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		9/12/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		9/12/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		9/12/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		9/12/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		9/12/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		9/12/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		9/12/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		9/12/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		9/12/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		9/12/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		9/12/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		9/12/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		9/12/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		9/12/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		9/12/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		9/12/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		9/12/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		9/12/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		9/12/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		9/12/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		9/12/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		9/12/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		9/12/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		9/12/2013	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		9/12/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	95	REC %			1	8260B		9/12/2013	CJR	1
SUR - 4-Bromofluorobenzene	107	REC %			1	8260B		9/12/2013	CJR	1
SUR - Dibromofluoromethane	95	REC %			1	8260B		9/12/2013	CJR	1

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

Code	*Comment*
1	Laboratory QC within limits.
8	Closing calibration standard not within established limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature



ENVIRO forensics

ATTACHMENT 3

SUB-SLAB VAPOR AND INDOOR/OUTDOOR AIR FIELD SAMPLING FORMS

ENVIRO forensics

INDOOR AIR BUILDING SURVEY FORM

Larry OLM
414-771-4767

IDEM Site # _____

Site Name Hoffman Cleaners

Address 7215 W Center St
Wauwatosa WI

Occupant Information

Name Not Occupied

Address _____

_____

Telephone No (___) _____ Home/Work/Mobile

(___) _____ Home/Work/Mobile

Number and Age of Occupants ____

Does anyone smoke inside the building? —

Building Characteristics

Type of building: (circle) Residential/Industrial/School/(Commercial)/Multi-use/Other? _____

If residential, what type (circle) Single family/Condo/Multi-family/Other? —

If the property is commercial, indicate the business ? Vacant - offices

How many floors does the building have? 2

Does the building have a (circle) (Basement) Crawl space/Slab-on-grade/Other? _____

Is the basement used as a living/work space area? No

What type of foundation does the building have (circle) Field stone/Poured concrete/(Concrete block) Other? _____

Describe the heating system and type of fuel used? Gas - Forced Air

Is there an attached garage? No

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Spill/Contaminant Source Information

Type of petroleum/VOC release? VOC

When did the release occur? ?

What areas of the building have been impacted by the release? ?

Are there any odors? No If so describe the odors: _____

Where can release odors be detected? No

Sampling Information

Sample Date 9/4/2013

Sampler Type Sorbent (SUMMA) (Please circle one)

Analysis Method Mass APH (TO-15Standard) TO-15LL TO-15-SIM Other: (Please circle one)

IDEM program or Consulting Firm WDNR

Contact Person _____

Telephone No (___) _____

Laboratory _____

Telephone No (___) _____

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Pre-Sampling Background Screening and Inspection Information

List products or items which may be considered potential sources of VOCs such as paint cans, gasoline cans, gasoline powered equipment, cleaning solvents, furniture polish, moth balls, fuel tank, woodstove, fireplace, etc.

Date and time of pre-sampling inspection 9/4/2013

Table 3: Sampling Inspection Product Inventory

Potential VOC source	Present (Y/N)	Location	Field screening Results (ppm)	Product Description and Condition	Removal Date and Time
Paints or paint thinners	N				
Gas powered equipment					
Gasoline storage cans					
Cleaning solvents					
Furniture polish					
Moth balls					
Fuel tank					
Wood stove					
Fireplace					
Perfumes/colognes					
Glues					
Other:					
Other:					

Table 4: Potential vapor migration entry point information

Potential Vapor entry points	Present (Y/N)	Field screening results (ppm)	Comments
Foundation penetrations in floor or walls	~~N~~ Y		
Cracks in foundation floor or walls	Y		
Sump	Y		
Floor drain	Y		
Other			
Other			

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Sampling Information

Table 1: Sorbent Tube Sampler Information

Sample ID#	Floor	Room	Tube ID#	Pump ID#	Volume (liters)	Duration (minutes)	Comments

Check Refer to Indoor Air Sampling forms

Table 2: Canister Sampler Information

Sample ID#	Floor	Room	Canister ID#	Initial On-site Pressure*	Pressure* On-site Following Sample Collection	Pressure Received at the Laboratory

*Indicate pressure in units of inches of mercury.
Please provide a sketch of spill area and location of sampler unit(s) on following page.

Was the building ventilated prior to sample collection? No

How long was the ventilation process? ———

Were vapor control methods in effect while the samples were being collected?

Windows open? Yes / (No) Ventilation fans? Yes / (No) Vapor barriers? Yes / (No)

Vapor phase carbon treatment system? Yes / (No) SSDS? Yes / (No) Other site control measures

Weather Conditions during Sampling

Outside temperature (°F) ~ Inside temperature (°F) 70

Prevailing wind speed and direction

Describe the general weather conditions (e.g. sunny, cloudy, rain)

Significant precipitation (0.1 inches or more) within 12 hours of the sampling event?

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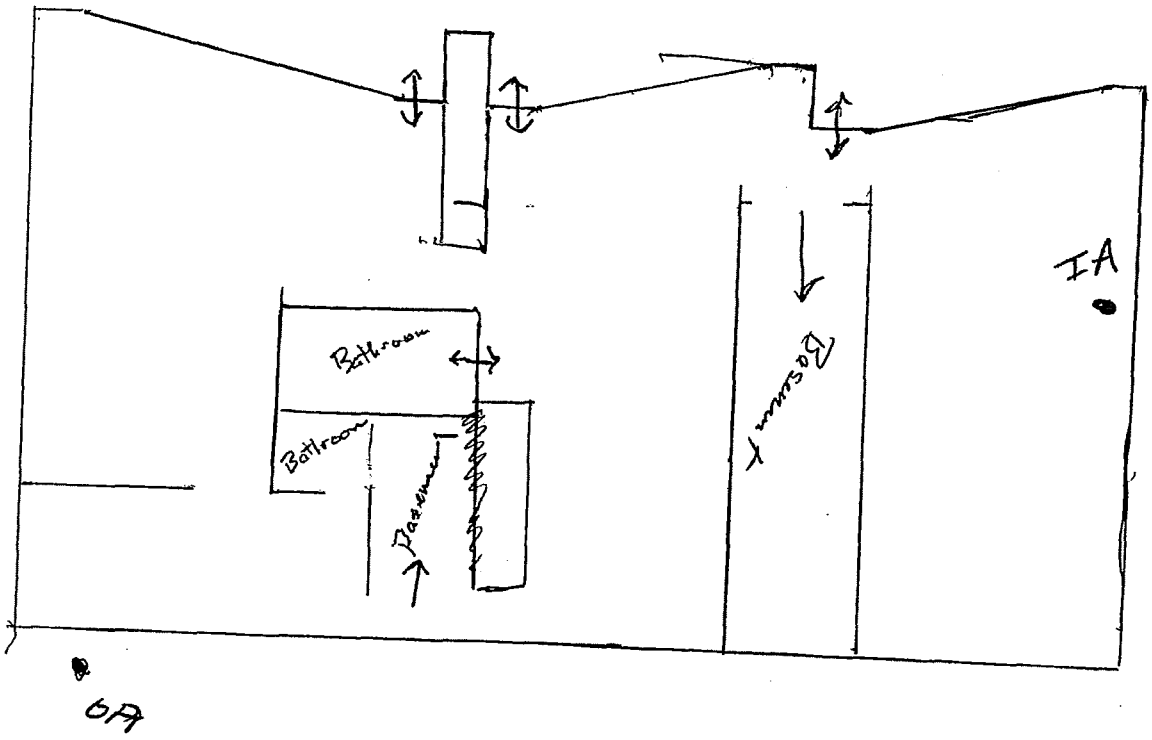
General Comments and Sketch Area

Is there any information you feel is important related to this site and the samples collected which would facilitate an accurate interpretation of the indoor air quality? Sketch floor plan, sample locations, location of background sources.

Comments: Vacant commercial unit
3 front Doors - Drafty - single pane
old school windows

Sketch:



ENVIRO forensics

Sub-Slab Vapor/ Soil Gas Field Sampling Form

200 S. Executive Dr, Suite 101
Brookfield, WI 53005
T: 414-982-3988 F: 262-789-6699

SAMPLER NAME	J. Jost	SAMPLE ID	6200-7219-SSV-2
LOCATION/ADDRESS	7219 N Center St	SAMPLE TIME	12:45
PROJECT NO./ NAME	6200 Hoffmans	CANISTER ID	83921
CLIENT/CONTACT		FLOW CONTROL ID	—
DATA COLLECTION: START DATE	9/5/2013	END DATE	9/5/2013

Time hh:mm	Vacuum Reading In. of Hg	Wind Direction	Wind Speed mph	Temperature °F	Barometer Hg	Relative Humidity %
13:40	-29	ENE	9.2	66.9	30.30	52
12:45	-10	ENE	9.2	66.9	30.30	52

Helium Leak Test		Pressure Test	
Date/Time performed:	12:25 9/5/2013	Date/Time performed:	/
Background He concentration (ppm):	0	Negative pressure of at least -15 in. Hg induced on sampling train?	
Shroud He concentration (%):	39.7%	(circle one):	(yes) no
Sub-slab vapor/soil-gas He concentration (post helium insertion):	0	Did pressure hold?	(yes) no
Helium Leak Test Passed:	(yes) no		

Notes:

ENVIRO forensics

Sub-Slab Vapor/ Soil Gas Field Sampling Form

200 S. Executive Dr, Suite 101
Brookfield, WI 53005
T: 414-982-3988 F: 262-789-6699

SAMPLER NAME	J. Jordan	SAMPLE ID	6200-7219-SSV-1
LOCATION/ADDRESS	7219 W Center St	SAMPLE TIME	12:10
PROJECT NO./ NAME	6200 Hoffmans	CANISTER ID	88727
CLIENT/CONTACT		FLOW CONTROL ID	NA
DATA COLLECTION: START DATE	~~9/4/13~~ 9/5/2013	END DATE	9/5/2013

Time hh:mm	Vacuum Reading In. of Hg	Wind Direction	Wind Speed mph	Temperature °F	Barometer Hg	Relative Humidity %
12:05	-27	ENE	11.5	66.9	30.30	51
12:10	-6.5	ENE	11.5	66.9	30.30	51

Helium Leak Test		Pressure Test	
Date/Time performed:	11:50 9/5/2013 /	Date/Time performed:	9/5/2013 /
Background He concentration (ppm):	0	Negative pressure of at least -15 in. Hg induced on sampling train?	
Shroud He concentration (%):	46.2	(circle one):	(yes) no
Sub-slab vapor/soil-gas He concentration (post helium insertion):	0	Did pressure hold?	(yes) no
Helium Leak Test Passed:	(yes) no		

Notes:

ENVIRO forensics

Indoor Air Field Sampling Form

602 N. Capitol Avenue, Ste. 210,
Indianapolis, IN 46204
T:317-972-7870 F: 317-972-7875

PROJECT NAME	Hoffmans Cleaners	SAMPLE DATE	9/4/2013
LOCATION/ADDRESS	7215 W Center St	SAMPLE ID	6200-7215-01
PROJECT NO.	6200	SAMPLE TIME	19:35
CLIENT/CONTACT	DNR	CANISTER ID	91442
DATA COLLECTION: START DATE	9/4/2013	~~END DATE~~ Flow #	05252

Time	Vaccum Reading	Wind Direction	Wind Speed	Temperature	Barometer	Relative Humidity
hh:mm	In. of H2O		mph	°F	Hg	%
~~11:00~~	~~-29~~					
~~[illegible]~~						
11:35	-29.5	West	9.2	78.1	30.08	48
19:35	-8	East Northeast	9.2	68.0	30.10	88

Notes:

ENVIRO forensics

Indoor Air Field Sampling Form

602 N. Capitol Avenue, Ste. 210,
Indianapolis, IN 46204
T:317-972-7870 F: 317-972-7875

PROJECT NAME	Hoffman Cleaners	SAMPLE DATE	9/4/2013
LOCATION/ADDRESS	7215 W Carter St	SAMPLE ID	6200-7015-IA-
PROJECT NO.	6200	SAMPLE TIME	19:20
CLIENT/CONTACT	?	CANISTER ID	10332
DATA COLLECTION: START DATE	9/4/2013	END DATE	05301

Time	Vaccum Reading	Wind Direction	Wind Speed	Temperature	Barometer	Relative Humidity
hh:mm	In. of H2O		mph	°F	Hg	%
11:20	??	West	9.2	75	30.08	51
19:20	-30	North East	9.2	70	30.09	81

Notes: Regulator Not working properly

-22 = 0 pressure

ENVIRO forensics

ATTACHMENT 4

SUB-SLAB VAPOR AND INDOOR/OUTDOOR AIR LABORATORY REPORT

SUMMARY OF SUB-SLAB VAPOR SAMPLE ANALYTICAL RESULTS

Former Hoffman's Valet Cleaners

Wauwatosa, Wisconsin

Sample Identification	Sample Date	Property Address (W. Center St)	Tetrachloroethene	Trichloroethene	cis-1-2-Dichloroethene	Acetone	Carbon Disulfide	Cyclohexane	1,2-Dichloroethene	n-Hexane	Isopropyl Alcohol	Methyl Ethyl Ketone	Toluene
SS-2	11/16/2009	7209	**81**	<2.7	<1.7	NA	**2.6**	<1.7	<1.7	**3.42**	NA	NA	**2.4**
Basement Sump	7/26/2006	7215	**5,100**	**54**	**28**	**550**	**120**	**180**	**28**	**110**	**980**	**53**	**49**
SG-1	7/28/2006	7215	**20,000**	<110	<79	<1,200	<160	<69	<79	<180	<1,200	<150	<75
7215-SSV-1	2/20/2014	7215	**1,440**	**48.9**	<7.90	NA	NA	NA	NA	NA	NA	NA	NA
7215-SSV-2	2/20/2014	7215	**3,600**	**12.4**	<7.90	NA	NA	NA	NA	NA	NA	NA	NA
SS-1	10/21/2009	7219	**244,000**	<110	<79	<43	<64	<69	<79	<70	<1,200	<150	<75
7219-SSV-1	9/4/2013	7219	**298**	**8.54**	<19.8	NA	NA	NA	NA	NA	NA	NA	NA
	2/20/2014		**239**	<10.7	<7.90	NA	NA	NA	NA	NA	NA	NA	NA
7219-SSV-2	9/4/2013	7219	**36.6**	<1.07	<19.8	NA	NA	NA	NA	NA	NA	NA	NA
	2/20/2014		**118.0**	<10.7	<7.90	NA	NA	NA	NA	NA	NA	NA	NA
Vapor Risk Screening Level [1]			**1,800**	**88**	**NE**	**1,400,000**	**31,000**	**260,000**	**47**	**31,000**	**310,000**	**220,000**	**220,000**

Notes:

[1] The Vapor Risk Screeing Levels are based on U.S. EPA Regional Screening Levels for non-residential indoor air with an attenuation factor of 0.1 and a 0.1 adjustment for 1 x 10-5 excess cancer risk for carcinogens.

2006 and 2009 data collected by ARCADIS

All concentrations reported in untis of micrograms per cubic meter (ug/m3)

Bolded and orange shaded values exceed the Vapor Risk Screening Level

Bolded values are above detection limits

NE = Not Established

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Mr. Brian Kappen
Enviroforensics
N16 W. 23390 Stone Ridge Dr
Suite G
Waukesha, WI 53188

September 20, 2013

ENVision Project Number: 2013-312
Client Project Name: Hoffmans Cleaners - 6200

Dear Mr. Kappen,

Please find the attached analytical report for the samples received September 9, 2013. All test methods performed were fully compliant with local, state, and federal EPA methods unless otherwise noted. The project was analyzed as requested on the enclosed chain of custody record. Please review the comments section for additional information about your results or Quality Control data.

Feel free to contact me if you have any questions or comments regarding your analytical report or service.

Thank you for your business. EnvisionAir looks forward to working with you on your next project.

Yours Sincerely,

David Norris

David Norris

Client Services Manager
EnvisionAir

EnvisionAir
1437 Sadlier Circle West Drive
Indianapolis, IN 46239
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Fax: 317-351-0882
www.envision-air.com

Client Name: ENVIROFORENSICS

Project ID: HOFFMAN CLEANERS - 6200

Client Project Manager: BRIAN KAPPEN

EnvisionAir Project Number: 2013-312

Sample Summary

Canister Pressure / Vacuum

Laboratory Sample Number:	Sample Description:	Matrix:	START Date Collected:	START Time Collected:	End Date Collected:	End Time Collected:	Date Received:	Time Received	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)
13-1122	6200-7219-IA	A	9/4/13	11:20	9/4/13	19:20	9/9/13	10:00	-30		
13-1123	6200-7219-OA	A	9/4/13	11:35	9/4/13	19:35	9/9/13	10:00	-29.5	-8	-8
13-1124	6200-7219-SSV-1	A	9/5/13	12:05	9/5/13	12:10	9/9/13	10:00	-27	-6.5	-6.5
13-1125	6200-7219-SSV-2	A	9/5/13	12:40	9/5/13	12:45	9/9/13	10:00	-29	-10	-10

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Client Name:	ENVIROFORENSICS
Project ID:	HOFFMAN CLEANERS - 6200
Client Project Manager:	BRIAN KAPPEN
EnvisionAir Project Number:	2013-312
Analytical Method:	TO-15
Analytical Batch:	091113CAIR
Client Sample ID:	6200-7219-IA
Envision Sample Number:	13-1122
Sample Matrix:	AIR

Sample Collection START Date/Time:	9/4/13	11:20
Sample Collection END Date/Time:	9/4/13	19:20
Sample Received Date/Time:	9/9/13	10:00

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	**9.16**	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichlorethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	102%		
Analysis Date/Time:	9-12-13/12:23		
Analyst Initials	tjg		

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Client Name:	ENVIROFORENSICS			
Project ID:	HOFFMAN CLEANERS - 6200			
Client Project Manager:	BRIAN KAPPEN			
EnvisionAir Project Number:	2013-312			
Analytical Method:	TO-15			
Analytical Batch:	091113CAIR			
Client Sample ID:	6200-7219-OA	**Sample Collection START Date/Time:**	9/4/13	11:35
		Sample Collection END Date/Time:	9/4/13	19:35
Envision Sample Number:	13-1123	**Sample Received Date/Time:**	9/9/13	10:00
Sample Matrix:	AIR			

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	**22.4**	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichlorethene	**1.07**	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	100%		
Analysis Date/Time:	9-12-13/13:01		
Analyst Initials	tjg		

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Client Name:	ENVIROFORENSICS			
Project ID:	HOFFMAN CLEANERS - 6200			
Client Project Manager:	BRIAN KAPPEN			
EnvisionAir Project Number:	2013-312			
Analytical Method:	TO-15			
Analytical Batch:	091313TAIR			
Client Sample ID:	6200-7219-SSV-1	**Sample Collection START Date/Time:**	9/5/13	12:05
		Sample Collection END Date/Time:	9/5/13	12:10
Envision Sample Number:	13-1124	**Sample Received Date/Time:**	9/9/13	10:00
Sample Matrix:	AIR			

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	**298**	31.9	1
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichlorethene	**8.54**	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	101%		
Analysis Date/Time:	9-14-13/13:24		
Analyst Initials	tjg		

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Client Name:	ENVIROFORENSICS
Project ID:	HOFFMAN CLEANERS - 6200
Client Project Manager:	BRIAN KAPPEN
EnvisionAir Project Number:	2013-312
Analytical Method:	TO-15
Analytical Batch:	091313TAIR
Client Sample ID:	6200-7219-SSV-2
Envision Sample Number:	13-1125
Sample Matrix:	AIR

Sample Collection START Date/Time:	9/5/13	12:40
Sample Collection END Date/Time:	9/5/13	12:45
Sample Received Date/Time:	9/9/13	10:00

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	**36.6**	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichlorethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	101%		
Analysis Date/Time:	9-14-13/14:04		
Analyst Initials	tjg		

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Analytical Report

TO-15 Quality Control Data

EnvisionAir Batch Number: 091113CAIR

Method Blank (MB):	MB Results (ppbv)	Reporting Limit (ppbv)	Flags
cis-1,2-Dichloroethene	< 5	5	
Tetrachloroethene	< 0.47	0.47	
trans-1,2-Dichloroethene	< 10	10	
Trichlorethene	< 0.2	0.2	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	102%		
Analysis Date/Time:	9-11-13/23:01		
Analyst Initials	tjg		

LCS/LCSD	LCS Results (ppbv)	LCSD Results (ppbv)	LCS/D Conc(ppbv)	LCS Rec.	LCSD Rec.	RPD	Flag
Vinyl Chloride	9.77	8.39	10	98%	84%	15.2%	
trans-1,2-Dichloroethene	9.39	8.93	10	94%	89%	5.0%	
cis-1,2-Dichloroethene	10.5	10.3	10	105%	103%	1.9%	
Trichlorethene	9.51	9.42	10	95%	94%	1.0%	
Tetrachloroethene	9.24	9.06	10	92%	91%	2.0%	
4-bromofluorobenzene (surrogate)	100%	97%					
Analysis Date/Time:	9-11-13/21:04	9-11-13/22:29					
Analyst Initials	tjg	tjg					

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1437 Sadlier Circle West Drive
Indianapolis, IN 46239
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Fax: 317-351-0882
www.envision-air.com

Analytical Report

TO-15 Quality Control Data

EnvisionAir Batch Number: 091313TAIR

Method Blank (MB):	MB Results (ppbv)	Reporting Limit (ppbv)	Flags
cis-1,2-Dichloroethene	< 5	5	
Tetrachloroethene	< 0.47	0.47	
trans-1,2-Dichloroethene	< 10	10	
Trichlorethene	< 0.2	0.2	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	105%		
Analysis Date/Time:	9-14-13/03:12		
Analyst Initials	tjg		

LCS/LCSD	LCS Results (ppbv)	LCSD Results (ppbv)	LCS/D Conc(ppbv)	LCS Rec.	LCSD Rec.	RPD	Flag
Vinyl Chloride	10.5	10.1	10	105%	101%	3.9%	
trans-1,2-Dichloroethene	9.36	8.81	10	94%	88%	6.1%	
cis-1,2-Dichloroethene	11	10.1	10	110%	101%	8.5%	
Trichlorethene	8.73	8.5	10	87%	85%	2.7%	
Tetrachloroethene	9.27	9.47	10	93%	95%	2.1%	
4-bromofluorobenzene (surrogate)	109%	121%					
Analysis Date/Time:	9-14-13/01:59	9-14-13/02:38					
Analyst Initials	tjg	tjg					

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Flag Number	Comments
1	Reported value is from a 10x dilution. TJG 9-19-13

EnvisionAir Proj#: 2013-312 Page 1 of 1

CHAIN OF CUSTODY RECORD

EnvisionAir | 1437 Sadlier Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-0885 | Fax: (317) 351-0882

Client: Enviroforensics	P.O. Number:
Report Address: N16 W23390 Suite G Waukesha WI 53188	Project Name or Number: Hoffmann Cleaners 6200
~~Report To:~~ Wayne Fassbender Brian Kappens & J. Jordan	Sampled by: J. Jordan
Phone: Wayne 414-982-3488 & Jonathon J. 317-400-8813	QA/QC Required: (circle if applicable) Level III Level IV
Invoice Address: Indianapolis office	Reporting Units needed: (circle) ug/m³ mg/m³ PPBV PPMV
Desired TAT: (Please ~~Circle One~~) 1 day 2 days 3 days Std (5 bus. days)	Media type: 1LC = 1 Liter Canister; 6LC = 6 Liter Canister; TB = Tedlar Bag; TD = Thermal Desorption Tube

REQUESTED PARAMETERS

TO-15 Full List | TO-15 Short List

Sampling Type:
Soil-Gas: □
Sub-Slab: ☒
Indoor-Air: ☒

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Air Sample ID	Media Type (see code above)	Coll. Date (Grab/Comp Start)	Coll. Time (Grab/Comp Start)	Coll. Date (Comp. End)	Coll. Time (Comp. End)	TO-15 Full List	TO-15 Short List			Canister Serial #	Flow Controller Serial #	Canister Pressure / Vacuum: Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
6200-7219-IA	6 LC	9/4/13	11:20	9/4/13	~~19:20~~ 11:20		X			10332	05301	-?	-30		13-1122
6200-7219-OA	6 LC	9/4/13	11:35	~~9/4/13 19:35~~	19:35		X			91442	05252	-29.5	-8	-8	13-1123
6200-7219-SSV-1	1 LC	9/5/13	12:05	9/5/13	12:10		X			83727	NA	-27	-6.5	-6.5	13-1124
6200-7219-SSV-2	1 LC	9/5/13	12:40	9/5/13	12:45		X			83921	NA	-29	-10	-10	13-1125

Comments: Please report only PCE/TCE/cis-1,2-DCE/trans-1,2-DCE/Vinyl Chloride for all samples / Regulator on IA sample Broke 0 = -22

Relinquished by:	Date	Time	Received by:	Date	Time
	9/5/2013			9/9/13	10:00

Hnat, John J - DNR

From: Brian Kappen <BKappen@enviroforensics.com>
Sent: Wednesday, August 06, 2014 9:23 AM
To: Hnat, John J - DNR
Cc: Wayne Fassbender
Subject: Former Hoffman's Cleaners - BRRTS# 02-41-307576
Attachments: 2013 Investigation Results.pdf; 7219 W Center VI Results Feb 2014.pdf; Hoffmans VI Results Feb 2014.pdf; 2009 Extent of PCE in Soil.pdf

FID 241683150

J,

I would like to discuss closure of the former Hoffman's Cleaners site. Attached are the most recent data, collected in 2013 and early 2014, and a map showing the extent of soil impacts. Here is a quick summary of recent activities and results:

1. 2013 – conducted additional site investigation including groundwater monitoring and off-site vapor intrusion assessment at the neighboring commercial building. Groundwater has relatively low PCE and TCE impacts at or below the ES. Sub-slab vapor and indoor air results were below screening/ action levels.
2. February 2014 – conducted winter vapor intrusion sampling at the site building and the neighboring commercial building. Sub-slab vapor below the site building contained PCE above the screening level. Sub-slab vapor and indoor air at the neighboring building were again well below screening/ action levels.

Overall, the subsurface impacts are minimal and limited to the site itself. Vapor intrusion appears to be the only potential exposure pathway.

I will call you later today to discuss additional steps needed for case closure.

Best Regards,

Brian Kappen, P.G.
Project Manager

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