### **GIS REGISTRY**

**Cover Sheet** 

March, 2010 (RR 5367)

\*\*Site Specific Residual Contaminant Level

Source Pro	perty Information	CLOSURE DATE: 10/05/2011
BRRTS #:	02-68-539228	
ACTIVITY NAME:	OHM Brookfield	FID #: 268204420
PROPERTY ADDRES	S: 3055 North 124th Street, Brookfield, W	VI 53005 DATCP #:
MUNICIPALITY:	City of Brookfield	COMM #: None
PARCEL ID #: BR C1057010		
	*WTM COORDINATES:	WTM COORDINATES REPRESENT:
	X: <b>677369</b> Y: <b>290815</b>	C Approximate Center Of Contaminant Source
* Coordinates are in WTM83, NAD83 (1991)		• Approximate Source Parcel Center
lease check as app	propriate: (BRRTS Action Code)	
	Contan	ninated Media:
X <u>G</u> r	oundwater Contamination > ES (236)	∑ Soil Contamination > *RCL or **SSRCL (232)
F	Contamination in ROW	Contamination in ROW
	Off-Source Contamination	☐ Off-Source Contamination
	note: for list of off-source properties ee "Impacted Off-Source Property" form)	(note: for list of off-source properties see "Impacted Off-Source Property" form)
	Land	Use Controls:
Γ	N/A (Not Applicable)	☐ Cover or Barrier (222)
Γ	Soil: maintain industrial zoning (220)	(note: maintenance plan for groundwater or direct contact)
	note: soil contamination concentrations etween non-industrial and industrial levels)	☐ Vapor Mitigation (226)
	Structural Impediment (224)	Maintain Liability Exemption (230)
Г	Site Specific Condition (228)	(note: local government unit or economic development corporation was directed to take a response action)
	Moni	itoring Wells:
	Are all monitoring wells pro	operly abandoned per NR 141? (234)
	<b>(</b> Yes	C No C N/A
		* Residual Contaminant Level

State of Wisconsin

Department of Natural Resources http://dnr.wi.gov

#### PLEASE ASSEMBLE IN THIS ORDER

#### GIS Registry Checklist

Form 4400-245 (R 8/11)

Page 1 of 3

This Adobe Fillable form is intended to provide a list of Information that is required for evaluation for case closure. It is to be used in conjunction with Form 4400-202, Case Closure Request. The closure of a case means that the Department has determined that no further response is required at that time based on the information that has been submitted to the Department.

NOTICE: Completion of this form is mandatory for applications for case closure pursuant to ch. 292, Wis. Stats. and ch. NR 726, Wis. Adm. Code, including cases closed under ch. NR 746 and ch. NR 726. The Department will not consider, or act upon your application, unless all applicable sections are completed on this form and the closure fee and any other applicable fees, required under ch. NR 749, Wis. Adm. Code, Table 1 are included. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than reviewing closure requests and determining the need for additional response action. The Department may provide this information to requesters as required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

BRRTS #:	02-68-539228	(No Dashes)	PARCEL ID #:	BR C1057010	
ACTIVITY NAME:	OHM Brookfield			WTM COORDINATES:	X: 677369 Y: 290815
CLOSURE DOC	CLOSURE DOCUMENTS (the Department adds these items to the final GIS packet for posting on the Registry)				
⊠ Closure Letter					
Maintenance Plan (if activity is closed with a land use limitation or condition (land use control) under s. 292.12, Wis. Stats.)					
Continuing Obligation Cover Letter (for property owners affected by residual contamination and/or continuing obligations)					
Conditional Closure Letter					
Certificate of Completion (COC) (for VPLE sites)					
SOURCE LEGAL DOCUMENTS					

- | Deed: The most recent deed as well as legal descriptions, for the Source Property (where the contamination originated). Deeds for other, off-source (off-site) properties are located in the **Notification** section. Note: If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written
- □ Certified Survey Map: A copy of the certified survey map or the relevant section of the recorded plat map for those properties. where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. (lots on subdivided or platted property (e.g. lot 2 of xyz subdivision)).

Title: PLAT OF SURVEY Figure #:

🔀 Signed Statement: A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description accurately describes the correct contaminated property.

MAPS (meeting the visual aid requirements of s. NR 716.15(2)(h))

Maps must be no larger than 11 x 17 inches unless the map is submitted electronically.

documentation of the property transfer should be submitted along with the most recent deed.

🔀 Location Map: A map outlining all properties within the contaminated site boundaries on a U.S.G.S. topographic map or plat map in sufficient detail to permit easy location of all parcels. If groundwater standards are exceeded, include the location of all potable wells within 1200 feet of the site.

Note: Due to security reasons municipal wells are not identified on GIS Packet maps. However, the locations of these municipal wells must be identified on Case Closure Request maps.

Figure #: 1 Title: SITE LOCATION MAP

- Detailed Site Map: A map that shows all relevant features (buildings, roads, individual property boundaries, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding a ch. NR 140 Enforcement Standard (ES), and/or in relation to the boundaries of soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Levels (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.
  - Title: SITE LAYOUT Figure #: 2
- | Soil Contamination Contour Map: For sites closing with residual soil contamination, this map is to show the location of all contaminated soil and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.

Title: VOC DETECTIONS IN SOIL AND EXTENT OF ENGINEERED CAP Figure #: 5

De	nte of Wisconsin partment of Natural Resourc tp://dnr.wi.gov	res	GIS Registry Checklist Form 4400-245 (R 8/11) Page 2 of 3	
	BRRTS #: 02-68-539228 ACTIVITY NAME: OHM Brookfield			
M	MAPS (continued)			
	Geologic Cross-Section Map: A map showing the source location and vertical extent of residual soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL). If groundwater contamination exceeds ch. NR 140 Enforcement Standard (ES) when closure is requested, show the source location and vertical extent, water table and piezometric elevations, and locations and elevations of geologic units, bedrock and confining units, if any.			
	Figure #: 3	Title: NORTH-SOUTH GEOLOGIC CROSS SECTION	4	
	Figure #:	Title:		
×	Groundwater Isoconcentration Map: For sites closing with residual groundwater contamination, this map shows the horizont extent of all groundwater contamination exceeding a ch. NR140 Preventive Action Limit (PAL) and an Enforcement Standard (Estandard to Indicate the direction and date of groundwater flow, based on the most recent sampling data.  Note: This is intended to show the total area of contaminated groundwater.			
	Figure #: 6	Title: MONITORING WELL GROUNDWATER EXCE	EDANCES OF WDNR STANDARDS	
X		ection Map: A map that represents groundwater mornistory of the site, submit 2 groundwater flow maps sh		
	Figure #: 4	Title: POTENTIONMETRIC SURFACE MAP APRIL 8	3, 2008	
	Figure #:	Title:	i	
TA	BLES (meeting the req	uirements of s. NR 716.15(2)(h)(3))		
		an 11 x 17 inches unless the table is submitted electro <b>BOLD</b> or <i>ITALICS</i> is acceptable.	nically. Tables <u>must not</u> contain shading and/or	
X	Note: This is one table of	A table showing <u>remaining</u> soil contamination with an of results for the contaminants of concern. Contamina emain after remediation. It may be necessary to create	nts of concern are those that were found during the	
	Table #: 3 & 6	Title: Summary of Soil Analytical Results & Sumr	nary of Indoor Air Analytical Results	
X		al Table: Table(s) that show the <u>most recent</u> analytica ells for which samples have been collected.	results and collection dates, for all monitoring	
	Table #: 4	Title: Summary of Groundwater Analytical Resul	ts	
X		: Table(s) that show the previous four (at minimum) went, free product is to be noted on the table.	ater level elevation measurements/dates from all	
	Table #: 2	Title: Summary of Well Construction and Ground	lwater Elevation Data	
IM	PROPERLY ABANDON	ED MONITORING WELLS		
No		t properly abandoned according to requirements of s I on the GIS Registry for only an improperly abandoned n the GIS Registry Packet.		
$\overline{X}$	Not Applicable			
	not been properly aband	ap showing all surveyed monitoring wells with specific loned. Onitoring wells are distinctly identified on the Detailed Sh		
	Figure #:	Title:	,	
		ort: Form 4440-113A for the applicable monitoring we	· lls.	
	_	leed as well as legal descriptions for each property wh		

 $\begin{tabular}{ll} \hline \end{tabular} \begin{tabular}{ll} \textbf{Notification Letter:} Copy of the notification letter to the affected property owner(s). \end{tabular}$ 

State of Wisconsin Department of Natural Resources http://dnr.wi.gov  BRRTS #: 02-68-539228 ACTIVITY NAME:			GIS Registry Checklist Form 4400-245 (R 8/11) Page 3	
			: OHM Brookfield	
N	OTIFICATIONS			
So	ource Property		-	
	Not Applicable	,		
Ň			l by someone other than the person who is applying ne source property that case closure has been	J
Γ	Return Receipt/Signature Confirmation property owner.	n: Written proof of date on which c	onfirmation was received for notifying current source	се
Gr	f-Source Property oup the following information per individu f-Source Property" attachment.	ual property and label each group a	ccording to alphabetic listing on the "Impacted	
X	Not Applicable			
Γ	groundwater exceeding an Enforcement under s. 292.12, Wis. Stats.	Standard (ES), and to owners of pro	esponsible Party (RP) to owners of properties with operties that will be affected by a land use control ast contain standard provisions in Appendix A of ch. No	?
	Number of "Off-Source" Letters:			
Γ	Return Receipt/Signature Confirmation property owner.	n: Written proof of date on which co	onfirmation was received for notifying any off-sourc	e
Deed of "Off-Source" Property: The most recent deed(s) as well as legal descriptions, for property(ies). This does not apply to right-of-ways.		·		
		e submitted instead of the most recen	has not yet received a deed, a copy of the land contract It deed. If the property has been inherited, written It recent deed.	
Γ.		nt deed refers to a certified survey ma	ction of the recorded plat map for those properties ap or a recorded plat map. (lots on subdivided or	
	Figure #: Title:			
	municipality, state agency or any other en	ntity responsible for maintenance of darea, for contamination exceeding	s sent by the Responsible Party (RP) to a city, village, f a public street, highway, or railroad right-of-way, g a groundwater Enforcement Standard (ES) and/or Contaminant Level (SSRCL).	

Number of "Governmental Unit/Right-Of-Way Owner" Letters:

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Waukesha Service Center
141 NW Barstow Street Room 180
Waukesha WI 53188

Scott Walker, Governor Cathy Stepp, Secretary John Hammen, Acting Regional Director Telephone 262-574-2100 FAX 262-574-2128 TTY Access via relay - 711



October 5, 2011

Mr. Tom Grimm One Hour Martinizing 12527 W. Hampton Avenue Butler, WI 53007

SUBJECT: Final CI

Final Closure with Continuing Obligations for OHM- Brookfield

3055 N. 124th Street, Brookfield, WI 53005

WDNR BRRTS # 02-68-539228 FID# 268204420

Dear Mr. Grimm:

The Department of Natural Resources (the Department) reviewed the above referenced case for closure. The Department reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. The Department has recently received information or documentation indicating that you have complied with the requirements for final closure. The site maps have been updated and a signed statement from the current property owner (agreeing to the continuing obligations) has been submitted. All the groundwater monitoring wells have been abandoned and the abandonment forms have been submitted to the Department.

The Department reviewed the case closure request regarding the chlorinated solvent contamination in both the soil and groundwater at this site. Based on the correspondence and data provided, it appears that your case meets the closure requirements in ch. NR 726, Wisconsin Administrative Code. The Department considers this case closed and no further investigation or remediation is required at this time. However, you and future property owners must comply with certain continuing obligations as explained in this letter.

#### GIS Registry

This site will be listed on the Remediation and Redevelopment Program's internet accessible GIS Registry, to provide notice of residual contamination, and of any continuing obligations. The continuing obligations for this site are summarized below:

- Residual soil contamination exists that must be properly managed should it be excavated or removed.
- Pavement, an engineered cover or a soil barrier must be maintained over contaminated soil and the state must approve any changes to this barrier.
- Groundwater contamination is present above Chapter NR 140 enforcement standards.
- A vapor mitigation system must be operated and maintained, and inspections must be documented.

All site information, including the soil barrier maintenance and vapor mitigation plans, is on file at the Southeast Region DNR office, at 141 MW Barstow Street, Room 180, Waukesha, WI 53186. This letter and information that was submitted with your closure request application, including the maintenance plans, will be included on the GIS Registry, in a PDF attachment. To review the sites on the GIS Registry web page, visit the RR Sites Map page at <a href="http://dnr.wi.gov/org/aw/rr/gis/index.htm">http://dnr.wi.gov/org/aw/rr/gis/index.htm</a>. If the property is listed on the GIS Registry because of remaining contamination and you intend to construct or reconstruct a well, you will need prior Department approval in accordance with s. NR 812.09(4) (w),



Residual groundwater contamination remains on-site.

#### GIS Registry - Well Construction Approval Needed

Because of the residual soil and groundwater contamination and the continuing obligations, this site, which includes your Property, will be listed on the Department's internet accessible GIS Registry, at <a href="http://dnr.wi.gov/org/aw/rr/gis/index.htm">http://dnr.wi.gov/org/aw/rr/gis/index.htm</a>. If you intend to construct or reconstruct a well on the Property, you will need to get Department approval in accordance with s. NR 812.09(4) (w), Wis. Adm. Code. To obtain approval, Form 3300-254 needs to be completed and submitted to the DNR Drinking and Groundwater program's regional water supply specialist. A well driller can help with this form. This form can be obtained on-line <a href="http://dnr.wi.gov/org/water/dwg/3300254.pdf">http://dnr.wi.gov/org/water/dwg/3300254.pdf</a>. If at some time, all these continuing obligations are fulfilled, and the remaining contamination is either removed or meets applicable standards, you may request the removal of the Property from the GIS Registry.

#### Property Owner Responsibilities

The owner (you and any subsequent property owner) of this Property is responsible for compliance with these continuing obligations, pursuant to s. 292.12, Wis. Stats. You are strongly encouraged to pass on the information about these continuing obligations to anyone who purchases this property from you (i.e. pass on this letter). For residential property transactions, you are required to make disclosures under Wis. Stats. s. 709.02. You may have additional obligations to notify buyers of the condition of the property and the continuing obligations set out in this letter and the closure letter.

Please be aware that failure to comply with the continuing obligations may result in enforcement action by the Department. The Department intends to conduct inspections in the future to ensure that the conditions included in this letter, including compliance with referenced maintenance plans, are met.

These responsibilities are the property owner's. A property owner may enter into a legally binding agréement (such as a contract) with someone else (the person responsible for the cleanup) to take responsibility for compliance with the continuing obligations. If the person with whom any property owner has an agreement fails to adequately comply with the appropriate continuing obligations, the Department has the authority to require the property owner to complete the necessary work.

A legal agreement between you and another party to carry out any of the continuing obligations listed in this letter does not automatically transfer to a new owner of the property. If a subsequent property owner cannot negotiate a new agreement, the responsibility for compliance with the applicable continuing obligations resides with that Property owner.

When maintenance of a continuing obligation is required, the Property owner is responsible for inspections, repairs, or replacements as needed. Such actions should be documented by the Property owner and the records kept accessible for the Department to review for as long as the Department directs.

You and any subsequent Property owners are responsible for notifying the Department, and obtaining approval, before making any changes to the property that would affect the obligations applied to the Property. Send all written notifications in accordance with the above requirements (with the site FID# and BRRTS# noted) to: R&R Program Assistant, Wisconsin Department of Natural Resources, 2300 N. Dr. ML King Dr., Milwaukee, WI 53212

The following DNR fact sheet, RR-819, "Continuing Obligations for Environmental Protection" has been included with this letter, to help explain a property owner's responsibility for continuing obligations on

OHM-Brookfield 10/05/2011

#### Residual Groundwater Contamination

Groundwater impacted by chlorinated compound contamination greater than enforcement standards set forth in ch. NR140, Wis. Adm. Code, is present on this contaminated property as shown on Figure 6 (attached).

#### Vapor Mitigation

Vapor intrusion is the movement of vapors coming from volatile chemicals in the soil or groundwater, into buildings where people may breathe air contaminated by the vapors. Vapor mitigation systems are used to interrupt the pathway, thereby reducing or preventing vapors from moving into the building.

Soil vapor beneath the building contains chlorinated VOC compounds at levels that would pose a long-term risk to human health, if allowed to migrate into an occupied building on the property. The vapor mitigation system installed in late 2009, must be operated, maintained and inspected in accordance with the attached vapor system maintenance plan. System components must be repaired or replaced immediately upon discovery of a malfunction. Annual inspections and any system repairs must be documented in the inspection log. The inspection log shall be maintained on site and made available to the DNR or its contractors, upon request.

The integrity of the floor, building, and pavement or other impervious cap that exists on the property, shown on the Figure 5 (attached), must be maintained in compliance with the attached maintenance plans. This will help ensure proper functioning of the vapor mitigation system, limiting vapor intrusion to indoor air spaces.

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

#### Post-Closure Notification Requirements

In accordance with ss, 292.12 and 292.13, Wis. Stats., you must notify the Department before making changes that affect or relate to the conditions of closure in this letter. For this case, examples of changed conditions requiring prior notification include, but are not limited to:

- Disturbance, construction on, change or removal in whole or part of pavement, an engineered cover or a soil barrier that must be maintained over contaminated soil.
- Disturbance, construction on, change or removal in whole or part of the Vapor Mitigation System.

Please send written notifications in accordance with the above requirements (with the site FID# and BRRTS# noted) to: Victoria Stovall, Wisconsin Department of Natural Resources, 2300 N. Dr. ML King Dr., Milwaukee, WI 53212

Please be aware that the case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, or welfare or to the environment.

OHM-Brookfield 10/05/2011

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Jim Delwiche at the Waukesha Service Center at (262) 574-2145.

Sincerely,

Diames M. Koonce

Frances Koonce Team Supervisor

Southeast Region, Remediation & Redevelopment Program

Attachments: Figure 5 - Remaining Soil Contamination and Extent of Cap Map

Figure 6 – Remaining Groundwater Contamination Map

Maintenance Plans – Barrier/Cap and Vapor Mitigation System Inspection Log – Barrier/Cap and Vapor Mitigation System

cc: Jim Delwiche – WDNR Waukesha

Brian Maillet - Arcadis SER Case File

Jim Wicker - Property Owner

SER Case File

### Cap Maintenance and Materials Handling Plan

One Hour Martinizing
Office Building
3055 North 124<sup>th</sup> Street
Brookfield, Wisconsin

#### Cap Maintenance and Materials Handling Plan

This Cap Maintenance and Materials Handling Plan is applicable to One Hour Martinizing (OHM) facility (the "Site") located at the office building at 3055 North 124<sup>th</sup> Street, Brookfield, Wisconsin the "Property") and as depicted on Figure 1. A copy of this Plan shall at all times be kept on file in the offices of: (1) the WDNR Southeast Region; (2) the responsible party; and (3) the owner of the Property (the "owner"), its successors and assigns. The Plan shall be made available by owner to contractors, utilities and maintenance personnel, and any other public or private persons or entities authorized to perform work at the Property.

The Cap elements which are the subject of this Cap Maintenance and Materials Handling Plan are 1) engineered barriers which may consist of a vegetated soil cover, asphalt parking lot, and/or concrete flooring and sidewalks placed over the unsaturated soils; and 2) positive air venting systems located in the basement of the office building.

Unsaturated soils are hereby defined as the full depth of soils, extending from the ground surface to the water table, which is an average of 9 feet below grade surface at the property. The Unsaturated Soils contain residual chlorinated volatile organic compound (CVOC) contaminants which resulted from the use of chlorinated solvents during dry cleaning activities. Engineered Barriers are hereby defined as:

- Asphalt, concrete surfaces, sump covers, sealing of unfinished concrete basement floors, and landscaping materials placed over the Unsaturated Soils to function as a barrier to subsurface vapor migration and to limit direct contact exposure.
- Positive air venting systems in the basement that mitigate the potential for tetrachloroethene (PCE) vapors in the indoor air.

The purpose of this Cap Maintenance and Materials Handling Plan is to describe the procedures and controls that need to be followed to maintain the function of the engineered barriers and to properly manage potentially contaminated materials encountered during construction and maintenance activities. Maintaining the function of the engineered barriers will provide continued protection of human health and the environment by minimizing potential exposure to the residual contamination in the unsaturated soils and mitigate the potential for exposure to PCE vapor concentrations that exceed the Wisconsin Department of Health and Family Services (WDHFS) exposure guidance limit of 3.1 parts per billion per volume (ppbv).

#### Cap Maintenance and Materials Handling Plan

One Hour Martinizing
Office Building
3055 North 124<sup>th</sup> Street
Brookfield, Wisconsin

The WDNR and its successor and assigns (hereinafter identified collectively as the "Department") shall be notified of any activity, which is not in accordance with this Plan.

#### **Allowed Activities**

The following allowed activities must comply with all listed requirements:

- A1. Construction or Installation of Buildings, Structures or Other Improvements. Buildings, structures or other improvements may be constructed or installed on the Property using footings or other foundations that are placed into the unsaturated soils in the following manner:
  - A) The contractor performing the work shall be provided a copy of this Plan by the Owner and shall prepare a health and safety plan, appropriate to the work being performed.
  - B) All materials used in the pavement or foundation shall not contain any hazardous waste. Unsaturated soils or granular layer materials that are excavated shall be separated and segregated to the extent practicable so that they may be replaced upon completion of the work following proper analytical testing of the soils in accordance with applicable solid waste regulations. Any such excavation of unsaturated soils or granular layer materials shall be conducted in accordance with the health and safety plan. All excavated unsaturated soils shall be, at a minimum, placed onto plastic sheeting and covered, or placed into a watertight container such as a covered roll-off box.
  - C) Upon completion of the work, previously excavated unsaturated soils and granular layer materials may be backfilled, provided, however, that the unsaturated soils are not classified as a solid or hazardous waste and the backfilled unsaturated soils maintain the compaction characteristics of the surrounding unsaturated soils. The unsaturated soils or granular layered material, as well as any additional clean soil or granular fill material necessary to backfill to grade, shall be backfilled in such a manner as to maintain the original depth of the unsaturated soils or granular layer material, as the case may be. The following shall be properly characterized and managed in accordance with state law with notice to the Department: 1) any previously excavated unsaturated soils; 2) any excavated granular material that

### Cap Maintenance and Materials Handling Plan

One Hour Martinizing
Office Building
3055 North 124<sup>th</sup> Street
Brookfield. Wisconsin

has been commingled, mixed or otherwise in contact with unsaturated soils, which is not backfilled; and 3) any groundwater encountered and removed during construction.

- D) A memorandum or report shall be prepared describing the work performed, identifying the person(s) performing the work and the date of the work, and confirming that the Plan was adhered to in completion of the work. A copy of the report shall be kept on file by the Owner, and shall be filed with the Department.
- A2. Utility Installations or Repairs. No utility repairs or installation of new or replacement utilities shall be conducted on the Property until after the utility and any contractor(s) for the utility have acknowledged receipt of a copy of this Plan. The utility repairs or installation(s) shall be conducted in strict conformance with the standards set forth below with respect to excavations into and/or beneath the Site, and such excavations are to be undertaken in the following manner:
  - A) The contractor performing the work shall be provided with a copy of this Plan by the Owner and shall prepare a health and safety plan, appropriate to the work being performed.
  - B) Unsaturated soils or granular layer materials that are excavated, all for purposes of utility installation or repair, shall be separated and segregated to the extent practicable so that they may be replaced upon completion of the work following proper analytical testing of the soils in accordance with applicable solid waste regulations. All excavated unsaturated soils shall be, at a minimum, placed onto plastic sheeting and covered, or placed into a watertight container such as a covered roll-off box.
  - C) Upon completion of such work, the excavated unsaturated soils may be placed back into the excavation, provided, however, that any excavated unsaturated soils placed back into the excavation are not classified as a solid or hazardous waste and that the soils maintain the compaction characteristics of the surrounding unsaturated soils.
  - D) Any excavation of unsaturated soils shall be conducted in accordance with the health and safety plan. Any such soils excavated from beneath the unsaturated soils shall be segregated, properly characterized and managed in accordance with state law with notice

#### Cap Maintenance and Materials Handling Plan

One Hour Martinizing Office Building 3055 North 124<sup>th</sup> Street Brookfield, Wisconsin

to the Department. Any other soils which have been commingled, mixed or otherwise have come into contact with soils excavated from beneath unsaturated soils shall be properly characterized and managed in accordance with state law with notice to the Department. Any groundwater affected by such activities shall be managed in accordance with state law after notice to the Department.

- E) Clean fill used in connection with utility installation or construction shall not include any granular or porous material, but may include low strength flowable fill or other fill with low hydraulic conductivity.
- F) If the utility installation or construction involves any disturbance of the seals used to seal the entrance of utility lines and the structures, such seals shall be replaced with new seals of like or superior quality.
- G) A memorandum report shall be prepared describing the work performed, identifying the person(s) performing the work and the date of the work, and confirming that the Plan was adhered to in completion of the work. A copy of the report shall be kept on file with the utility, the Owner, and shall be filed with the Department.
- A3. Offsite Disposal of Excavated Soils. If it becomes necessary or desirable to dispose of excavated soils from the allowed construction, repair, and installation activities, the excavation and resulting soils shall be managed in accordance with s. NR 718.13, Wis. Adm. Code.

#### Required Activities

R1. Annual Cap Inspections. Not less than annually, the Property shall be inspected by the Owner to ensure that the integrity of the Engineered Barriers is maintained and that no materially significant fissures or cracks develop in the asphalt or concrete caps that would allow for direct contact exposure. The integrity of the basement floors will be inspected to note if there are any cracks that would allow for vapors to further migrate into the indoor air. Any disturbances of the Engineered Barriers or significant fissures or cracks in the asphalt or concrete caps shall be noted.

An engineered barrier inspection form shall be completed by the Owner which identifies the date of the inspection, the individuals conducting the inspection, any observed disturbances of the Engineered Barriers and any significant

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Cap Maintenance and Materials Handling Plan

One Hour Marlinizing Office Bullding 3055 North 124th Street Brookfield, Wisconsin

fissures or cracks in the asphalt or concrete caps. A copy of the engineered barrier inspection form is attached. All inspection forms shall be maintained on file by the owner.

- R2. Repairs to Capped Areas. If, during the annual inspections or other routine Inspections of the Property, the Engineered Barriers are observed to have been disturbed or significant fissures, cracks or prosional features are observed in the asphalt or concrete caps, the Property manager shall arrange to have repairs made to such areas, in a manner consistent with section A1 of this Plan. Such repairs shall be carried out within a reasonable period of time subject to weather and seasonal considerations. All repairs shall be documented on the attached work order form, which will be maintained on file by the owner.
- Maintaining the Positive Air Venting Systems. The existing positive air venting systems that were installed in the basement are described in the attached final report. The positive air venting systems will be maintained in accordance with the recommendations of this report, which includes filter changes; air exchanger, duct work, and sump pump evaluations; and a complete system assessment on a bl-annual basis. A brief report detailing this bi-annual system assessment will be maintained on file by the owner.

#### Property Owner Responsibility/Deviations to Plan

g/toproject/ohmbutkyky/1103/prosidietal/working/copmaintenance042011.6564

4/14/2011 B:30 AM

The Property Owner shall not conduct any activities at Property that are not in compliance with this Plan, unless written approval to do so is obtained from the Department.

As properly owner, I will inspect and maintain the engineered barriers and ventilation systems as stated in the Cap Maintenance Plan.

#### **ENGINEERED BARRIER**

#### Annual Inspection Form Office Building Located at 3055 N. 124<sup>th</sup> Street, Brookfield, Wisconsin BRRTS VPLE #: 02-68-538228

Name (	of Inspector:		
	any:		
Time: _			
-	tor able to inspect all engineered barriers?		
	a scheduled inspection?		
Inspec	tion Results:		
Engine	ered Barrier Condition:		
•	Significant fissures, cracks, and shallow holes that would allow for humans to inadvertently contact the underlying residually impacted soils:		
•	Significant fissures, cracks, and shallow holes in the basement floor that would allow for vapor migration:		
•			
•	Positive Air Venting System (condition of system):		

If any of the above conditions were observed, note area and explain. Sketch or photograph extent and

location of observed damage.

#### **ENGINEERED BARRIER**

#### Annual Inspection Form Office Building Located at 3055 N. 124<sup>th</sup> Street, Brookfield, Wisconsin BRRTS VPLE #: 02-68-538228

	Report Number:	
	Date of Initial Inspection:	
	Name of Inspector:	
Type of problem:		
Required upgrade:		
Comments:		
<u>_</u>		
Corrective action assigned to/complete	ed by:	
Name/Company	Date	
	Reinspection Information	
Observations:		
Comments:		
Signature		Date

PROPOERTY BOUNDARY

DRY CLEANING MACHINE FIRST FLOOR

SOIL BORING

HAND AUGER

PREVIOUSLY INSTALLED BORINGS

SOIL VAPOR PROBE

MONITORING WELL  $\oplus$ 

 $\odot$ PIEZOMETER

ROCK

 $\times \times$ 

RESIDENTIAL FENCE

EXTENT OF CVOC IMPACTED SOIL (dashed where inferred)

SAMPLE DEPTH INTERVAL (feet below land surface)

Cis-1,2-DCE Cis-1,2-Dichloroethene

NP Naphthalene

PCE Tetrachloroethene TCE Trichloroethene

**CVOCs** Chlorinated Volatile Organic Compounds

ND No Detections Above Laboratory Reporting Limit

NS Not Sampled

Concentrations in micrograms per kilogram (µg/kg)

OHM-BROOKFIELD 3055 NORTH 124TH STREET BROOKFIELD, WISCONSIN

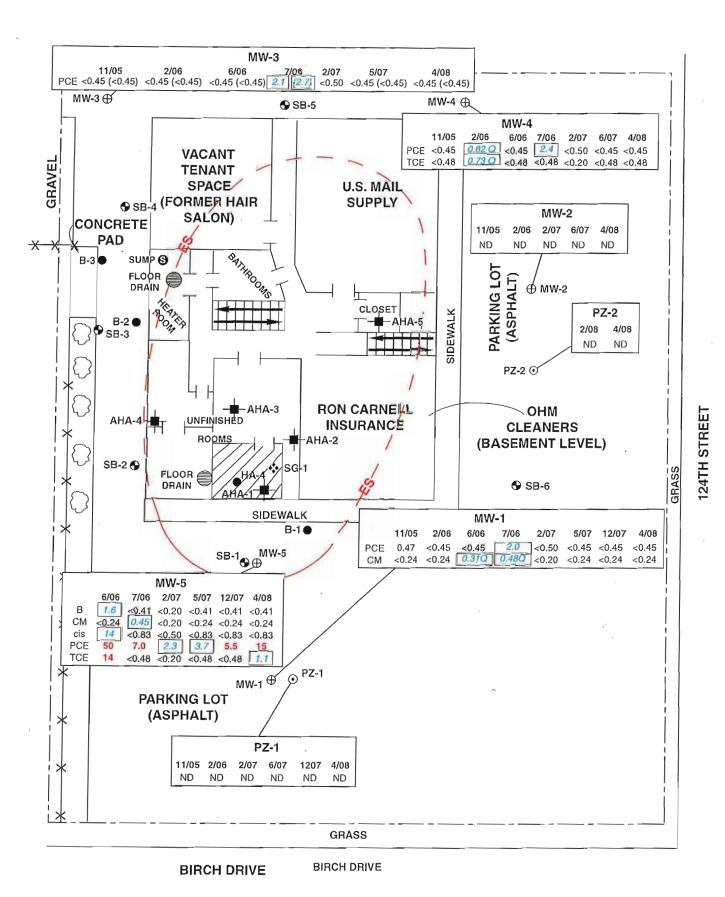
**VOC DETECTIONS IN SOIL AND EXTENT OF ENGINEERED CAP** 



**FIGURE** 5

**APPROXIMATE** SCALE IN FEET

9APR11\ENVIORMENTTS\LMB



LEGEND

SOIL BORING HAND AUGER

PREVIOUSLY INSTALLED BORINGS

.⊕ MONITORING WELL

PIEZOMETER

ROCK  $\times$   $\times$ RESIDENTIAL FENCE

9

No detections above laboratory detection limits.

VOCs exceed ES standard (dashed where inferred).

ES 0.5 В Benzene cis cis-1,2-Dichloroethene 0.3 0.5 Tetrachloroethene 0.5 TCE Trichloroethene Concentration exceeds PAL Concentration exceeds ES

Concentrations in micrograms per liter (µg/L)

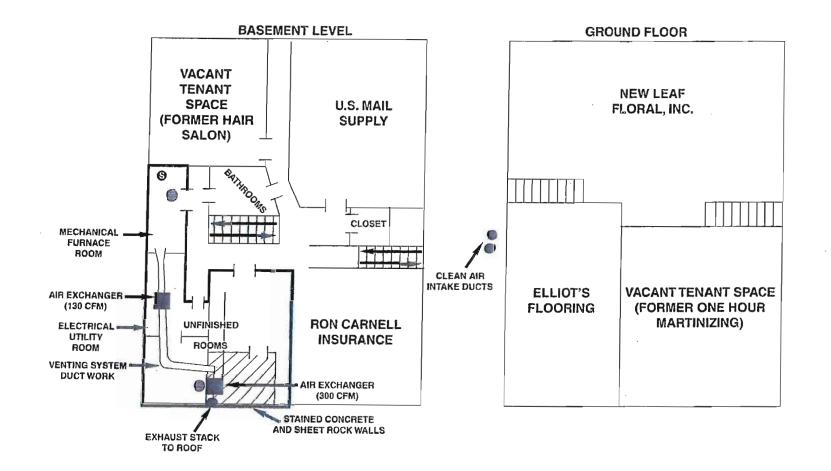
OHM-BROOKFIELD 3055 NORTH 124TH STREET BROOKFIELD, WISCONSIN

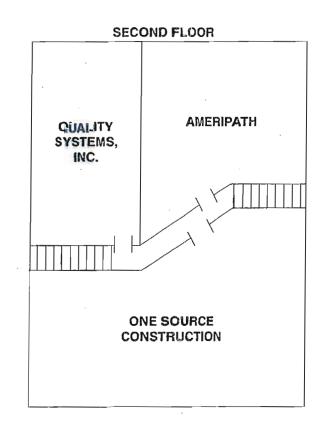
MONITORING WELL GROUNDWATER **EXCEEDANCES OF WDNR STANDARDS** 



FIGURE 6

**APPROXIMATE** SCALE IN FEET





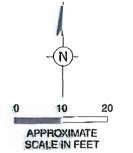
LEGEND

EXTENTS OF SUPPLEMENTAL REMEDIATION IMPROVEMENTS

(8)

SUMP

FLOOR DRAIN



OHM-BROOKFIELD 3055 NORTH 124TH STREET BROOKFIELD, WISCONSIN

VENTING SYSTEM LAYOUT





AN INTERNATIONED TANKING



State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Waukesha Service Center
141 NW Barstow Street Room 180
Waukesha WI 53188

Scott Walker, Governor Cathy Stepp, Secretary John Hammen, Acting Regional Director Telephone 262-574-2100 FAX 262-574-2128 TTY Access via relay - 711



October 5, 2011

Mr. Jim Wicker 2512 Bennett Cove Waukesha, WI 53189

SUBJECT:

Continuing Obligations and Property Owner Requirements for the property at:

3055 N. 124<sup>th</sup> Street, Brookfield, WI 53005 Parcel Identification Number: BR C105710

& Final Case Closure for OHM Brookfield, 3055 N. 124th Street, Brookfield, WI 53005

WDNR BRRTS Activity # 02-68-539228 FID# 268204420

Dear Mr. Wicker:

The purpose of this letter is to notify you that certain continuing obligations apply to the property at 3055 N. 124<sup>th</sup> Street, Brookfield, WI 53005 (referred to in this letter as the "Property") due to contamination remaining on the Property. The continuing obligations are part of the cleanup and case closure approved for the Property. The continuing obligations that apply to the Property are stated as conditions in the attached closure approval letter, and are consistent with s. 292.12, Wis. Stats., and ch. NR 700, Wis. Adm. Code, rule series. They are meant to limit exposure to any remaining environmental contamination at the Property. These continuing obligations will also apply to future owners of the Property, until the conditions no longer exist at the Property.

It is common for properties with approved cleanups to have continuing obligations as part of cleanup/closure approvals. Information on continuing obligations on properties is shown on the Internet at <a href="http://dnr.wi.gov/org/aw/rr/gis/index.htm">http://dnr.wi.gov/org/aw/rr/gis/index.htm</a>. How to find further information about the closure and residual contamination for this site can be located at <a href="http://dnr.wi.gov/org/aw/rr/clean.htm">http://dnr.wi.gov/org/aw/rr/clean.htm</a>.

The Department reviewed and approved the case closure request regarding the chlorinated solvent contamination in the soil and groundwater at this site, based on the information submitted by the consultant Arcadis, U.S. Inc. on behalf of the responsible party Tom Grimm. As required by state law, you received notification about the requested closure from the person conducting the cleanup. No further investigation or cleanup is required at this time. However, the closure decision is conditioned on the long-term compliance with certain continuing obligations, as described below.

#### Continuing Obligations Applicable to Your Property

A number of continuing obligations (listed below) are described in the attached case closure letter to Mr. Tom Grimm, dated October 5, 2011.

- Residual soil contamination that must be addressed when excavated in the future.
- Cover or barrier (cap) that must be maintained.
- Vapor mitigation system that must be maintained. Vapor migration is the movement of vapors
  originating from volatile chemicals in the soil or groundwater, into buildings or other areas where
  people may become exposed by breathing air contaminated by the vapors.
- Maintenance actions for the cap and vapor mitigation system are required.
- Maintain inspection logs on-site for the cap and vapor mitigation system.







Wis. Adm. Code. To obtain approval, Form 3300-254 needs to be completed and submitted to the Department's Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at <a href="http://dnr.wi.gov/org/water/dwg/3300254.pdf">http://dnr.wi.gov/org/water/dwg/3300254.pdf</a> or at the web address listed above for the GIS Registry.

#### Closure Conditions

Please be aware that pursuant to s. 292.12 Wisconsin Statutes, compliance with the requirements of this letter is a responsibility to which you and any subsequent property owners must adhere. You must pass on the information about the continuing obligations regarding both the soil barrier and vapor mitigation maintenance plans to the next property owner or owners. If these requirements are not followed or if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, welfare, or the environment, the Department may take enforcement action under s. 292.11 Wisconsin Statutes to ensure compliance with the specified requirements, limitations or other conditions related to the property or this case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code. The Department intends to conduct inspections in the future to ensure that the conditions included in this letter, including compliance with the attached maintenance plans are met.

Pursuant to s. 292.12(2)(a), Wis. Stats., the engineered cap (consisting of asphalt, concrete, and the building) that currently exists in the specific location shown on Figure 5 (attached) shall be maintained in compliance with the attached maintenance plan in order to minimize the infiltration of water and prevent additional groundwater contamination that would violate the groundwater quality standards in ch. NR 140, Wis. Adm. Code, and to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health.

Approximately 8,000 cubic yards of residual soil contamination remains beneath the cap between ten and thirty three (33) feet in depth, as shown on Figure 5 (attached) and in the information submitted to the Department. If soil in the specific locations as shown on the attached map is excavated in the future, the property owner at the time of excavation must sample and analyze the excavated soil to determine if residual contamination remains. If sampling confirms that contamination is present the property owner at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken during excavation activities to prevent a health threat to humans.

The two attached maintenance plans and inspection logs are to be kept up-to-date and on-site. Please submit the inspection logs to the Department only upon request.

#### **Prohibited Activities**

The following activities are prohibited on any portion of the property where pavement and a building foundation is required as shown on the attached map (Figure 5), unless prior written approval has been obtained from the Department: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure.

Upon Department approval to replace the existing barrier, the replacement barrier must be one of similar permeability, until contaminant levels no longer exceed the applicable standards.

Property at 3055 N. 124<sup>th</sup> Street, Brookfield, WI 53005

10/5/2011

their property. If the fact sheet is lost, you may obtain a copy at <a href="http://dnr.wi.gov/org/aw/rr/archives/pubs/RR819.pdf">http://dnr.wi.gov/org/aw/rr/archives/pubs/RR819.pdf</a>.

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Jim Delwiche at the Waukesha Service Center at (262) 574-2145.

Sincerely,

Jennes M. Koonce

Frances Koonce Team Supervisor

Southeast Region, Remediation & Redevelopment Program

Attachments: Final Closure Letter

Figure 5 - Remaining Soil Contamination and Extent of Cap Map

Figure 6 – Remaining Groundwater Contamination Map Maintenance Plans – Barrier/Cap and Vapor Mitigation System Inspection Log – Barrier/Cap and Vapor Mitigation System

Enclosure: RR 819 – Continuing Obligations Fact Sheet

cc: Jim Delwiche - WDNR Waukesha

Brian Maillet – Arcadis Tom Grimm – OHM SER Case File



#### Cap Maintenance and Materials Handling Plan

One Hour Martinizing Office Building 3055 North 124<sup>th</sup> Street Brookfield, Wisconsin

#### Cap Maintenance and Materials Handling Plan

This Cap Maintenance and Materials Handling Plan is applicable to One Hour Martinizing (OHM) facility (the "Site") located at the office building at 3055 North 124<sup>th</sup> Street, Brookfield, Wisconsin the "Property") and as depicted on Figure 1. A copy of this Plan shall at all times be kept on file in the offices of: (1) the WDNR Southeast Region; (2) the responsible party; and (3) the owner of the Property (the "owner"), its successors and assigns. The Plan shall be made available by owner to contractors, utilities and maintenance personnel, and any other public or private persons or entities authorized to perform work at the Property.

The Cap elements which are the subject of this Cap Maintenance and Materials Handling Plan are 1) engineered barriers which may consist of a vegetated soil cover, asphalt parking lot, and/or concrete flooring and sidewalks placed over the unsaturated soils; and 2) positive air venting systems located in the basement of the office building.

Unsaturated soils are hereby defined as the full depth of soils, extending from the ground surface to the water table, which is an average of 9 feet below grade surface at the property. The Unsaturated Soils contain residual chlorinated volatile organic compound (CVOC) contaminants which resulted from the use of chlorinated solvents during dry cleaning activities. Engineered Barriers are hereby defined as:

- Asphalt, concrete surfaces, sump covers, sealing of unfinished concrete basement floors, and landscaping materials placed over the Unsaturated Soils to function as a barrier to subsurface vapor migration and to limit direct contact exposure.
- Positive air venting systems in the basement that mitigate the potential for tetrachloroethene (PCE) vapors in the indoor air.

The purpose of this Cap Maintenance and Materials Handling Plan is to describe the procedures and controls that need to be followed to maintain the function of the engineered barriers and to properly manage potentially contaminated materials encountered during construction and maintenance activities. Maintaining the function of the engineered barriers will provide continued protection of human health and the environment by minimizing potential exposure to the residual contamination in the unsaturated soils and mitigate the potential for exposure to PCE vapor concentrations that exceed the Wisconsin Department of Health and Family Services (WDHFS) exposure guidance limit of 3.1 parts per billion per volume (ppbv).



#### Cap Maintenance and Materials Handling Plan

One Hour Martinizing Office Building 3055 North 124<sup>th</sup> Street Brookfield, Wisconsin

The WDNR and its successor and assigns (hereinafter identified collectively as the "Department") shall be notified of any activity, which is not in accordance with this Plan.

#### **Allowed Activities**

The following allowed activities must comply with all listed requirements:

- A1. Construction or Installation of Buildings, Structures or Other Improvements. Buildings, structures or other improvements may be constructed or installed on the Property using footings or other foundations that are placed into the unsaturated soils in the following manner:
  - A) The contractor performing the work shall be provided a copy of this Plan by the Owner and shall prepare a health and safety plan, appropriate to the work being performed.
  - B) All materials used in the pavement or foundation shall not contain any hazardous waste. Unsaturated soils or granular layer materials that are excavated shall be separated and segregated to the extent practicable so that they may be replaced upon completion of the work following proper analytical testing of the soils in accordance with applicable solid waste regulations. Any such excavation of unsaturated soils or granular layer materials shall be conducted in accordance with the health and safety plan. All excavated unsaturated soils shall be, at a minimum, placed onto plastic sheeting and covered, or placed into a watertight container such as a covered roll-off box.
  - C) Upon completion of the work, previously excavated unsaturated soils and granular layer materials may be backfilled, provided, however, that the unsaturated soils are not classified as a solid or hazardous waste and the backfilled unsaturated soils maintain the compaction characteristics of the surrounding unsaturated soils. The unsaturated soils or granular layered material, as well as any additional clean soil or granular fill material necessary to backfill to grade, shall be backfilled in such a manner as to maintain the original depth of the unsaturated soils or granular layer material, as the case may be. The following shall be properly characterized and managed in accordance with state law with notice to the Department: 1) any previously excavated unsaturated soils; 2) any excavated granular material that

SOURCE PROPERTY

### Cap Maintenance and Materials Handling Plan

One Hour Martinizing
Office Building
3055 North 124<sup>th</sup> Street
Brookfield, Wisconsin

has been commingled, mixed or otherwise in contact with unsaturated soils, which is not backfilled; and 3) any groundwater encountered and removed during construction.

- D) A memorandum or report shall be prepared describing the work performed, identifying the person(s) performing the work and the date of the work, and confirming that the Plan was adhered to in completion of the work. A copy of the report shall be kept on file by the Owner, and shall be filed with the Department.
- A2. Utility Installations or Repairs. No utility repairs or installation of new or replacement utilities shall be conducted on the Property until after the utility and any contractor(s) for the utility have acknowledged receipt of a copy of this Plan. The utility repairs or installation(s) shall be conducted in strict conformance with the standards set forth below with respect to excavations into and/or beneath the Site, and such excavations are to be undertaken in the following manner:
  - A) The contractor performing the work shall be provided with a copy of this Plan by the Owner and shall prepare a health and safety plan, appropriate to the work being performed.
  - B) Unsaturated soils or granular layer materials that are excavated, all for purposes of utility installation or repair, shall be separated and segregated to the extent practicable so that they may be replaced upon completion of the work following proper analytical testing of the soils in accordance with applicable solid waste regulations. All excavated unsaturated soils shall be, at a minimum, placed onto plastic sheeting and covered, or placed into a watertight container such as a covered roll-off box.
  - C) Upon completion of such work, the excavated unsaturated soils may be placed back into the excavation, provided, however, that any excavated unsaturated soils placed back into the excavation are not classified as a solid or hazardous waste and that the soils maintain the compaction characteristics of the surrounding unsaturated soils.
  - D) Any excavation of unsaturated soils shall be conducted in accordance with the health and safety plan. Any such soils excavated from beneath the unsaturated soils shall be segregated, properly characterized and managed in accordance with state law with notice

SOURCE PROPERTY

#### Cap Maintenance and Materials Handling Plan

One Hour Martinizing Office Building 3055 North 124<sup>th</sup> Street Brookfield, Wisconsin

to the Department. Any other soils which have been commingled, mixed or otherwise have come into contact with soils excavated from beneath unsaturated soils shall be properly characterized and managed in accordance with state law with notice to the Department. Any groundwater affected by such activities shall be managed in accordance with state law after notice to the Department.

- E) Clean fill used in connection with utility installation or construction shall not include any granular or porous material, but may include low strength flowable fill or other fill with low hydraulic conductivity.
- F) If the utility installation or construction involves any disturbance of the seals used to seal the entrance of utility lines and the structures, such seals shall be replaced with new seals of like or superior quality.
- G) A memorandum report shall be prepared describing the work performed, identifying the person(s) performing the work and the date of the work, and confirming that the Plan was adhered to in completion of the work. A copy of the report shall be kept on file with the utility, the Owner, and shall be filed with the Department.
- A3. Offsite Disposal of Excavated Soils. If it becomes necessary or desirable to dispose of excavated soils from the allowed construction, repair, and installation activities, the excavation and resulting soils shall be managed in accordance with s. NR 718.13, Wis. Adm. Code.

#### **Required Activities**

R1. Annual Cap Inspections. Not less than annually, the Property shall be inspected by the Owner to ensure that the integrity of the Engineered Barriers is maintained and that no materially significant fissures or cracks develop in the asphalt or concrete caps that would allow for direct contact exposure. The integrity of the basement floors will be inspected to note if there are any cracks that would allow for vapors to further migrate into the indoor air. Any disturbances of the Engineered Barriers or significant fissures or cracks in the asphalt or concrete caps shall be noted.

An engineered barrier inspection form shall be completed by the Owner which identifies the date of the inspection, the individuals conducting the inspection, any observed disturbances of the Engineered Barriers and any significant

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Ø1006

Cap Maintenance and Materials Handling Plan

One Hour Martinizing Office Building 3055 North 124th Street Brookfield, Wisconsin

fissures or cracks in the asphalt or concrete caps. A copy of the engineered barrier inspection form is attached. All inspection forms shall be maintained on file by the owner,

- Repairs to Capped Areas. If, during the annual inspections or other routine Inspections of the Property, the Engineered Barriers are observed to have been disturbed or significant fissures, cracks or erosional features are observed in the asphalt or concrete caps, the Property manager shall arrange to have repairs made to such areas, in a manner consistent with section A1 of this Plan. Such repairs shall be carried out within a reasonable period of time subject to weather and seasonal considerations. All repairs shall be documented on the attached work order form, which will be maintained on file by the owner.
- Maintaining the Positive Air Venting Systems. The existing positive air R3. venting systems that were installed in the basement are described in the attached final report. The positive air venting systems will be maintained in accordance with the recommendations of this report, which includes filter changes; air exchanger, duct work, and sump pump evaluations; and a complete system assessment on a bi-annual basis. A brief report detailing this bi-annual system assessment will be maintained on file by the owner.

## Property Owner Responsibility/Deviations to Plan

The Property Owner shall not conduct any activities at Property that are not in compilance with this Plan, unless written approval to do so is obtained from the Department.

As property owner, I will inspect and maintain the engineered barriers and ventilation systems as stated in the Cap Maintenance Plan.

Printed Name: James K Wicker

Title: Managing Mounter

Ben Jo LLa



# ENGINEERED BARRIER Annual Inspection Form Office Building Located at 3055 N. 124<sup>th</sup> Street, Brookfield, Wisconsin BRRTS VPLE #: 02-68-538228

lame	of Inspector:		
omp ate:	any:		
ime:			
nsped	ctor able to inspect all engineered barriers?		
this	a scheduled inspection?		
no, e	explain:		
spe	ction Results:		
ngine	eered Barrier Condition:		
•			
	·		
•	Significant fissures, cracks, and shallow holes in the basement floor that would allow for vapor migration:		
•	Positive Air Venting System (condition of system):		

location of observed damage.

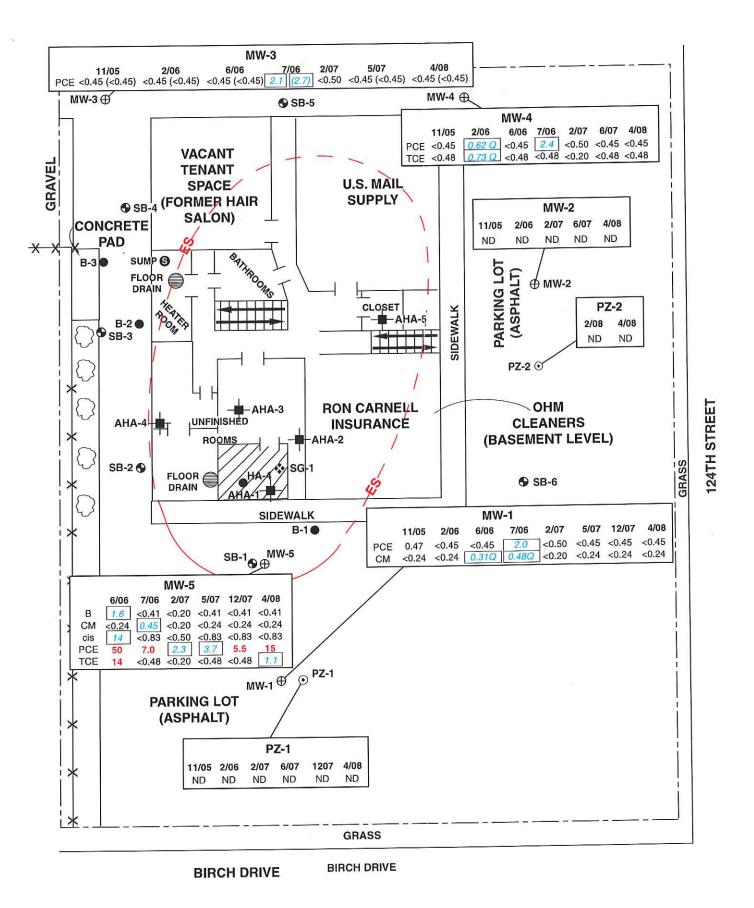
SOURCE PROPERTY

# ENGINEERED BARRIER Annual Inspection Form Office Building Located at 3055 N. 124<sup>th</sup> Street, Brookfield, Wisconsin BRRTS VPLE #: 02-68-538228

	Report Number:
	Date of Initial Inspection:
	Name of Inspector:
Type of problem:	
Required upgrade:	
Comments:	
Corrective action assigned to/complet	ed by:
Name/Company	Date
	Reinspection Information
Observations:	
Comments:	
Inspector:	
Signature	Date



APPROXIMATE SCALE IN FEET



LEGEND

SOIL BORING
HAND AUGER

PREVIOUSLY INSTALLED BORINGS

→ MONITORING WELL

PIEZOMETER
 POCK

RESIDENTIAL FENCE

SUMP

 $\times \times$ 

ND No detections above laboratory detection limits.

-ES- VOCs exceed ES standard (dashed where inferred).

B	Benzene	5	0.5
cis	cis-1,2-Dichloroethene	70	7
CM	Chloromethane	3	0.3
PCE	Tetrachloroethene	5	0.5
TCE	Trichloroethene	5.0	0.5
Concentration exceeds PAL			

BOLD Concentration exceeds ES

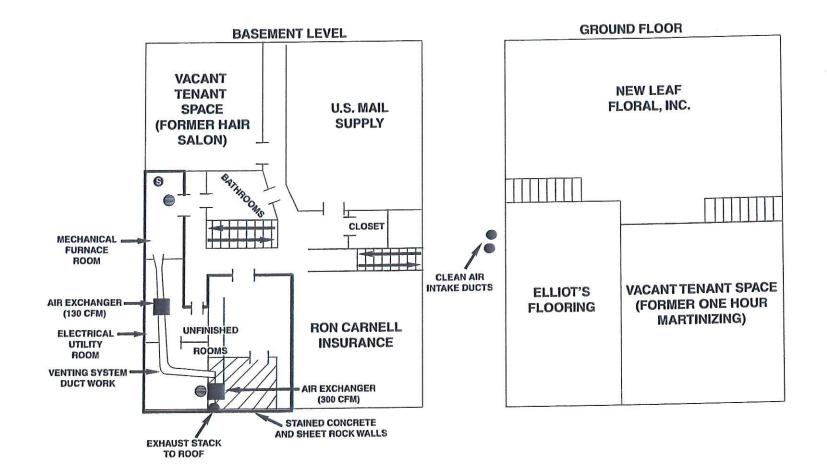
Concentrations in micrograms per liter (μg/L)

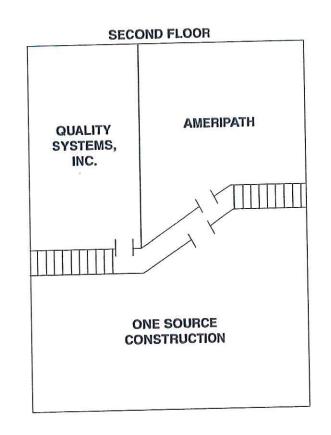
OHM-BROOKFIELD 3055 NORTH 124TH STREET BROOKFIELD, WISCONSIN

MONITORING WELL GROUNDWATER EXCEEDANCES OF WDNR STANDARDS



FIGURE 6



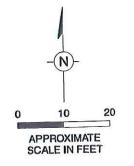


LEGEND

EXTENTS OF SUPPLEMENTAL REMEDIATION IMPROVEMENTS

g su

FLOOR DRAIN



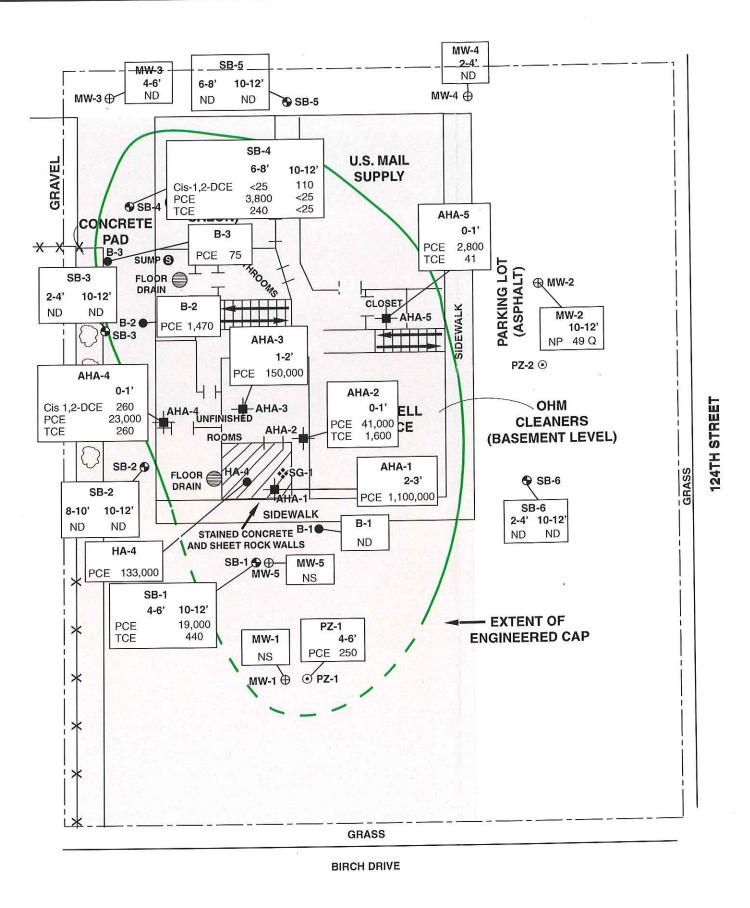
OHM-BROOKFIELD 3055 NORTH 124TH STREET BROOKFIELD, WISCONSIN

VENTING SYSTEM LAYOUT



FIGURE 7





LEGEND

PROPOERTY BOUNDARY

DRY CLEANING MACHINE FIRST FLOOR

SOIL BORING

HAND AUGER

PREVIOUSLY INSTALLED BORINGS

SOIL VAPOR PROBE

MONITORING WELL

PIEZOMETER

RESIDENTIAL FENCE

EXTENT OF CVOC IMPACTED SOIL

(dashed where inferred)

SAMPLE DEPTH INTERVAL

(feet below land surface)

Cis-1,2-DCE Cis-1,2-Dichloroethene

NP

Naphthalene

PCE TCE

Trichloroethene

**CVOCs** 

**Chlorinated Volatile Organic Compounds** No Detections Above Laboratory Reporting Limit

ND NS

Not Sampled

Concentrations in micrograms per kilogram (µg/kg)

OHM-BROOKFIELD 3055 NORTH 124TH STREET BROOKFIELD, WISCONSIN

**VOC DETECTIONS IN SOIL AND EXTENT OF ENGINEERED CAP** 



#### State Bar of Wisconsin Form 1-2003 WARRANTY DEED

Document Number

Document Name

THIS DEED, made between

Lynnbrook Corner, L.L.C., a Wisconsin limited liability company,

("Grantor," whether one or more), and

BenJo, L.L.C., a Wisconsin limited liability company,

("Grantee," whether one or more)

Grantor, for a valuable consideration, conveys to Grantee the following described real estate, together with the rents, profits, fixtures and other appurtenant interests, in WAUKESHA County, State of Wisconsin ("Property") (If more space is needed, please attach addendum):

Lot 10, except the East 10 feet thereof, in Block 1, in Lynndale, part of the Northeast 1/4 of the Northeast 1/4 and Southeast 1/4 of the Northeast 1/4 of Section 13, Town 7 North, Range 20 East, in the City of Brookfield, County of Waukesha, State of Wisconsin.

Tax Key No. BRC 1057.010

ADDRESS: 3065 N. 124TH STREET

Name and Return Address

Ben Julie

14815 W. Freld purale Or

New 13 rules, W. E. 5315/

BRC 1057.010

Recording Area

This is not homestead property

(ii) (is not)

Grantor warrants that the title to the Property is good, Indefeasible in fee simple and free and clear of encumbrances except: municipal and zoning ordinances and agreements entered under them, recorded easements for the distribution of utility and municipal services, recorded building and use restrictions and covenants and general Dated May 8, 2006 taxes levied in the year of closing.

(SEAL)	Walter L. Rollo, Manager (SEAL)
(SEAL)	(SEAL)
AUTHENTICATION Signature(s) Walter L. Kolb	ACKNOWLEDGMENT STATE OF WISCONSIN COUNTY } \$55,
authenticated on May 8, 2006  * Donald H. West	Personally came before me on the above named
TITLE: MEMBER STATE BAR OF WISCONSIN (If not, authorized by Wis. Stat. 5706.06)	to me known to be the person(s) who executed the foregoing instrument and acknowledged the same.
THIS INSTRUMENT DRAFTED BY:Donald_HWost	Notary Public, State of Wisconsin  My commission (is permanent) (expires:)

(Signatures may be authenticated or acknowledged, Both are not necessary.)

NOTE: THIS IS A STANDARD FORM, ANY MODIFICATIONS TO THIS FORM SHOULD BE CLEARLY IDENTIFIED.

WARRANTY DEED

2003 STATE BAR OF WISCONSIN

FORM NO. 1-2003

Type name below signatures

S

RUEKENT MIEUKE XIN 700 Dirch 00000 12:20 95.7 DEMOLI 02021# L& Drainage Ditch 7119,129, [956] YO YOBYY &

STATE OF WISCONSIN

SURVEY

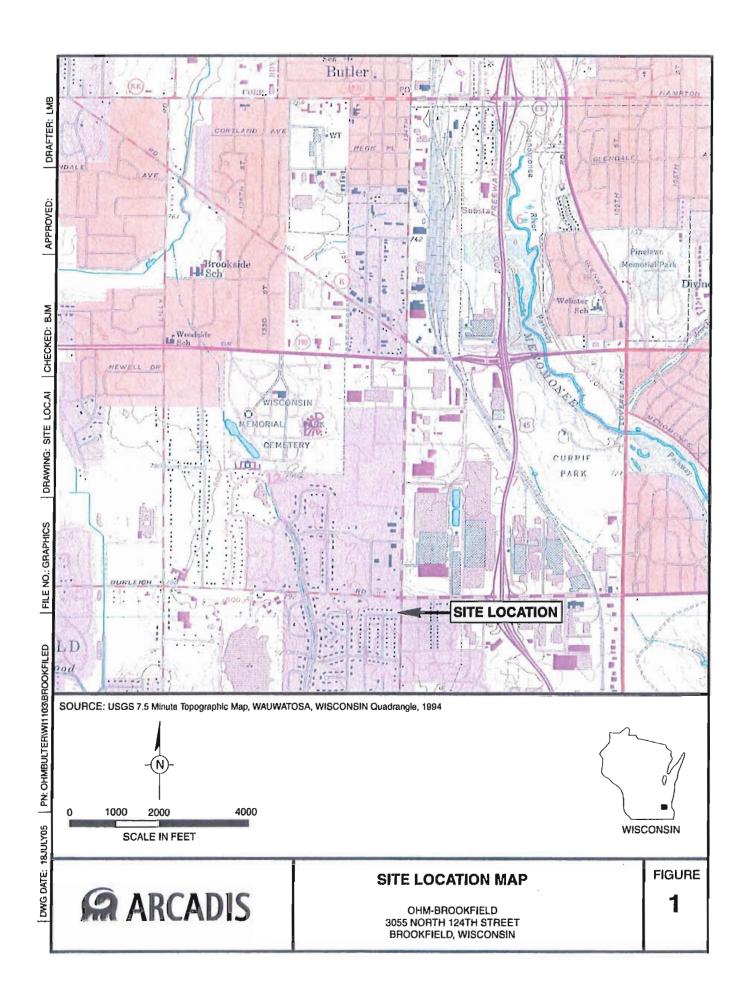
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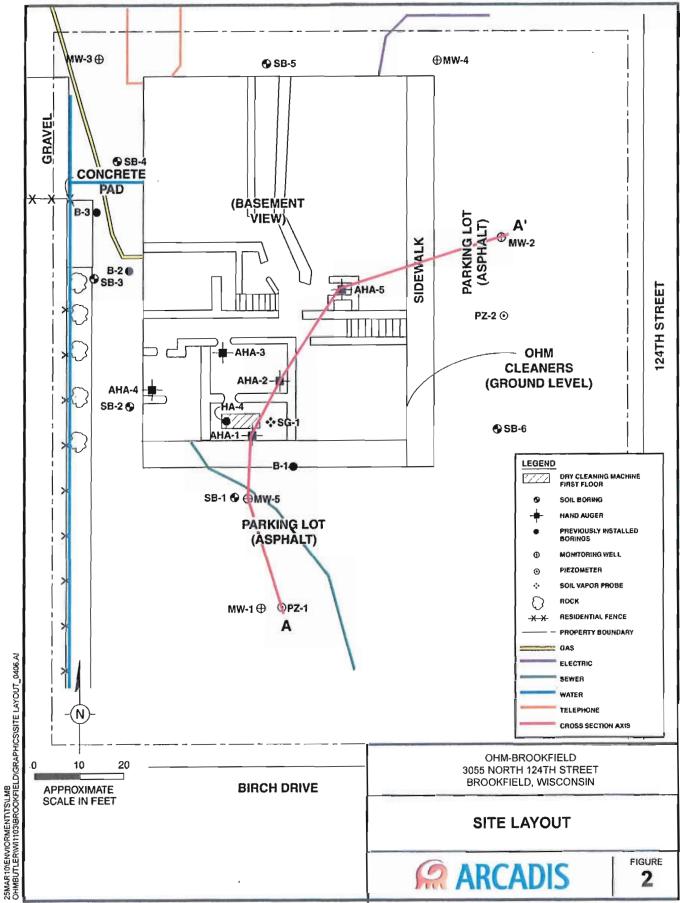
WIS REG NO. E-2046

I believe the legal description of the property that is within the contaminated site boundary is attached to this statement.

<

Signature of One Hour Martinizing Representative





LEGEND

PROPOERTY BOUNDARY

DRY CLEANING MACHINE FIRST FLOOR

SOIL BORING

PREVIOUSLY INSTALLED BORINGS

❖ SOIL VAPOR PROBE

⊕ MONITORING WELL

PIEZOMETER

ROCK

X RESIDENTIAL FENCE

EXTENT OF CVOC IMPACTED SOIL

(dashed where inferred)

(4-6') SAMPLE DEPTH INTERVAL (feet below land surface)

Cis-1,2-DCE Cis-1,2-Dichloroethene

NP Naphthalene

PCE Tetrachloroethene
TCE Trichloroethene

CVOCs Chlorinated Volatile Organic Compounds

ND No Detections Above Laboratory Reporting Limit

NS Not Sampled

Concentrations in micrograms per kilogram (μg/kg)

OHM-BROOKFIELD 3055 NORTH 124TH STREET BROOKFIELD, WISCONSIN

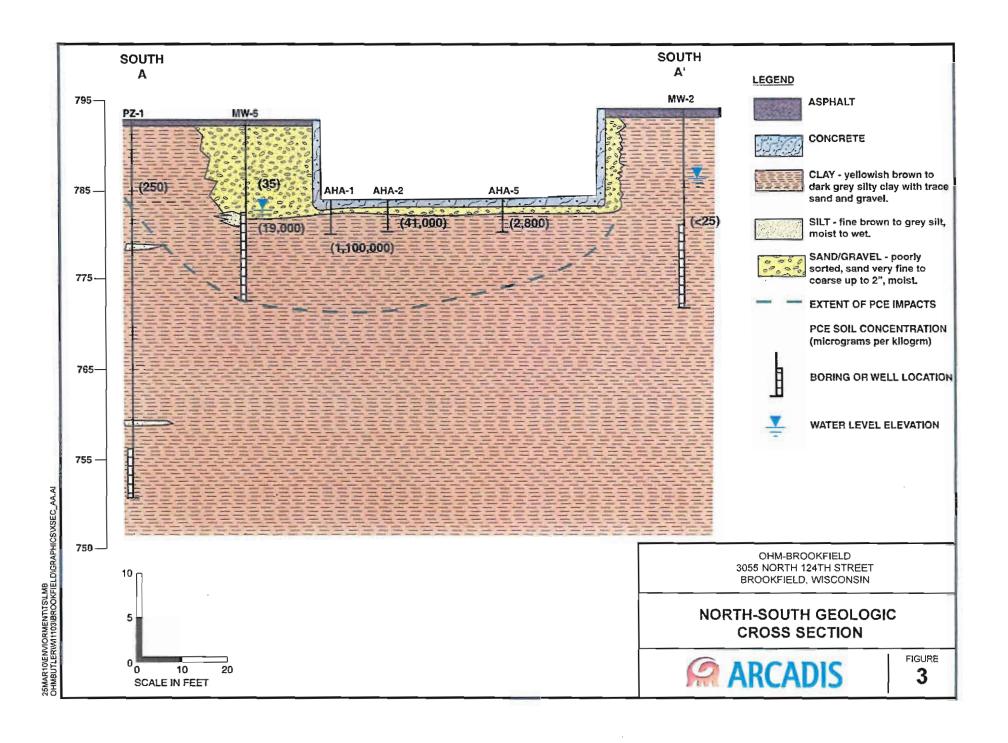
VOC DETECTIONS IN SOIL AND EXTENT OF ENGINEERED CAP

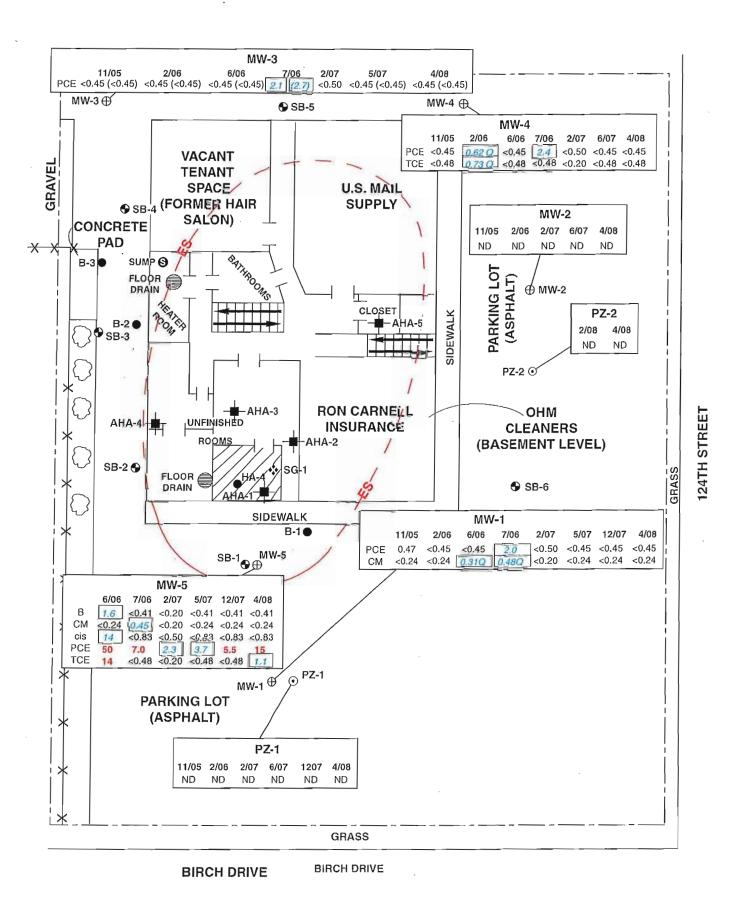


DIS FIGURE 5

0 10

APPROXIMATE SCALE IN FEET





LEGEND

SOIL BORING
HAND AUGER

PREVIOUSLY INSTALLED BORINGS

→ MONITORING WELL

PIEZOMETER

ROCK

XX RESIDENTIAL FENCE

**⊗** SUM

ND No detections above laboratory detection limits.

ES— VOCs exceed ES standard (dashed where inferred).

B	Benzene	5	0.5
cis	cis-1,2-Dichloroethene	70	7
CM	Chloromethane	3	0.3
PCE	Tetrachloroethene	5	0.5
TCE	Trichloroethene	5.0	0.5
Concentration exceeds PAL			

Concentrations in micrograms per liter (µg/L)

**BOLD** Concentration exceeds ES

OHM-BROOKFIELD 3055 NORTH 124TH STREET BROOKFIELD, WISCONSIN

MONITORING WELL GROUNDWATER EXCEEDANCES OF WDNR STANDARDS

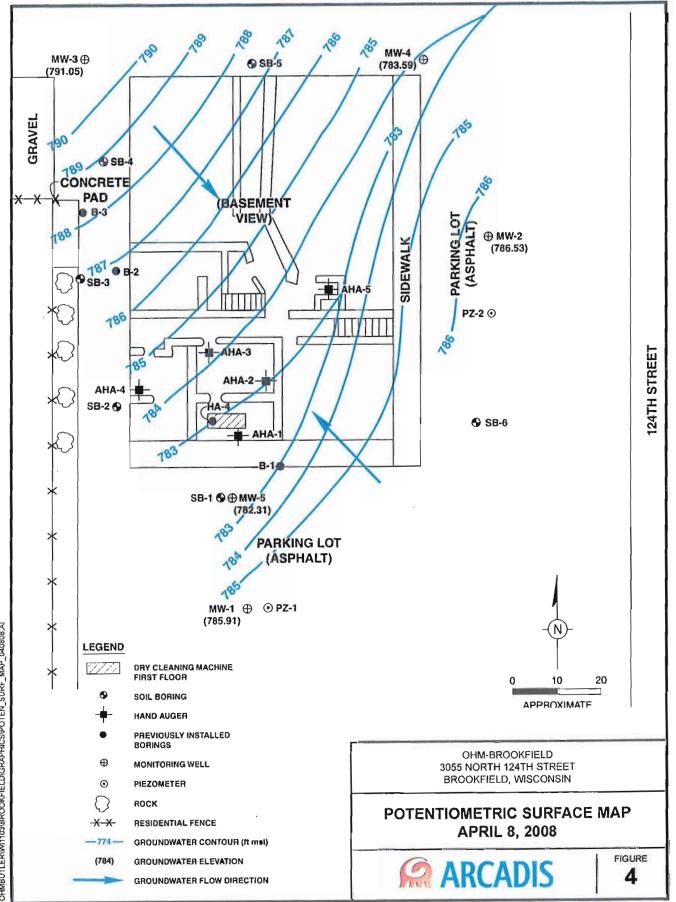


FIGURE 6

N. T. ELV VOLVIMEN 1 (1 S) LIMB BUTLER\WI1103\BROOKFIELD\GRAPHICS\M\W G\W EX

**APPROXIMATE** 

SCALE IN FEET



25MARTOLENVIORMENTTSILMB OHMBUTLERIW11031BROOKFIELDIGRAPHICSIPOTEN\_SURF\_MAP\_040808JAI

Table 3. Summary of Soil Analytical Results, One Hour Martinizing, Brookfield, Wisconsin.

Boring					SE	3-1	SI	3-2	SE	3-3	SE	3-4	SI	3-5
Sample Depth	WDNR	US	EPA SS	Ls	4-6'	8-10'	8-10'	10-12'	2-4'	10-12'	4-6'	8-10'	6-8'	10-12'
Sample Date	RCL	S/GW (1)	Ing. (2)	Inh. <sup>(3)</sup>	9/21/05	9/21/05	9/21/05	9/21/05	9/21/05	9/21/05	9/21/05	9/21/05	9/21/05	9/21/05
VOCs														
cis-1,2-Dichlorothene					<20	<50	<25	<25	<25	<25	<25	110	<25	<25
Naphthalene	2,700			-	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Tetrachloroethene		2.9	1,230	2,200	35	19,000	<25	<25	<25	<25	3,800	<25	<25	<25
Trichloroethene	-		~~		<20	440	<25	<25	<25	<25	240	<25	<25	<25
·Laboratory Parameters														
Total Organic Carbon				-	NA									

Results reported in micrograms per kilogram (µg/kg), except methanol Blank (µg/L) and Total Organic Carbon (milligrams per kilogram).

Only analytes detected in soil samples are presented.

	Concentration	on exceeds	US EPA S	SSL soil to	groundwater	pathway levels.
(1)	0 11 0					

Soil Screening Level for the Soil to Groundwater pathway, based on the U.S. EPA's Soil Screening website.

Soil Screening Level for the Ingestion pathway, based on the U.S. EPA's Soil Screening website and residential land use.

Soil Screening Level for the Inhalation of Volatiles pathway, based on the U.S. EPA's Soil Screening website and residential land use.

BOLD Concentration exceeds US EPA SSL ingestion and inhalation pathway levels.

Q Result is between the limit of detection and the limit of quantitation.

USEPA SSLs United States Environmental Protection Agency, Soil Screening Levels.

WDNR RCL Wisconsin Department of Natural Resources, ch. NR 746 Residual Contaminant Level.

Page 1 of 3

Table 3. Summary of Soil Analytical Results, One Hour Martinizing, Brookfield, Wisconsin.

Boring					Si	B-6	AHA-1	AHA-2	AHA-3	AHA-4	AHA-5	PZ	<u>1</u>
Sample Depth	WDNR	US	EPA SS	Ls	2-4'	10-12'	2-3'	0-1'	1-2'	0-1'	0-1'	8-10'	10-12'
Sample Date	RCL	S/GW (1)	Ing. (2)	Inh. <sup>(3)</sup>	6/2/06	6/2/06	9/23/05	9/23/05	9/23/05	9/23/05	9/23/05	10/24/05	10/24/05
VOCs													
cis-1,2-Dichlorothene					<25	<25	<5,000	<100	<620	260	<25	<25	NA
Naphthalene	2,700	~~			<25	<25	<25	<25	<25	<25	<25	<25	NA
Tetrachioroethene	_	2.9	1,230	2,200	<25	<25	1,100,000	41,000	150,000	23,000	2,800	250	NA
Trichloroethene		-		-	<25	<25	<5,000	1,600	<620	260	41	<25	NA
Laboratory Parameters													
Total Organic Carbon	_				NA	NA	NA	NA	NA	NA	NA	NA	8,100

Results reported in micrograms per kilogram (µg/kg), except methanol Blank (µg/L) and Total Organic Carbon (milligrams per kilogram).

Only analytes detected in soil samples are presented.

Concentration exceeds US EPA SSL soil to groundwater pathway levels.

(1) Soil Screening Level for the Soil to Groundwater pathway, based on the U.S. EPA's Soil Screening website.

Soil Screening Level for the Ingestion pathway, based on the U.S. EPA's Soil Screening website and residential land use.

(3) Soil Screening Level for the Inhalation of Volatiles pathway, based on the U.S. EPA's Soil Screening website and residential land use.

BOLD Concentration exceeds US EPA SSL ingestion and inhalation pathway levels.

Q Result is between the limit of detection and the limit of quantitation.

USEPA SSLs United States Environmental Protection Agency, Soil Screening Levels.

WDNR RCL Wisconsin Department of Natural Resources, ch. NR 746 Residual Contaminant Level.

Table 3. Summary of Soil Analytical Results, One Hour Martinizing, Brookfield, Wisconsin.

Boring					MW-2	MW-3	· Mv	V-4	MEOH	BLANK
Sample Depth	WDNR	US	EPA SS	Ls	10-12'	4-6'	2-4'	12-14'		
Sample Date	RCL	S/GW (1)	Ing. <sup>(2)</sup>	Inh. (3)	10/24/05	10/24/05	10/24/05	10/24/05	9/21/05	10/24/05
VOCs										
cis-1,2-Dichlorothene			~-		<25	<25	<25	NA	<25	<25
Naphthalene	2,700				49 Q	<25	<25	NA	<25	<25
Tetrachloroethene		2.9	1,230	2,200	<25	<25	<25	NA	36 Q	<25
Trichloroethene					<25	<25	<25	NA	<25	<25
Laboratory Parameters										
Total Organic Carbon					NA	NA	NA	5,700	NA	NA

Results reported in micrograms per kilogram (µg/kg), except methanol Blank (µg/L) and Total Organic Carbon (milligrams per kilogram).

Only analytes detected in soil samples are presented.

Concentration exceeds US EPA SSL soil to groundwater pathway levels.

Soil Screening Level for the Soil to Groundwater pathway, based on the U.S. EPA's Soil Screening website.

Soil Screening Level for the Ingestion pathway, based on the U.S. EPA's Soil Screening website and residential land use.

Soil Screening Level for the Inhalation of Volatiles pathway, based on the U.S. EPA's Soil Screening website and residential land use.

BOLD Concentration exceeds US EPA SSL ingestion and inhalation pathway levels.

Q Result is between the limit of detection and the limit of quantitation.

USEPA SSLs United States Environmental Protection Agency, Soil Screening Levels.

WDNR RCL Wisconsin Department of Natural Resources, ch. NR 746 Residual Contaminant Level.

ARCADIS Page 1 of 6

Table 4. Summary of Groundwater Analytical Results and Comparison to WDNR Standards, One Hour Martinizing, Brookfield, Wisconsin.

Well ID	NR 140	NR 140				MV	<b>V-1</b>				MV	V-2
Sample Date	ES	PAL	11/8/05	2/9/06	6/7/06	7/12/06	2/22/07	5/31/07	12/7/07	4/8/08	11/8/05	2/10/06
VOCs												
Benzene	5	0.5	< 0.41	<0.41	< 0.41	< 0.41	< 0.20	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
Chloromethane	3	0.3	< 0.24	< 0.24	0.31 Q	0.48 Q	<0.20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
2-Chlorotoluene			< 0.85	<0.85	<0.85	<0.85	<0.50	< 0.85	< 0.85	<0.85	< 0.85	<0.85
1,1-Dichloroethane	850	85	< 0.75	< 0.75	< 0.75	< 0.75	< 0.50	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75
cis-1,2-Dichloroethene	70	7	<0.83	<0.83	<0.83	< 0.83	< 0.50	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
Methylene chloride	5	1	< 0.43	< 0.43	< 0.43	< 0.43	<1.0	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
Methyl tert-butyl ether	60	12	< 0.61	< 0.61	< 0.61	< 0.61	<0.50	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61
Tetrachloroethene	5.0	0.5	0.47 Q	< 0.45	< 0.45	2.0	<0.50	< 0.45	< 0.45	<0.45	< 0.45	< 0.45
Toluene	1,000	200	< 0.67	<0.67	< 0.67	<0.67	<0.20	<0.67	< 0.67	< 0.67	< 0.67	< 0.67
1,1,1-Trichloroethane	200	40	< 0.90	< 0.90	< 0.90	< 0.90	< 0.50	< 0.90	< 0.90	< 0.90	< 0.90	< 0.90
Trichloroethene	5.0	0.5	<0.48	<0.48	<0.48	<0.48	<0.20	<0.48	<0.48	<0.48	<0.48	<0.48
Laboratory Parameters												
Ethane			0.081	NA	NA	NA	NA	NA	NA	NA	0.074	NA
Ethene			0.11	NA	NA	NA	NA	NA	NA	NA	0.11	NA
Methane			7.8	NA	NA	NA	NA	INA	NA	NA	0.4	NA
Total organic carbon (mg/L)			3.2	NA	NA	NA	NA	NA	NA	NA	8.2	NA

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

Concentration exceeds the PAL.

**BOLD** Concentration exceeds the ES.

Duplicate of MW-3.

ES Enforcement Standard.

mg/L Milligrams per liter.

NA Sample not analyzed for this parameter.

PAL Preventive Action Limit.

Table 4. Summary of Groundwater Analytical Results and Comparison to WDNR Standards, One Hour Martinizing, Brookfield, Wisconsin.

Well ID	NR 140	NR 140	MW	-2 (contin	ued)	MW-3	MW-99*	MW-3	MW-99*	MW-3	MW-99*	MW-3
Sample Date	ES	PAL	2/22/07	6/1/07	4/8/08	11/7/05	11/7/05	2/10/06	2/10/06	6/7/06	6/7/06	7/11/06
VOCs												
Benzene	5	0.5	< 0.20	< 0.41	< 0.41	< 0.41	<0.41	< 0.41	<0.41	< 0.41	< 0.41	< 0.41
Chloromethane	3	0.3	<0.20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
2-Chlorotoluene	NE	. NE	< 0.50	<0.85	< 0.85	<0.85	<0.85	<0.85	<0.85	<0.85	<0.85	<0.85
1,1-Dichloroethane	850	85	< 0.50	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75
cis-1,2-Dichloroethene	70	7	< 0.50	< 0.83	< 0.83	< 0.83	<0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
Methylene chloride	5	1	<1.0	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
Methyl tert-butyl ether	60	12	< 0.50	< 0.61	< 0.61	0.75 Q	0.85 Q	0.73 Q	0.76 Q	0.68 Q	0.65 Q	<0.61
Tetrachloroethene	5.0	0.5	< 0.50	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	2.1
Toluene	1,000	200	< 0.20	< 0.67	<0.67	< 0.67	< 0.67	< 0.67	< 0.67	<0.67	< 0.67	<0.67
1,1,1-Trichloroethane	200	40	< 0.50	<0.90	< 0.90	< 0.90	< 0.90	< 0.90	< 0.90	< 0.90	< 0.90	< 0.90
Trichloroethene	5.0	0.5	<0.20	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48
Laboratory Parameters												
Ethane	NE	NE	NA	NA	NA	0.033	NA	NA	NΑ	NA	NA	NA
Ethene	NE	NE	NA	NA	NA	0.045	NA	NA	NA	NA	NA	NA
Methane	NE	NE	NA	NA	NA	0.54	NA	NA	NA	NA	NA	NA
Total organic carbon (mg/L)	NE	NE	NA	NA	NA	1.6 Q	NA	NA	NA	NA	NA	NA

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

Concentration exceeds the PAL.

**BOLD** Concentration exceeds the ES.

Duplicate of MW-3.

ES Enforcement Standard.

mg/L Milligrams per liter.

NA Sample not analyzed for this parameter.

PAL Preventive Action Limit.

Table 4. Summary of Groundwater Analytical Results and Comparison to WDNR Standards, One Hour Martinizing, Brookfield, Wisconsin.

Well ID	NR 140	NR 140	MW-99*	MW-3 (cd	ontinued)	MW-98*	MW-3	MW-99*		MW-4	
Sample Date	ES	PAL	7/11/06	2/22/07	5/31/07	5/31/07	4/8/08	4/8/08	11/7/05	2/9/06	6/7/06
VOCs											
Benzene	5	0.5	< 0.41	< 0.20	< 0.41	< 0.41	< 0.41	<0.41	< 0.41	<0.41	< 0.41
Chloromethane	3	0.3	< 0.24	<0.20	< 0.24	<0.24	< 0.24	<0.24	<0.24	<0.24	< 0.24
2-Chlorotoluene	NE	NE	< 0.85	< 0.50	<0.85	<0.85	< 0.85	<0.85	<0.85	<0.85	< 0.85
1,1-Dichloroethane	850	85	< 0.75	< 0.50	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75
cis-1,2-Dichloroethene	70	7	< 0.83	< 0.50	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	<0.83	<0.83
Methylene chloride	5	1	< 0.43	<1.0	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
Methyl tert-butyl ether	60	12	0.63 Q	< 0.50	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61
Tetrachloroethene	5.0	0.5	2.7	<0.50	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	0.62 Q	<0.45
Toluene	1,000	200	<0.67	<0.20	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	<0.67	<0.67
1,1,1-Trichloroethane	200	40	<0.90	< 0.50	< 0.90	< 0.90	< 0.90	< 0.90	< 0.90	< 0.90	< 0.90
Trichloroethene	5.0	0.5	<0.48	<0.20	<0.48	<0.48	<0.48	<0.48	<0.48	0.73 Q	<0.48
Laboratory Parameters											
Ethane	NÉ	NE	NA	NA	NA	NA	NA	NA	0.064	NA	NA
Ethene	NE	NE	NA	NA	NA	NA	NA	NA	0.11	NA	NA
Methane	NE	NE	NA	NA	NA	NA	NA	NA	0.55	NA	NA
Total organic carbon (mg/L)	NE	NE	NA	NA	NA	NA	NΑ	NA	7.1	NA	NA

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

Concentration exceeds the PAL.

BOLD Concentration exceeds the ES.

\* Duplicate of MW-3.

ES Enforcement Standard.

mg/L Milligrams per liter.

NA Sample not analyzed for this parameter.

PAL Preventive Action Limit.

Table 4. Summary of Groundwater Analytical Results and Comparison to WDNR Standards, One Hour Martinizing, Brookfield, Wisconsin.

Well ID	NR 140	NR 140		MW-4 (co	ntinued)			MW	-5	
Sample Date	ES	PAL	7/11/06	2/22/07	6/1/07	4/8/08	6/8/06	7/12/06	2/22/07	5/31/07
VOCs										
Benzene	5	0.5	< 0.41	<0.20	< 0.41	< 0.41	1.6	<0.41	< 0.20	< 0.41
Chloromethane	3	0.3	< 0.24	<0.20	< 0.24	< 0.24	<0.24	0.45	<0.20	<0.24
2-Chlorotoluene	NE	NE	<0.85	< 0.50	<0.85	<0.85	2.9	<0.85	<0.50	<0.85
1,1-Dichloroethane	850	85	< 0.75	< 0.50	< 0.75	< 0.75	1.5 Q	< 0.75	< 0.50	< 0.75
cis-1,2-Dichloroethene	70	7	< 0.83	< 0.50	< 0.83	< 0.83	14	<0.83	< 0.50	<0.83
Methylene chloride	5	1	< 0.43	<1.0	< 0.43	< 0.43	4.0	<0.43	<1.0	< 0.43
Methyl tert-butyl ether	60	12	< 0.61	< 0.50	< 0.61	< 0.61	<0.61	<0.61	< 0.50	< 0.61
Tetrachloroethene	5.0	0.5	2.4	< 0.50	< 0.45	< 0.45	50	7.0	2.3	3.7
Toluene	1,000	200	<0.67	<0.20	< 0.67	< 0.67	7.1	< 0.67	<0.20	<0.67
1,1,1-Trichloroethane	200	40	< 0.90	< 0.50	< 0.90	< 0.90	3.4	< 0.90	< 0.50	< 0.90
Trichloroethene	5.0	0.5	<0.48	<0.20	<0.48	<0.48	14	<0.48	<0.20	<0.48
Laboratory Parameters										
Ethane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA
Methane	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA
Total organic carbon (mg/L)	NE	NE	NA	NA	NA	NA	NA	NA	ΝA	NA

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

Concentration exceeds the PAL.

**BOLD** Concentration exceeds the ES.

Duplicate of MW-3.

ES Enforcement Standard.

mg/L Milligrams per liter.

NA Sample not analyzed for this parameter.

PAL Preventive Action Limit.

Page 5 of 6

#### **ARCADIS**

Table 4. Summary of Groundwater Analytical Results and Comparison to WDNR Standards, One Hour Martinizing, Brookfield, Wisconsin.

Well ID	NR 140	NR 140	MW-5 (co	ntinued)			PZ-	-1			PZ	2-2
Sample Date	ES	PAL	12/6/07	4/8/08	11/8/05	2/10/06	2/22/07	6/1/07	12/6/07	4/8/08	2/12/08	4/8/08
VOCs								_				
Benzene	5	0.5	< 0.41	<0.41	< 0.41	< 0.41	<0.20	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
Chloromethane	3	0.3	<0.24	<0.24	< 0.24	<0.24	<0.20	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
2-Chlorotoluene	NE	NE	<0.85	<0.85	<0.85	<0.85	<0.50	<0.85	<0.85	<0.85	< 0.85	<0.85
1,1-Dichloroethane	850	85	< 0.75	<0.75	< 0.75	< 0.75	<0.50	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75
cis-1,2-Dichloroethene	70	7	<0.83	<0.83	< 0.83	<0.83	<0.50	<0.83	< 0.83	<0.83	< 0.83	< 0.83
Methylene chloride	5	1	< 0.43	< 0.43	< 0.43	< 0.43	<1.0	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
Methyl tert-butyl ether	60	12	<0.61	<0.61	< 0.61	< 0.61	<0.50	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61
Tetrachloroethene	5.0	0.5	5.5	15	< 0.45	< 0.45	< 0.50	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Toluene	1,000	200	< 0.67	< 0.67	< 0.67	< 0.67	<0.20	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
1,1,1-Trichloroethane	200	40	< 0.90	< 0.90	< 0.90	< 0.90	<0.50	< 0.90	< 0.90	<0.90	< 0.90	< 0.90
Trichloroethene	5.0	0.5	<0.48	1.1	<0.48	<0.48	<0.20	<0.48	<0.48	<0.48	<0.48	<0.48
Laboratory Parameters												
Ethane	NE	NE	NA	NA	0.07	NA	NA	NA	NA	NA	NA	NA
Ethene	NE	NE	NA	NA	0.059	NA	NA	NA	NA	NA	NA	NA
Methane	NE	NE	NA	NA	1.2	NA	NA	NA	NA	NA	NA	NA
Total organic carbon (mg/L)	NE	NE	NA	NA	3.1	NA	NA	NΑ	NA	NA	NA	NA

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

Concentration exceeds the PAL.

BOLD Concentration exceeds the ES.

Duplicate of MW-3.

ES Enforcement Standard.

mg/L Milligrams per liter.

NA Sample not analyzed for this parameter.

PAL Preventive Action Limit.

Table 4. Summary of Groundwater Analytical Results and Comparison to WDNR Standards, One Hour Martinizing, Brookfield, Wisconsin.

Well ID	NR 140	NR 140			7	RIP BLAN	K		
Sample Date	ES	PAL	11/7/05	2/10/06	7/12/06	2/22/07	6/1/07	12/6/07	4/8/08
VOCs		_							
Benzene	5	0.5	< 0.41	< 0.41	< 0.41	< 0.20	< 0.41	< 0.41	< 0.41
Chloromethane	3	0.3	< 0.24	< 0.24	< 0.24	< 0.20	< 0.24	< 0.24	< 0.24
-Chlorotoluene	NE	NE	< 0.85	< 0.85	< 0.85	<0.50	< 0.85	<0.85	<0.85
1,1-Dichloroethane	850	85	< 0.75	< 0.75	< 0.75	< 0.50	< 0.75	< 0.75	< 0.75
is-1,2-Dichloroethene	70	7	<0.83	< 0.83	< 0.83	< 0.50	< 0.83	< 0.83	<0.83
Methylene chloride	5	1	< 0.43	< 0.43	< 0.43	<1.0	2.6	2.6	2.6
/lethyl tert-butyl ether	60	12	< 0.61	< 0.61	< 0.61	< 0.50	<0.61	<0.61	<0.61
etrachloroethene	5.0	0.5	< 0.45	< 0.45	< 0.45	< 0.50	< 0.45	< 0.45	< 0.45
oluene	1,000	200	< 0.67	< 0.67	< 0.67	<0.20	<0.67	< 0.67	< 0.67
,1,1-Trichloroethane	200	40	< 0.90	< 0.90	< 0.90	< 0.50	< 0.90	<0.90	<0.90
richloroethene	5.0	0.5	<0.48	<0.48	<0.48	<0.20	<0.48	<0.48	<0.48
aboratory Parameters									
Ethane	NE	NE	NA	NA	NA	NA	NA	NA	NA
thene	NE	NE	NA	NA	NA	NA	NA	NA	NA
ethane	NE	NE	NA	NA	NA	NA	NA	NA	NA
otal organic carbon (mg/L)	NE	NE	NA	NA	NA	NA	NA	NA	NA

Results reported in micrograms per liter (µg/L) unless otherwise indicated.

Concentration exceeds the PAL.

BOLD Concentration exceeds the ES.

\* Duplicate of MW-3.

ES Enforcement Standard.

mg/L Milligrams per liter.

NA Sample not analyzed for this parameter.

PAL Preventive Action Limit.

Table 2. Summary of Well Construction and Groundwater Elevation Data, One Hour Martinizing, Brookfield, Wisconsin.

	,	Ground Surface	Top of	Total Well	Well Screen	Depth to	Water Level
Monitoring	Date	Elevation	Casing Elevation	Depth	Elevation	Water	Elevation
Well		<u>(ft</u> ms!)	(ft msl)	(ft msl)	(ft ms!)	(ft below TOC)	(ft msl)
MW-1	11/7/2005	792.86	792.49	770.49	780.49 - 770.49	7.38	785.11
	2/9/2006					6.76	785.73
	7/11/2006					6.88	785.61
	2/22/2007					NA	NA
	5/31/2007					6.59	785.90
	12/6/2007					6.5	785.99
	4/8/2008					6.58	785.91
MW-2	11/7/2005	792.87	792.48	770.48	780.48 - 770.48	19.42	773.06
	2/9/2006					6.48	786.00
	7/11/2006					7.57	784.91
	2/22/2007					8.05	784.43
	5/31/2007					6.05	786.43
	12/6/2007					7.68	784.80
	4/8/2008					5.95	786.53
MW-3	11/7/2005	793.55	793.07	771.07	781.07 - 771.07	12.04	781.03
	2/9/2006					2.87	790.20
	7/11/2006					5.02	788.05
	2/22/2007					4.57	788.50
	5/31/2007					3.73	789.34
	12/6/2007					3.87	789.20
	4/8/2008					2.02	791.05
MW-4	11/7/2005	793.41	792.98	768.98	778.98 - 768.98	10.46	782.52
	2/9/2006					9.81	783.17
	7/11/2006					9.29	783.69
	2/22/2007					10.11	782.87
	5/31/2007					9.11	783.87
	12/6/2007					10.23	782.75
	4/8/2008					9.39	783.59
MW-5	7/11/2006	792.89	792.51	772.51	787.51 - 772.51	10.08	782.43
	2/22/2007					10.2	782.31
	5/31/2007					10.2	782.31
	12/6/2007					10.22	782.29
	4/8/2008					10.2	782.31
PZ-1	11/7/2005	792.79	792.55	750.55	755.55 - 750.55	38.28	754.27
	2/9/2006					34.8	757.75
	7/11/2006					35.33	757.22
	2/22/2007					34.41	758.14
	5/31/2007					35.02	757.53
	12/6/2007					33.45	759.10
	4/8/2008					34.53	758.02
PZ-2	12/6/2007	NA	NA	NA	NÄ	33.45	NA
	4/8/2008					34.53	NA

ft below TOC Feet below top of casing.

ft msl

Feet above mean sea level.

Page 1 of 2

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Table 6. Summary of Indoor Air Analytical Results, One Hour Martinizing, Brookfield, Wisconsin.

Sample Name	Calculated RBC	WDHFS	WDHFS		Ron Carnell		One S	Source	
Sample Date	Screening Levels	Non-Res	Non-Res	02/11/08	11/17/09	02/18/10	02/11/08	11/17/09	02/18/10
Units	ppbv	ppbv	μg/m³	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
VOCs									
Acetone	16,328			8.47	51	48	66.2	196	140
Benzene	2.46			< 0.5	<2.5	0.44	0.684	<2.5	0.41
2-Butanone				< 0.5	6.79	2.4	0.596	<2.5	6.79
Chloromethane				0.757	<2.5	0.83	0.996	<2.5	0.76
Cyclohexane		~~		< 0.5	<2.5	0.85	<0.5	<2.5	1.3
Dichlorodifluoromethane	2,048			0.54	<2.5	0.41	0.553	<2.5	0.38
1,2-Dichloroethane	1.17			< 0.5	<2.5	< 0.20	< 0.5	<2.5	0.24
cis-1,2-Dichloroethene	124			< 0.5	<2.5	0.23	< 0.5	<2.5	<0.20
Ethylbenzene		_		<0.5	<2.5	0.21	<0.5	<2.5	0.21
Hexane	734		~~	<0.5	<2.5	0.7	1.02	<2.5	0.83
Isopropyl Alcohol	5,260		]	< 0.5	<2.5	10	<0.5	<2.5	21
Methylene chloride	16.55			0.739	6.05	9.3	< 0.5	<2.5	4.2
2-Propanol				6.89	17.6	< 0.50	74.1	<2.5	< 0.50
Tetrahydrofuran	19.23	~-		<0.5	<2.5	<1.0	0.785	<2.5	<1.0
Toluene	915			5.29	14	1.6	49.1	<2.5	1.4
Tetrachloroethene (PCE)	0.27	3.0		23.6	<2.5	3.0	17.3	<2.5	1.2
Tetrachloroethene (PCE)*		_	21	162.7	<17.2	21.0	119.3	<17.2	8.3
1,2,4-Trimethylbenzene				< 0.5	<2 <i>.</i> 5	<0.20	< 0.5	<2.5	0.2
2,2,4-Trimethylpentane				< 0.5	83.4	< 0.50	0.581	228	< 0.50
o-Xylene	1,984		_	< 0.5	<2.5	0.21	< 0.5	<2.5	0.23
m-Xylene & p-Xylene	1,984			< 0.5	83.4	0.62	0.581	228	0.7

Note: Only analytes detected in vapor samples are presented.

Air Samples analyzed for volatile organic compounds (VOCs) by EPA Method TO-15.

Results are reported in parts per billion by volume (ppbv) unless otherwise noted.

**BOLD** Concentration exceeds May 2010 non-residential indoor air action levels.

RBC Risk Based Concentration.

WDHFS Wisconsin Department of Health and Family Services.

VOCs Volatile Organic Compounds.

<sup>\*</sup> PCE concentrations in micrograms per cubic meter (µg/m³) were calculated from the ppbv values obtained from the laboratory reports.

Page 2 of 2

**ARCADIS** 

Table 6. Summary of Indoor Air Analytical Results, One Hour Martinizing, Brookfield, Wisconsin.

Sample Name Sample Date Units	U.S. Mail Supply 02/11/08 ppbv	Ameripath 02/11/08 ppbv	NewLeaf Floral 02/11/08 ppbv	Elliots Flooring 02/20/08 ppbv	
VOCs					
Acetone	23	12.6	14.7	9.51	
Benzene	0.786	<0.5	0.546	<0.5	
2-Butanone	< 0.5	< 0.5	< 0.5	<0.5	
Chloromethane	0.633	0.514	0.995	0.568	
Cyclohexane	< 0.5	<0.5	<0.5	<0.5	
Dichlorodifluoromethane	0.516	0.518	0.57	0.537	
1,2-Dichloroethane	< 0.5	<0.5	< 0.5	<0.5	
cis-1,2-Dichloroethene	< 0.5	< 0.5	< 0.5	<0.5	
Ethylbenzene	<0.5	<0.5	< 0.5	<0.5	
Hexane	1.05	0.837	2.77	<0.5	
Isopropyl Alcohol	< 0.5	<0.5	< 0.5	<0.5	
Methylene chloride	< 0.5	<0.5	< 0.5	<0.5	
2-Propanol	15.2	<1.0	45.6	4.84	
Tetrahydrofuran	< 0.5	<0.5	< 0.5	<0.5	
Toluene	1.64	0.968	2.89	<0.5	
Tetrachloroethene (PCE)	1.19	<0.5	1.11	3.07	
Tetrachloroethene (PCE)*	8.2	< 3.4	7.65	21.2	
1,2,4-Trimethylbenzene	0.648	<0.5	<0.5	<0.5	
2,2,4-Trimethylpentane	0.818	. 0.5	0.877	<0.5	
o-Xylene	<0.5	<0.5	< 0.5	<0.5	
m-Xylene & p-Xylene	0.818	0.5	0.877	<0.5	

Note: Only analytes detected in vapor samples are presented.

Air Samples analyzed for volatile organic compounds (VOCs) by EPA Method TO-15.

Results are reported in parts per billion by volume (ppbv) unless otherwise noted.

BOLD Concentration exceeds May 2010 non-residential indoor air action levels.

RBC Risk Based Concentration.

WDHFS Wisconsin Department of Health and Family Services.

VOCs Volatile Organic Compounds.

<sup>\*</sup> PCE concentrations in micrograms per cubic meter (µg/m³) were calculated from the ppbv values obtained from the laboratory reports.





One Source Construction 3065 N. 124<sup>th</sup> Street, Suite #2 Brookfield, WI 53005

Subject:

Notification of Indoor Air Concentrations and Vapor Mitigation Activities, One Hour Martinizing, 3055 N. 124<sup>th</sup> Street, Brookfield Wisconsin. BRRTS# 02-68-539228

Dear Tenant:

On behalf of Mr. Tom Grimm, ARCADIS has completed soil, groundwater, sub-slab vapor, and indoor air investigation activities at the former dry cleaner (the site) located in the office building at 3055 N. 124<sup>th</sup> Street Avenue in Brookfield, Wisconsin (the property). Historic dry cleaning activities at the site have resulted in the release of chlorinated hydrocarbons to soil and groundwater. This release has been limited to the property.

As required by the Wisconsin Department of Natural Resources (WDNR), this letter has been prepared to notify you that residual chlorinated hydrocarbons concentrations present in the soil and groundwater beneath the office building have the potential to emanate tetrachloroethene (PCE) vapors into the indoor air of the building. In February 2008, indoor air samples were collected from the tenant spaces in the office building. Analytical results indicated that the samples contained PCE vapor concentrations ranging from less than 3.4 micrograms per cubic meter ( $\mu$ g/m³) to 162.7  $\mu$ g/m³. The PCE concentration in the One Source Construction (One Source) tenant space was 119.3  $\mu$ g/m³, which exceeded the Wisconsin Department of Health and Family Services non-residential action level (AL) of 21  $\mu$ g/m³. The remaining tenant spaces sampled were below the AL, with exception to the Ron Carnell Insurance tenant space.

The level of PCE vapors detected in your tenant space is not known to cause adverse health effects and does not pose a health hazard. The AL is a precautionary threshold value for PCE concentrations in indoor air and is based on a theoretical long-term increased cancer risk. Exceeding the AL requires that actions should be taken that decrease cancer risk from long-term exposures and be protective of human health. This letter summarizes the actions taken to address the PCE vapor exceedance of the AL in your tenant space.

ARCADIS U.S., Inc. 126 North Jefferson Street Suite 400 Milwaukee Wisconsin 53202 Tel 414.276.7742 Fax 414.276.7603

**ENVIRONMENT** 

www.arcadis-us.com

Date:

16 December 2010

Contact:

Brian Maillet Ed Buc

Phone: 414,276,7742

Email:

bmaillet@arcadis-us.com
ebuc@arcadis-us.com

Our ref: WI001109.0004

One Source 16 December 2010



#### **ARCADIS**

In October 2009, ARCADIS contracted Radon Abatement, Inc. (Radon Abatement) to address the vapor intrusion pathways outlined above. To mitigate potential offgasing of vapors, Radon Abatement removed stained building materials and debris from the Site and sealed open and unfinished surfaces in the basement such as cracked concrete floors and open drains. The two positive venting systems were installed in the basement and to further mitigate the potential for vapors in the indoor air.

The One Source tenant space was selected for post-remediation sampling in November 2009 and February 2010. Following the installation of the positive venting systems, the PCE levels in the One Source tenant space were found to have decreased by nearly 90 percent. The positive venting systems have reduced the indoor air PCE levels in the One Source tenant space to the levels observed in the other tenant spaces, which are at or below the WDHFS exposure limit. The two positive venting systems will continue to operate at the office building, and will be maintained under a Cap Maintenance and Materials Handling Plan until the source of PCE vapors beneath the office building naturally attenuates to levels below the inhalation volatile pathway standard.

Mr. Henry Nehls-Lowe of the DHFS is available to provide you further information regarding the AL for PCE in indoor air and can be reached at (608) 266-3479. The WDNR project manager for the site can be contacted at the following address:

Mr. James Delwiche Wisconsin Department of Natural Resources Remediation and Redevelopment Program 141 NW Barstow Room 180 Waukesha, Wisconsin 53188 Phone: (262) 574-2145

Fax: (262) 574-2117



One Source 16 December 2010

We trust this information will meet your needs. If you have any questions, or require any additional information, please contact the undersigned.

ARCADIS U.S., Inc.

Sincerely,

Brian J. Maillet

Certified Project Manager

Ed Buc, PE

Principal Engineer

Copies:

Don Gallo - Reinhart, Boerner, Van Deuren, S.C.

Tom Grimm – OHM of Butler, Inc.





Ron Carnell Insurance Agency 3065 N. 124<sup>th</sup> Street Brookfield, WI 53005

Subject:

Notification of Indoor Air Concentrations and Vapor Mitigation Activities, One Hour Martinizing, 3055 N. 124<sup>th</sup> Street, Brookfield Wisconsin. BRRTS# 02-68-539228

Dear Tenant:

On behalf of Mr. Tom Grimm, ARCADIS has completed soil, groundwater, sub-slab vapor, and indoor air investigation activities at the former dry cleaner (the site) located in the office building at 3055 N. 124<sup>th</sup> Street Avenue in Brookfield, Wisconsin (the property). Historic dry cleaning activities at the site have resulted in the release of chlorinated hydrocarbons to soil and groundwater. This release has been limited to the property.

As required by the Wisconsin Department of Natural Resources (WDNR), this letter has been prepared to notify you that residual chlorinated hydrocarbons concentrations present in the soil and groundwater beneath the office building have the potential to emanate tetrachloroethene (PCE) vapors into the indoor air of the building. In February 2008, indoor air samples were collected from the tenant spaces in the office building. Analytical results indicated that the samples contained PCE vapor concentrations ranging from less than 3.4 micrograms per cubic meter ( $\mu$ g/m³) to 162.7  $\mu$ g/m³. The PCE concentration in the Ron Carnell Insurance Agency (Ron Carnell) tenant space was 162.7  $\mu$ g/m³, which exceeded the Wisconsin Department of Health and Family Services non-residential action level (AL) of 21  $\mu$ g/m³. The remaining tenant spaces sampled were below the AL, with exception to the One Source Construction tenant space.

The level of PCE vapors detected in your tenant space is not known to cause adverse health effects and does not pose a health hazard. The AL is a precautionary threshold value for PCE concentrations in indoor air and is based on a theoretical long-term increased cancer risk. Exceeding the AL requires that actions should be taken that decrease cancer risk from long-term exposures and be protective of human health. This letter summarizes the actions taken to address the PCE vapor exceedance of the AL in your tenant space.

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**ENVIRONMENT** 

Date:

16 December 2010

Contact:

Brian Maillet Ed Buc

Phone: 414.276.7742

Email:

bmaillet@arcadis-us.com ebuc@arcadis-us.com

Our ref: WI001109.0004



Ron Carnell Insurance Agency 16 December 2010

In October 2009, ARCADIS contracted Radon Abatement, Inc. (Radon Abatement) to address the vapor intrusion pathways outlined above. To mitigate potential offgasing of vapors, Radon Abatement removed stained building materials and debris from the Site and sealed open and unfinished surfaces in the basement such as cracked concrete floors and open drains. The two positive venting systems were installed in the basement and to further mitigate the potential for vapors in the indoor air.

The Ron Carnell tenant space was selected for post-remediation sampling in November 2009 and February 2010. Following the installation of the positive venting systems, the PCE levels in the Ron Carnell tenant space were found to have decreased by nearly 90 percent. The positive venting systems have reduced the indoor air PCE levels in the Ron Carnell tenant space to the levels observed in the other tenant spaces, which are at or below the WDHFS exposure limit. The two positive venting systems will continue to operate at the office building, and will be maintained under a Cap Maintenance and Materials Handling Plan until the source of PCE vapors beneath the office building naturally attenuates to levels below the inhalation volatile pathway standard.

Mr. Henry Nehls-Lowe of the DHFS is available to provide you further information regarding the AL for PCE in indoor air and can be reached at (608) 266-3479. The WDNR project manager for the site can be contacted at the following address:

Mr. James Delwiche
Wisconsin Department of Natural Resources
Remediation and Redevelopment Program
141 NW Barstow Room 180
Waukesha, Wisconsin 53188
Phone: (262) 574-2145

Fax: (262) 574-2117



Ron Carnell Insurance Agency 16 December 2010

We trust this information will meet your needs. If you have any questions, or require any additional information, please contact the undersigned.

ARCADIS U.S., Inc.

Sincerely,

Brian J. Maillet

Certified Project Manager

Ed Buc, PE

Principal Engineer

Copies:

Don Gallo - Reinhart, Boerner, Van Deuren, S.C.

Tom Grimm - OHM of Butler, Inc.





Jim Wicker 2512 Bennett Cove Waukesha, WI 53189

Subject:

Notification of Indoor Air Concentrations and Vapor Mitigation Activities, One Hour Martinizing, 3055 N. 124<sup>th</sup> Street, Brookfield Wisconsin. BRRTS# 02-68-539228

Dear Mr. Wicker:

On behalf of Mr. Tom Grimm, ARCADIS has completed soil, groundwater, sub-slab vapor, and indoor air investigation activities at the former dry cleaner (the site) located in your office building at 3055 N. 124<sup>th</sup> Street Avenue in Brookfield, Wisconsin (the property). Historic dry cleaning activities at the site have resulted in the release of chlorinated hydrocarbons to soil and groundwater. This release has been limited to the property.

As required by the Wisconsin Department of Natural Resources (WDNR), this letter has been prepared to notify you that residual chlorinated hydrocarbons concentrations present in the soil and groundwater beneath the office building on the property have the potential to emanate tetrachloroethene (PCE) vapors into the indoor air of the building. In February 2008, indoor air samples were collected from the tenant spaces in your office building. Analytical results indicated that the samples contained PCE vapor concentrations ranging from less than 3.4 micrograms per cubic meter ( $\mu$ g/m³) to 162.7  $\mu$ g/m³. The PCE concentrations in the Ron Carnell Insurance Agency (Ron Carnell) and One Source Construction (One Source) tenant spaces were 162.7  $\mu$ g/m³ and 119.3  $\mu$ g/m³, respectively, which exceeded the Wisconsin Department of Health and Family Services non-residential action level (AL) of 21  $\mu$ g/m³. The indoor air analytical results from the other tenant spaces were below the AL.

The level of PCE vapors detected in the office building is not known to cause adverse health effects and does not pose a health hazard for the building occupants. The AL is a precautionary threshold value for PCE concentrations in indoor air and is based on a theoretical long-term increased cancer risk. Exceeding the AL requires that actions should be taken that decrease cancer risk from long-term exposures and be protective of human health. This letter summarizes the actions taken to address the PCE vapor exceedances of the AL.

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**ENVIRONMENT** 

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16 December 2010

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ebuc@arcadis-us.com

Our ref: WI001103.0004



Jim Wicker 16 December 2010

In October 2009, ARCADIS contracted Radon Abatement, Inc. (Radon Abatement) to address the vapor intrusion pathways outlined above. To mitigate potential offgasing of vapors, Radon Abatement removed stained building materials and debris from the Site and sealed open and unfinished surfaces in the basement such as cracked concrete floors and open drains. The two positive venting systems were installed in the basement and to further mitigate the potential for vapors in the indoor air.

The two tenant spaces that exceeded the WDHFS exposure guidance limit of 21 µg/m³ (Ron Carnell and One Source) were selected for post-remediation sampling in November 2009 and February 2010. Following the installation of the positive venting systems, the PCE levels in the tenant spaces were found to have decreased by nearly 90 percent, with concentrations ranging from 8.3 µg/m³ to 21 µg/m³. The positive venting systems have reduced the indoor air PCE levels in the Ron Carnell and One Source tenant spaces to levels equivalent with the other tenant spaces, which are at or below the WDHFS exposure limit. The two positive venting systems will continue to operate at your building, and will be maintained under a Cap Maintenance and Materials Handling Plan until the source of PCE vapors beneath the office building naturally attenuates to levels below the inhalation volatile pathway standard. In addition to this letter, ARCADIS has submitted letters summarizing the indoor air sampling results, the positive venting system installation, and post installation indoor air sampling results to Ron Carnell and One Source.

Mr. Henry Nehls-Lowe of the DHFS is available to provide you further information regarding the AL for PCE in indoor air and can be reached at (608) 266-3479. The WDNR project manager for the site can be contacted at the following address:

Mr. James Delwiche
Wisconsin Department of Natural Resources
Remediation and Redevelopment Program
141 NW Barstow Room 180
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Jim Wicker 16 December 2010

We trust this information will meet your needs. If you have any questions, or require any additional information, please contact the undersigned.

ARCADIS U.S., Inc.

Sincerely,

Brian J. Maillet

Certified Project Manager

Ed Buc, PE

Principal Engineer

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