



August 12, 2010

Mr. Jeffrey J. Kavanaugh
State Cleanup Section
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46204

**RE: Vapor Residential Sampling & Mitigation Report
Former Harman-Becker Automotive Systems, Inc.
1201 South Ohio Street
Martinsville, Morgan County, Indiana
State Cleanup Site #1996-06-183
SESCO Project No. 3872**

Dear Mr. Kavanaugh:

SESCO Group (SESCO) respectfully submits this *Vapor Residential Sampling & Mitigation Report*, for the Former Harman-Becker Automotive Systems facility, located at 1201 South Ohio Street, Martinsville, Indiana (the Site). This report summarizes the results of the vapor intrusion sampling events of the residential area immediately downgradient of the Site and recommended actions. The sampling activities were conducted to address potential vapor intrusion in the residences, in accordance with *Indiana Department of Environmental Management (IDEM) Draft Vapor Intrusion Pilot Program Guidance Supplement (February 4, 2010)* regulations and guidelines.

Indoor air vapor samples were collected from 11 single-family residences and one (1) four-unit apartment building from March through May 2010. Sub-slab vapor samples were collected from three (3) of the residences and the apartment building, during the same period. The locations of the residences are included as **Figure 1**. Seven (7) of the residences have vapor mitigation systems. The locations of the residences with systems are included on **Figures 2 and 3**.

1 Vapor Intrusion Sampling Procedures

Indoor air vapor samples were collected from 12 residential buildings, immediately downgradient of the Site, from March through May 2010. Sub-slab vapor samples were

collected from four (4) of the residential buildings, during the same period. The potential for volatile organic compound (VOC) vapors (specifically tetrachloroethylene (PCE) and trichloroethylene (TCE)) to migrate into the indoor air of residences was investigated by collecting indoor air samples from the following residences (* - indicates vapor mitigation system installed):

- 1210 Ohio Street
- 1240 Ohio Street
- 1309 Ohio Street
- 520 Basca Drive *
- 540 Basca Drive
- 1304 Clore Street *
- 1334 Clore Street *
- 1354 Clore Street *
- 1355 Clore Street *
- 1385 Clore Street *
- 1398 Clore Street *
- 1399 Clore Street

Sub-slab vapor ports and subsequent samples were collected from 1210 and 1240 Ohio Street and 1398 Clore Street.

1.1 Indoor Air Sampling Procedures

Indoor air samples were collected from 12 residential buildings in the vicinity of the Site. An ambient (background) air sample (AA-1) was collected outdoors, west of 1210 Ohio Street. The indoor air samples were collected during a cool weather period that maximized the potential for vapor intrusion. The furnaces at each residence were operating at the time of sampling. Indoor air samples were collected by placing a six-liter (6-L) Summa canister (equipped with 24-hour flow regulators) placed approximately 3-5 feet above the floor in the breathing zone in a centrally located position, in accordance with *Appendix III* of the *IDEM Draft Vapor Intrusion Pilot Program Guidance (February 4, 2010)* document, for sampling under conditions conducive to vapor transport. Indoor air samples were analyzed for VOCs using United States Environmental Protection Agency (USEPA) Test Method TO-15. Vapor sampling logs are provided in **Appendix A**. An Indoor Air Building Survey Checklist, obtained from the *IDEM Draft Vapor Intrusion Pilot Program Guidance (February 4, 2010)* document, was completed for sampling locations and provided in **Appendix B**.

1.2 Sub-Slab Probe Installation

The sub-slab sampling probes at 1210 and 1240 Ohio Street and 1398 Clore Street were installed on April 6, 2010, by SESCO. Holes for the sub-slab sampling probes were drilled in the concrete slabs using a rotary hammer drill. A 2-inch outer diameter (OD) hole was drilled approximately 0.5-inch into the concrete slabs. An inner 3/8-inch OD hole was then drilled

through the remainder of the concrete and approximately 2-inches into the sub-slab material to create a cavity for sampling. The probes were constructed to allow for collection of air samples directly beneath the slab. The sample probes were installed several days prior to sampling and are flush with the upper surface of the slab. The sub-slab sampling probes were constructed with NPT Swagelok stainless-steel compression fittings.

1.3 Sub-Slab Vapor Sample Collection

Sub-slab air samples were collected at 1210 and 1240 Ohio Street and 1398 Clore Street by connecting the sub-slab vapor probes to a "T" fitting, which was also connected to a one-liter (1-L) Summa canister and a portable vacuum pump. A vacuum pump was used to purge the sub-slab probe and the sampling apparatus. The in-line valve on the pump end of the "T" fitting was closed after purging was complete and a grab sample was then collected by opening the valve on the Summa canister. The sub-slab air samples were analyzed for VOCs using USEPA Test Method TO-15.

2 Vapor Intrusion Analytical Results

A total of 22 indoor air samples, four (4) sub-slab samples, and one (1) ambient air sample were collected from the 12 residential buildings from March through May 2010. The results from the sampling events are provided in **Figures 2 and 3** and **Tables 1 and 2**.

2.1 Indoor Air Analytical Results

The laboratory results were compared to the 30-year chronic action levels listed in the *IDEM Draft Vapor Intrusion Pilot Program Guidance (February 4, 2010)* document. The indoor air results for each residence are provided in **Figure 2** and **Table 1**. The individual indoor air reports, sent to the residents, are provided in **Appendix D**.

2.1.1 520 Basca Drive

On March 17, 2010, SESCO personnel collected one (1) indoor air sample from the Rhine residence, which is a one-story structure with a crawl space. The residence currently has a vapor mitigation system that was installed by Keramida, Inc. (Keramida) on February 18, 2009. All VOCs were below the IDEM 30-Year Chronic Residential Indoor Air Action Levels, with the exception of PCE, at 3.2 ug/m³. SESCO upgraded the vapor mitigation system at the residence on June 25, 2010. The *Sub-Membrane Depressurization System* schematics are provided in **Appendix E**. SESCO will collect additional indoor air samples during the 2010 winter season and continue to inspect the vapor mitigation system, on a semi-annual basis, to ensure it is functioning properly.

2.1.2 540 Basca Drive

On March 17, 2010, SESCO personnel collected one (1) indoor air sample from the Chastain residence, which is a one-story structure with a crawl space. All VOCs were below the IDEM 30-Year Chronic Residential Indoor Air Action Levels and no further sampling is warranted at this time.

2.1.3 1209 Ohio Street

SESCO was unable to gain access to 1209 Ohio Street, thus indoor air and sub-slab vapor samples were not collected. Contact will continue to be attempted in order to establish whether or not vapor intrusion is a concern at the residence.

2.1.4 1210 Ohio Street

On March 30, 2010, SESCO personnel collected three (3) indoor air samples (including a duplicate sample) and an ambient air sample from the Johns residence, which is a one-story structure with a basement. At the time of sampling, the house was unoccupied; Virginia Johns (property owner) resides with family outside of the Martinsville, Indiana, area during the winter months. All VOCs were below the IDEM 30-Year Chronic Residential Indoor Air Action Levels, with the exception of methylene chloride in the ambient air sample (AA-1). Methylene chloride is commonly used in paint removers and in laboratories as a method of extracting other chemical compounds from groundwater samples. Methylene chloride is not associated with the contaminants of concern found at the Site. The presence of methylene chloride in the ambient air sample indicates the source is from a background source or a laboratory artifact, and no further sampling is warranted at this time.

2.1.5 1240 Ohio Street

On March 22, 2010, SESCO personnel collected three (3) indoor air samples from the Stierwalt residence, which is a two-story structure with a basement. All VOCs were below the IDEM 30-Year Chronic Residential Indoor Air Action Levels, with the exception of benzene and 1,2,4-trimethylbenzene. Benzene and 1,2,4-trimethylbenzene are commonly found in paints, paint strippers, wood preservatives, aerosol sprays, cleansers and disinfectants, insect repellents, cigarette smoke, and stored fuels and automotive products, and are not associated with the contaminants of concern found at the Site. The presence of benzene and 1,2,4-trimethylbenzene indicates a potential background source, and no further sampling is warranted at this time.

2.1.6 1309 Ohio Street

On March 22, 2010, SESCO personnel collected one (1) indoor air sample from the Thomas residence, which is a one-story structure with a crawl space. All VOCs were below the IDEM 30-Year Chronic Residential Indoor Air Action Levels and no further sampling is warranted at this time.

2.1.7 1339 Ohio Street

SESCO was unable to gain access to 1339 Ohio Street, thus indoor air and sub-slab vapor samples were not collected. Contact will continue to be attempted in order to establish whether or not vapor intrusion is a concern at the residence.

2.1.8 1304 Clore Street

On May 17, 2010, SESCO personnel collected two (2) indoor air samples from the Payne residence, which is a one-story structure with both a basement and a crawl space. The

residence currently has two (2) vapor mitigation systems that were installed by Keramida on March 16, 2009. All VOCs were below the IDEM 30-Year Chronic Residential Indoor Air Action Levels. SESCO will collect additional indoor air samples during the 2010 winter season and continue to inspect the vapor mitigation system, on a semi-annual basis, to ensure it is functioning properly.

2.1.9 1305 Clore Street

SESCO was unable to gain access to 1305 Clore Street, thus indoor air and sub-slab vapor samples were not collected. Contact will continue to be attempted in order to establish whether or not vapor intrusion is a concern at the residence.

2.1.10 1334 Clore Street

On March 22, 2010, SESCO personnel collected one (1) indoor air sample from the Brock residence, which is a one-story structure with a crawl space. The residence currently has a vapor mitigation system that was installed by Keramida on March 4, 2009, and upgraded on March 28, 2009. All VOCs were below the IDEM 30-Year Chronic Residential Indoor Air Action Levels. SESCO will collect additional indoor air samples during the 2010 winter season and continue to inspect the vapor mitigation system, on a semi-annual basis, to ensure it is functioning properly.

2.1.11 1335 Clore Street

SESCO was unable to gain access to 1335 Clore Street, thus indoor air and sub-slab vapor samples were not collected. A previous sampling event conducted by Keramida showed concentrations of PCE above the IDEM 30-Year Chronic Residential Indoor Air Action Levels. Access will continue to be attempted in order to establish whether or not indoor air concentrations are still above IDEM action levels.

2.1.12 1354 Clore Street

On March 17, 2010, SESCO personnel collected one (1) indoor air sample from the Quakenbush residence, which is a one-story structure with a crawl space. The residence currently has a vapor mitigation system that was installed by Keramida on February 11, 2009. All VOCs were below the IDEM 30-Year Chronic Residential Indoor Air Action Levels. SESCO will collect additional indoor air samples during the 2010 winter season and continue to inspect the vapor mitigation system, on a semi-annual basis, to ensure it is functioning properly.

2.1.13 1355 Clore Street

On March 22, 2010, SESCO personnel collected one (1) indoor air sample from the Bryant residence, which is a one-story structure with a crawl space. The residence currently has a vapor mitigation system that was installed by Keramida on March 18, 2009. All VOCs were below the IDEM 30-Year Chronic Residential Indoor Air Action Levels, with the exception of benzene and 1,2,4-trimethylbenzene, indicating a background source (see Section 2.1.4). SESCO will collect additional indoor air samples during the 2010 winter season and continue to

inspect the vapor mitigation system, on a semi-annual basis, to ensure it is functioning properly.

2.1.14 1385 Clore Street

On March 17, 2010, SESCO personnel collected one (1) indoor air sample from the Ferguson residence, which is a one-story structure with a crawl space. The residence currently has a vapor mitigation system that was installed by Keramida on February 11, 2009, and upgraded on March 4, 2010, and again on May 28, 2009. However, the residence has been vacated and the electricity was shut off, therefore the system was not operating at the time of sampling. All VOCs were below the IDEM 30-Year Chronic Residential Indoor Air Action Levels, with the exception of PCE at 20.9 ug/m³. No further sampling is warranted at this time, unless the residence is reoccupied, in which case, SESCO will perform a vapor mitigation system inspection and collect indoor air samples. SESCO will verify the occupational status of 1385 Clore Street during the semi-annual vapor mitigation system inspections.

2.1.15 1398 Clore Street

On May 7, 2010, SESCO personnel collected six (6) indoor air samples (including a duplicate sample) from the Martin-owned apartment building. The two-story structure is separated into four (4) units with both a crawl space and a basement. All VOCs were below the IDEM 30-Year Chronic Residential Indoor Air Action Levels. However, due to PCE levels encountered in the sub-slab vapor (detailed in Section 2.2.3 of this report), SESCO will collect additional indoor air samples during the 2010 winter season.

2.1.16 1399 Clore Street

On March 17, 2010, SESCO personnel collected one (1) indoor air sample from the Payne residence, which is a one-story structure with both a basement and a crawl space. The residence currently has a vapor mitigation system that was installed by Keramida on February 12, 2009. All VOCs were below the IDEM 30-Year Chronic Residential Indoor Air Action Levels. SESCO will continue to inspect the vapor mitigation system, on a semi-annual basis, to ensure it is functioning properly and additional sampling may be necessary.

2.2 Sub-Slab Vapor Analytical Results

The sub-slab samples determine if the potential for vapors to enter the residence exists. The laboratory results were compared to the sub-chronic action levels listed in the *IDEM Draft Vapor Intrusion Pilot Program Guidance (February 4, 2010)* document. The sub-slab vapor results for are provided in **Figure 3** and **Table 2**.

2.2.1 1210 Ohio Street

On April 6, 2010, SESCO personnel installed a sub-slab vapor port in the basement of the Johns residence and collected one (1) sub-slab vapor sample on April 8, 2010. All VOCs were below the IDEM 30-Year Chronic Residential Sub-Slab Prompt Action Levels.

2.2.2 1240 Ohio Street

On April 6, 2010, SESCO personnel installed a sub-slab vapor port in the basement of the Stierwalt residence and collected two (2) sub-slab vapor samples (including a duplicate sample) on May 6, 2010. All VOCs were below the IDEM 30-Year Chronic Residential Sub-Slab Prompt Action Levels.

2.2.3 1398 Clore Street

On April 6, 2010, SESCO personnel installed a sub-slab vapor port in the basement of the Martin-owned apartment building and collected one (1) sub-slab vapor sample on April 8, 2010. All VOCs were below the IDEM 30-Year Chronic Residential Sub-Slab Prompt Action Levels, with the exception of PCE and TCE at 1,560 ug/m³ and 158 ug/m³, respectively.

3 Conclusions

- Indoor air and sub-slab samples collected from 12 residential buildings downgradient of the Site were collected from March through May 2010. Seven (7) of the 12 residential buildings have vapor mitigation systems. Out of these residences, only two (2) (520 Basca Drive and 1385 Clore Street) have indoor air concentrations of PCE above the IDEM 30-Year Chronic Residential Indoor Air Action Levels.
- Due to the vapor concentrations of PCE in the indoor air (3.2 ug/m³) at 520 Basca Drive, SESCO upgraded the vapor mitigation system at the residence on June 25, 2010. Confirmation samples will be collected to ensure the system is functioning properly.
- SESCO will verify the occupational status of 1385 Clore Street during the semi-annual residential vapor mitigation system inspections. If the residence is reoccupied, SESCO will perform a vapor mitigation system inspection and collect indoor air samples.
- Due to the high concentrations of PCE and TCE in the sub-slab vapor, SESCO will collect additional indoor air samples in the basement of and sub-slab vapor samples at 1398 Clore Street.
- SESCO will sample the six (6) residences with actively running vapor mitigation systems during the 2010 winter season, to verify the systems are continuing to function properly. After this sampling event, SESCO would suggest suspending indoor air monitoring until a groundwater remediation strategy is selected, or for at least two (2) years (whichever is shorter). If the vapor mitigation systems continue to function properly (as evidenced by indoor air results below IDEM 30-Year Chronic Residential Indoor Air Action Levels) and current groundwater concentrations do not increase, then further sampling should not be necessary. SESCO believes two (2) sampling events during the summer and winter months, indicating the vapor mitigation systems are properly functioning, over a two (2) year period, should be sufficient to verify an adequate level of protection, as long as site conditions do not increase the potential for

vapor intrusion and the systems operational status can be continually verified. Continued system operation will be verified semi-annually and reported to IDEM in the *Vapor Residential Vapor Mitigation Semi-Annual Reports*.

- Once a groundwater remediation strategy has been selected, or after a two (2) year period of time, SESCO will request the indoor air sampling be re-evaluated and additional sampling of the residences with vapor mitigation systems can be decided.
- SESCO is in the process of delineating the full extents of the groundwater plume downgradient of Ohio Street. Once the plume is fully delineated, SESCO will recommend sampling the indoor air and sub-slab vapor of any additional residences located within 100 feet of any groundwater impacts that exceed IDEM Risk Integrated System of Closure (RISC) Residential Default Closure Levels (RDCLs).

If you have any questions or concerns, please contact Timothy R. Yates at 317-347-9590, ext. 27. Thank you for your assistance.

Sincerely,
SESCO Group



Timothy R. Yates
Project Manager



Jesse Wright, PE #10505138
Senior Environmental Engineer

Attachments

cc:

Jeffrey Kavanaugh – Indiana Department of Environmental Management
Jerry K. Corbier – Ecolonomic Realty Group, LLC
SESCO File

References

Indiana Department of Environmental Management, Draft Vapor Intrusion Pilot Program Guidance, February 4, 2010.

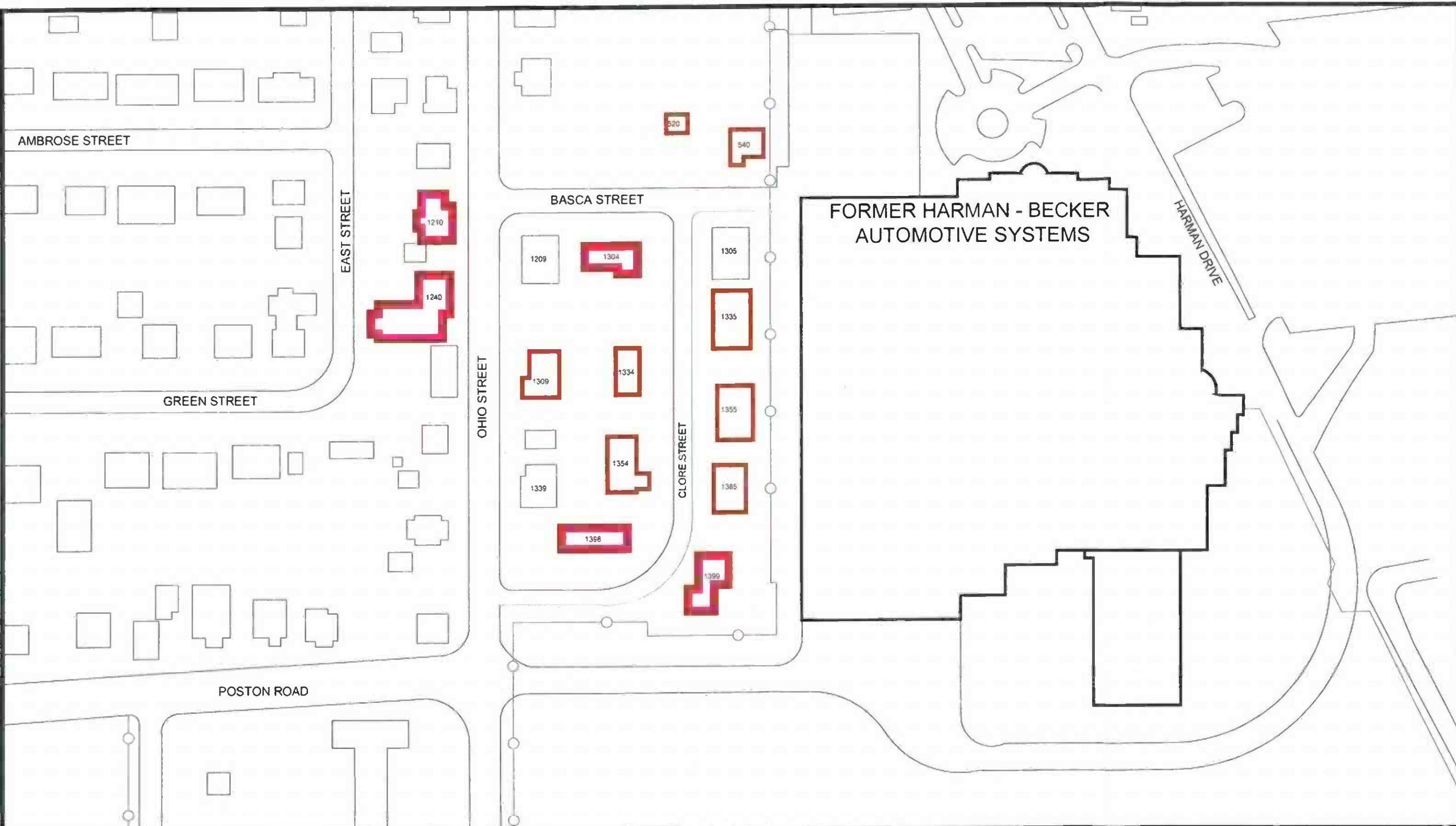
Indiana Department of Environmental Management, Risk Integrated System of Closure Technical Guide – January 31, 2006 Appendix 1 (Revised May 1, 2009), Table A – Residential Closure Levels.

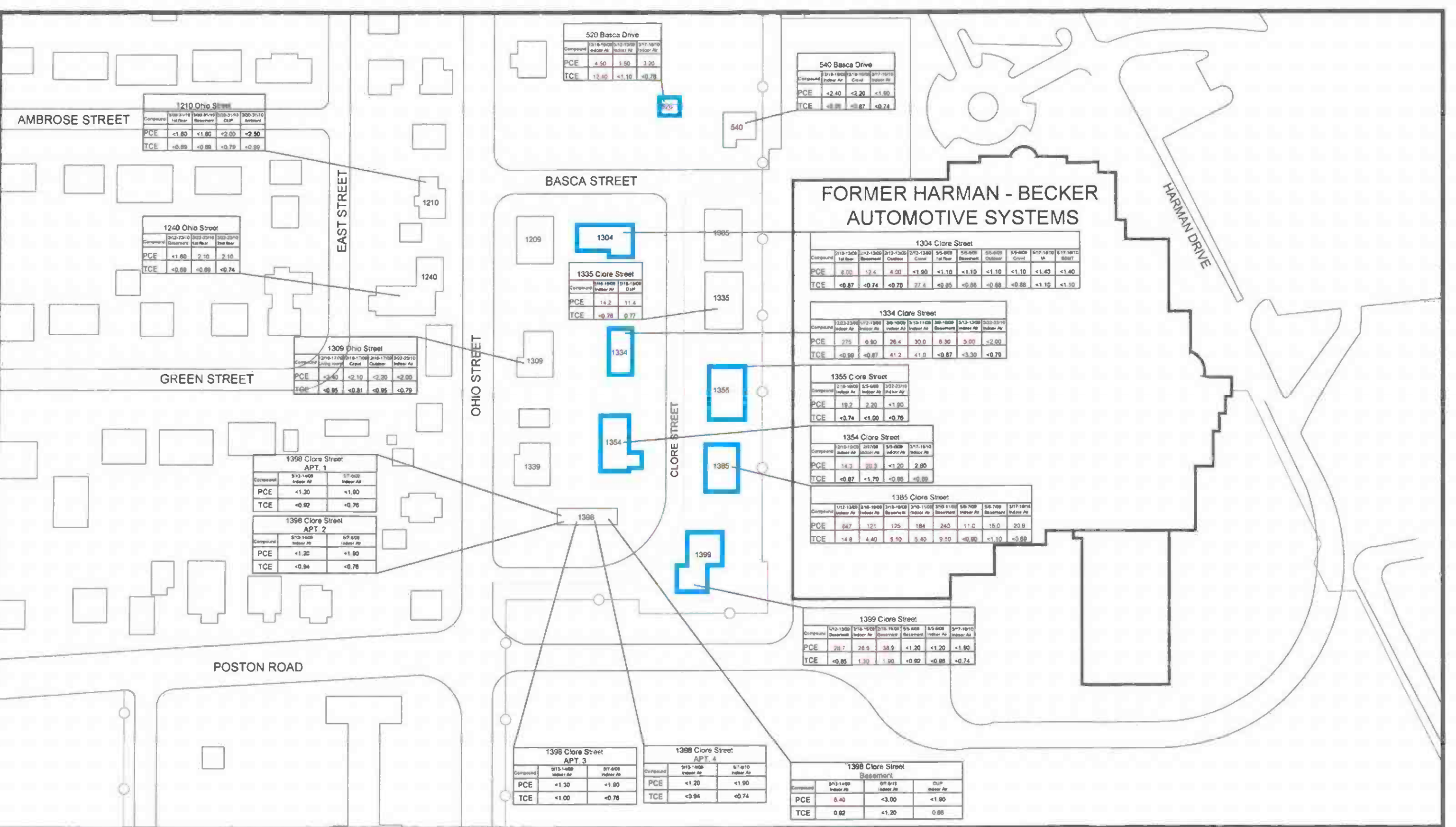
FIGURES


Figure 1 – Residential Location Map

Figure 2 – Residential Indoor Air, Crawl Space & Ambient Air Analytical Results Map

Figure 3 – Residential Sub-Slab Analytical Results Map







Environmental Investigation & Remediation

Scale In Feet

1" = 100'-0"

LEGEND

DUP Duplicate Sample
PCE Tetrachloroethylene
TCE Trichloroethylene
All results in ug/m3

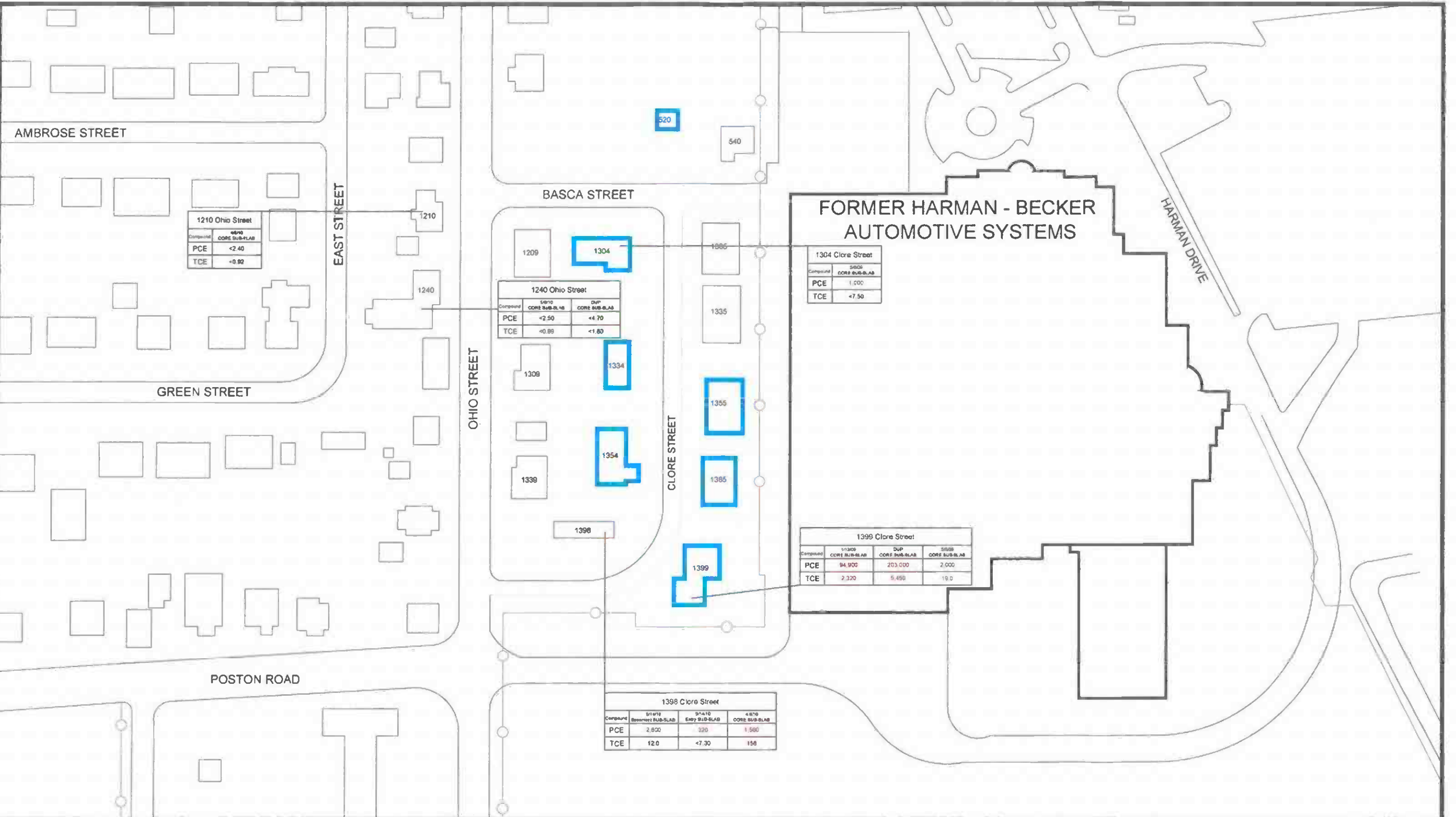
All Red Values are above IDEM 30 Year Chronic Indoor Air Action Level!

PCE 3.2 ug/m3
TCE 1.2 ug/m3

Residential Indoor Air, Crawlspace, and Ambient Air Analytical Results Map

Former Harman - Becker

FIGURE # 2 PROJECT #3872 DRAWN BY: P.G.G DRAWN ON: 6/22/10



1210 Ohio Street	
Compound	5/10/10 CORE SUB-SLAB
PCE	<2.40
TCE	<0.92

1240 Ohio Street			
Compound	5/10/10 CORE SUB-SLAB	DUP CORE SUB-SLAB	5/10/10 CORE SUB-SLAB
PCE	<2.50	<4.70	
TCE	<0.89	<1.80	

1304 Clore Street	
Compound	5/10/10 CORE SUB-SLAB
PCE	1.000
TCE	<7.50

1399 Clore Street			
Compound	1/13/08 CORE SUB-SLAB	DUP CORE SUB-SLAB	5/10/10 CORE SUB-SLAB
PCE	94,900	203,000	2,000
TCE	2,320	5,450	19.0

1398 Clore Street			
Compound	5/10/10 Basement SUB-SLAB	5/10/10 Entry SUB-SLAB	4/8/10 CORE SUB-SLAB
PCE	2,800	320	1,580
TCE	12.0	<7.30	158

LEGEND

 Location with Vapor Mitigation System(s)

DUP Duplicate Sample
PCE Tetrachloroethylene
TCE Trichloroethylene
All results in ug/m3

All Red Values are above IDEM 30 Year
Chronic Indoor Air Action Level
PCE 32 ug/m3
TCE 12 ug/m3

Residential Sub-Slab Analytical Results Map

Former Harman - Becker

FIGURE # 3

PROJECT #3872

DRAWN BY: P.G.G.

DRAWN ON: 5/22/10

TABLES

Table 1 – Residential Indoor Air, Crawl Space & Ambient Air VOC Analytical Results

Table 2 – Residential Sub-Slab Vapor VOC Analytical Results

Former Harman Becker Automotive Systems
1201 South Ohio Street
Martinsville, Indiana

Address	Home Owner	Sample ID	Date(s) Sampled	Acetone	Benzene	2 Butanone (MEK)	Chloroform	Cyclohexane	Dichlorodifluoromethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	Ethyl Acetate	Ethylbenzene	Methylchloride	n-Heptane	n-Hexane	Methylcyclopentane (MCK)	Methylene Chloride	Styrene	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Acetate	Vinyl Chloride	Total Xylenes	All Other VOCs					
DEM 30-Year Chronic Residential Indoor Air Action Level *				3,300	2,50	5,100	N/A	6,200	N/A	530	230	270	730	3,300	1,100	N/A	N/A	230	3,100	4,20	1,100	3,20	5,100	2,300	1,20	730	6,20	6,20	230	2,20	110	Various				
520 Basca Drive	Rhine	520 Basca Indoor LR	12/18 - 19/2008	NA	NA	NA	NA	NA	NA	<2.40	<2.40	<2.40	<2.40	NA	NA	NA	NA	NA	NA	NA	4.50	NA	<3.20	12.40	NA	NA	NA	NA	NA	<1.50	NA	NA	NA			
		520 Basca Crawl	12/18 - 19/2008	NA	NA	NA	NA	NA	NA	NA	<1.10	<1.10	<1.10	<1.10	NA	NA	NA	NA	NA	NA	NA	6.30	NA	<1.50	<0.74	NA	NA	NA	NA	<0.70	NA	NA	NA			
		520 Basca Outdoor	12/18 - 19/2008	NA	NA	NA	NA	NA	NA	NA	<1.80	<1.80	<1.80	<1.80	NA	NA	NA	NA	NA	NA	NA	NA	<3.00	NA	<2.40	<1.20	NA	NA	NA	NA	<1.10	NA	NA	NA		
		Vapor Mitigation System installed 2/18/2009																																		
		520 Basca Indoor LR	5/12 - 13/2009	NA	NA	NA	NA	NA	NA	NA	<0.86	<0.84	<0.84	<0.84	NA	NA	NA	NA	NA	NA	NA	1.50	NA	<1.20	<1.10	NA	NA	NA	NA	<0.54	NA	NA	NA			
		520 Basca Crawl	5/12 - 13/2009	NA	NA	NA	NA	NA	NA	NA	<0.79	<0.78	<0.78	<0.78	NA	NA	NA	NA	NA	NA	NA	2.60	NA	<1.10	<1.00	NA	NA	NA	NA	<0.50	NA	NA	NA			
		520 Basca Outdoor	5/12 - 13/2009	NA	NA	NA	NA	NA	NA	NA	<0.77	<0.76	<0.76	<0.76	NA	NA	NA	NA	NA	NA	NA	<1.30	NA	<1.00	<1.00	NA	NA	NA	NA	<0.49	NA	NA	NA			
		520 Basca IA	3/17 - 3/18/2010	37.6	1.10	4.10	1.30	<0.94	1.60	<1.10	<1.10	<1.10	<1.10	<1.00	<1.20	<3.40	<1.10	<0.99	<1.10	2.60	<1.20	3.20	4.40	<1.50	<0.76	<1.50	<3.40	<3.40	3.00	<0.72	<2.40	BDL				
540 Basca Drive	Chastain	Vapor Mitigation System Upgraded 6/25/2010																																		
		540 Basca Indoor LR	12/18 - 19/2008	NA	NA	NA	NA	NA	NA	NA	<1.40	<1.40	<1.40	<1.40	NA	NA	NA	NA	NA	NA	NA	<2.40	NA	<1.90	<0.95	NA	NA	NA	NA	<0.90	NA	NA	NA			
		540 Basca Crawl	12/18 - 19/2008	NA	NA	NA	NA	NA	NA	NA	<1.30	<1.30	<1.30	<1.30	NA	NA	NA	NA	NA	NA	NA	<2.20	NA	<1.70	<0.87	NA	NA	NA	NA	<0.83	NA	NA	NA			
		540 Basca IA	3/17 - 3/18/2010	4.30	<0.87	<0.80	<0.56	<0.91	<1.30	<1.10	<1.10	<1.10	<1.10	1.20	<1.20	<3.40	<1.10	<0.96	<1.10	<0.95	<1.20	<1.90	<1.00	<1.50	<0.74	1.60	<3.40	<3.40	<0.95	<0.70	<2.40	BDL				
1210 Ohio Street	Johns	1210 Ohio IA 1F	3/30 - 31/2010	4.00	<0.81	0.90	<0.52	<0.85	<1.20	<1.00	<1.00	<1.00	<1.00	1.20	<1.10	<3.10	<1.00	<0.90	<1.00	1.50	<1.10	<1.80	1.70	<1.40	<0.69	<1.40	<3.10	<3.10	<0.89	<0.65	<2.20	BDL				
		1210 Ohio IA BSMIT	3/30 - 31/2010	1.50	<0.81	<0.75	<0.52	<0.85	<1.20	<1.00	<1.00	<1.00	<1.00	<0.91	<1.10	<3.10	<1.00	<0.90	<1.00	<0.89	<1.10	<1.80	<0.96	<1.40	<0.69	<1.40	<3.10	<3.10	<0.89	<0.65	<2.20	BDL				
		DUP-1 (1210 Ohio IA BSMIT)	3/30 - 31/2010	5.90	<0.93	<0.86	<0.60	<0.97	<1.40	<1.20	<1.20	<1.20	<1.20	1.20	<1.30	<3.60	<1.20	1.30	<1.20	3.60	<1.20	<2.00	2.90	<1.60	<0.79	<1.60	<3.60	<3.60	<1.00	<0.74	<2.50	BDL				
		AA-1	3/30 - 31/2010	13.5	<1.20	<1.10	<0.76	<1.20	<1.80	<1.50	<1.50	<1.50	<1.50	<1.30	<1.60	<4.50	<1.50	10.5	<1.50	73.8	<1.60	<2.50	<1.40	<2.00	<0.99	<2.00	<4.50	<4.50	<1.30	<0.94	<3.20	BDL				
1240 Ohio Street	Storvick	1240 Ohio IA BSMIT	3/22 - 23/2010	13.0	18.3	<0.75	<0.52	8.80	3.00	<1.00	<1.00	<1.00	<1.00	<0.91	13.1	8.30	12.1	24.1	<1.00	<0.89	<1.10	<1.80	104	<1.40	<0.69	<1.40	28.6	7.00	<0.89	<0.65	71.2	BDL				
		1240 Ohio IA 1F	3/22 - 23/2010	32.7	26.0	6.30	<0.52	12.0	3.80	<1.00	<1.00	<1.00	<1.00	<0.91	20.2	11.1	16.9	33.7	<1.00	<0.89	<1.10	2.10	155	<1.40	<0.69	1.50	37.5	10.1	<0.89	<0.65	111	BDL				
		1240 Ohio IA 2F	3/22 - 23/2010	74.1	26.5	42.1	<0.56	13.2	3.90	<1.10	<1.10	<1.10	<1.10	<0.98	19.9	13.10	16.9	41.4	<1.10	<0.95	<1.20	2.10	143	<1.50	<0.74	1.70	44.1	12.6	<0.95	<0.70	109.5	BDL				
1309 Ohio Street	Thomas	1309 S. Ohio Indoor LR	12/16 - 17/2008	NA	NA	NA	NA	NA	NA	<1.40	<1.40	<1.40	<1.40	NA	NA	NA	NA	NA	NA	NA	<2.40	NA	<1.90	<0.95	NA	NA	NA	NA	<0.90	NA	NA	NA				
		1309 S. Ohio Crawl	12/16 - 17/2008	NA	NA	NA	NA	NA	NA	NA	<1.20	<1.20	<1.20	<1.20	NA	NA	NA	NA	NA	NA	NA	<2.10	NA	<1.60	<0.81	NA	NA	NA	NA	<0.72	NA	NA	NA			
		1309 S. Ohio Outdoor	12/16 - 17/2008	NA	NA	NA	NA	NA	NA	NA	<1.30	<1.20	<1.20	<1.20	<1.20	NA	NA	NA	NA	NA	NA	<2.20	NA	<1.70	<0.85	NA	NA	NA	NA	<0.80	NA	NA	NA			
		1309 Ohio IA	3/22 - 23/2010	<0.69	<0.93	<0.86	<0.60	<0.97	<1.40	<1.20	<1.20	<1.20	<1.20	<1.00	<1.30	<3.60	<1.20	<1.00	<1.20	<1.00	<1.20	<2.00	<1.10	<1.60	<0.79	<1.60	<3.60	<3.60	<1.00	<0.74	<2.50	BDL				
1304 Clore Street	Payne	1304 Clore Indoor LR	2/12 - 2/13/2009	NA	NA	NA	NA	NA	NA	<1.30	<1.30	<1.30	<1.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.00	NA	<1.70	<0.87	NA	NA	NA	NA	<0.83	NA	NA	NA		
		1304 Clore Basement	2/12 - 2/13/2009	NA	NA	NA	NA	NA	NA	NA	<1.10	<1.10	<1.10	<1.10	NA	NA	NA	NA	NA	NA	NA	NA	12.4	NA	2.10	<0.74	NA	NA	NA	NA	<0.70	NA	NA	NA		
		1304 Clore Crawl	2/12 - 2/13/2009	NA	NA	NA	NA	NA	NA	NA	<1.10	<1.10	<1.10	<1.10	NA	NA	NA	NA	NA	NA	NA	NA	4.00	NA	<1.50	<0.76	NA	NA	NA	NA	<0.72	NA	NA	NA		
		1304 Clore Outdoor	2/12 - 2/13/2009	NA	NA	NA	NA	NA	NA	NA	<1.10	<1.10	<1.10	<1.10	NA	NA	NA	NA	NA	NA	NA	NA	<1.90	NA	<1.50	27.4	NA	NA	NA	NA	<0.70	NA	NA	NA		
		Vapor Mitigation System installed 3/16/2009																																		
		1304 Clore Indoor LR	5/5 - 5/6/2009	NA	NA	NA	NA	NA	NA	NA	<0.64	<0.63	<0.63	<0.63	NA	NA	NA	NA	NA	NA	NA	NA	<1.10	NA	<0.86	<0.85	NA	NA	NA	NA	<0.85	NA	NA	NA		
		1304 Clore Basement	5/5 - 5/6/2009	NA	NA	NA	NA	NA	NA	NA	<0.66	<0.65	<0.65	<0.65	NA	NA	NA	NA	NA	NA	NA	NA	<1.10	NA	<0.89	<0.88	NA	NA	NA	NA	<0.88	NA	NA	NA		
		1304 Clore Outdoor	5/5 - 5/6/2009	NA	NA	NA	NA	NA	NA	NA	<0.66	<0.65	<0.65	<0.65	NA	NA	NA	NA	NA	NA	NA	NA	<1.10	NA	<0.89	<0.88	NA	NA	NA	NA	<0.88	NA	NA	NA		
		1304 Clore Crawl	5/5 - 5/6/2009	NA	NA	NA	NA	NA	NA	NA	<0.66	<0.65	<0.65	<0.65	NA	NA	NA	NA	NA	NA	NA	<1.10	NA	<0.89	<0.88	NA	NA	NA	NA	<0.88	NA	NA	NA			
		1304 Clore IA	5/17 - 5/18/2010	48.0	4.80	7.10	1.50	2.10	<0.99	<0.80	<0.79	<0.79	<0.79	<0.79	NA	3.20	1.10	3.20	5.60	<5.10	2.10	<0.85	<1.40	27.0	<1.10	<1.10	2.90	4.10	1.10	<0.70	<0.51	14.6	BDL			
1304 Clore BSMIT	5/17 - 5/18/2010	45.0	3.80	12.0	1.60	2.00	2.70	<0.80	<0.79	<0.79	<0.79	<0.79	NA	2.40	<0.98	2.90	5.60	<5.10	0.76	1.50	<1.40	20.0	<1.10	<1.10	3.50	2.70	<0.98	<0.70	<0.51	10.1	BDL					
1334 Clore Street	Bradt	1334 Clore Indoor LR	12/22 - 23/2008	NA	NA	NA	NA	NA	NA	<1.50	<1.50	<1.50	<1.50	NA	NA	NA	NA	NA	NA	NA	NA	275	NA	<2.00	<0.99	NA	NA	NA	NA	<0.94	NA	NA	NA			
		1334 Clore Crawl	12/22 - 23/2008	NA	NA	NA	NA	NA	NA	NA	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	NA	NA	NA	4.70	NA	<1.40	<0.69	NA	NA	NA	NA	<0.65	NA	NA	NA			
		1334 Clore Outdoor	12/22 - 23/2008	NA	NA	NA	NA	NA	NA	NA	<1.30	<1.30	<1.30	<1.30	NA	NA	NA	NA	NA	NA	NA	<2.20	NA	<1.70	<0.87	NA	NA	NA	NA	<0.83	NA	NA	NA			
		1334 Clore Indoor	1/12 - 13/2009	NA	NA	NA	NA	NA	NA	NA	<1.30	<1.30	<1.30	<1.30	NA	NA	NA	NA	NA	NA	NA	<6.90	NA	<1.70	<0.87	NA	NA	NA	NA	<0.83	NA	NA	NA			
		1334 Clore Crawl	1/12 - 13/2009	NA	NA	NA	NA	NA	NA	NA	<1.20	<1.20	<1.20	<1.20	NA	NA	NA	NA	NA	NA	NA	<4.1	NA	<1.60	<0.81	NA	NA	NA	NA	<0.77	NA	NA	NA			
		Vapor Mitigation System installed 3/4/2009																																		
		1334 Clore Crawl	3/9 - 10/2009	NA	NA	NA	NA	NA	NA	NA	<1.20	<1.20	<1.20	<1.20	NA	NA	NA	NA	NA	NA	NA	NA	2.30	NA	<1.60	<0.81	NA	NA	NA	NA	<0.77	NA	NA	NA		
		1334 Clore Outdoor	3/9 - 10/2009	NA	NA	NA	NA	NA	NA	NA	<1.30	<1.30	<1.30	<1.30	NA	NA	NA	NA	NA	NA	NA	NA	<2.20	NA	<1.70	<0.87	NA	NA	NA	NA	<0.83	NA	NA	NA		
		1334 Clore Indoor LR	3/9 - 10/2009	NA	NA	NA	NA	NA	NA	NA	20.4	<1.30	21.1	<1.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	26.4	NA	101	<1.2	NA	NA	NA	NA	<0.83	NA	NA	NA	
		1334 Clore Indoor LR (Dup)	3/9 - 10/2009	NA	NA	NA	NA	NA	NA	NA	<1.10	<1.10	<1.10	<1.10	NA	NA	NA	NA	NA	NA	NA	NA	4.00	NA	<1.50	<0.74	NA	NA	NA	NA	<0.70	NA	NA	NA		
		1334 Clore Indoor LR	3/9 - 10/2009	NA	NA	NA	NA	NA	NA	NA	16.0	10.0	21.0	<0.79	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.0	NA	120	<1.0	NA	NA	NA	NA	0.25J	NA	NA	NA	
		1334 Clore Indoor LR (Dup)																																		

Table 1. Residential Indoor Air, Crawl Space, and Ambient Air VOC Analytical Results
Former Harman Becker Automotive Systems
1201 South Ohio Street
Martinsville, Indiana

				All results in ug/m ³																														
Address	Home Owner	Sample ID	Date(s) Sampled	Acetone	Benzene	2-Butanone (MEK)	Chloroethane	Cyclohexane	Dichlorodifluoromethane	1,1-Dichloroethane	1,1-Dichloroethene	trans-1,2-Dichloroethene	trans-1,2-Dichloroethane	Ethyl Acetate	Ethylbenzene	4-Ethyltoluene	n-Heptane	n-Hexane	4-Methyl-2-Pentanone (MIBK)	Methylene Chloride	Styrene	1,2,3-Trichloroethane	Toluene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Acetate	Vinyl Chloride	Total Xylenes	All Other VOCs		
IDEM 30-Year Chronic Residential Indoor Air Action Level *				3,300	2,300	5,100	N/A	6,200	N/A	910	210	870	730	3,300	1,100	N/A	N/A	210	3,100	410	1,100	5,300	5,100	2,300	1,200	730	6,200	6,200	210	2,200	110	Various		
1385 Clore Street	Bryant	1385 Clore Indoor LR	2/18 - 19/2009	N/A	N/A	N/A	N/A	N/A	N/A	<1.10	<1.10	<1.10	<1.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19.2	N/A	<1.80	<0.74	N/A	N/A	N/A	N/A	<0.70	N/A	N/A		
		1385 Clore Crawl	2/18 - 19/2009	N/A	N/A	N/A	N/A	N/A	N/A	<1.80	<1.20	<1.20	<1.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	49.8	N/A	<1.80	<0.81	N/A	N/A	N/A	N/A	<0.77	N/A	N/A		
		1385 Clore Outdoor	2/18 - 19/2009	N/A	N/A	N/A	N/A	N/A	N/A	<1.30	<1.20	<1.20	<1.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<2.20	N/A	<1.70	<0.85	N/A	N/A	N/A	N/A	<0.80	N/A	N/A		
		Vapor Mitigation System Installed 3/18/2009																																
		1385 Clore Indoor LR	5/5 - 6/2009	N/A	N/A	N/A	N/A	N/A	N/A	<0.76	<0.74	<0.74	<0.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.30	N/A	<1.00	<1.00	N/A	N/A	N/A	N/A	<0.48	N/A	N/A	
		1385 Clore Crawl	5/5 - 6/2009	N/A	N/A	N/A	N/A	N/A	N/A	<0.79	<0.78	<0.78	<0.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.40	N/A	<1.10	<1.00	N/A	N/A	N/A	N/A	<0.50	N/A	N/A
1385 Clore Street	Ferguson	1385 Clore IA	3/22 - 23/2010	89.4	12.8	6.00	<0.58	9.20	1.70	<2.20	<1.10	<1.10	<1.10	4.30	11.4	8.40	10.9	24.6	23.8	<0.98	<1.20	<1.90	90.9	<1.30	<0.76	<1.30	19.6	5.30	<0.98	<0.72	64.6	BDL		
		1385 Clore Indoor LR	1/12 - 13/2009	NA	NA	NA	NA	NA	NA	<1.10	<1.10	<1.10	<1.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.50	14.8	NA	NA	NA	NA	<0.70	NA	NA		
		1385 Clore Crawl	1/12 - 13/2009	NA	NA	NA	NA	NA	NA	<1.10	<1.10	1.10	<1.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.50	24.7	NA	NA	NA	NA	<0.70	NA	NA		
		1385 Clore Crawl (Dup)	1/12 - 13/2009	NA	NA	NA	NA	NA	NA	<1.10	<1.10	1.10	<1.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.50	21.1	NA	NA	NA	NA	<0.70	NA	NA		
		1385 Clore Outdoor	1/12 - 13/2009	NA	NA	NA	NA	NA	NA	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.80	NA	<1.40	<0.69	NA	NA	NA	NA	<0.65	NA	NA	
		Vapor Mitigation System Installed 2/11/2009																																
		1385 Clore Indoor LR	2/18 - 19/2009	NA	NA	NA	NA	NA	NA	<1.40	<1.40	<1.40	<1.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	121	NA	<1.80	4.80	NA	NA	NA	NA	<0.86	NA	NA	
		1385 Clore Indoor BR	2/18 - 19/2009	NA	NA	NA	NA	NA	NA	<1.80	<1.80	<1.80	<1.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	125	NA	<2.40	5.10	NA	NA	NA	NA	<1.10	NA	NA	
		1385 Clore Crawl	2/18 - 19/2009	NA	NA	NA	NA	NA	NA	<1.10	<1.10	<1.10	<1.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	193	NA	<1.50	37.2	NA	NA	NA	NA	<0.70	NA	NA	
		Vapor Mitigation System Upgraded 3/4/2009																																
		1385 Clore Outdoor	3/10 - 11/2009	NA	NA	NA	NA	NA	NA	<1.50	<1.50	<1.50	<1.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.10	NA	<2.00	<0.99	NA	NA	NA	NA	<0.94	NA	NA
		1385 Clore Indoor LR	3/10 - 11/2009	NA	NA	NA	NA	NA	NA	<1.30	<1.30	<1.30	<1.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	184	NA	<1.70	5.40	NA	NA	NA	NA	<0.83	NA	NA
		1385 Clore Indoor BR	3/10 - 11/2009	NA	NA	NA	NA	NA	NA	<1.50	<1.50	<1.50	<1.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	240	NA	<2.10	9.10	NA	NA	NA	NA	<0.98	NA	NA
		1385 Clore Indoor BR (DUP)	3/10 - 11/2009	NA	NA	NA	NA	NA	NA	<0.81	<0.79	<0.79	<0.79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	230	NA	0.611	7.40	NA	NA	NA	NA	<0.51	NA	NA
		1385 Clore Crawl	3/10 - 11/2009	NA	NA	NA	NA	NA	NA	<1.50	<1.50	<1.50	<1.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	147	NA	<2.00	3.80	NA	NA	NA	NA	<0.94	NA	NA
		1385 Clore Crawl	5/6 - 7/2009	NA	NA	NA	NA	NA	NA	<0.72	<0.71	<0.71	<0.71	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23.0	NA	<0.98	<0.96	NA	NA	NA	NA	<0.96	NA	NA
1385 Clore Indoor LR	5/6 - 7/2009	NA	NA	NA	NA	NA	NA	<0.68	<0.67	<0.67	<0.67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.0	NA	<0.92	<0.90	NA	NA	NA	NA	<0.43	NA	NA		
1385 Clore Outdoor	5/6 - 7/2009	NA	NA	NA	NA	NA	NA	<0.68	<0.67	<0.67	<0.67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.10	NA	<0.92	<0.90	NA	NA	NA	NA	<0.43	NA	NA		
1385 Indoor BR	5/6 - 7/2009	NA	NA	NA	NA	NA	NA	<0.81	<0.80	<0.80	<0.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.0	NA	<1.10	<1.10	NA	NA	NA	NA	<0.51	NA	NA		
				Vapor Mitigation System Not Running 5/28/2009																														
1398 Clore Street	Martin	1385 Clore IA	3/17 - 18/2010	9.30	0.95	1.40	1.00	<0.85	1.70	<2.00	<1.00	<1.00	<1.00	<0.91	<1.10	<3.10	<1.00	<0.90	<1.00	<0.89	<1.10	20.9	4.30	<1.40	<0.69	1.60	<3.10	<3.10	<0.89	<0.65	<2.20	BDL		
		1398 Clore Street Apt. #1 LR	5/13 - 14/2009	NA	NA	NA	NA	NA	NA	<0.69	<0.68	<0.68	<0.68	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.20	NA	<0.93	<0.92	NA	NA	NA	NA	<0.44	NA	NA	
		1398 Clore APT 1 IA	5/7 - 5/8/2010	<0.64	<0.87	<0.80	<0.56	<0.91	<1.30	<1.10	<1.10	<1.10	<1.10	<0.98	<1.20	<3.40	<1.10	<0.96	<1.10	<0.95	<1.20	<1.90	<1.00	<1.50	<0.74	<1.50	<3.40	<3.40	<0.95	<0.70	<2.40	BDL		
		1398 Clore Street Apt. #2 LR	5/13 - 14/2009	NA	NA	NA	NA	NA	NA	<0.71	<0.69	<0.69	<0.69	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.20	NA	<0.95	<0.94	NA	NA	NA	NA	<0.45	NA	NA	
		1398 Clore APT 2 IA	5/7 - 5/8/2010	29.7	2.80	5.70	<0.58	1.50	1.50	<1.10	<1.10	<1.10	<1.10	<1.00	1.80	<3.40	2.00	3.30	<1.10	1.20	1.70	<1.90	10.0	<1.50	<0.76	<1.50	<3.40	<3.40	4.70	<0.72	6.60	BDL		
		1398 Clore Street Apt. #3 LR	5/13 - 14/2009	NA	NA	NA	NA	NA	NA	<0.79	<0.78	<0.78	<0.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.30	NA	<1.10	<1.00	NA	NA	NA	NA	<0.50	NA	NA	
		1398 Clore APT 3 IA	5/7 - 5/8/2010	14.7	<0.90	2.30	<0.58	<0.94	1.40	<1.10	<1.10	<1.10	<1.10	3.90	1.60	<3.40	1.20	<0.99	<1.10	1.30	<1.20	<1.90	2.40	<1.50	<0.76	<1.50	<3.40	<3.40	<0.98	<0.72	5.30	BDL		
		1398 Clore Street Apt. #4 LR	5/13 - 14/2009	NA	NA	NA	NA	NA	NA	<0.71	<0.69	<0.69	<0.69	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.20	NA	<0.95	<0.94	NA	NA	NA	NA	<0.45	NA	NA	
		1398 Clore APT 4 IA	5/7 - 5/8/2010	1.10	<0.87	<0.80	<0.56	1.10	<1.30	<1.10	<1.10	<1.10	<1.10	<0.98	1.40	<3.40	1.40	1.20	<1.10	3.20	<1.20	<1.90	<1.00	<1.50	<0.74	<1.50	<3.40	<3.40	<0.95	<0.70	4.60	BDL		
		1398 Clore Street Apt. Basement	5/13 - 14/2009	NA	NA	NA	NA	NA	NA	<0.69	<0.68	<0.68	<0.68	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.40	NA	<0.93	<0.92	NA	NA	NA	NA	<0.44	NA	NA	
		1398 Clore BSMT IA	5/7 - 5/8/2010	<1.00	<1.40	<1.30	<0.89	<1.40	<2.10	<1.70	<1.70	<1.70	<1.70	<1.60	<1.90	<5.30	<1.80	<1.50	<1.80	<1.50	<1.90	<3.00	<1.60	<2.30	<1.20	<2.30	<5.30	<5.30	<1.50	<1.10	<3.70	BDL		
DUP 2 (1398 Clore BSMT IA)	5/7 - 5/8/2010	14.4	<0.87	3.50	<0.56	1.30	1.50	<1.10	<1.10	<1.10	<1.10	<0.98	1.50	<3.40	<1.10	<0.96	<1.10	1.40	<1.20	<1.90	1.90	<1.50	0.88	<1.50	<3.40	<3.40	4.30	<0.70	4.80	BDL				
1399 Clore Street	Sweeney	1399 Clore Indoor LR	12/18 - 19/2009	NA	NA	NA	NA	NA	NA	<1.20	<1.20	<1.20	<1.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	26.6	NA	<1.60	1.30	NA	NA	NA	NA	<0.74	NA	NA	
		1399 Clore Basement	12/18 - 19/2009	NA	NA	NA	NA	NA	NA	<1.70	<1.70	<1.70	<1.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	35.9	NA	<2.30	1.50	NA	NA	NA	NA	<1.10	NA	NA	
		1399 Clore Crawl	12/18 - 19/2009	NA	NA	NA																												

Table 2. Residential Sub-Slab Vapor VOC Analytical Results
Former Herman-Bedder Automotive Systems
1301 South Ohio Street
Northville, Indiana

Address	Home & Owner	Sample	Date(s) Sampled	All results in ug/m ³																																			
				Acetone	Benzene	2- Butanone (MIBK)	Carbon Disulfide	Chloroform	Chloromethane	Cyclohexane	1,2-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	trans-1,2-Dichloroethene	Ethyl Acetate	Ethylbenzene	n-Heptane	Hexachloro-1,3-butadiene	n-Hexane	n-Heptane	Methylene Chloride	4-Methyl-3-pentanone (MIBK)	Naphthalene	2-Propanol	Propylene	Styrene	Tetrachloroethene	Tetrahydrofuran	Toluene	1,1,1-Trichloroethane	Trichloroethene	Vinyl Chloride	Total Xylenes	All Other VOCs			
IDEM 30-Year Residential Sub-Slab Prompt Action Level *				N/A	25.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11.0	N/A	N/A	N/A	11.0	22.0	N/A	Various		
1210 Ohio Street	Johns	1210 Ohio SS	4/8/2010	85.1	<1.10	6.90	<1.10	<1.70	2.30	1.30	2.50	<1.30	<1.40	<1.40	<1.40	5.10	2.20	<1.40	<1.70	10.2	<1.40	82.0	2.80	NA	NA	1.80	1.80	<2.40	<1.00	73.6	<1.80	<0.92	<0.87	8.30	BDL				
1340 Ohio Street	Gierwalt	1240 Ohio SS	5/6/2010	1.20	<1.20	<1.10	<1.10	1.10	<0.76	<1.20	<2.30	<1.80	<1.90	<1.50	<1.50	<1.30	<1.60	<1.50	6.30	<1.30	<1.50	<1.30	<1.50	<4.90	<4.50	<0.61	<1.60	<2.50	<1.10	<1.40	<2.00	<0.99	<0.94	4.30	BDL				
		DUP-1 (1340 Clore SS)	5/6/2010	33.6	<1.20	12.3	<1.10	2.14	<1.40	4.30	<4.00	<3.40	<1.80	<2.70	<2.70	<2.70	<2.50	<3.00	<1.80	<7.40	<1.40	<2.80	5.40	<2.80	9.80	1,340	<1.30	<2.90	<6.70	100	4.00	<1.80	<1.70	8.00	BDL				
1304 Clore Street	Payne	1304 Clore Sub-Slab	2/13/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.40	<1.40	<1.40	<1.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,990	NA	NA	746	2.50	<0.87	NA	NA	
		1304 Clore Sub-Slab (Dup)	2/13/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	<27.6	<27.2	<27.2	<27.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,100	NA	NA	61	<38.5	<17.5	NA	NA
		1304 Clore Sub-Slab	3/6/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.60	<5.50	<5.50	<5.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,000	NA	NA	160	<7.50	<3.60	NA	NA	
		1304 Clore Sub-Slab	5/14/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	<7.20	<7.10	<7.10	<7.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,400	NA	NA	110	120	<4.60	NA
1398 Clore Street	Martin	1398 Clore Entry Sub-Slab	5/14/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.30	<5.40	<5.40	<5.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,310	NA	NA	<7.40	<7.30	<3.50	NA	NA
		1398 Clore SS	4/8/2010	201	2.10	7.30	1.40	<2.00	2.00	<1.40	<2.40	2.00	<1.80	<1.60	<1.80	<1.80	<1.50	<1.80	2.20	<4.40	6.20	2.50	18.2	<1.70	NA	NA	<0.70	<1.70	<1,360	<1.20	8.20	4.70	158	<1.00	6.30	BDL			
		1398 Clore Sub-Slab	1/13/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.40	<1.40	7.70	<1.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	94,900	NA	NA	112	2,120	<0.87	NA	NA
1399 Clore Street	Sweeney	1399 Clore Sub-Slab (Dup)	1/13/2009	NA	NA	NA	NA	NA	NA	NA	NA	<1.40	1.90	9.00	<1.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	201,000	NA	NA	118	5,430	0.92	NA	NA
		1399 Clore Sub-Slab	5/6/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.30	<4.20	<4.20	<4.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,000	NA	NA	<5.80	160	<2.70	NA	NA

Notes:
All samples analyzed for volatile organic compounds (VOCs) via United States Environmental Protection Agency (USEPA) method TO-15.
ug/m³ - micrograms per meter cubed.
* - Indiana Department of Environmental Management (IDEM) Draft Vapor Intrusion Pilot Program Guidance Supplement (February 4, 2010).
RED Exceeds IDEM 30-Year Residential Sub-Slab Prompt Action Level.
NA - Not analyzed.
N/A - Not applicable.
BDL - Results are below IDEM 30-Year Residential Sub-Slab Prompt Action Level.
DUP - Duplicate sample.
SS - Sub-slab sample.

APPENDICES

- Appendix A – Vapor Sampling Logs**
- Appendix B – Indoor Air Building Survey Checklist**
- Appendix C – Laboratory Analytical Data**
- Appendix D – Individual Residential Indoor Air Reports**
- Appendix E – 520 Basca Drive Sub-Membrane Depressurization System Schematics**

Appendix A

Vapor Sampling Logs

Project Name:	Former-Harman Becker Automotive Systems
Project Number:	3872
Task Number:	28

1201 South Ohio Street, Martinsville, Indiana
520 Basca Dr., Martinsville, IN
T. Vales



0-9

[illegible]

Notes: Rhine Residence. Vapor mitigation system operating at time of sampling.

Sample Types:
IA - Indoor Air
SS - Sub-Slab
SG - Soil/Gas
AA - Ambient Air

Project Name: Former-Harman Becker Automotive Systems
Project Number: 3872
Task Number: 2B

1201 South Ohio Street, Martinsville, Indiana
540 Basca Dr., Martinsville, IN
T. Yates

[illegible][illegible]

Notes: Chastain Residence.

Sample Types:
 IA - Indoor Air
 SS - Sub-Slab
 SG - Soil/Gas
 AA - Ambient Air

SESCO Vapor Sampling Sheet

Project Name: Former-Harman Becker Automotive Systems
 Project Number: 3872
 Task Number: 28

Project Address: 1201 South Ohio Street, Martinsville, Indiana
 Sample Location: 1210 Ohio St., Martinsville, IN
 Collected By: T. Yates



Sample Name	Sample Collection				Sample Type	Canister Type	Canister Number	Regulator Number	Initial Pressure (in./Hg)	Final Pressure (in./Hg)	Outdoor Temperature (°F)	Indoor Temperature (°F)	Analysis
	Date	Time	Date	Time									
1210 Ohio IA 1F	3/30/2010	8:48	3/31/2010	8:51	IA	6L	1120	-	-28	0	45	71	VOCs TO-15
1210 Ohio IA BSMT	3/30/2010	8:49	3/31/2010	8:53	IA	6L	569	-	-28	0	45	68	VOCs TO-15
DUP-1	3/30/2010	8:49	3/31/2010	8:53	IA	6L	147	-	-28	1	45	68	VOCs TO-15
AA-1	3/30/2010	8:51	3/31/2010	8:54	AA	6L	962	-	-30	7	45	-	VOCs TO-15

Notes: Johns' residence. Home unoccupied during winter months. 1F - First Floor. BSMT - Basement.
 DUP-1 collected at 1210 Ohio IA BSMT

Sample Types:
 IA - Indoor Air
 SS - Sub-Slab
 SG - Soil/Gas
 AA - Ambient Air

Project Name: Former-Harman Becker Automotive Systems
Project Number: 3872
Task Number: 2B

Project Address:
Sample Location:
Collected By:

1201 South Ohio Street, Martinsville, Indiana
1210 Ohio St., Martinsville, IN
T. Yates



03ES

www.hogrefe.org

[illegible]

Notes: Johns' residence. Sub-slab port installed on 4/5/2010 in basement.

Sample Types:

IA - Indoor Air

SS-Sub-Tab

SG - Soil/Gas

AA • Ambient Air

Project Name: Former-Harman Becker Automotive Systems
Project Number: 3872
Task Number: 28

1201 South Ohio Street, Martinsville, Indiana
1740 Ohio St., Martinsville, IN
T. Yates



Downloaded from <http://ajph.org/> by guest on June 11, 2015

Notes: Stierwalt residence. Stierwalt repairs lawn mowers in his garage, restores clocks, & has industrial cleaners in residence.

AA - Ambient Air

Project Name: Former-Harman Becker Automotive Systems

Project Number: 3872

Task Number: 28

Project Address: 1201 South Ohio Street, Martinsville, Indiana
Sample Location: 1240 Ohio St., Martinsville, IN
Collected By: T. Yates



© 2000 by The McGraw-Hill Companies, Inc.

[illegible]

Notes: Stierwalt residence. Sub-slab port installed on 4/6/2010 in basement.

Canister Types:
 1L - 1 liter canister
 6L - 6 liter canister

AA - Ambient Air

Project Name: Former-Harman Becker Automotive Systems
Project Number: 3872
Task Number: 28

1201 South Ohio Street, Martinsville, Indiana
1309 Ohio St., Martinsville, IN
T. Yates



© 2004 Blackwell Publishing Ltd *Journal of Internal Medicine* 255: 103–110

[illegible]

Thomas residence.

Canister Types:

3L-2 liter canister

6L - 6 liter canister

100

Project Name:	Former-Harman Becker Automotive Systems
Project Number:	3872
Task Number:	28

1201 South Ohio Street, Martinsville, Indiana
1304 Clore St., Martinsville, IN
T. Yates



www.elsevier.com/locate/jbiotec

Payne residence. Basement had strong ammonia odor. Residence has two (2) vapor mitigation systems; one (1) for the basement and one (1) for the crawl space. Vapor mitigation systems operating at time of sampling.

Sample Types:
IA - Indoor Air
SS - Sub-Slab
SG - Soil/Gas
AA - Ambient Air

Project Name:	Former-Harman Becker Automotive Systems
Project Number:	3872
Task Number:	2B

Project Address: 1201 South Ohio Street, Martinsville, Indiana
Sample Location: 1334 Clore St., Martinsville, IN
Collected By: T. Yates



www.fishbase.org © 2001 ICGEB, Ltd. (100000000)

[illegible]

Notes:

Sample Types:
IA - Indoor Air
SS - Sub-Slab
SG - Soil/Gas
AA - Ambient Air

Canister Types:
 1L - 1 liter canister
 6L - 6 liter canister

Project Name: Former-Harman Becker Automotive Systems
Project Number: 3872
Task Number: 2B

1201 South Ohio Street, Martinsville, Indiana
1354 Clore St., Martinsville, IN
T. Yates



MAY 1964 • THE JOURNAL OF CLIMATE • 1093

Notes: Quakenbush residence. Vapor mitigation system operating at time of sampling.

Sample Types:
IA - Indoor Air
SS - Sub-Slab
SG - Soil/Gas
AA - Ambient Air

Project Name: Former-Harman Becker Automotive Systems
Project Number: 3872
Task Number: 28

SESCO
S E C O

[illegible]

Notes: Bryant residence. Vapor mitigation system operating at time of sampling. Residents smoke cigarettes.

Sample Types:	Canister Types:
IA - Indoor Air	1L - 1 liter canister
SS - Sub-Slab	6L - 6 liter canister
SG - Soil/Gas	
AA - Ambient Air	

SESCO Vapor Sampling Sheet

Project Name:	Former-Harman Becker Automotive Systems
Project Number:	3872
Task Number:	28

Project Address:
Sample Location:
Collected By:

1201 South Ohio Street, Martinsville, Indiana
1385 Clore St., Martinsville, IN
T. Yates



DOSES

[illegible][illegible]

Notes: Ferguson residence. Residence vacant, electricity off, and vapor mitigation system not currently running. Vapor mitigation system not running at time of sampling.

Sample Types:

IA - Indoor Air

qey5-qm5 - 55

SG - Soil/Gas

AA - Ambient Air

Canister Types:

2L - 1 liter canister

6L - 6 liter canister

SESCO GROUP

Task Number: 28

Collected By: T. Yates

Notes:
Marlin-owned apartment building. Sub-slab port installed on 4/5/2010 in basement.

AA - Ambient Air

5L - 6 liter canister

SESCO Vapor Sampling Sheet

Project Name: Former-Harman Becker Automotive Systems
 Project Number: 3872
 Task Number: 2B

Project Address:
 Sample Location:
 Collected By:

2201 South Ohio Street, Martinsville, Indiana
 1398 Clore St., Martinsville, IN
 T. Yates



Sample Name	Sample Collection					Sample Type	Canister Type	Canister Number	Regulator Number	Initial Pressure (in./Hg)	Final Pressure (in./Hg)	Outdoor Temperature (°F)	Indoor Temperature (°F)	Analysis
	Start		Stop											
	Date	Time	Date	Time										
1398 Clore APT 1	5/6/2010	10:09	5/7/2010	9:55	1A	6L	1275	330	-30	-1	57	77	VOCs TO-15	
1398 Clore APT 2	5/6/2010	10:11	5/7/2010	9:56	1A	6L	1209	197	-30	-4	57	78	VOCs TO-15	
1398 Clore APT 3	5/6/2010	10:13	5/7/2010	9:57	1A	6L	1211	214	-28	-1	57	72	VOCs TO-15	
1398 Clore APT 4	40304	0.427083333	40305	0.415277778	1A	6L	1062	397	-28	-3	57	78	VOCs TO-15	
1398 Clore BSMT	40304	0.433333333	40305	0.417361111	1A	6L	236	378	-30	-9	57	68	VOCs TO-15	
DUP-2	40304	0.433333333	40305	0.417361111	1A	6L	1194	136	-26	0	57	68	VOCs TO-15	

Notes: Martin-owned apartment building.
 Apartment #1 is vacant and has a strong ammonia smell.
 Apartment #2 has residents that smoke cigarettes.
 Apartment #3 has residents that smoke cigarettes.
 Apartment #4 has residents that smoke cigarettes.
 DUP-1 collected at 1398 Clore BSMT.

Sample Types:
 1A - Indoor Air
 SS - Sub-Slab
 SG - Soil/Gas
 AA - Ambient Air

Canister Types:
 1L - 1 liter canister
 6L - 6 liter canister

Project Name:	Former-Harman Becker Automotive Systems
Project Number:	3872
Task Number:	28

**ADCO
SESCO**

[illegible]

Notes: Sweeny residence. Vapor mitigation system not operating at time of sampling.

Sample Types:
IA - Indoor Air
SS - Sub-Slab
SG - Soil/Gas
AA - Ambient Air

Appendix B

Indoor Air Building Survey Checklist



INDOOR AIR BUILDING SURVEY CHECKLIST

Preparer's Name: BEVERLY RHINE Date: 3/17/10
Preparer's Affiliation: OWNER Phone #: 765-342-9908
Site Name: _____ Site #: _____

Site Address (include city and zip): 520 BASCA DRIVE
MARTINSVILLE, IN 46151

Part I – Occupants

List of Current Occupants/Occupation (include children)

Name (Age)	Address: (Lot # or apt. #)	Sex (M/F)	Occupation
John Doe (42)	112 South St. Lot # 12	M	geologist
<u>BEVERLY RHINE</u>	<u>520 BASCA DRIVE</u>	<u>F</u>	<u>MANAGER</u>

Part II – Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial / other

Describe building: Single - Family Year constructed: 1952

Sensitive population: day care / nursing home / hospital / school / other (specify): _____

Number of floors at or above grade: 1

Number of floors below grade: _____ (full basement crawl space slab on grade)

Depth of basement below grade surface: NA ft. Basement size: _____ ft²

Basement floor construction: concrete / dirt / slab / stone / other (specify): NA

Foundation walls: poured concrete cinder blocks / stone / other (specify): _____

Basement sump present? *Yes / No* Sump pump? *Yes / No* Water in sump? *Yes / No*

Significant cracks present in basement floor? *Yes / No*

Significant cracks present in basement walls? *Yes / No*

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? *Yes / No*

Is there a whole house fan? *Yes / No*

Septic system? *Yes / Yes (but not used) / No*

Irrigation/private well? *Yes / Yes (but not used) / No*

Type of ground cover outside of building: grass / concrete / asphalt / other (specify) _____

Sub-slab vapor/moisture barrier in place? *Yes / No / Don't know*

Type of barrier: _____

Type of heating system (circle all that apply):

hot air circulation	hot air radiation	wood	steam radiation
heat pump	hot water radiation	kerosene heater	electric baseboard
other (specify): _____			

Type of ventilation system (circle all that apply):

central air conditioning	mechanical fans	bathroom ventilation fans
individual air conditioning units	kitchen range hood fan	outside air intake
other (specify): _____		

Type of fuel utilized (circle all that apply):

Natural gas / electric / fuel oil / wood / coal / solar / kerosene / other (specify): _____

Part III – Outside Contaminant Sources

Contaminated site within 50-ft (BTEX) or 100-ft (Chlorinated)? _____

If yes: Site Name: _____ Site Number: _____

Other stationary sources nearby (gas stations, emission stacks, etc.): _____

Heavy vehicular traffic nearby (or other mobile sources): _____

Part IV – Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor & room), and whether the item was removed from the building 48 hours prior to the indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the start of the indoor air sampling event.

Potential Sources	Location (s)	Removed (Yes / No / NA)
Gasoline storage cans		
Gas-powered equipment (mowers, etc)		
Kerosene storage cans		
Paints / thinners / strippers		
Cleaning solvents		
Oven cleaners		
Carpet / upholstery cleaners		
Other house cleaning products		
Moth balls		
Polishes / waxes		
Insecticides		
Furniture / floor remover		
Nail polish / polish remover		
Hairspray		
Cologne / perfume		
Air fresheners		
Fuel tank (inside building)		NA
Wood stove or fireplace		NA
New Furniture / upholstery		
New carpeting / flooring		NA
Hobbies – glues, paints, lacquers, photographic darkroom chemicals, etc		
Scented trees, wreaths, potpourri, etc.		
Other (specify):		

Part V – Miscellaneous Items

Do any occupants of the building smoke? Yes No How often? _____

Last time someone smoked in the building? _____ hours / days ago

Does the building have an attached garage directly connected to living space? Yes No

If so, is a car usually parked in the garage? Yes / No

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes No

Do the occupants of the building have their clothes dry cleaned? Yes No

If yes, how often? Weekly / monthly / 3-4 times a year

When was the last dry cleaned garment brought home? _____

Do any of the occupants use solvents in work? Yes No

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Yes / No

Have any pesticides/herbicides been applied around the building or in the yard? Yes / No

If so, when and which chemicals? Fertilizer

Has there ever been a fire in the building? Yes No If yes, when? _____

Has painting or staining been done in the building in the last 6 months? Yes No

If yes, when? _____ and where? _____

Part VI – Sampling Information

Company/Consultant: _____ Phone number: () _____ - _____

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas

Sampler Type: 400 mL – 1.0 L Summa Canister / 6 L Summa Canister / Other
(specify): _____

Analytical Method: TO-14A TO-15 / TO-15 SIM / other: _____

Laboratory: _____

Sample locations (floor, room):

Field/Sample ID# _____ Field/Sample ID # _____

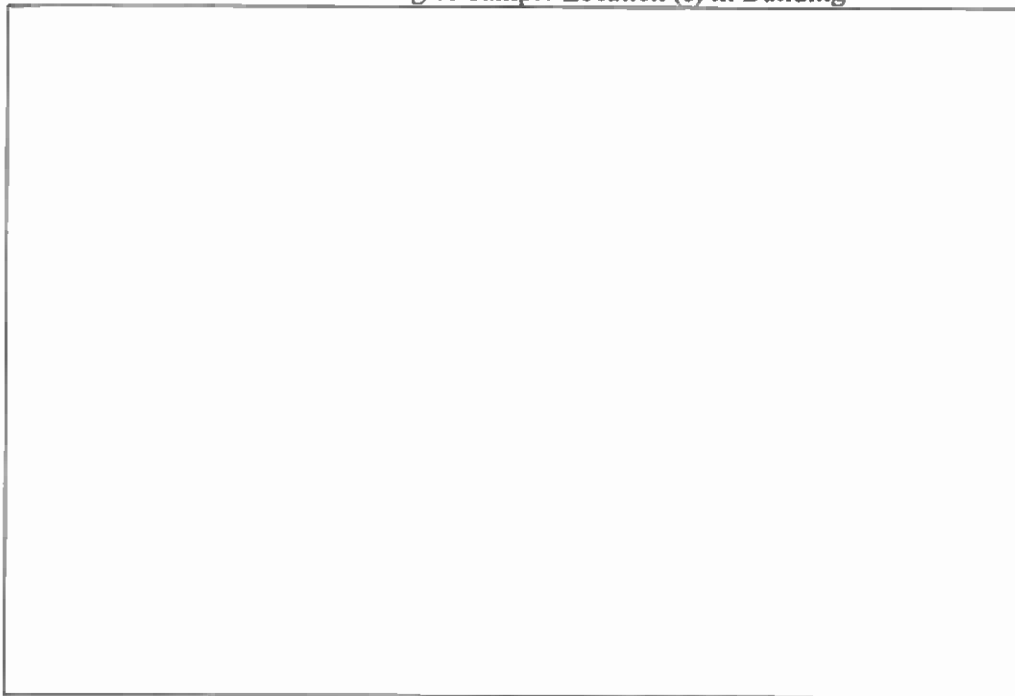
Field/Sample ID# _____ Field/Sample ID # _____

Field/Sample ID# _____ Field/Sample ID # _____

Were "Instructions for Occupants" followed? Yes / No

If not, describe modifications: _____

Provide Drawing of Sample Location (s) in Building



Part VII – Metrological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event?
Yes / No

Describe the general weather conditions: _____

Part VIII – General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.



INDOOR AIR BUILDING SURVEY CHECKLIST

Preparer's Name: _____ Date: 3-22-2010

Preparer's Affiliation: _____ Phone #: _____

Site Name: Chastain home Site #: _____

Site Address (include city and zip): 540 BASCA DRIVE MARTINSVILLE, IN 46151

Part I – Occupants

List of Current Occupants/Occupation (include children)

Name (Age)	Address: (Lot # or apt. #)	Sex (M/F)	Occupation
John Doe (42)	112 South St. Lot # 12	M	geologist
Mark Chastain 31	540 BASCA DR.	M	business owner
Joni Chastain 27	" Martinsville, IN	F	home-maker
Jacob Chastain 7	" 46151	M	
Jaylee Chastain 4	"	F	
Jayda Chastain 1 1/2	"	F	

-ACE Remodeling, LLC

Part II – Building Characteristics

Building type: residential multi-family residential / office / strip mall / commercial / industrial / other

Describe building: Residential home Year constructed: 1953

Sensitive population: day care / nursing home / hospital / school / other (specify): family home

Number of floors at or above grade: 1 1/2

Number of floors below grade: _____ (full basement / crawl space / slab on grade)

Depth of basement below grade surface: _____ ft. Basement size: _____ ft²

Basement floor construction: concrete / dirt / slab / stone / other (specify): _____

Foundation walls: poured concrete / cinder blocks / stone / other (specify): _____

Basement sump present? Yes No Sump pump? Yes No Water in sump? Yes No

Significant cracks present in basement floor? N/A Yes / No

Significant cracks present in basement walls? N/A Yes / No

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? Yes / No

Is there a whole house fan? Yes No

Septic system? Yes / Yes (but not used) / No

Irrigation/private well? Yes / Yes (but not used) / No

Type of ground cover outside of building: grass / concrete / asphalt / other (specify) _____

Sub-slab vapor/moisture barrier in place? Yes No / Don't know

Type of barrier: _____

Type of heating system (circle all that apply):

hot air circulation

hot air radiation

wood

steam radiation

heat pump

hot water radiation

kerosene heater

electric baseboard

other (specify): _____

Type of ventilation system (circle all that apply):

central air conditioning

mechanical fans

bathroom ventilation fans

individual air conditioning units

kitchen range hood fan

outside air intake

other (specify): _____

Type of fuel utilized (circle all that apply):

Natural gas

electric

fuel oil / wood / coal / solar / kerosene / other (specify): _____

Part III – Outside Contaminant Sources

Contaminated site within 50-ft (BTEX) or 100-ft (Chlorinated)? _____

If yes: Site Name: _____ Site Number: _____

Other stationary sources nearby (gas stations, emission stacks, etc.): _____

Heavy vehicular traffic nearby (or other mobile sources): _____

Part IV – Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor & room), and whether the item was removed from the building 48 hours prior to the indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the start of the indoor air sampling event.

Potential Sources	Location (s)	Removed (Yes / No / NA)
Gasoline storage cans	outside - barn	
Gas-powered equipment (mowers, etc)	outside	
Kerosene storage cans	N/A	
Paints / thinners / strippers	barn	
Cleaning solvents	under sink - bleach	
Oven cleaners	N/A	
Carpet / upholstery cleaners	N/A	
Other house cleaning products	under sink - Windex/bleach	
Moth balls	N/A	
Polishes / waxes	N/A	
Insecticides	under sink - barn	
Furniture / floor remover	N/A	
Nail polish / polish remover		
Hairspray	under sink in bathroom	
Cologne / perfume	bedroom	
Air fresheners	bathroom	
Fuel tank (inside building)	N/A	NA
Wood stove or fireplace	N/A	NA
New Furniture / upholstery	N/A	
New carpeting / flooring		NA
Hobbies - glues, paints, lacquers, photographic darkroom chemicals, etc	N/A	
Scented trees, wreaths, potpourri, etc.	incense oil burner - kitchen hairspray used in a week or two	
Other (specify):		

Part V – Miscellaneous Items

Do any occupants of the building smoke? Yes No How often? _____

Last time someone smoked in the building? _____ hours / days ago

Does the building have an attached garage directly connected to living space? Yes / No

If so, is a car usually parked in the garage? Yes / No

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No

Do the occupants of the building have their clothes dry cleaned? Yes / No

If yes, how often? Weekly / monthly / 3-4 times a year

When was the last dry cleaned garment brought home? _____

Do any of the occupants use solvents in work? Yes / No

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Yes / No

Have any pesticides/herbicides been applied around the building or in the yard? Yes / No

If so, when and which chemicals? last fall - *outside* home defense spray - ants.

Has there ever been a fire in the building? Yes / No If yes, when? _____

Has painting or staining been done in the building in the last 6 months? Yes / No

If yes, when? _____ and where? _____

Part VI – Sampling Information

Company/Consultant: _____ Phone number: () _____ - _____

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas

Sampler Type: 400 mL – 1.0 L Summa Canister / 6 L Summa Canister / Other
(specify): _____

Analytical Method: TO-14A / TO-15 / TO-15 SIM / other: _____

Laboratory: _____

Sample locations (floor, room):

Field/Sample ID# _____ Field/Sample ID # _____

Field/Sample ID# _____ Field/Sample ID # _____

Field/Sample ID# _____ Field/Sample ID # _____

Were “Instructions for Occupants” followed? Yes / No

If not, describe modifications: _____

Provide Drawing of Sample Location (s) in Building



Part VII – Metrological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event?

Yes / No

Describe the general weather conditions: Steady rain night before sampling

Part VIII – General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

gas furnace was on during sampling.

Recommended Instructions for Residents

The following is a suggested list for residents to follow (to the extent practical) in order to reduce interference in obtaining representative samples. IDEM suggests that these items be followed starting at least 48 hours prior to and during the sampling event.

- Do not open windows, fireplace opening or vents
- Do not keep doors open.
- Do not operate ventilation fans.
- Do not use air fresheners or odor eliminators.
- Do not smoke in the house to the extent practical.
- Do not use wood stoves, fireplace or auxiliary heating equipment (e.g., kerosene heater)
- Do not use paints or varnishes.
- Do not use cleaning products (e.g., bathroom cleaners, furniture polish, appliance cleaners, and floor cleaners).
- Do not use cosmetics, including hair spray, nail polish, nail polish remover, perfume, etc.
- Do not partake in indoor hobbies that use solvents.
- Do not apply pesticides.
- Do not store containers of gasoline, oil or petroleum-based or other solvents within the house or attached garage (except for fuel oil tanks).
- Do not operate or store automobiles in an attached garage.



INDOOR AIR BUILDING SURVEY CHECKLIST

Preparer's Name: Brad Stierwalt Date: 3-22-10

Preparer's Affiliation: _____ Phone #: _____

Site Name: _____ Site #: _____

Site Address (include city and zip): 1240 Ohio Street, Monticello, IN

Part I – Occupants

List of Current Occupants/Occupation (include children)

Name (Age)	Address: (Lot # or apt. #)	Sex (M/F)	Occupation
John Doe (42)	112 South St. Lot # 12	M	geologist

Part II – Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial / other

Describe building: RESIDENTIAL Year constructed: _____

Sensitive population: day care / nursing home / hospital / school / other (specify): _____

Number of floors at or above grade: 2

Number of floors below grade: 1 (full basement) / crawl space / slab on grade)

Depth of basement below grade surface: 6 ft. Basement size: _____ ft²

Basement floor construction: (concrete) / dirt / slab / stone / other (specify): _____

Foundation walls: poured concrete / (cinder blocks) / stone / other (specify): _____

Basement sump present? Yes / No Sump pump? Yes / No Water in sump? Yes / No

Significant cracks present in basement floor? Yes / No

Significant cracks present in basement walls? Yes / No

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? Yes / No

Is there a whole house fan? Yes / No

Septic system? Yes / Yes (but not used) / No

Irrigation/private well? Yes / Yes (but not used) / No

Type of ground cover outside of building: grass / concrete / asphalt / other (specify) _____

Sub-slab vapor/moisture barrier in place? Yes / No / Don't know

Type of barrier: _____

Type of heating system (circle all that apply):

hot air circulation

hot air radiation

wood

steam radiation

heat pump

hot water radiation

kerosene heater

electric baseboard

other (specify): _____

Type of ventilation system (circle all that apply):

central air conditioning

mechanical fans

bathroom ventilation fans

individual air conditioning units

kitchen range hood fan

outside air intake

other (specify): _____

Type of fuel utilized (circle all that apply):

Natural gas / electric

fuel oil / wood

coal / solar / kerosene / other (specify): _____

Part III – Outside Contaminant Sources

Contaminated site within 50-ft (BTEX) or 100-ft (Chlorinated)? _____

If yes: Site Name: _____ Site Number: _____

Other stationary sources nearby (gas stations, emission stacks, etc.): _____

Heavy vehicular traffic nearby (or other mobile sources): _____

Part IV – Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor & room), and whether the item was removed from the building 48 hours prior to the indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the start of the indoor air sampling event.

Potential Sources	Location (s)	Removed (Yes / No / NA)
Gasoline storage cans		
Gas-powered equipment (mowers, etc)		
Kerosene storage cans		
Paints / thinners / strippers		
Cleaning solvents		
Oven cleaners		
Carpet / upholstery cleaners		
Other house cleaning products		
Moth balls		
Polishes / waxes		
Insecticides		
Furniture / floor remover		
Nail polish / polish remover		
Hairspray		
Cologne / perfume		
Air fresheners		
Fuel tank (inside building)		NA
Wood stove or fireplace		NA
New Furniture / upholstery		
New carpeting / flooring		NA
Hobbies – glues, paints, lacquers, photographic darkroom chemicals, etc		
Scented trees, wreaths, potpourri, etc.		
Other (specify):		

Part V – Miscellaneous Items

Do any occupants of the building smoke? Yes / No How often? _____

Last time someone smoked in the building? _____ hours / days ago

Does the building have an attached garage directly connected to living space? Yes / No

If so, is a car usually parked in the garage? Yes / No

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No

Do the occupants of the building have their clothes dry cleaned? Yes No

If yes, how often? Weekly / monthly / 3-4 times a year

When was the last dry cleaned garment brought home? _____

Do any of the occupants use solvents in work? Yes / No

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Yes / No

Have any pesticides/herbicides been applied around the building or in the yard? Yes No

If so, when and which chemicals? _____

Has there ever been a fire in the building? Yes / No If yes, when? _____

Has painting or staining been done in the building in the last 6 months? Yes No

If yes, when? _____ and where? _____

Part VI – Sampling Information

Company/Consultant: _____ Phone number: () _____ - _____

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas

Sampler Type: 400 mL – 1.0 L Summa Canister / 6 L Summa Canister / Other
(specify): _____

Analytical Method: TO-14A / TO-15 / TO-15 SIM / other: _____

Laboratory: _____

Sample locations (floor, room) _____

Field/Sample ID# _____ Field/Sample ID # _____

Field/Sample ID# _____ Field/Sample ID # _____

Field/Sample ID# _____ Field/Sample ID # _____

Were "Instructions for Occupants" followed? Yes / No

If not, describe modifications: _____

Provide Drawing of Sample Location (s) in Building



Part VII – Metrological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event?
Yes / No

Describe the general weather conditions: _____

Part VIII – General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

Recommended Instructions for Residents

The following is a suggested list for residents to follow (to the extent practical) in order to reduce interference in obtaining representative samples. IDEM suggests that these items be followed starting at least 48 hours prior to and during the sampling event.

- Do not open windows, fireplace opening or vents
- Do not keep doors open.
- Do not operate ventilation fans.
- Do not use air fresheners or odor eliminators.
- Do not smoke in the house to the extent practical.
- Do not use wood stoves, fireplace or auxiliary heating equipment (e.g., kerosene heater)
- Do not use paints or varnishes.
- Do not use cleaning products (e.g., bathroom cleaners, furniture polish, appliance cleaners, and floor cleaners).
- Do not use cosmetics, including hair spray, nail polish, nail polish remover, perfume, etc.
- Do not partake in indoor hobbies that use solvents.
- Do not apply pesticides.
- Do not store containers of gasoline, oil or petroleum-based or other solvents within the house or attached garage (except for fuel oil tanks).
- Do not operate or store automobiles in an attached garage.



INDOOR AIR BUILDING SURVEY CHECKLIST

Preparer's Name: Betty L. Payne Date: 5/18/10

Preparer's Affiliation: Homeowner Phone #: 765-342-8350

Site Name: _____ Site # _____

Site Address (include city and zip): 1304 Clare Dr. Martinsville, IN 46151

Part I – Occupants

List of Current Occupants/Occupation (include children)

Name (Age)	Address: (Lot # or apt. #)	Sex (M/F)	Occupation
John Doe (42)	112 South St. Lot # 12	M	geologist
Betty L. Payne 64	1304 Clare Dr. Mart.	F	Retired

Part II – Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial / other

Describe building: _____ Year constructed: _____

Sensitive population: day care / nursing home / hospital / school / other (specify): _____

Number of floors at or above grade: 1

Number of floors below grade: / (full basement / crawl space / slab on grade)

Depth of basement below grade surface: _____ ft. Basement size: _____ ft²

Basement floor construction: concrete / dirt / slab / stone / other (specify): _____

Foundation walls: poured concrete / cinder blocks / stone / other (specify): _____

Basement sump present? *Yes / No* Sump pump? *Yes / No* Water in sump? *Yes / No*

Significant cracks present in basement floor? *Yes / No*

Significant cracks present in basement walls? *Yes / No*

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? *Yes / No*

Is there a whole house fan? *Yes / No*

Septic system? *Yes / Yes (but not used) / No*

Irrigation/private well? *Yes / Yes (but not used) / No*

Type of ground cover outside of building: grass / concrete / asphalt / other (specify) _____

Sub-slab vapor/moisture barrier in place? *Yes / No / Don't know*

Type of barrier: _____

Type of heating system (circle all that apply):

hot air circulation	hot air radiation	wood	steam radiation
heat pump	hot water radiation	kerosene heater	electric baseboard
other (specify): _____			

Type of ventilation system (circle all that apply):

<u>central air conditioning</u>	mechanical fans	<u>bathroom ventilation fans</u>
individual air conditioning units	<u>kitchen range hood fan</u>	outside air intake
other (specify): _____		

Type of fuel utilized (circle all that apply):

Natural gas / electric / fuel oil / wood / coal / solar / kerosene / other (specify): _____

Part III – Outside Contaminant Sources

Contaminated site within 50-ft (BTEX) or 100-ft (Chlorinated)? _____

If yes: Site Name: _____ Site Number: _____

Other stationary sources nearby (gas stations, emission stacks, etc.): _____

Heavy vehicular traffic nearby (or other mobile sources): yes (Ohio St)

Part IV – Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor & room), and whether the item was removed from the building 48 hours prior to the indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the start of the indoor air sampling event.

Potential Sources	Location (s)	Removed (Yes / No / NA)
Gasoline storage cans ✓	Garage	no
Gas-powered equipment (mowers, etc) ✓	Garage	no
Kerosene storage cans		
Paints / thinners / strippers ✓	Garage / Basement	no
Cleaning solvents ✓	House	no
Oven cleaners		
Carpet / upholstery cleaners ✓	Basement	no
Other house cleaning products	Kitchen	no
Moth balls ✓	Garage	no
Polishes / waxes ✓	Garage	no
Insecticides		
Furniture / floor remover		
Nail polish / polish remover		
Hairspray ✓	Bathroom	no
Cologne / perfume		
Air fresheners ✓	House	no
Fuel tank (inside building)		NA
Wood stove or fireplace		NA
New Furniture / upholstery		
New carpeting / flooring		NA
Hobbies – glues, paints, lacquers, photographic darkroom chemicals, etc		
Scented trees, wreaths, potpourri, etc.		
Other (specify):		

Part V – Miscellaneous Items

Do any occupants of the building smoke? Yes No How often? _____

Last time someone smoked in the building? 25 hours / days ago

Does the building have an attached garage directly connected to living space? Yes / No

If so, is a car usually parked in the garage? Yes / No

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No

Do the occupants of the building have their clothes dry cleaned? *Yes / No*

If yes, how often? Weekly / monthly / 3-4 times a year

When was the last dry cleaned garment brought home? _____

Do any of the occupants use solvents in work? *Yes / No*

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? *Yes / No*

Have any pesticides/herbicides been applied around the building or in the yard? *Yes / No*

If so, when and which chemicals? _____

Has there ever been a fire in the building? *Yes / No* If yes, when? _____

Has painting or staining been done in the building in the last 6 months? *Yes / No*

If yes, when? _____ and where? _____

Part VI – Sampling Information

Company/Consultant: _____ Phone number: () ____ - _____

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas

Sampler Type: 400 mL – 1.0 L Summa Canister / 6 L Summa Canister / Other
(specify): _____

Analytical Method: TO-14A / TO-15 / TO-15 SIM / other: _____

Laboratory: _____

Sample locations (floor, room):

Field/Sample ID# _____ Field/Sample ID # _____

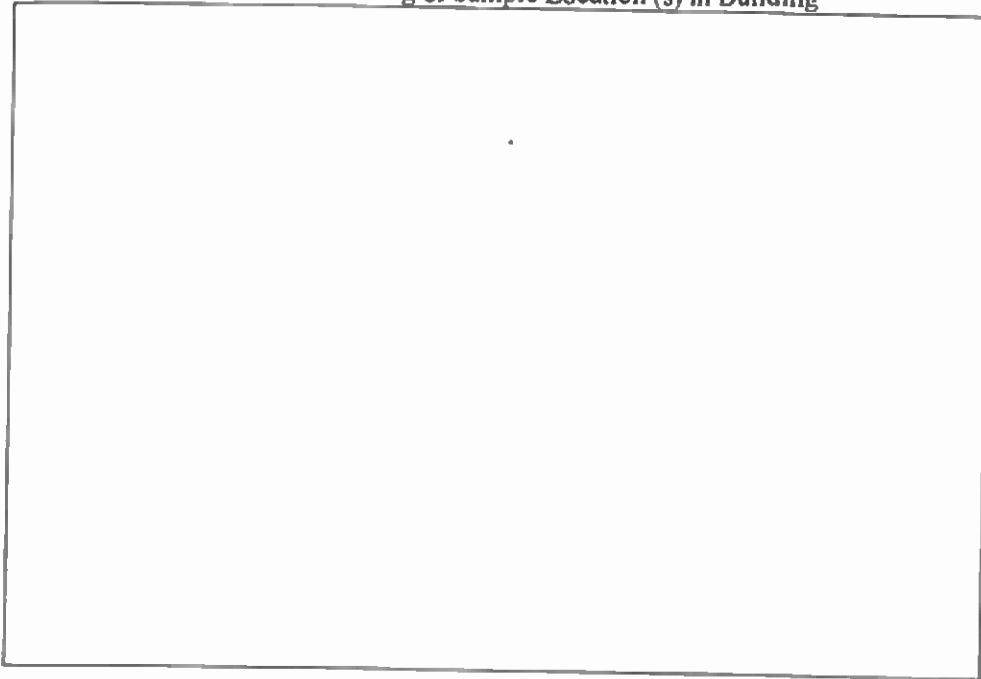
Field/Sample ID# _____ Field/Sample ID # _____

Field/Sample ID# _____ Field/Sample ID # _____

Were "Instructions for Occupants" followed? *Yes / No*

If not, describe modifications: _____

Provide Drawing of Sample Location (s) in Building



Part VII – Metrological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event?

Yes / No

Describe the general weather conditions: Rain

Part VIII – General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

Recommended Instructions for Residents

The following is a suggested list for residents to follow (to the extent practical) in order to reduce interference in obtaining representative samples. IDEM suggests that these items be followed starting at least 48 hours prior to and during the sampling event.

- Do not open windows, fireplace opening or vents
- Do not keep doors open.
- Do not operate ventilation fans.
- Do not use air fresheners or odor eliminators.
- Do not smoke in the house to the extent practical.
- Do not use wood stoves, fireplace or auxiliary heating equipment (e.g., kerosene heater)
- Do not use paints or varnishes.
- Do not use cleaning products (e.g., bathroom cleaners, furniture polish, appliance cleaners, and floor cleaners).
- Do not use cosmetics, including hair spray, nail polish, nail polish remover, perfume, etc.
- Do not partake in indoor hobbies that use solvents.
- Do not apply pesticides.
- Do not store containers of gasoline, oil or petroleum-based or other solvents within the house or attached garage (except for fuel oil tanks).
- Do not operate or store automobiles in an attached garage.

5:22 011



Steve Brock
Stephanie Brock / Property Owner

INDOOR AIR BUILDING SURVEY CHECKLIST

3-23-2010

Preparer's Name: _____ Date: _____

Preparer's Affiliation: _____ Phone #: _____

Site Name: _____ Site #: _____

Site Address (include city and zip): 1334 Clove Drive Martinsville IN 46151

Part I - Occupants

List of Current Occupants/Occupation (include children)

Name (Age)	Address: (Lot # or apt. #)	Sex (M/F)	Occupation
John Doe (42)	112 South St. Lot # 12	M	geologist
Stephen Brock	1334 Clove Dr.	M	Architect / Permaculture
Stephanie Brock	" "	F	R.N.
Lucas Brock	" "	M	Student
Kara Brock	" "	F	" "

Part II - Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial / other

Describe building: Ranch Home Year constructed: ~1952

Sensitive population: day care / nursing home / hospital / school / other (specify): N/A

Number of floors at or above grade: 1

Number of floors below grade: 1 ^{plus} (full basement / crawl space / slab on grade) ^{former garage converted to living space}

Depth of basement below grade surface: 0 ft. Basement size: 0 ft²

Basement floor construction: concrete / dirt / slab / stone / other (specify): 0

Foundation walls: poured concrete / cinder blocks / stone / other (specify): _____

* Vapor intrusion fans & Plastic Sheeting in crawl space placed in 2009 by Karmmedia. (Nothing Placed under Slab)

Basement sump present? Yes / No Sump pump? Yes / No Water in sump? Yes / No

Significant cracks present in basement floor? Yes / No NA

Significant cracks present in basement walls? Yes / No NA

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? NA / Yes / No

Is there a whole house fan? Yes / No

Septic system? Yes / Yes (but not used) / No

Irrigation/private well? Yes / Yes (but not used) / No

Type of ground cover outside of building: grass concrete / asphalt / other (specify) _____

Sub-slab vapor/moisture barrier in place? Yes / No / Don't know

Type of barrier: _____

Type of heating system (circle all that apply):

hot air circulation hot air radiation wood steam radiation
heat pump hot water radiation kerosene heater electric baseboard
other (specify): via gas furnace

Type of ventilation system (circle all that apply):

central air conditioning ceiling mechanical fans bathroom ventilation fans
individual air conditioning units kitchen range hood fan outside air intake
other (specify): does not vent to outside

Type of fuel utilized (circle all that apply):

Natural gas / electric / fuel oil / wood / coal / solar / kerosene / other (specify): _____

Part III - Outside Contaminant Sources Former Harmon Becker Property

Contaminated site within 50-ft (BTEX) or 100-ft (Chlorinated)? _____

If yes: Site Name: _____ Site Number: _____

Other stationary sources nearby (gas stations, emission stacks, etc.): _____

Heavy vehicular traffic nearby (or other mobile sources): yes - Ohio Street

Part IV – Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor & room), and whether the item was removed from the building 48 hours prior to the indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the start of the indoor air sampling event.

Potential Sources	Location (s) <i>All 1st Floor</i>	Removed (Yes / No / NA)
Gasoline storage cans		NA
Gas-powered equipment (mowers, etc)		NA
Kerosene storage cans		NA
Paints / thinners / strippers	Utility Room	NO
Cleaning solvents	Kitchen & Utility Room	NO
Oven cleaners	Kitchen cabinet	NO
Carpet / upholstery cleaners	Kitchen cabinet	NO
Other house cleaning products	Kitchen cabinet / bathroom	NO
Moth balls		NA
Polishes / waxes	Kitchen cabinet	NO
Insecticides	Kitchen cabinet	NO
Furniture / floor remover	Kitchen cabinet	NO
Nail polish / polish remover	Hall closet / Sm bedroom & B	NO
Hairspray	Bathroom / Sm bedroom & B	NO
Cologne / perfume	Bathroom / Sm bedrooms X2	NO
Air fresheners	Living Room Not plugged in	NO
Fuel tank (inside building)		NA
Wood stove or fireplace		NA
New Furniture / upholstery	none	
New carpeting / flooring		NA
Hobbies – glues, paints, lacquers, photographic darkroom chemicals, etc	Paints - (cloth) bedroom (UB) craft (LB)	NO
Scented trees, wreaths, potpourri, etc.	Electric Candle burner - Living Room not utilized for 2-3 weeks	NO
Other (specify):		

Part V – Miscellaneous Items

Do any occupants of the building smoke? Yes (No) How often? _____

Last time someone smoked in the building? 1 month ago hours / days ago

Does the building have an attached garage directly connected to living space? Yes / (No)
 If so, is a car usually parked in the garage? Yes (No) *(Former garage prior to 1992)*

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes (No)

Do the occupants of the building have their clothes dry cleaned? Yes / No

If yes, how often? Weekly / monthly / 3-4 times a year

When was the last dry cleaned garment brought home? Summer 2009

Do any of the occupants use solvents in work? Yes / No

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Yes / No NA

Have any pesticides/herbicides been applied around the building or in the yard? Yes / No

If so, when and which chemicals? not in any recent years

Has there ever been a fire in the building? Yes / No If yes, when? _____

Has painting or staining been done in the building in the last 6 months? Yes / No

If yes, when? Craft painting in LB's bedroom and where? _____
(Small project)

Part VI – Sampling Information

Company/Consultant: _____ Phone number: () _____ - _____

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas

Sampler Type: 400 mL – 1.0 L Summa Canister / 6 L Summa Canister / Other
(specify): _____

Analytical Method: TO-14A / TO-15 / TO-15 SIM / other: _____

Laboratory: _____

Sample locations (floor, room): Living Room 1st floor

Field/Sample ID# _____ Field/Sample ID # _____

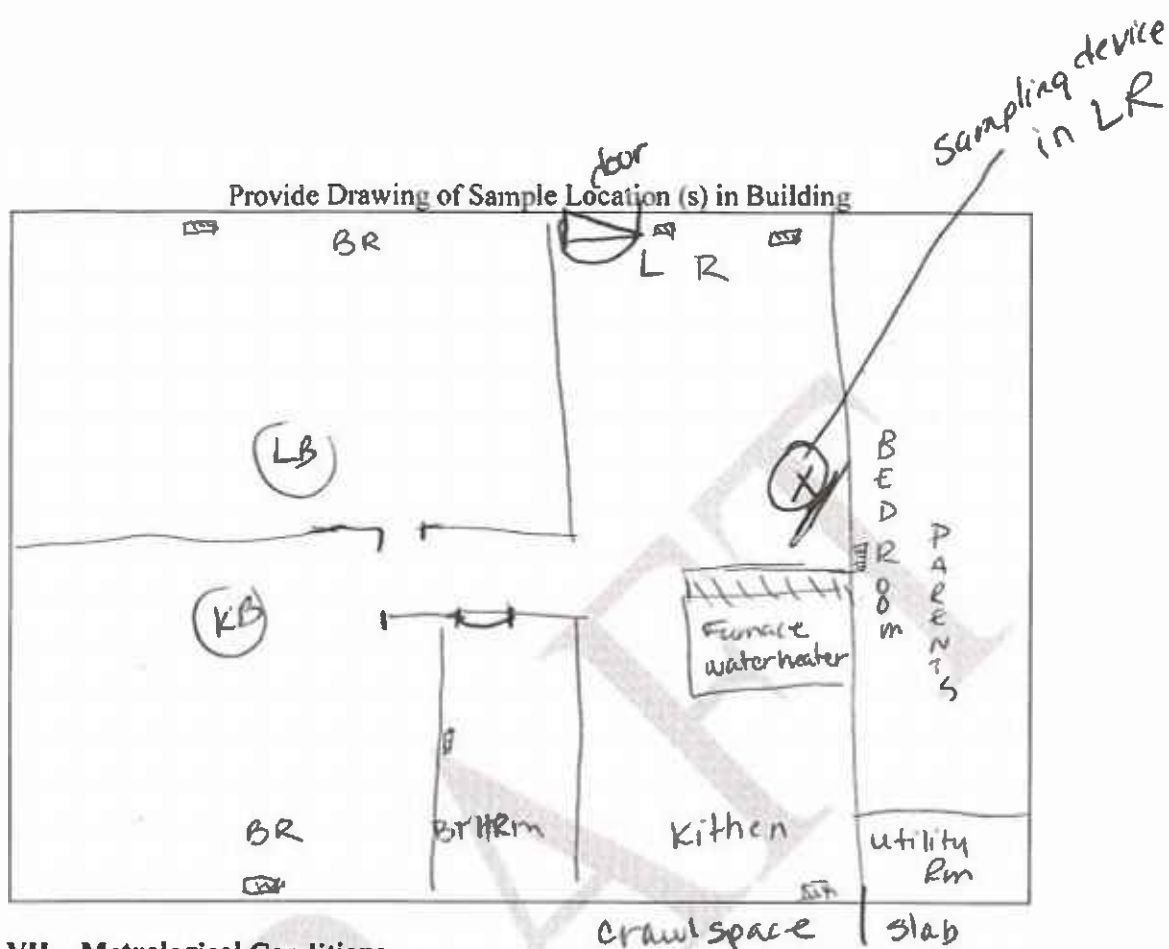
Field/Sample ID# _____ Field/Sample ID # _____

Field/Sample ID# _____ Field/Sample ID # _____

Were “Instructions for Occupants” followed? Yes / No

If not, describe modifications: _____

Instructions given to occupants day sampling device placed – see notes on instructions for



Part VII – Metrological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event?
Yes / No

Describe the general weather conditions: _____

Part VIII – General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process:

This list was given to us on the day of placement of sampling device 3/22/2010

Recommended Instructions for Residents

The following is a suggested list for residents to follow (to the extent practical) in order to reduce interference in obtaining representative samples. IDEM suggests that these items be followed starting at least 48 hours prior to and during the sampling event.

- Do not open windows, fireplace opening or vents ✓
- Do not keep doors open. ✓
- Do not operate ventilation fans. (kitchen range hood used - does not ventilate outside)
- Do not use air fresheners or odor eliminators. (electric candle burner in place but not used)
- Do not smoke in the house to the extent practical. ✓
- Do not use wood stoves, fireplace or auxiliary heating equipment (e.g., kerosene heater) ✓
- Do not use paints or varnishes. ✓
- Do not use cleaning products (e.g., bathroom cleaners, furniture polish, appliance cleaners, and floor cleaners). Bathroom was cleaned 24 hrs prior (Limeaway)
- Do not use cosmetics, including hair spray, nail polish, nail polish remover, perfume, etc. This was not followed as we can not vacate our home.
- Do not partake in indoor hobbies that use solvents. ✓
- Do not apply pesticides. ✓
- Do not store containers of gasoline, oil or petroleum-based or other solvents within the house or attached garage (except for fuel oil tanks). ✓
- Do not operate or store automobiles in an attached garage. ✓

ASB



INDOOR AIR BUILDING SURVEY CHECKLIST

Preparer's Name: Steve Quakenbush Date: 3-17-10

Preparer's Affiliation: _____ Phone #: _____

Site Name: _____ Site #: _____

Site Address (include city and zip): 1354 Clare Street, Marshville, IN

Part I – Occupants

List of Current Occupants/Occupation (include children)

Name (Age)	Address: (Lot # or apt. #)	Sex (M/F)	Occupation
John Doe (42)	112 South St. Lot # 12	M	geologist

Part II – Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial / other

Describe building: Briar Ranch Year constructed: 1950's

Sensitive population: day care / nursing home / hospital / school / other (specify): _____

Number of floors at or above grade: 1

Number of floors below grade: 1 (full basement / crawl space / slab on grade)

Depth of basement below grade surface: 3¹/₂ ft. Basement size: _____ ft²

Basement floor construction: concrete / dirt / slab / stone / other (specify): _____

Foundation walls: poured concrete / cinder blocks / stone / other (specify): _____

Basement sump present? Yes / No Sump pump? Yes / No Water in sump? Yes / No

Significant cracks present in basement floor? Dirty Yes / No

Significant cracks present in basement walls? Yes / No

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? Yes / No

Is there a whole house fan? Yes / No

Septic system? Yes / Yes (but not used) / No

Irrigation/private well? Yes / Yes (but not used) / No

Type of ground cover outside of building: grass concrete / asphalt / other (specify) _____

Sub-slab vapor/moisture barrier in place? Yes / No / Don't know

Type of barrier: _____

Type of heating system (circle all that apply)

hot air circulation hot air radiation wood steam radiation
heat pump hot water radiation kerosene heater electric baseboard
other (specify): _____

Type of ventilation system (circle all that apply):

central air conditioning mechanical fans bathroom ventilation fans
individual air conditioning units kitchen range hood fan outside air intake
other (specify): _____

Type of fuel utilized (circle all that apply):

Natural gas / electric / fuel oil / wood / coal / solar / kerosene / other (specify): _____

Part III – Outside Contaminant Sources

Contaminated site within 50-ft (BTEX) or 100-ft (Chlorinated)? Yes

If yes: Site Name: _____ Site Number: _____

Other stationary sources nearby (gas stations, emission stacks, etc.): No

Heavy vehicular traffic nearby (or other mobile sources): Street

Part IV – Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor & room), and whether the item was removed from the building 48 hours prior to the indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the start of the indoor air sampling event.

Potential Sources	Location (s)	Removed (Yes / No / NA)
Gasoline storage cans	Shed	No
Gas-powered equipment (mowers, etc)	Garage Tank empty	No
Kerosene storage cans		
Paints / thinners / strippers	Garage	No
Cleaning solvents		No
Oven cleaners	None	No
Carpet / upholstery cleaners	None	No
Other house cleaning products	Glass, Dust Spray	No
Moth balls		No
Polishes / waxes		
Insecticides	Shed	
Furniture / floor remover		
Nail polish / polish remover	None	
Hairspray	None	
Cologne / perfume	Bathroom	
Air fresheners		
Fuel tank (inside building)		NA
Wood stove or fireplace		NA
New Furniture / upholstery		
New carpeting / flooring		NA
Hobbies, glues, paints, lacquers, photographic darkroom chemicals, etc		
Scented tree scents, potpourri, etc.	Condio Living room	No
Other (specify):		

Part V – Miscellaneous Items

Do any occupants of the building smoke? Yes No How often? _____

Last time someone smoked in the building? _____ hours / days ago

Does the building have an attached garage directly connected to living space? Yes / No

If so, is a car usually parked in the garage? Yes / No

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No

Do the occupants of the building have their clothes dry cleaned? Yes / No

If yes, how often? Weekly / monthly / 3-4 times a year

When was the last dry cleaned garment brought home? _____

Do any of the occupants use solvents in work? Yes / No

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Yes / No

Have any pesticides/herbicides been applied around the building or in the yard? Yes / No

If so, when and which chemicals? _____

Has there ever been a fire in the building? Yes / No If yes, when? _____

Has painting or staining been done in the building in the last 6 months? Yes / No

If yes, when? _____ and where? _____

Part VI – Sampling Information

Company/Consultant: _____ Phone number: () _____ - _____

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas

Sampler Type: 400 mL – 1.0 L Summa Canister / 6 L Summa Canister / Other
(specify): _____

Analytical Method: TO-14A / TO-15 / TO-15 SIM / other: _____

Laboratory: _____

Sample locations (floor, room):

Field/Sample ID# _____ Field/Sample ID # _____

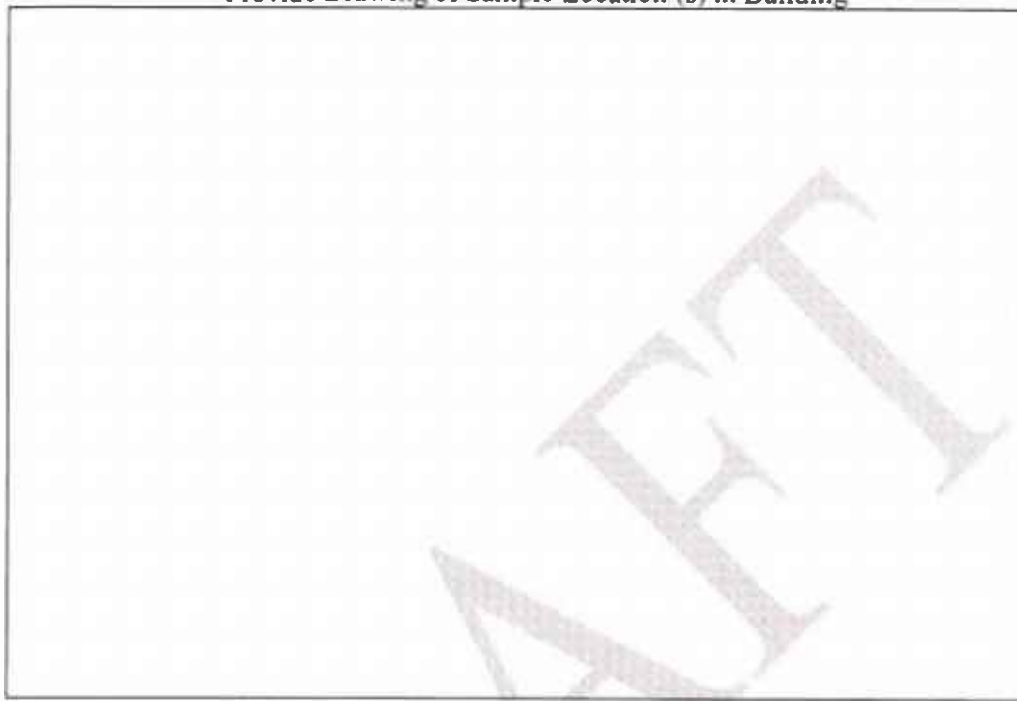
Field/Sample ID# _____ Field/Sample ID # _____

Field/Sample ID# _____ Field/Sample ID # _____

Were "Instructions for Occupants" followed? Yes / No

If not, describe modifications: _____

Provide Drawing of Sample Location (s) in Building



Part VII – Metrological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event?

Yes / No

Describe the general weather conditions: Clear - Cool

Part VIII – General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

Recommended Instructions for Residents

The following is a suggested list for residents to follow (to the extent practical) in order to reduce interference in obtaining representative samples. IDEM suggests that these items be followed starting at least 48 hours prior to and during the sampling event.

- Do not open windows, fireplace opening or vents
- Do not keep doors open.
- Do not operate ventilation fans.
- Do not use air fresheners or odor eliminators.
- Do not smoke in the house to the extent practical.
- Do not use wood stoves, fireplace or auxiliary heating equipment (e.g., kerosene heater)
- Do not use paints or varnishes.
- Do not use cleaning products (e.g., bathroom cleaners, furniture polish, appliance cleaners, and floor cleaners).
- Do not use cosmetics, including hair spray, nail polish, nail polish remover, perfume, etc.
- Do not partake in indoor hobbies that use solvents.
- Do not ~~apply~~ pesticides.
- Do not store containers of gasoline, oil or petroleum-based or other solvents within the house or attached garage (except for fuel oil tanks).
- Do not operate or store automobiles in an attached garage.



INDOOR AIR BUILDING SURVEY CHECKLIST

Preparer's Name: Sandy Dunn Date: 3-22-10

Preparer's Affiliation: _____ Phone #: _____

Site Name: _____ Site #: _____

Site Address (include city and zip): 1355 Clore Drive Martinsville, IN 46151

Part I – Occupants

List of Current Occupants/Occupation (include children)

Name (Age)	Address: (Lot # or apt. #)	Sex (M/F)	Occupation
John Doe (42)	112 South St. Lot # 12	M	geologist
Jonathan Dunn 46	1355 Clore Dr.	m	construction
Sandy Dunn 45		F	COOK
Jon Dunn 20		m	construction
Amanda Dunn 16		F	COOK-Student
Rachel Dunn 14		F	Student

Part II – Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial / other

Describe building: _____ Year constructed: _____

Sensitive population: day care / nursing home / hospital / school / other (specify): _____

Number of floors at or above grade: _____

Number of floors below grade: _____ (full basement / crawl space / slab on grade)

Depth of basement below grade surface: _____ ft. Basement size: _____ ft²

Basement floor construction: concrete / dirt / slab / stone / other (specify): _____

Foundation walls: poured concrete / cinder blocks / stone / other (specify): _____

Basement sump present? Yes / No Sump pump? Yes / No Water in sump? Yes / No

Significant cracks present in basement floor? Yes / No

Significant cracks present in basement walls? Yes / No

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? Yes / No

Is there a whole house fan? Yes / No

Septic system? Yes / Yes (but not used) / No

Irrigation/private well? Yes / Yes (but not used) / No

Type of ground cover outside of building: grass / concrete / asphalt / other (specify) _____

Sub-slab vapor/moisture barrier in place? Yes / No / Don't know

Type of barrier: _____

Type of heating system (circle all that apply):

hot air circulation

hot air radiation

wood

steam radiation

heat pump

hot water radiation

kerosene heater

electric baseboard

other (specify): _____

Type of ventilation system (circle all that apply):

central air conditioning

mechanical fans

bathroom ventilation fans

individual air conditioning units

kitchen range hood fan

outside air intake

other (specify): _____

Type of fuel utilized (circle all that apply):

Natural gas

electric / fuel oil / wood / coal / solar / kerosene / other (specify): _____

Part III – Outside Contaminant Sources

Contaminated site within 50-ft (BTEX) or 100-ft (Chlorinated)? _____

If yes: Site Name: _____ Site Number: _____

Other stationary sources nearby (gas stations, emission stacks, etc.): _____

Heavy vehicular traffic nearby (or other mobile sources): _____

Part IV – Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor & room), and whether the item was removed from the building 48 hours prior to the indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the start of the indoor air sampling event.

Potential Sources	Location (s)	Removed (Yes / No / NA)
Gasoline storage cans	—	
Gas-powered equipment (mowers, etc)	Garage	
Kerosene storage cans	—	
Paints / thinners / strippers	—	
Cleaning solvents	—	
Oven cleaners	under sink	NO
Carpet / upholstery cleaners	—	
Other house cleaning products	under sink	NO
Moth balls	—	
Polishes / waxes	—	
Insecticides	—	
Furniture / floor remover	—	
Nail polish / polish remover	—	
Hairspray	Bedroom	
Cologne / perfume	Bathroom	yes
Air fresheners	living Room	yes
Fuel tank (inside building)	—	NA
Wood stove or fireplace	—	NA
New Furniture / upholstery	—	
New carpeting / flooring	—	NA
Hobbies = glues, paints, lacquers, photographic darkroom chemicals, etc	—	
Scented trees, wreaths, potpourri, etc.	—	
Other (specify):		

Part V – Miscellaneous Items

Do any occupants of the building smoke? Yes / No How often? _____

Last time someone smoked in the building? _____ hours / days ago

Does the building have an attached garage directly connected to living space? Yes / No

If so, is a car usually parked in the garage? Yes / No

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No

Do the occupants of the building have their clothes dry cleaned? Yes ☒ No

If yes, how often? Weekly / monthly / 3-4 times a year

When was the last dry cleaned garment brought home? _____

Do any of the occupants use solvents in work? Yes ☒ No

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Yes / No

Have any pesticides/herbicides been applied around the building or in the yard? Yes ☒ No

If so, when and which chemicals? _____

Has there ever been a fire in the building? Yes ☒ No If yes, when? _____

Has painting or staining been done in the building in the last 6 months? Yes ☒ No

If yes, when? _____ and where? _____

Part VI – Sampling Information

Company/Consultant: _____ Phone number: () _____ - _____

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas

Sampler Type: 400 mL – 1.0 L Summa Canister / 6 L Summa Canister / Other (specify): _____

Analytical Method: TO-14A / TO-15 / TO-15 SIM / other: _____

Laboratory: _____

Sample locations (floor, room):

Field/Sample ID# _____ Field/Sample ID # _____

Field/Sample ID# _____ Field/Sample ID # _____

Field/Sample ID# _____ Field/Sample ID # _____

Were "Instructions for Occupants" followed? Yes / No

If not, describe modifications: _____

Provide Drawing of Sample Location (s) in Building



Part VII – Metrological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event?
Yes / No

Describe the general weather conditions: _____

Part VIII – General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

Recommended Instructions for Residents

The following is a suggested list for residents to follow (to the extent practical) in order to reduce interference in obtaining representative samples. IDEM suggests that these items be followed starting at least 48 hours prior to and during the sampling event.

- Do not open windows, fireplace opening or vents
- Do not keep doors open.
- Do not operate ventilation fans.
- Do not use air fresheners or odor eliminators.
- Do not smoke in the house to the extent practical.
- Do not use wood stoves, fireplace or auxiliary heating equipment (e.g., kerosene heater)
- Do not use paints or varnishes.
- Do not use cleaning products (e.g., bathroom cleaners, furniture polish, appliance cleaners, and floor cleaners).
- Do not use cosmetics, including hair spray, nail polish, nail polish remover, perfume, etc.
- Do not partake in indoor hobbies that use solvents.
- Do not apply pesticides.
- Do not store containers of gasoline, oil or petroleum-based or other solvents within the house or attached garage (except for fuel oil tanks).
- Do not operate or store automobiles in an attached garage.



INDOOR AIR BUILDING SURVEY CHECKLIST

Preparer's Name: Nadine Ferguson Date: 3-17-10

Preparer's Affiliation: _____ Phone #: 765-318-3044

Site Name: _____ Site # _____

Site Address (include city and zip): 1385 Clare Co Martinsville, IN 46151

Part I – Occupants

List of Current Occupants/Occupation (include children)

Name (Age)	Address: (Lot # or apt. #)	Sex (M/F)	Occupation
John Doe (42)	112 South St. Lot # 12	M	geologist
<u>none</u>			

Part II – Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial / other

Describe building: Brick Ranch Year constructed: 1964

Sensitive population: day care / nursing home / hospital / school / other (specify): _____

Number of floors at or above grade: 1

Number of floors below grade: 0 (full basement / crawl space / slab on grade)

Depth of basement below grade surface: _____ ft. Basement size: _____ ft²

Basement floor construction: concrete / dirt / slab / stone / other (specify): _____

Foundation walls: poured concrete / cinder blocks / stone / other (specify): _____

Basement sump present? *Yes / No* Sump pump? *Yes / No* Water in sump? *Yes / No*

Significant cracks present in basement floor? *Yes / No*

Significant cracks present in basement walls? *Yes / No*

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? *Yes / No*

Is there a whole house fan? *Yes / No*

Septic system? *Yes / Yes (but not used) / No*

Irrigation/private well? *Yes / Yes (but not used) / No*

Type of ground cover outside of building: grass / concrete / asphalt / other (specify) _____

Sub-slab vapor/moisture barrier in place? *Yes / No / Don't know*

Type of barrier: _____

Type of heating system (circle all that apply):

hot air circulation	hot air radiation	wood	steam radiation
heat pump	hot water radiation	kerosene heater	electric baseboard
other (specify): <u>gas</u>			

Type of ventilation system (circle all that apply):

<u>central air conditioning</u>	mechanical fans	bathroom ventilation fans
individual air conditioning units	kitchen range hood fan	outside air intake
other (specify): _____		

Type of fuel utilized (circle all that apply):

Natural gas / electric / fuel oil / wood / coal / solar / kerosene / other (specify): _____

Part III – Outside Contaminant Sources

Contaminated site within 50-ft (BTEX) or 100-ft (Chlorinated)? _____

If yes: Site Name: _____ Site Number: _____

Other stationary sources nearby (gas stations, emission stacks, etc.): _____

Heavy vehicular traffic nearby (or other mobile sources): _____

Part IV – Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor & room), and whether the item was removed from the building 48 hours prior to the indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the start of the indoor air sampling event.

Potential Sources	Location (s)	Removed (Yes / No / NA)
Gasoline storage cans		No
Gas-powered equipment (mowers, etc)		No
Kerosene storage cans		No
Paints / thinners / strippers		No
Cleaning solvents		No
Oven cleaners		No
Carpet / upholstery cleaners		No
Other house cleaning products		No
Moth balls		No
Polishes / waxes		No
Insecticides		No
Furniture / floor remover		No
Nail polish / polish remover		No
Hairspray		No
Cologne / perfume		No
Air fresheners		No
Fuel tank (inside building)		NA
Wood stove or fireplace		NA
New Furniture / upholstery		
New carpeting / flooring		NA
Hobbies – glues, paints, lacquers, photographic darkroom chemicals, etc		No
Scented trees, wreaths, potpourri, etc.		No
Other (specify):		None apply

None Entry

Part V – Miscellaneous Items

Do any occupants of the building smoke? Yes No How often? _____

Last time someone smoked in the building? years hours / days ago

Does the building have an attached garage directly connected to living space? Yes No

If so, is a car usually parked in the garage? Yes No

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes No

Do the occupants of the building have their clothes dry cleaned? Yes/No

If yes, how often? Weekly / monthly / 3-4 times a year

When was the last dry cleaned garment brought home? _____

Do any of the occupants use solvents in work? Yes/No

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Yes/No

Have any pesticides/herbicides been applied around the building or in the yard? Yes/No

If so, when and which chemicals? Super H2O Terminix

Has there ever been a fire in the building? Yes/No If yes, when? _____

Has painting or staining been done in the building in the last 6 months? Yes/No

If yes, when? _____ and where? _____

Part VI – Sampling Information

Company/Consultant: _____ Phone number: () _____ - _____

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas

Sampler Type: 400 mL – 1.0 L Summa Canister / 6 L Summa Canister / Other
(specify): _____

Analytical Method: TO-14A / TO-15 / TO-15 SIM / other: _____

Laboratory: _____

Sample locations (floor, room):

Field/Sample ID# _____ Field/Sample ID # _____

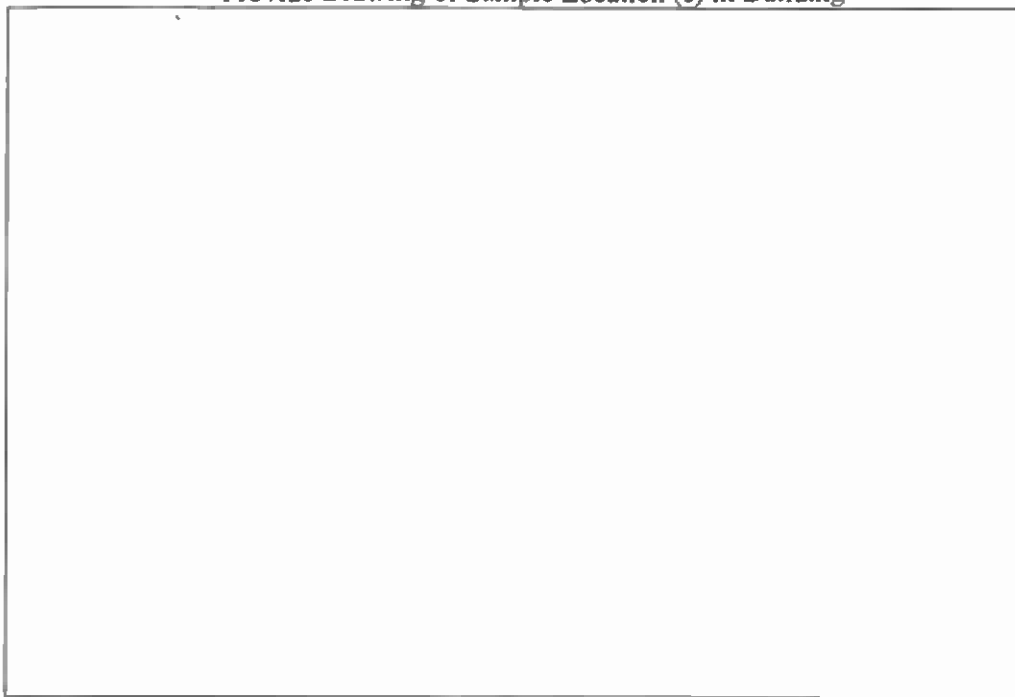
Field/Sample ID# _____ Field/Sample ID # _____

Field/Sample ID# _____ Field/Sample ID # _____

Were "Instructions for Occupants" followed? Yes/No

If not, describe modifications: _____

Provide Drawing of Sample Location (s) in Building



Part VII – Metrological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event?
Yes / No

Describe the general weather conditions: _____

Part VIII – General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.



INDOOR AIR BUILDING SURVEY CHECKLIST

Preparer's Name: Tonya Osborne Date: MAY 6, 2010
 Preparer's Affiliation: _____ Phone #: 765-343-2562
 Site Name: _____ Site #: _____
 Site Address (include city and zip): 1398 Clove Dr. Apt 4
Martinsville 46151

Part I – Occupants

List of Current Occupants/Occupation (include children)

Name (Age)	Address: (Lot # or apt. #)	Sex (M/F)	Occupation
John Doe (42)	112 South St. Lot # 12	M	geologist
Tonya Osborne 25	1398 Clove Dr. Apt 4	F	
Ariganna Fulford 19	"	F	-
Trevor Fulford 3	"	M	-
Gabriella Fulford 8 months	"	F	-

Part II – Building Characteristics

Building type: residential multi-family residential / office / strip mall / commercial / industrial / other

Describe building: _____ Year constructed: _____

Sensitive population: day care / nursing home / hospital / school / other (specify): _____

Number of floors at or above grade: 2

Number of floors below grade: _____ (full basement) / crawl space / slab on grade)

Depth of basement below grade surface: _____ ft. Basement size: _____ ft²

Basement floor construction: concrete / dirt / slab / stone / other (specify): _____

Foundation walls: poured concrete / cinder blocks / stone / other (specify): _____

Basement sump present? *Yes / No* Sump pump? *Yes / No* Water in sump? *Yes / No*

Significant cracks present in basement floor? *Yes / No*

Significant cracks present in basement walls? *Yes / No*

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? *Yes / No*

Is there a whole house fan? *Yes / No*

Septic system? *Yes / Yes (but not used) / No*

Irrigation/private well? *Yes / Yes (but not used) / No*

Type of ground cover outside of building: *grass / concrete / asphalt / other (specify)* _____

Sub-slab vapor/moisture barrier in place? *Yes / No / Don't know*

Type of barrier: _____

Type of heating system (circle all that apply):

hot air circulation

hot air radiation

wood

steam radiation

heat-pump

hot water radiation

kerosene heater

electric baseboard

other (specify): _____

Type of ventilation system (circle all that apply):

central air conditioning

mechanical fans

bathroom ventilation fans

individual air conditioning units

kitchen range hood fan

outside air intake

other (specify): _____

Type of fuel utilized (circle all that apply):

Natural gas / electric / fuel oil / wood / coal / solar / kerosene / other (specify): _____

Part III – Outside Contaminant Sources

Contaminated site within 50-ft (BTEX) or 100-ft (Chlorinated)? _____

If yes: Site Name: _____ Site Number: _____

Other stationary sources nearby (gas stations, emission stacks, etc.): _____

Heavy vehicular traffic nearby (or other mobile sources): _____

Part IV – Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor & room), and whether the item was removed from the building 48 hours prior to the indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the start of the indoor air sampling event.

Potential Sources	Location (s)	Removed (Yes / No / NA)
Gasoline storage cans		
Gas-powered equipment (mowers, etc)		no
Kerosene storage cans		
Paints / thinners / strippers		
Cleaning solvents		no
Oven cleaners		no
Carpet / upholstery cleaners		no
Other house cleaning products		
Moth balls		
Polishes / waxes		
Insecticides		
Furniture / floor remover		
Nail polish / polish remover		
Hairspray		
Cologne / perfume		no
Air fresheners		no
Fuel tank (inside building)		NA
Wood stove or fireplace		NA
New Furniture / upholstery		NA
New carpeting / flooring		NA
Hobbies - glues, paints, lacquers, photographic darkroom chemicals, etc		NA
Scented trees, wreaths, potpourri, etc.		NA
Other (specify):		

Part V – Miscellaneous items

Do any occupants of the building smoke? ☒ Yes / No How often? 2 people 2 packs/day

Last time someone smoked in the building? 8:00 a.m. hours / days ago

Does the building have an attached garage directly connected to living space? ☒ Yes / ☐ No

If so, is a car usually parked in the garage? Yes / No

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No

Do the occupants of the building have their clothes dry cleaned? Yes No

If yes, how often? Weekly / monthly / 3-4 times a year

When was the last dry cleaned garment brought home? _____

Do any of the occupants use solvents in work? Yes No

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Yes / No

Have any pesticides/herbicides been applied around the building or in the yard? Yes No

If so, when and which chemicals? _____

Has there ever been a fire in the building? Yes No If yes, when? _____

Has painting or staining been done in the building in the last 6 months? Yes / No

If yes, when? _____ and where? Kitchen apt 4 hallway

Part VI – Sampling Information

Company/Consultant: _____ Phone number: () _____ - _____

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas

Sampler Type: 400 mL – 1.0 L Summa Canister / 6 L Summa Canister / Other (specify): _____

Analytical Method: TO-14A / TO-15 / TO-15 SIM / other: _____

Laboratory: _____

Sample locations (floor, room):

Field/Sample ID# _____ Field/Sample ID # _____

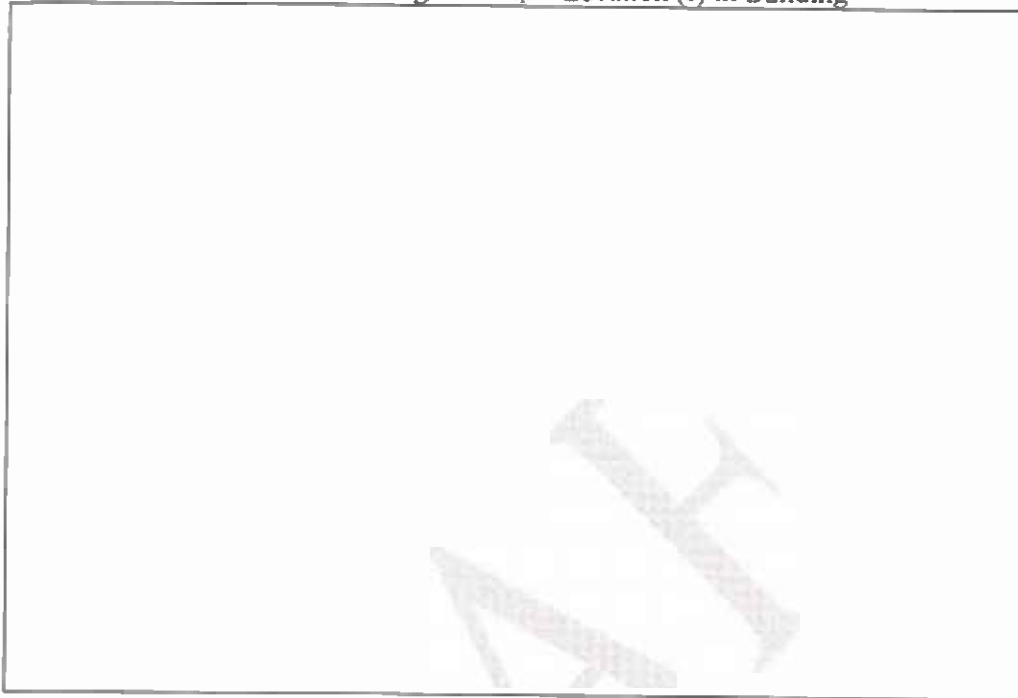
Field/Sample ID# _____ Field/Sample ID # _____

Field/Sample ID# _____ Field/Sample ID # _____

Were "Instructions for Occupants" followed? Yes / No

If not, describe modifications: _____

Provide Drawing of Sample Location (s) in Building



Part VII – Metrological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event?
Yes / No

Describe the general weather conditions: _____

Part VIII – General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process:

Recommended Instructions for Residents

The following is a suggested list for residents to follow (to the extent practical) in order to reduce interference in obtaining representative samples. IDEM suggests that these items be followed starting at least 48 hours prior to and during the sampling event.

- Do not open windows, fireplace opening or vents
- Do not keep doors open.
- Do not operate ventilation fans.
- Do not use air fresheners or odor eliminators.
- Do not smoke in the house to the extent practical
- Do not use wood stoves, fireplace or auxiliary heating equipment (e.g., kerosene heater)
- Do not use paints or varnishes.
- Do not use cleaning products (e.g., bathroom cleaners, furniture polish, appliance cleaners, and floor cleaners).
- Do not use cosmetics, including hair spray, nail polish, nail polish remover, perfume, etc.
- Do not partake in indoor hobbies that use solvents.
- Do not apply pesticides.
- Do not store containers of gasoline, oil or petroleum-based or other solvents within the house or attached garage (except for fuel oil tanks).
- Do not operate or store automobiles in an attached garage.

Appendix C

Laboratory Analytical Data

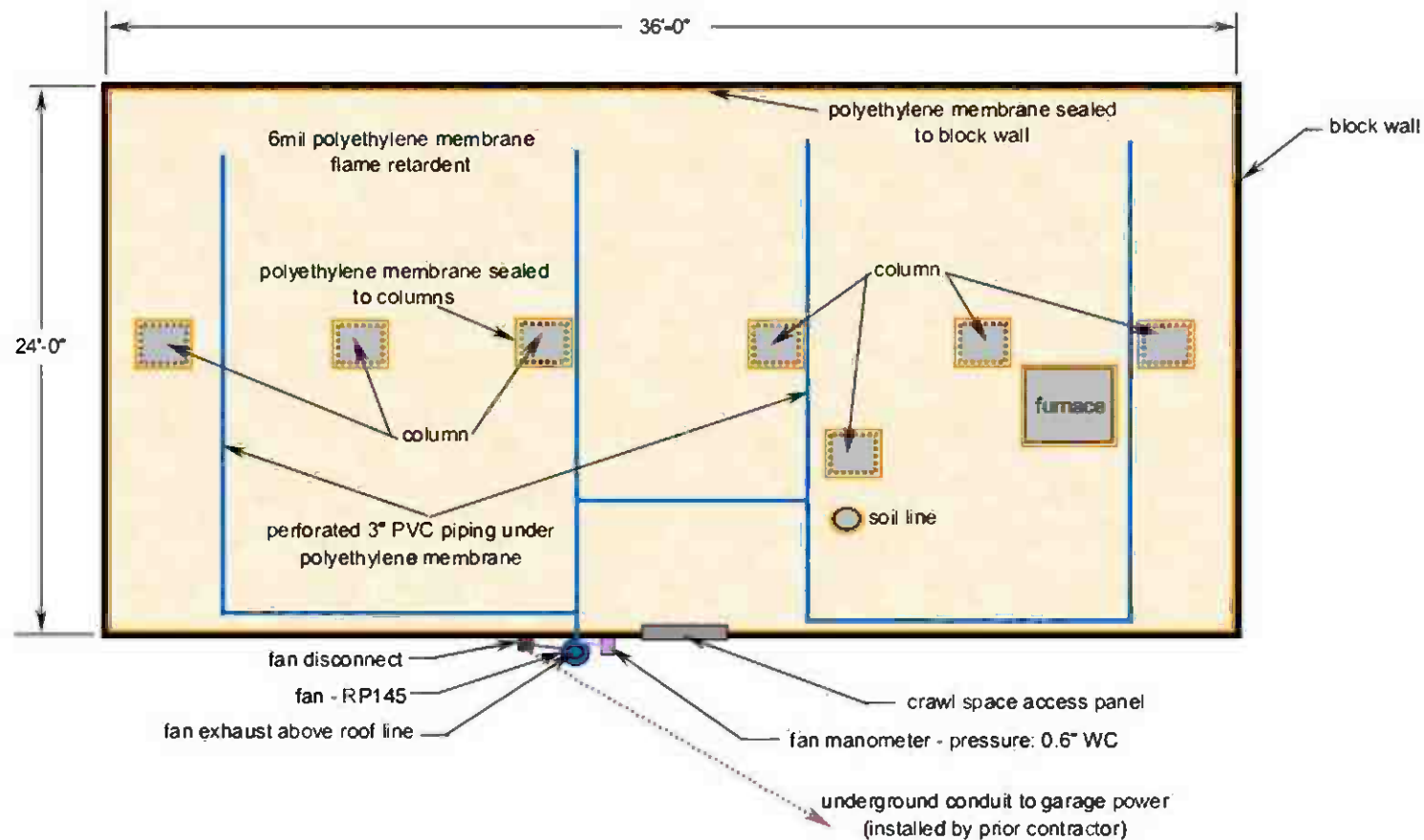
Appendix D

Individual Residential Indoor Air Reports

Appendix E

520 Basca Drive Sub-Membrane Depressurization System Schematics

Basca Drive



Alpine Environmental Services, Inc.
1146 Central Avenue
Albany, NY 12205
(518)453-0146

P. Schriber

June 2010

Revision 0

Sub-Membrane Depressurization System
Installed June 25, 2010

520 Basca Drive
Martinsville, Indiana 46151