



May 12, 2017

City of Detroit Department of Public Works  
City Engineering & Street Maintenance Divisions  
Coleman A. Young Municipal Center  
2 Woodward Avenue, Suite 611  
Detroit, Michigan 48226

Re: Notice of Migration of Contamination  
From 6700, 6710, & 6720 West Jefferson Avenue, Detroit, MI, Tax ID 18000116-8 (MDOT Parcels 5043 & 5044)  
Potentially toward West Jefferson Avenue right-of-way to south, South Waterman Street right-of-way to east,  
And/or alley right-of-way to north  
Notification No. 5043.5044-ROW

Dear City Engineering & Street Maintenance Divisions:

The Mannik Smith Group, Inc. ("MSG"), on behalf of the Michigan Department of Transportation ("MDOT"), has directed or conducted underground environmental testing at 6700, 6710, and 6720 West Jefferson Avenue, Detroit, Michigan ("the Site") in relation to the Gordie Howe International Bridge project underway in the vicinity of the right-of-ways referenced above ("the subject property").

The Michigan Department of Environmental Quality ("MDEQ") requires distribution of the enclosed a Notice of Migration of Contamination form when there is evidence that environmental contamination at one property has or may have affected nearby properties. Hazardous substance(s) were identified in soil and/or groundwater sample(s) collected at the Site at concentration(s) that exceed Generic Residential Cleanup Criteria and Screening Levels established by the MDEQ.

At this time, it is not known if the subject property has been affected by the environmental contamination at the Site. Also, the identification of hazardous substance(s) at the Site does not necessarily mean a hazardous situation or immediate danger currently exists. MSG, on behalf of the MDOT, is providing this notice to you as a precautionary measure and for your general awareness of environmental conditions at the Site.

Please review the enclosed document and if you have any questions regarding the Notice of Migration of Contamination please contact Karen Williams of the MDEQ at 586-753-3884. If you have general questions regarding the contents of this letter please contact Walter Bolt of MSG at 734-397-3100, extension 115 or Jim Woodruff of the MDOT at 517-241-9115.

Sincerely,

Walter J. Bolt, CPG  
Project Manager  
Environmental Owners Representative Consultant  
Gordie Howe International Bridge Project

CC: Jim Woodruff – MDOT  
Karen Williams – MDEQ RRD Project Manager  
Raymond A. Scott – Deputy Director, City of Detroit BSEED  
Paul Max – General Manager, Environmental Affairs, City of Detroit BSEED

For DEQ Use Only ITS # _____ Site ID # _____ Category Code: _____
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**NOTICE OF MIGRATION OF CONTAMINATION (FORM EQP4482 REV. 4/16)**

*(Under the authority of Part 201, Natural Resources and Environmental Protection Act, 1994 Act 451, as amended, (NREPA) and the Rules promulgated thereunder)*

An owner or operator of property that is a facility, and/or who is subject to MCL324.20107a, and who has reason to believe that a hazardous substance is emanating from, has emanated from, or is likely to be emanating from the property and migrating beyond the boundaries of the property that he or she owns or operates is required under R 299.51017(1) and MCL 324.20114(1)(b)(ii) & (iii) to notify the Michigan Department of Environmental Quality (DEQ) and affected property owners. Submission of this notice does not fulfill the notification requirements of MCL 324.21309a.

The notice must be provided within 45 days (MCL 324.20107a) or within 30 days (MCL 324.20114) after the owner or operator has reason to believe that hazardous substances have migrated, or are likely to have migrated, to or beyond the boundary of his or her property (see R 299.51017 for exceptions that apply to parties subject to MCL 324.20107a).

Use of this form is mandatory for the notice required by R 299.51017(1) and may also be used by parties subject to MCL 324.20114(1)(b)(ii) & (iii). This form may also be used to provide notice to affected property owners as required by those rules.

If a person holds a permit for an oil and gas well under Part 615, Supervisor of Wells, of the NREPA and there is a release from the oil and gas exploration or production activities, that person shall give notice to the DEQ and to the owner of the surface rights of the property.

If a person holds an easement and there is a release from the easement holder's activities, that person shall provide notice to the DEQ and to the grantor of the easement, or the grantor's successor in interest, if any.

Completing this notice in no way relieves a person who is subject to MCL 324.20114 from the responsibility to undertake required response activities.

This notice must be sent to the DEQ office that serves the county in which the property is located. A list of DEQ offices is available at [www.michigan.gov/deqducare](http://www.michigan.gov/deqducare), or by calling the Remediation and Redevelopment Division's Lansing office at 517-284-5187. The DEQ will not prepare acknowledgement of receipt of these notices. The sender is responsible for sending the report using a method that provides proof of delivery if such proof is desired. Please label the outside of the envelope "Migration Notice." Additional guidelines for the compliance with the requirements of R 299.51017(1) or MCL 324.20114(1)(b)(ii) & (iii) are available at [www.michigan.gov/deqducare](http://www.michigan.gov/deqducare).

THIS NOTICE IS PROVIDED PURSUANT TO: R 299.51017  MCL 324.20114(1)   
*(check both, if applicable)*

Please provide the following information as completely as possible.

- |  |  |
|--|--|
| 1. Name and location of the property that hazardous substances are emanating from: | 2. Status relative to the property:<br>(Check one or both, as applicable.) |
|--|--|

Name: Mi. Dept. of Transportation (MDOT) Parcels 5043 & 5044	Owner <input type="checkbox"/>
Address: 6720, 6710, & 6700 W. Jefferson Avenue	Operator <input checked="" type="checkbox"/>
Location: Michigan	
City/County: Detroit / Wayne	
Property Tax Identification Number, or if applicable, the ward and item number: 18000116-8	

Latitude (decimal degrees): 42.297120791°N Longitude (decimal degrees): -83.103362059°W

Reference Point for Latitude and Longitude:  
 Center of Site:  Main/front door:  Front gate/main entrance:  Other:   
 Collection Method: Survey:  Interpolation:  GPS:



2. Provide any additional ID numbers associated with the property (e.g., EPA ID No., BEA No., Part 213 facility ID No., etc.):  
GHIB MDOT Parcels 5043 & 5044; MERA Site ID# 82002800; CNTS-RRD-16-001

3. Name, address, and telephone number of the property owner, operator, or other party submitting the notice:  
Name: MDOT Bureau of Development, Environmental Services Section  
Address: 425 W. Ottawa Street, P.O. Box 30050  
City/State: Lansing, MI, 48909  
Telephone Number: 517-241-9115

4. Name, address and telephone number of a contact person familiar with the content of the notice:  
Name: Walter Bolt of The Mannik & Smith Group, Inc. Environmental Owner's Rep Consultant to MDOT  
Address: 2365 Haggerty Rd South  
City/State: Canton, MI 48188  
Telephone Number: 734-397-3100 x. 115

5. If this Notice is provided pursuant to R 299.51017, provide the address and other location information for the *adjacent* property(s) onto which contamination is migrating, has migrated, or is likely to migrate.

If this Notice is provided pursuant to MCL Section 324.20114(1), provide the address and other location information for *each* property onto which contamination has migrated. Notice should be sent to the property owner of record. If the impacted property is owned by the State of Michigan, notice should be sent to the department managing the property (e.g., a prison, state park, etc.). Notices to the Michigan Department of Transportation (MDOT) for state owned roadways should be sent to Contaminated Site Specialist, Environmental Services Section, MDOT-Bureau of Development, 425 W. Ottawa Street, P.O. Box 30050, Lansing, MI 48909. If the impacted property is owned by the State of Michigan, notice should be sent to the department managing the property (i.e. a prison, state park, etc.).

Address: 6728 W. Jefferson  
City/State: Detroit, MI  
Property Tax ID number: 18000115  
Other: International Transmission Company (ITC)  
27175 Energy Way, Novi, MI, 48377  
Notified? No  Yes  Date: May 23, 2017

Address: 27175 Energy Way  
City/State: Novi, MI, 48377  
Property Tax ID number: NA  
Other: ITC (utility holder)  
Notified? No  Yes  Date: May 23, 2017

Address: 2 Woodward Avenue, Ste. 611  
City/State: Detroit, MI, 48226  
Property Tax ID number: NA  
Other: City of Detroit (W. Jefferson Ave., S. Waterman St., & alley adjacent to 6720, 6710, & 6700 W. Jefferson Ave. / 18000116-8)  
Notified? No  Yes  Date: May 23, 2017

Address: 735 Randolph  
City/State: Detroit, MI, 48226  
Property Tax ID number: NA  
Other: Detroit Water & Sewerage Department (utility holder)  
Notified? No  Yes  Date: May 23, 2017

Address: 735 Randolph Street, Ste. 1900  
City/State: Detroit, MI, 48226  
Property Tax ID number: NA  
Other: Great Lakes Water Authority (utility holder)  
Notified? No  Yes  Date: May 23, 2017



Address: One Energy Plaza, Ste. 1935  
City/State: Detroit, MI, 48226  
Property Tax ID number: NA  
Other: Detroit Edison, DTE Energy(utility holder)

Notified? No  Yes  Date: May 23, 2017

Address: 12775 Lydon Street  
City/State: Detroit, MI, 48227  
Property Tax ID number: NA  
Other: Comcast / Xfinity (utility holder)

Notified? No  Yes  Date: May 23, 2017

Address: 208 S. Akard Street  
City/State: Dallas, TX, 75202  
Property Tax ID number: NA  
Other: AT&T Headquarters (utility holder)

Notified? No  Yes  Date: May 23, 2017


(Attach additional pages as needed) **PLEASE SEE ATTACHED MAP OF PROPERTY TAX ID NUMBERS.**

# MAP OF PROPERTY TAX ID NUMBERS

Date Saved: 8/16/2016 4:45:13 PM  
Path: S:\Projects\Project K-OMDOT0070\ENG\APPS\GIS\Map\_Files\Notification\_Maps\5043\_5044\_Offsite\_Property\_Tax\_ID.mxd



Coordinate System: UTM Zone 17 N IntFt  
Projection: Transverse Mercator  
Datum: NAD 1983 CORS96



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TECHNICAL SKILL.  
CREATIVE SPIRIT.  
[www.MannikSmithGroup.com](http://www.MannikSmithGroup.com)

**FIGURE 1**  
PROPERTY TAX ID NUMBERS  
ADJACENT TO MDOT 5043 & 5044

Gordie Howe International Bridge  
Detroit, Michigan

DATE 8/16/2016	DRAWN BY AMK	DESIGNED BY LHK	PROJECT NO. MDOT0070
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- Adjacent Offsite Parcel
- 5043 & 5044
- Adjacent MDOT Parcels
- Parcel Boundaries



6. Complete the Table on Page 6 of this Form for each hazardous substance which has migrated, or is likely to have migrated, beyond the property boundary at a concentration that exceeds a Generic Residential Cleanup Criterion developed by the DEQ pursuant to MCL 324.20120a(1). Complete and attach additional copies of Page 6, if necessary, to list all hazardous substances that must be reported. Include a scaled map or drawing that shows the location of sampling points identified on the Table on Page 6, the property boundaries, and the adjacent property owners if providing notice pursuant to R 299.1017(1) or all impacted property owners if providing notice pursuant to MCL 324.20114(1).
7. Provide a summary of the information which shows that contamination is emanating from, or has emanated from, and is present beyond the boundary of the source property at a concentration which exceeds the generic residential criteria developed by the DEQ pursuant to MCL 324.20120a(1)(a). This summary shall identify the environmental media affected, specific hazardous substances, and the concentrations of those hazardous substances in all affected environmental media at the property boundary and in any sample locations beyond the property boundary. The summary shall also describe the basis for the conclusion that the contamination is emanating, has emanated, or is present beyond the boundary of the source property, including whether the conclusion is based on groundwater analytical data or fate and transport modeling, both, or neither.

8. If the person making this notice has reason to believe that a migrating hazardous substance has affected, or is likely to affect, a private or public water supply, then that water supply must be identified here:

NA

- |   | YES                                 | NO                                  |
|---|-------------------------------------|-------------------------------------|
| 9. Is this notice being submitted within the timeframes established under R 299.51017 and/or MCL 324.20114(1), as applicable? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 10. Is this notice in addition to a notice that was submitted prior to <i>December 21, 2002</i> ? (R 299.51017(4)(c))         | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 11. Is this notice related to an oil and gas well permit (R 299.51017(2))?<br>Permit #:                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12. Is this notice related to an easement (R 299.51017(3))?<br>(NOTE: All easement grantors <i>must</i> receive this notice.) | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 13. Has surface water been affected (R 299.51017(1))?<br>(If yes, please identify the affected surface water body.)           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**CERTIFICATION:**

*With my signature below, I certify that I am the owner of the facility or that I am legally authorized to execute this notice on behalf of the owner or operator named on this form, and that to the best of my knowledge and belief the above representations are complete and accurate. I understand that intentionally submitting false information to the DEQ is a felony and may result in fines up to \$25,000 for each violation.*

Signature Walter J. Bolt  
(Owner or person legally authorized to bind the person making this report)

Date 5/23/2017

Name (Typed or Printed) Walter J. Bolt

Title (Typed or Printed) Project Manager, Environmental Owners Representative Consultant, Gordie Howe International Bridge Project



See Item 6 on Page 5 of this Form for instructions to be used in completing this table. Attach additional pages if necessary. The information to be included in each column of the table is:

- Column A Name of hazardous substance.
- Column B Chemical Abstract Service (CAS) Number for the hazardous substance.
- Column C Maximum hazardous substance concentration measured on the property, expressed in parts per billion (e.g., ug/L or ug/Kg). Report maximum concentration separately for each environmental medium.
- Column D Sample location for Column C (relate to label on map).
- Column E Environmental medium in which concentration reported in Column C was measured (e.g., soil or groundwater).
- Column F Distance from point of maximum measured concentration (Column D) to property boundary, in direction of contaminant migration, if direction is known or can reasonably be inferred. If direction is unknown, list distance to nearest property boundary.
- Column G Direction of contaminant migration, if known.
- Column H Concentration closest to property boundary, if known. If a concentration lower than the maximum concentration reported in Column C has been measured at a point closer to the property boundary in the direction of contaminant migration, use Column I to list the concentration that was measured closest to the property boundary in the direction of contaminant migration.
- Column I Sample location for Column H (relate to label on map).
- Column J Environmental medium for measurement reported in Column H, if applicable.

**PLEASE SEE ATTACHED TABLE 1**

A Hazardous Substance	B CAS Number	C Maximum Concentration	D Sample Location for "C"	E Environmental Medium for "C"	F Distance to Property Boundary	G Direction of Migration	H Boundary Concentration	I Sample Location for "H"	J Environmental Medium for "H"

Total Number Samples Collected: \_\_\_\_\_ Total Number of Samples Exceeding Criteria: \_\_\_\_\_

**A scaled map or drawing showing these locations and the property boundaries must be submitted with this Notice  
PLEASE SEE ATTACHED FIGURE 2**

TABLE 1

## DEQ NOTICE OF MIGRATION ATTACHMENT

A	B	C	D	E	F	G*	H	I	J
Hazardous Substance	CAS Number	Maximum Concentration	Sample Location for "C"	Environmental Medium for "C"	Distance to Property Boundary	Direction of Migration	Boundary Concentration	Sample Location for "H"	Environmental Medium for "H"
Benzene	71-43-20	20,000	5043_SB-04_14-16_S_PM_20160616	Soil	15'	Unknown	-	-	-
Chlorobenzene	108-90-7	1,300	5044_SB-02_10-12_S_PM_20160616	Soil	5'	Unknown	-	-	-
1,2-Dichlorobenzene	95-50-1	5,300	5043_SB-04_14-16_S_PM_20160616	Soil	15'	Unknown	-	-	-
1,4-Dichlorobenzene	106-46-7	7,700	5043_SB-04_14-16_S_PM_20160616	Soil	15'	Unknown	-	-	-
1,2-Dichloroethane	107-06-2	330	5043_SB-04_14-16_S_PM_20160616	Soil	15'	Unknown	-	-	-
Ethylbenzene	100-41-4	930	5043_SB-04_14-16_S_PM_20160616	Soil	15'	Unknown	-	-	-
Toluene	108-88-3	38,000	5043_SB-04_14-16_S_PM_20160616	Soil	15'	Unknown	-	-	-
Xylenes (Total)	1330-20-7	75,000	5043_SB-04_14-16_S_PM_20160616	Soil	15'	Unknown	-	-	-
Benzo(a)anthracene	56-55-3	6,400	5043_SB-01_0-2_S_PM_20160616	Soil	0'	Unknown	-	-	-
Fluoranthene	206-44-0	17,000	5043_SB-01_0-2_S_PM_20160616	Soil	0'	Unknown	-	-	-
Phenanthrene	85-01-8	12,000	5043_SB-01_0-2_S_PM_20160616	Soil	0'	Unknown	-	-	-
Arsenic	7440-38-2	37,000	5044_SB-02_10-12_S_PM_20160616	Soil	5'	Unknown	-	-	-
Chromium (Total)	7440-47-3	390,000	5043_SB-04_0-2_S_PM_20160616	Soil	15'	Unknown	-	-	-
Copper	7440-50-8	340,000	5043_SB-02_0-2_S_PM_20160616	Soil	10'	Unknown	-	-	-
Mercury	7439-97-6	1,400	5043_SB-02_0-2_S_PM_20160616	Soil	10'	Unknown	-	-	-
Selenium	7782-49-2	1,000	5043_SB-04_0-2_S_PM_20160616	Soil	15'	Unknown	-	-	-
Zinc	7440-66-6	420,000	5043_SB-04_0-2_S_PM_20160616	Soil	15'	Unknown	-	-	-

Total Number of Samples Collected: 26

Total Number of Samples Exceeding Criteria: 15



**Estimated extent of soil impact greater than the Part 201 Residential GCC**

708 SOUTH WATERMAN STREET (MDOT PARCEL 5045)

GARAGE (FULL OF TIRES/DEBRIS)

Estimated extent of potentially hazardous soil based on a total constituents analysis in lieu of TCLP analysis for benzene

6728 WEST JEFFERSON AVENUE (MDOT PARCEL 5042)

DEBRIS PILE

6701 WEST JEFFERSON AVENUE DETROIT EDISON CO.

5043_SB-02	5043_SB-02	5043_SB-02
6/16/2016	6/16/2016	6/16/2016
0.0 - 2.0'	13.0 - 15.0'	17.0 - 19.0'
Chl	350	ACETONE 1,800
CYCLOHEXANE	92	B 4,100
1,2-DCA	120	MIBK 170
2-HEXANONE	66	OTHER VOCs <MDL
METHYL ACETATE	760	ANT 17
MCYHA	350	B(a)ANTH 65
PCE	52	B(a)PYR 110
OTHER VOCs	<MDL	B(b)FLA 120
ACE	150	B(k)FLA 31
ACETHY	85	B(g,h,i)PER 67
ANT	400	CHRYSENE 39
B(a)ANTH	1,100	FL 100
B(a)PYR	1,000	I(1,2,3-CD)PY 110
B(b)FLA	1,300	Ph 61
B(k)FLA	510	Py 70
B(g,h,i)PER	650	2-M 18
CHRYSENE	1,100	OTHER PNAAs <MDL
DI(A,H)ANT	200	PCBs <MDL
FL	2,400	As 8,000
F	150	Ba 77,000
I(1,2,3-CD)PY	810	Cr 16,000
NAPH	81	Cu 21,000
Ph	1,500	Pb (TOTAL) 10,000
Py	1,900	Zn 65,000
2-M	83	OTHER METALS <MDL
OTHER PNAAs	<MDL	
PCBs	<MDL	
As	18,000	
Ba	90,000	
Cd	1,500	
Cr	23,000	
Cu	340,000	
Pb (COARSE)	140,000	
Pb (FINE)	240,000	
Pb (TOTAL)	79,000	
Hg	1,400	
Ag	260	
Zn	390,000	
OTHER METALS	<MDL	
ASBESTOS	ND	

5043_SB-01	5043_SB-01	5043_SB-01
6/16/2016	6/16/2016	6/16/2016
0.0 - 2.0'	13.0 - 15.0'	18.0 - 20.0'
ACETONE	520	B 2,200
MEK	290	CHLOROB 59
Chl	420	1,2-DCA 98
CYCLOHEXANE	630	T 230
E	120	X 810
2-HEXANONE	260	OTHER VOCs <MDL
ISOP	66	FL 31
METHYL ACETATE	260	OTHER PNAAs <MDL
MCYHA	1,900	PCBs <MDL
T	800	As 7,500
X	1,400	Ba 90,000
OTHER VOCs	<MDL	Cr 20,000
ACE	1,000	Cu 22,000
ACETHY	720	Pb (TOTAL) 12,000
ANT	3,600	Hg 16
B(a)ANTH	7,100	Zn 68,000
B(a)PYR	6,400	OTHER METALS <MDL
B(b)FLA	7,900	
B(k)FLA	2,700	
B(g,h,i)PER	3,500	
CHRYSENE	6,200	
DI(A,H)ANT	870	
FL	17,000	
F	1,600	
I(1,2,3-CD)PY	4,100	
NAPH	690	
Ph	12,000	
Py	16,000	
2-M	460	
OTHER PNAAs	<MDL	
PCBs	<MDL	
As	4,100	
Ba	32,000	
Cr	12,000	
Cu	34,000	
Pb (COARSE)	49,000	
Pb (FINE)	70,000	
Pb (TOTAL)	20,000	
Hg	140	
Zn	73,000	
OTHER METALS	<MDL	
ASBESTOS	ND	

5043_SB-03	5043_SB-03	5043_SB-03
6/16/2016	6/16/2016	6/16/2016
0.0 - 2.0'	11.0 - 13.0'	18.0 - 20.0'
VOCs	<MDL	ACETONE 3,900
ACE	450	B 7,100
ACETHY	48	CARBON DISF 2,000
ANT	1,100	CHLOROB 900
B(a)ANTH	1,800	Chl 310
B(a)PYR	1,500	CYCLOHEXANE 1,900
B(b)FLA	2,000	1,2-DCB 3,700
B(k)FLA	760	1,4-DCB 4,900
B(g,h,i)PER	990	E 280
CHRYSENE	1,800	METHYL ACETATE 7,400
DI(A,H)ANT	280	MCYHA 1,700
FL	4,000	T 34,000
F	520	1,2,4-TMB 1,300
I(1,2,3-CD)PY	1,200	X 47,000
NAPH	250	OTHER VOCs <MDL
Ph	3,900	NAPH 67
Py	3,500	2-M 96
2-M	140	OTHER PNAAs <MDL
OTHER PNAAs	<MDL	PCBs <MDL
PCBs	<MDL	As 20,000
As	9,500	Ba 110,000
Ba	24,000	Cd 280
Cd	410	Cr 26,000
Cr	12,000	Cu 28,000
Cu	39,000	Pb (TOTAL) 18,000
Pb (COARSE)	60,000	Hg 210
Pb (FINE)	110,000	Zn 120,000
Pb (TOTAL)	39,000	OTHER METALS <MDL
Hg	1,200	
Zn	97,000	
OTHER METALS	<MDL	
ASBESTOS	ND	

5043_SB-04	5043_DUP01	5043_SB-04	5043_SB-04
6/16/2016	6/16/2016	6/16/2016	6/16/2016
0.0 - 2.0'	0.0 - 2.0'	14.0 - 16.0'	18.0 - 20.0'
Chl	320	B 150	ACETONE 2,200
2-HEXANONE	46	OTHER VOCs <MDL	B 20,000
METHYL ACETATE	1,500	PCBs <MDL	CARBON DISF 4,300
MCYHA	180	PCBs <MDL	CHLOROB 820
OTHER VOCs	<MDL	As 6,600	CYCLOHEXANE 2,500
ACE	250	Ba 75,000	1,2-DCB 5,300
ACETHY	230	Cd 130	1,4-DCB 7,700
ANT	840	Cr 16,000	1,2-DCA 330
B(a)ANTH	2,500	Cu 18,000	E 930
B(a)PYR	2,500	Pb (TOTAL) 9,900	ISOP 360
B(b)FLA	3,200	Hg 14	Zn 59,000
B(k)FLA	1,100	Zn 55,000	METHYL ACETATE 29,000
B(g,h,i)PER	1,600	OTHER METALS <MDL	T 38,000
CHRYSENE	2,300		1,2,4-TMB 3,200
DI(A,H)ANT	800		X 75,000
FL	5,400		OTHER VOCs <MDL
F	300		B(a)ANTH 36
I(1,2,3-CD)PY	2,200		B(a)PYR 81
NAPH	230		B(b)FLA 78
Ph	3,500		B(k)FLA 20
Py	4,400		B(g,h,i)PER 41
2-M	150		I(1,2,3-CD)PY 85
OTHER PNAAs	<MDL		2-M 21
PCBs	<MDL		OTHER PNAAs <MDL
As	23,000		PCBs <MDL
Ba	120,000		As 7,800
Cd	1,800		Ba 100,000
Cr	390,000		Cr 24,000
Cu	140,000		Cu 27,000
Pb (COARSE)	190,000		Pb (TOTAL) 12,000
Pb (FINE)	310,000		Hg 13
Pb (TOTAL)	270,000		Zn 83,000
Hg	560		OTHER METALS <MDL
Se	1,000		
Ag	1,400		
Zn	420,000		
ASBESTOS	ND		

5043_SB-05	5043_SB-05	5043_SB-05
6/16/2016	6/16/2016	6/16/2016
0.0 - 2.0'	9.0 - 11.0'	13.0 - 15.0'
METHYL ACETATE	690	1,2-DCA 48
MCYHA	60	OTHER VOCs <MDL
OTHER VOCs	<MDL	PNAAs <MDL
B(a)ANTH	640	PCBs <MDL
B(a)PYR	1,100	As 5,400
B(b)FLA	1,300	Ba 12,000
B(k)FLA	340	Ba 85,000
B(g,h,i)PER	780	Cr 20,000
CHRYSENE	1,800	Cu 17,000
DI(A,H)ANT	330	Cu 22,000
FL	3,700	Pb (TOTAL) 7,600
F	200	Pb (TOTAL) 11,000
I(1,2,3-CD)PY	1,400	Hg 14
NAPH	130	Zn 83,000
Ph	2,100	Zn 47,000
Py	3,200	OTHER METALS <MDL
2-M	95	
OTHER PNAAs	<MDL	
PCBs	<MDL	
As	12,000	
Ba	86,000	
Cd	700	
Cr	20,000	
Cu	120,000	
Pb (COARSE)	150,000	
Pb (FINE)	310,000	
Pb (TOTAL)	200,000	
Hg	410	
Zn	230,000	
OTHER METALS	<MDL	
ASBESTOS	<MDL	

5044_SB-01	5044_SB-01	5044_SB-01
6/16/2016	6/16/2016	6/16/2016
0.0 - 2.0'	13.0 - 15.0'	18.0 - 20.0'
MCYHA	55	B 140
OTHER VOCs	<MDL	OTHER VOCs <MDL
ACE	100	FL 16
ACETHY	68	Ph 12
ANT	330	Py 10
B(a)ANTH	1,200	OTHER PNAAs <MDL
B(a)PYR	1,100	PCBs <MDL
B(b)FLA	1,500	As 9,800
B(k)FLA	530	Ba 10,000
B(g,h,i)PER	790	Ba 190,000
CHRYSENE	1,200	Cr 18,000
DI(A,H)ANT	200	Cu 22,000
FL	2,400	Cu 23,000
F	99	Pb (TOTAL) 11,000
I(1,2,3-CD)PY	930	Hg 15
NAPH	43	Se 900
Ph	1,200	Zn 61,000
Py	2,000	OTHER METALS <MDL
2-M	45	
OTHER PNAAs	<MDL	
PCBs	<MDL	
As	8,100	
Ba	92,000	
Cd	520	
Cr	16,000	
Cu	50,000	
Pb (COARSE)	150,000	
Pb (FINE)	180,000	
Pb (TOTAL)	160,000	
Hg	190	
Ag	93	
Zn	170,000	
OTHER METALS	<MDL	

5044_SB-02	5044_SB-02	5044_SB-02
6/16/2016	6/16/2016	6/16/2016
0.0 - 2.0'	10.0 - 12.0'	18.0 - 20.0'
VOCs	<MDL	B 3,300
ACE	53	CHLOROB 1,300
ACETHY	31	E 100
ANT	140	MCYHA 140
B(a)ANTH	490	T 190
B(a)PYR	540	X 1,500
B(b)FLA	720	OTHER VOCs <MDL
B(k)FLA	270	FL 19
B(g,h,i)PER	380	Ph 28
CHRYSENE	510	Py 17
DI(A,H)ANT	95	OTHER PNAAs <MDL
FL	1,100	PCBs <MDL
F	50	As 37,000
I(1,2,3-CD)PY	470	Ba 87,000
NAPH	43	Cd 150
Ph	610	Cr 23,000
Py	940	Cu 23,000
2-M	30	Pb (TOTAL) 12,000
OTHER PNAAs	<MDL	Hg 15
PCBs	<MDL	Se 610
As	3,500	Zn 75,000
Ba	35,000	OTHER METALS <MDL
Cr	8,100	
Cu	27,000	
Pb (COARSE)	100,000	
Pb (FINE)	91,000	
Pb (TOTAL)	95,000	
Hg	77	
Zn	66,000	
OTHER METALS	<MDL	

5044_SB-03	5044_SB-03	5044_DUP01	5044_SB-03
6/16/2016	6/16/2016	6/16/2016	6/16/2016
0.0 - 2.0'	10.0 - 12.0'	10.0 - 12.0'	18.0 - 20.0'
VOCs	<MDL	1,2-DCA 210	1,2-DCA 240
ACE	180	OTHER VOCs <MDL	Ph 26
ACETHY	120	NAPH 8.6	Ph 22
ANT	640	Ph 26	OTHER PNAAs <MDL
B(a)ANTH	1,700	2-M 14	PCBs <MDL
B(a)PYR	1,700	OTHER PNAAs <MDL	As 8,800
B(b)FLA	2,200	PCBs <MDL	Ba 39,000
B(k)FLA	830	As 7,400	Cr 17,000
B(g,h,i)PER	1,200	Ba 100,000	Cu 24,000
CHRYSENE	1,800	Cr 21,000	Pb (TOTAL) 14,000
DI(A,H)ANT	330	Cu 26,000	Hg 15
FL	3,700	Pb (TOTAL) 13,000	Se 310
F	200	Zn 79,000	Zn 61,000
I(1,2,3-CD)PY	1,400	OTHER METALS <MDL	OTHER METALS <MDL
NAPH	130		
Ph	2,100		
Py	3,200		
2-M	95		
OTHER PNAAs	<MDL		
PCBs	<MDL		
As	12,000		
Ba	86,000		
Cd	700		
Cr	20,000		
Cu	120,000		
Pb (COARSE)	150,000		
Pb (FINE)	310,000		
Pb (TOTAL)	200,000		
Hg	410		
Zn	230,000		
OTHER METALS	<MDL		
ASBESTOS	<MDL		

**LEGEND:**

- SUBJECT PROPERTY
- GAS
- ⊗ PARCEL CORNER
- ESTIMATED EXTENT OF SUBSURFACE IMPACT GREATER THAN THE PART 201 RESIDENTIAL SVII, GCC
- ESTIMATED EXTENT OF SUBSURFACE IMPACT GREATER THAN THE PART 201 RESIDENTIAL DC, GCC
- ESTIMATED EXTENT OF SUBSURFACE IMPACT GREATER THAN THE PART 201 RESIDENTIAL AND NONRESIDENTIAL SVII, AP51, AND RESIDENTIAL VSI, GCC
- SOIL BORING
- ⊕ DEBRIS PILE SAMPLE
- As ARSENIC
- Ba BARIUM
- Cd CADMIUM
- Cr CHROMIUM
- Pb LEAD
- Cu COPPER
- Hg MERCURY
- Se SELENIUM
- Ag SILVER
- Zn ZINC
- ACE ACENAPHTHENE
- ACETHY ACENAPHTHYLENE
- ANT ANTHRACENE
- B(a)ANTH BENZO(a)ANTHRACENE
- B(a)PYR BENZO(a)PYRENE
- B(b)FLA BENZO(b)FLUORANTHENE
- B(g,h,i)PER BENZO(g,h,i)PERYLENE
- B(k)FLA BENZO(k)FLUORANTHENE
- F FLUORENE
- FL FLUORANTHENE
- I(1,2,3-CD)PY INDENO(1,2,3-CD)PYRENE
- 2-M 2-METHYLNAPHTHALENE
- NAPH NAPHTHALENE
- Ph PHENANTHRENE
- Py PYRENE
- DI(A,H)ANT DIBENZO(a,h)ANTHRACENE
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X XYLENES
- MCYHA METHYLCYCLOHEXANE
- 1,2,4-TMB 1,2,4-TRIMETHYLBENZENE
- 1,2-DCA 1,2-DICHLOROETHANE
- Chl CHLOROFORM
- ISOP ISOPROPYLBENZENE
- PCE TETRACHLOROETHENE
- CARBON DISF CARBON DISULFIDE
- 1,2-DCB 1,4-DICHLOROBENZENE
- 1,4-DCB 1,4-DICHLOROBENZENE
- MIBK 1-METHYL-2-PENTANONE
- MEK 2-BUTANONE (MEK)
- VOCs VOLATILE ORGANIC COMPOUNDS
- PNAAs POLYNUCLEAR AROMATIC COMPOUNDS
- PCBs POLYCHLORINATED BIPHENYLS
- MDL METHOD DETECTION LIMIT
- UNITS µg/Kg (UNLESS NOTED)
- VALUE EXCEEDS APPLICABLE CRITERIA

NOTES: REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED

**PM Environmental & Engineering Services**

**FIGURE 2**  
SOIL BORING / DEBRIS PILE SAMPLE LOCATION MAP WITH SOIL ANALYTICAL RESULTS

PROJ: PARCEL NO. 5043 AND NO. 5044  
6700, 6710, AND 6720 WEST JEFFERSON AVENUE  
DETROIT,