



November 6, 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 201, 211 S. Post Street, Detroit, MI, Tax IDs 18008644.001 & 18008644.002L (MDOT Parcels 5409 & 5446)
Potentially toward S. Post Street right-of-way to the west
Notification No. 5409.5446-ROW

To whom it may concern:

The Mannik Smith Group, Inc. ("MSG"), on behalf of the Michigan Department of Transportation ("MDOT"), has directed or conducted underground environmental testing at 201, 211 S. Post Street, Detroit, Michigan ("the Site") in relation to the Gordie Howe International Bridge project underway in the vicinity of the right-of-way 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 6025 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
Paul Max – General Manager, Environmental Affairs, City of Detroit BSEED
Anita Harrington – Environmental Specialist II, City of Detroit BSEED

TECHNICAL SKILL.
CREATIVE SPIRIT.

5409.5446.Notice Cover Letter.DetroitDPW.docx

2365 Haggerty Road South, Canton, Michigan 48188 Tel: 734.397.3100 Fax: 734.397.3131 www.MannikSmithGroup.com

RECEIVED NOV 14 2017

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/degducare, 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/degducare.

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: Name: MI Dept. of Transportation (MDOT) Parcels 5409 & 5446 Address: 201 & 211 S. Post Street Location: Michigan City/County: Detroit / Wayne Property Tax Identification Number, or if applicable, the ward and item number: 18008644.001 & 18008644.002L	2. Status relative to the property: (Check one or both, as applicable.) Owner <input checked="" type="checkbox"/> Operator <input type="checkbox"/>
Latitude (decimal degrees): 42.300737 °N Longitude (decimal degrees): -83.108825 °W	
Reference Point for Latitude and Longitude: Center of Site: <input checked="" type="checkbox"/> Main/front door: <input type="checkbox"/> Front gate/main entrance: <input type="checkbox"/> Other: <input type="checkbox"/>	
Collection Method: Survey: <input type="checkbox"/> Interpolation: <input type="checkbox"/> GPS: <input checked="" type="checkbox"/>	



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 5409 & 5446; 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. 6025

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: 245 S. Post Street
City/State: Detroit, MI
Property Tax ID number: 18008643
Other: MDOT Parcel 5722
Notified? No Yes Date: November 6, 2017

Address: 157 S. Post Street
City/State: Detroit, MI
Property Tax ID number: 18008645-68
Other: MDOT Parcel 5445
Notified? No Yes Date: November 6, 2017

Address: 6952 W. Jefferson Ave.
City/State: Detroit, MI
Property Tax ID number: 18000107
Other: Current owner: DTE Electric Company
Notified? No Yes Date: November 6, 2017

Address: 6952 W. Jefferson Ave.
City/State: Detroit, MI
Property Tax ID number: 18000107
Other: Potential easement holder: Consolidated Rail Company (Conrail)
Notified? No Yes Date: November 6, 2017

Address: 6952 W. Jefferson Ave.
City/State: Detroit, MI
Property Tax ID number: 18000107
Other: Potential easement holder: International Transmission Company (ITC)
Notified? No Yes Date: November 6, 2017



Address: Unknown – an approximately 50' wide strip of land north of 201 S. Post St./18008644.001; east of 157 S. Post St./18008645-68; south of active Norfolk Southern railroad tracks
City/State: Detroit, MI
Property Tax ID number: Unavailable
Other: Suspected owner: Conrail

Notified? No Yes Date: November 6, 2017

Address: 2 Woodward Avenue, Ste. 611
City/State: Detroit, MI, 48226
Property Tax ID number: NA
Other: City of Detroit (S. Post Street adjacent to 201 & 211 S. Post St./18008644.001 & 18008644.002L)

Notified? No Yes Date: November 6, 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: November 6, 2017

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

Notified? No Yes Date: November 6, 2017

Address: 27175 Energy Way
City/State: Novi, MI, 48377
Property Tax ID number: NA
Other: ITC (utility holder)

Notified? No Yes Date: November 6, 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: November 6, 2017

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

Notified? No Yes Date: November 6, 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: November 6, 2017

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

MAP OF PROPERTY TAX ID NUMBERS



Date Saved: 1/18/2017 4:49:56 PM
Path: S:\Projects\Project K-OMDO\T0070\ENG\APPS\GIS\Map_Files\Notification Maps\5409_5446_Offsite_Property_Tax_ID.mxd



5409 & 5446

Adjacent MDOT Parcels



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 December 21, 2002? (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))? Permit #: | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 12. Is this notice related to an easement (R 299.51017(3))? (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))? (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 Date 1/6/2017
(Owner or person legally authorized to bind the person making this report)

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 FIGURES 2, 3, & 4

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	71-43-2	1,200	5409_SB-06_0-2_S_SOM_20160721	Soil	55 feet	Unknown	-	-	-
Ethylbenzene	100-41-4	8,500	5409_SB-06_0-2_S_SOM_20160721	Soil	55 feet	Unknown	-	-	-
Toluene	108-88-3	5,500	5409_SB-06_0-2_S_SOM_20160721	Soil	55 feet	Unknown	-	-	-
Xylenes, total	1330-20-7	52,000	5409_SB-06_0-2_S_SOM_20160721	Soil	55 feet	Unknown	-	-	-
Benzo(a)pyrene	50-32-8	5,500	5409_SB-04_0-2_S_SOM_20160721	Soil	55 feet	Unknown	-	-	-
Fluoranthene	206-44-0	11,000	5446_SB-08_0-2_S_SOM_20160721	Soil	10 feet	Unknown	-	-	-
2-Methylnaphthalene	91-57-6	4,700	5409_SB-05_0-2_S_SOM_20160721	Soil	45 feet	Unknown	-	-	-
Naphthalene	91-20-3	3,200	5409_SB-05_0-2_S_SOM_20160721	Soil	45 feet	Unknown	-	-	-
Phenanthrene	85-01-8	8,200	5446_SB-08_0-2_S_SOM_20160721	Soil	10 feet	Unknown	-	-	-
Arsenic	7440-38-2	47,000	5409_SB-06_0-2_S_SOM_20160721	Soil	55 feet	Unknown	-	-	-
Barium	7440-39-3	840,000	5409_SB-07_0-2_S_SOM_20160721	Soil	50 feet	Unknown	-	-	-
Cadmium	7440-43-9	31,000	5409_SB-07_0-2_S_SOM_20160721	Soil	50 feet	Unknown	-	-	-
Copper	7440-50-8	21,000,000	5409_SB-06_0-2_S_SOM_20160721	Soil	55 feet	Unknown	-	-	-
Lead, total (calculated)	7439-92-1	2,700,000	5409_SB-05_0-2_S_SOM_20160721	Soil	45 feet	Unknown	-	-	-
Lead, fine fraction	7439-92-1	2,800,000	5409_SB-05_0-2_S_SOM_20160721	Soil	45 feet	Unknown	-	-	-
Lead, coarse fraction	7439-92-1	2,600,000	5409_SB-06_0-2_S_SOM_20160721	Soil	55 feet	Unknown	-	-	-
Mercury	7439-97-6	1,700	5409_SB-04_0-2_S_SOM_20160721	Soil	55 feet	Unknown	-	-	-
Selenium	7782-49-2	9,000	5409_SB-04_0-2_S_SOM_20160721	Soil	55 feet	Unknown	-	-	-
Silver	7440-22-4	63,000	5409_SB-07_0-2_S_SOM_20160721	Soil	50 feet	Unknown	-	-	-
Zinc	7440-66-6	9,900,000	5409_SB-07_0-2_S_SOM_20160721	Soil	50 feet	Unknown	-	-	-
Cyanide, total	57-12-5	1,800	5409_SB-04_0-2_S_SOM_20160721	Soil	55 feet	Unknown	-	-	-
Total PCBs	1336-36-3	10,200	5409_SB-05_0-2_S_SOM_20160721	Soil	45 feet	Unknown	-	-	-
Asbestos	1332-21-4	>1%, ≤3% (>10,000,000 ppb, ≤30,000,000 ppb)	5409_SB-02_0-2_S_SOM_20160721	Soil	55 feet	Unknown	-	-	-
			5409_SB-04_0-2_S_SOM_20160721	Soil	55 feet	Unknown	-	-	-
			5409_SB-06_0-2_S_SOM_20160721	Soil	55 feet	Unknown	-	-	-
Cyanide, amenable	57-12-5	110	5409_DUP-01_GW_SOM_20160721*	Groundwater	15 feet	Unknown	-	-	-
Benzo(a)pyrene	50-32-8	7,200	5409_DP-01_0-2_S_SOM_20160722	Debris pile	60 feet	Unknown	-	-	-
Fluoranthene	206-44-0	10,000	5409_DP-01_0-2_S_SOM_20160722	Debris pile	60 feet	Unknown	-	-	-
Phenanthrene	85-01-8	3,800	5409_DP-01_0-2_S_SOM_20160722	Debris pile	60 feet	Unknown	-	-	-
Arsenic	7440-38-2	37,000	5409_DP-01_0-2_S_SOM_20160722	Debris pile	60 feet	Unknown	-	-	-
Barium	7440-39-3	1,200,000	5409_DUP-01_S_SOM_20160722**	Debris pile	60 feet	Unknown	-	-	-
Cadmium	7440-43-9	66,000	5409_DUP-01_S_SOM_20160722**	Debris pile	60 feet	Unknown	-	-	-
Chromium, total	7440-47-3	260,000	5409_DUP-01_S_SOM_20160722**	Debris pile	60 feet	Unknown	-	-	-
Copper	7440-50-8	32,000,000	5409_DP-01_0-2_S_SOM_20160722	Debris pile	60 feet	Unknown	-	-	-
Lead, total (calculated)	7439-92-1	3,100,000	5409_DP-01_0-2_S_SOM_20160722	Debris pile	60 feet	Unknown	-	-	-
Lead, fine fraction	7439-92-1	4,400,000	5409_DP-01_0-2_S_SOM_20160722	Debris pile	60 feet	Unknown	-	-	-
Lead, coarse fraction	7439-92-1	2,500,000	5409_DP-01_0-2_S_SOM_20160722	Debris pile	60 feet	Unknown	-	-	-
Mercury	7439-97-6	10,000	5409_DUP-01_S_SOM_20160722**	Debris pile	60 feet	Unknown	-	-	-
Selenium	7782-49-2	31,000	5409_DP-01_0-2_S_SOM_20160722	Debris pile	60 feet	Unknown	-	-	-
Silver	7440-22-4	5,100	5409_DUP-01_S_SOM_20160722**	Debris pile	60 feet	Unknown	-	-	-
Zinc	7440-66-6	5,400,000	5409_DP-01_0-2_S_SOM_20160722	Debris pile	60 feet	Unknown	-	-	-
			5409_DUP-01_S_SOM_20160722**	Debris pile	60 feet	Unknown	-	-	-
Asbestos	1332-21-4	>1%, ≤3% (>10,000,000 ppb, ≤30,000,000 ppb)	5409_DP-01_0-2_S_SOM_20160722	Debris pile	60 feet	Unknown	-	-	-
			5409_DUP-01_S_SOM_20160722**	Debris pile	60 feet	Unknown	-	-	-

Total Number of Samples Collected: 19 soil, 2 groundwater, 2 debris pile

Total Number of Samples Exceeding Criteria: 9 soil, 2 groundwater, 2 debris pile

Footnotes:

* Duplicate sample corresponding to 5409_SB-03_5-10_GW_SOM_20160721

** Duplicate sample corresponding to 5409_DP-01_0-2_S_SOM_20160722

LEGEND

- SITE
- BORING LOCATION
- GPS LOCATION OF SOIL AND DEBRIS PILE CENTER
- ESTIMATED AREA OF IMPACT BY VOCs
- ESTIMATED AREA OF IMPACT BY PNAs
- ESTIMATED AREA OF IMPACT BY METALS AND CN
- ESTIMATED AREA OF IMPACT BY ASBESTOS

ABBREVIATIONS	
Arsenic	As
Barium	Ba
Cadmium	Cd
Copper	Cu
Lead (coarse fraction)	Pb, Coarse
Lead (fine fraction)	Pb, Fine
Lead (total - calculated)	Pb, Tot (Calc)
Mercury	Hg
Selenium	Se
Silver	Ag
Zinc	Zn
Cyanide, Total	CN, Tot

ACRONYMS	
DC	Direct Contact Criteria
DWP	Drinking Water Protection Criteria
GSIP	Groundwater Surface Water Interface Protection Criteria
ND	Not Detected
NE	No Exceedance
NT	Not Tested
PCB	Polychlorinated Biphenyl
PNA	Polynuclear Aromatic
PSIC	Particulate Soil Inhalation Criteria
VOC	Volatile Organic Compound

- NOTES:**
1. Concentrations are reported in micrograms per kilogram (µg/kg), unless otherwise indicated.
 2. Estimated depth of impact is shown in feet below grade surface (e.g. 2').
 3. Dotted lines differentiate varying depths of impact.
 4. Refer to Table 1 of the PSI Report for a detailed summary of analytical data compared to residential GCC.
 5. All samples were analyzed for VOCs, PNAs, MI-10 metals, and hexavalent chromium. Hexavalent chromium was not detected.
 6. All shallow samples were analyzed for asbestos.
 7. Select samples were analyzed for PCBs and total cyanide.

LOCATION ID	5409_SB-01	5409_SB-01
DEPTH (FT)	10-12	10-12
SAMPLE DATE	7/21/2016	7/21/2016
VOCs	NE	GSIP
Metals	-	-
Cu	79,000 GSIP	NE
Se	ND	<1,100 GSIP
Zn	140,000 GSIP	NE

LOCATION ID	5409_SB-02	5409_SB-02
DEPTH (FT)	0-2	7-9
SAMPLE DATE	7/21/2016	7/21/2016
PNAs	GSIP	NE
Metals	-	-
Cd	3,500 GSIP	NE
Cu	230,000 GSIP	NE
Pb, Coarse	560,000 DC	NE
Pb, Fine	530,000 DC	NE
Se	<2,600 GSIP	<1,100 GSIP
Zn	2,300,000 GSIP	NE
Asbestos	>1 ≤ 3% PSIC	NT

LOCATION ID	5409_SB-03	5409_SB-03	5409_SB-03 (DUP)
DEPTH (FT)	0-2	8-10	8-10
SAMPLE DATE	7/21/2016	7/21/2016	7/21/2016
Metals	-	-	-
Se	NE	<1,400 GSIP	<1,200 GSIP
Zn	230,000 GSIP	NE	NE
Inorganics	-	-	-
CN, Tot	640 GSIP	NE	NE

LOCATION ID	5409_SB-04
DEPTH (FT)	0-2
SAMPLE DATE	7/21/2016
VOCs	DWP, GSIP
PNAs	DC, GSIP
Metals	-
As	39,000 GSIP, DWP, DC
Ba	700,000 GSIP
Cd	24,000 GSIP, DWP
Cu	1,600,000 GSIP
Pb, Coarse	1,600,000 DC
Pb, Fine	1,300,000 DC
Pb, Tot (Calc)	1,500,000 DWP
Hg	1,700 GSIP
Se	9,000 GSIP, DWP
Ag	2,000 GSIP
Zn	4,100,000 GSIP, DWP
Inorganics	-
CN, Tot	1,800 GSIP
Asbestos	>1 ≤ 3% PSIC

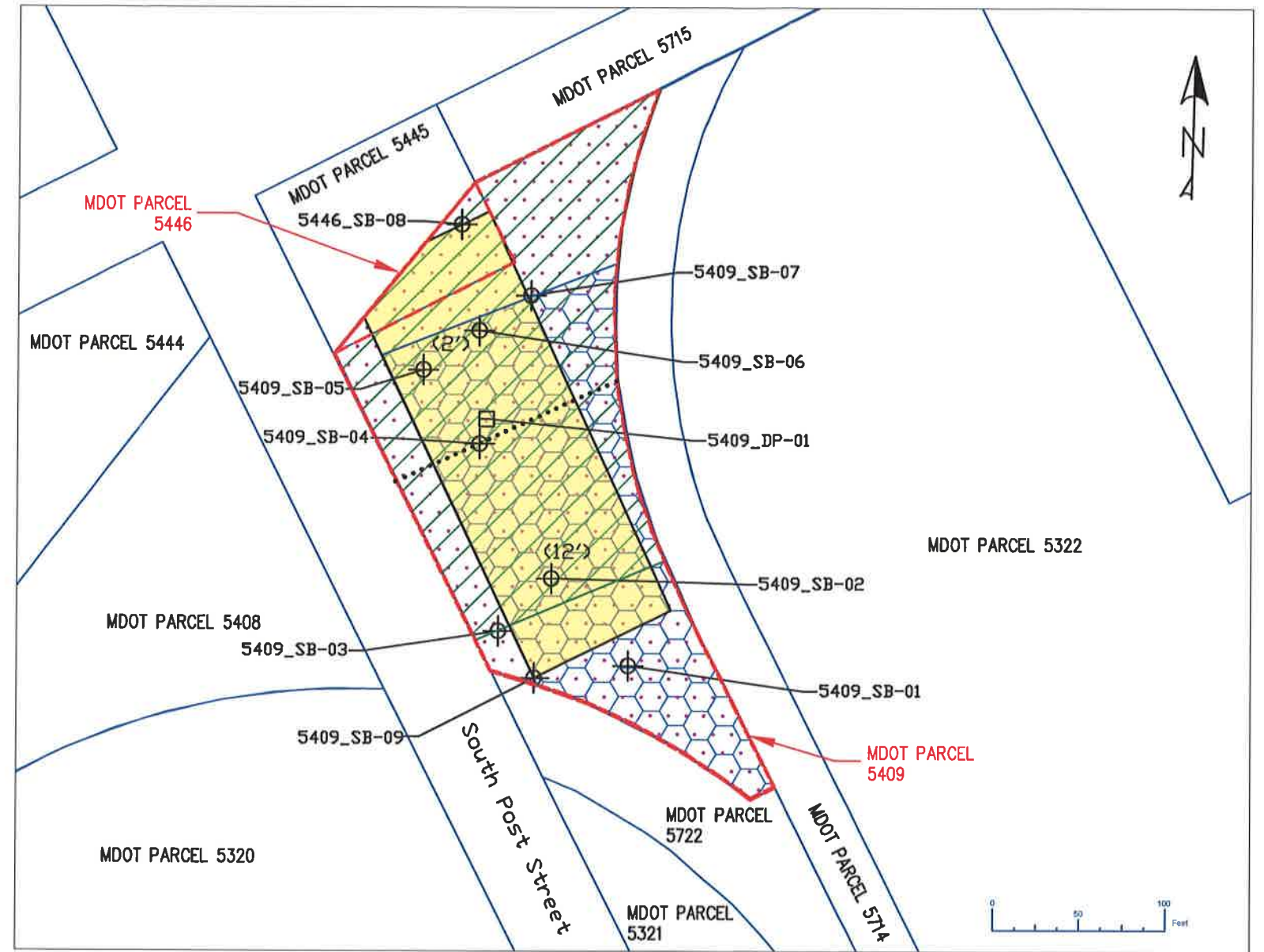
LOCATION ID	5409_SB-05
DEPTH (FT)	0-2
SAMPLE DATE	7/21/2016
PNAs	DC, GSIP
PCBs, Tot	10,000 DC
Metals	-
As	35,000 GSIP, DWP, DC
Ba	580,000 GSIP
Cd	21,000 GSIP, DWP
Cu	3,600,000 GSIP
Pb, Coarse	2,600,000 DC
Pb, Fine	2,800,000 DC
Pb, Tot (Calc)	2,700,000 GSIP, DWP
Hg	1,500 GSIP
Se	2,700 GSIP
Ag	2,900 GSIP
Zn	2,700,000 GSIP, DWP
Inorganics	-
CN, Tot	520 GSIP

LOCATION ID	5409_SB-06
DEPTH (FT)	0-2
SAMPLE DATE	7/21/2016
VOCs	GSIP, DWP
PNAs	DC, GSIP
Metals	-
As	47,000 GSIP, DWP, DC
Ba	710,000 GSIP
Cd	29,000 GSIP, DWP
Cu	21,000,000 GSIP, DWP, DC
Pb, Coarse	1,800,000 DC
Pb, Fine	2,800,000 DC
Pb, Tot (Calc)	2,200,000 DWP
Hg	980 GSIP
Se	2,900 GSIP
Ag	5,100 GSIP, DWP
Zn	4,300,000 GSIP, DWP
Asbestos	>1 ≤ 3% PSIC

LOCATION ID	5409_SB-07
DEPTH (FT)	0-2
SAMPLE DATE	7/21/2016
PNAs	DC, GSIP
Metals	-
As	26,000 GSIP, DWP, DC
Ba	840,000 GSIP
Cd	31,000 GSIP, DWP
Cu	5,700,000 GSIP
Pb, Coarse	1,500,000 DC
Pb, Fine	1,300,000 DC
Pb, Tot (Calc)	1,400,000 DWP
Se	<2,500 GSIP
Ag	63,000 GSIP, DWP
Zn	9,900,000 GSIP, DWP

LOCATION ID	5446_SB-08
DEPTH (FT)	0-2
SAMPLE DATE	7/21/2016
PNAs	DC, GSIP
Metals	-
As	25,000 GSIP, DWP, DC
Cd	16,000 GSIP, DWP
Cu	300,000 GSIP
Pb, Coarse	1,600,000 DC
Pb, Fine	1,800,000 DC
Pb, Tot (Calc)	1,700,000 DWP
Hg	1,500 GSIP
Se	<2,300 GSIP
Zn	5,900,000 GSIP, DWP
PCBs, Total	1,900 DC

LOCATION ID	5409_SB-09	5409_SB-09
DEPTH (FT)	0-2	7-9
SAMPLE DATE	7/21/2016	7/21/2016
Metals	-	-
Cd	8,100 GSIP, DWP	NE
Cu	96,000 GSIP	NE
Pb, Fine	440,000 DC	NE
Se	NE	1,400 GSIP
Zn	410,000 GSIP	NE
Inorganics	-	-
CN, Tot	1,400 GSIP	NE



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DATE CHECKED:
03/30/2017

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PREPARED FOR:
Mannik Smith GROUP

FIGURE 2
SOIL RESIDENTIAL EXCEEDANCE MAP
PRELIMINARY SITE INVESTIGATION
PLAZA AREA MDOT PARCELS 5409/5446
201 & 221 South Post Street, Detroit MI

LEGEND

SITE

TEMPORARY WELL LOCATION

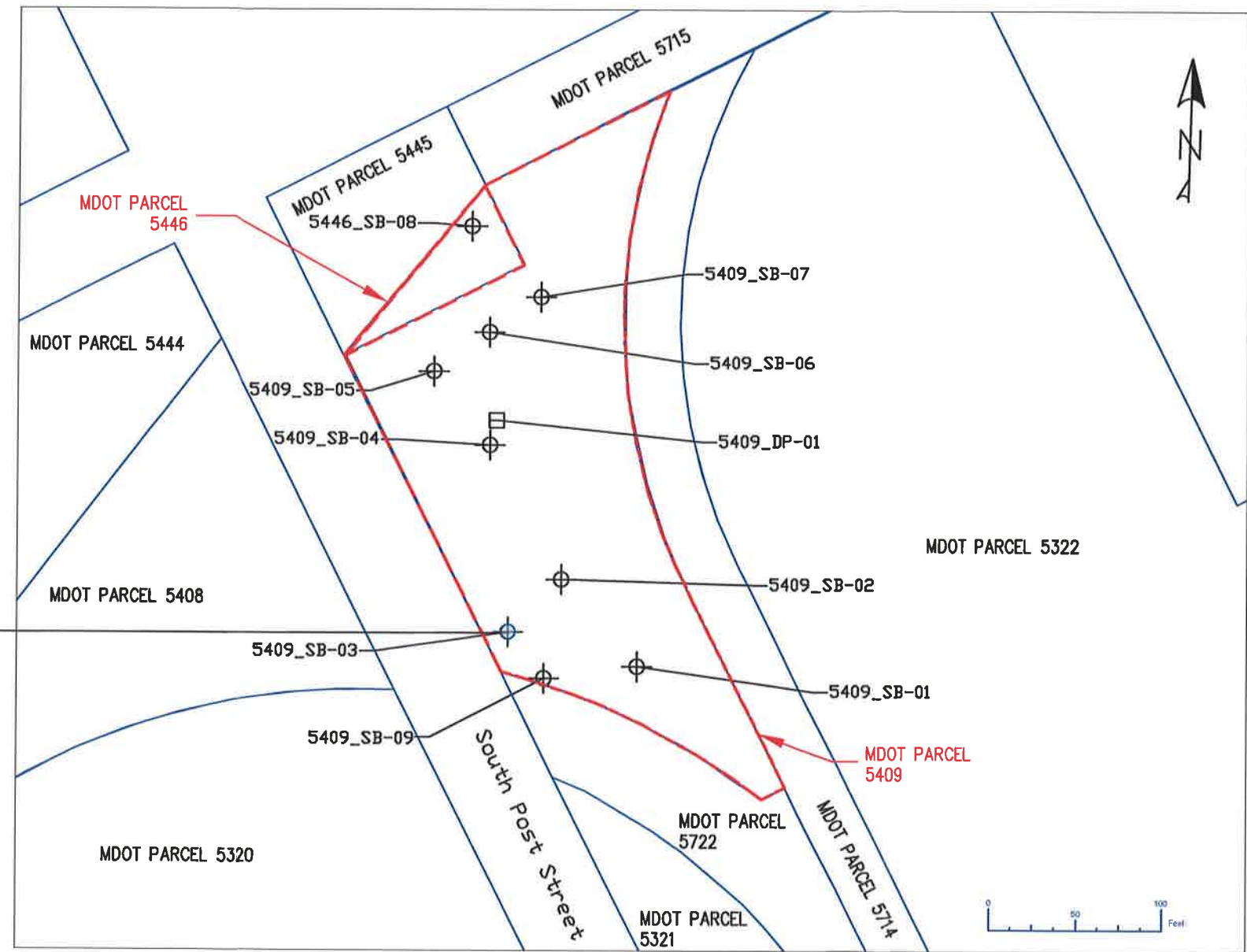
BORING LOCATION

GPS LOCATION OF SOIL AND DEBRIS PILE CENTER

ABBREVIATIONS	
Cyanide, Amenable	CN

ACRONYMS	
GSIC	Groundwater Surface Water Interface Criteria

LOCATION ID	5409_SB-03	5409_SB-03 (DUP)
SCREEN INTERVAL (FT)	5-10	5-10
DATE SAMPLED	7/21/2016	7/21/2016
Inorganic	=	=
CN	100 GSIC	110 GSIC



- NOTES:
1. Concentrations are reported in micrograms per liter (µg/L).
 2. Refer to Table 5 of the PSI Report for a detailed summary of analytical data compared to residential GCC.
 3. All samples were analyzed for VOCs, PNAs, MI-10 metals, PCBs, and amenable cyanide. VOCs, PNAs, and PCBs were not detected. Metals were either not detected or detected at concentrations that do not exceed residential GCC.

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FIGURE 3
GROUNDWATER RESIDENTIAL EXCEEDANCE MAP
PRELIMINARY SITE INVESTIGATION
PLAZA AREA MDOT PARCELS 5409/5446
201 & 221 South Post Street, Detroit MI

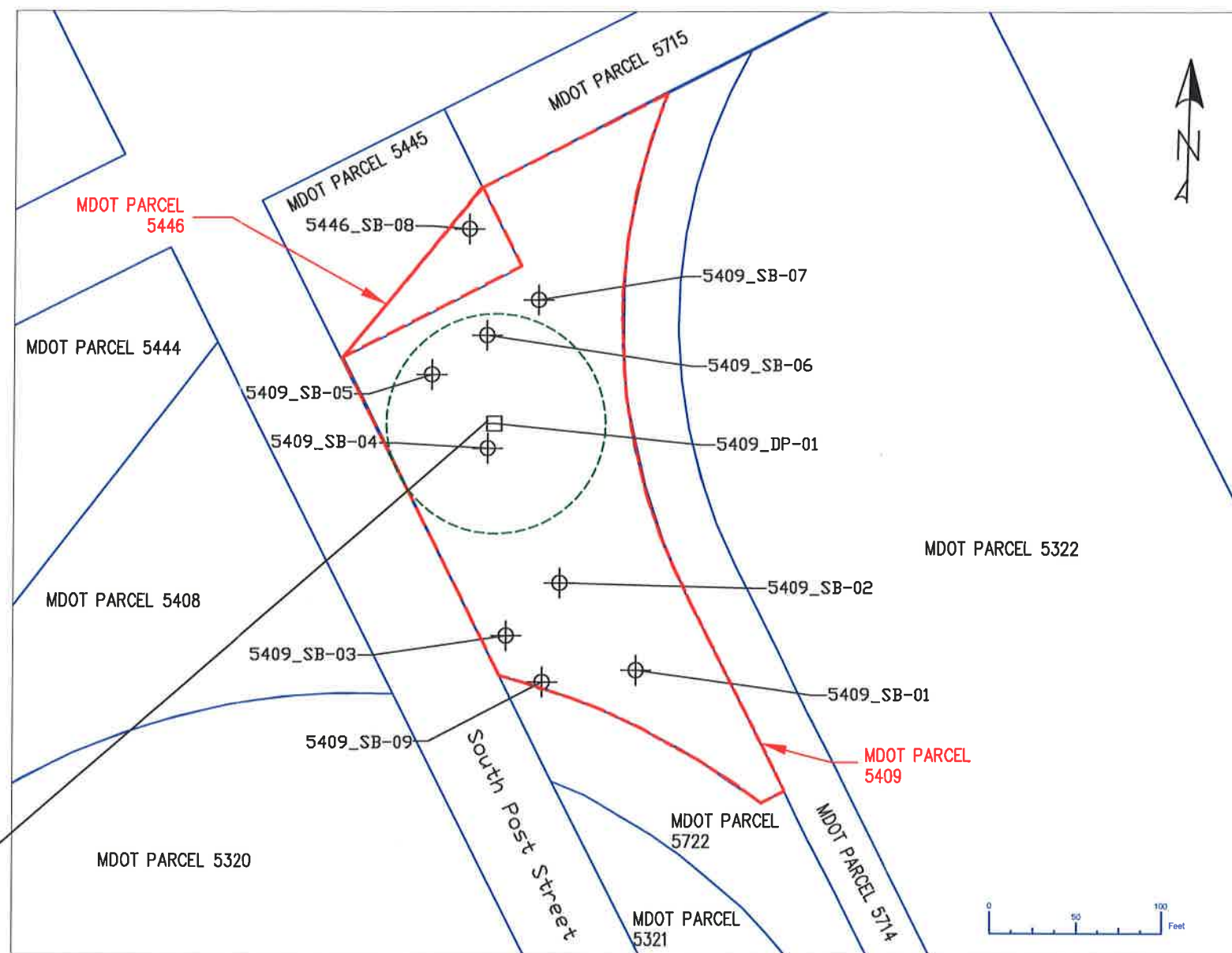
LEGEND

- SITE
- BORING LOCATION
- GPS LOCATION OF SOIL AND DEBRIS PILE CENTER
- APPROXIMATE LIMITS OF 11 SOIL AND DEBRIS PILES CONTAINING SIMILAR COMPOSITION AND EXCEEDING RESIDENTIAL CRITERIA

ABBREVIATIONS	
Arsenic	As
Barium	Ba
Cadmium	Cd
Chromium, Total	Cr, Tot
Copper	Cu
Lead (coarse fraction)	Pb, Coarse
Lead (fine fraction)	Pb, Fine
Lead (total - calculated)	Pb, Tot (Calc)
Mercury	Hg
Selenium	Se
Silver	Ag
Zinc	Zn

ACRONYMS	
DC	Direct Contact Criteria
DWP	Drinking Water Protection Criteria
GSIP	Groundwater Surface Water Interface Protection Criteria
PNA	Polynuclear Aromatic
PSIC	Particulate Soil Inhalation Criteria

LOCATION ID	5409_DP-01	5409_DP-01 (DUP)
DEPTH (FT)	0-2	0-2
DATE SAMPLED	7/22/2016	7/22/2016
PNA	DC, GSIP	DC, GSIP
Metals	-	-
As	37,000 GSIP, DWP, DC	35,000 GSIP, DWP, DC
Ba	1,100,000 GSIP	1,200,000 GSIP
Cr, Tot	250,000 GSIP, DWP	260,000 GSIP, DWP
Cd	50,000 GSIP, DWP	66,000 GSIP, DWP
Cu	32,000,000 GSIP, DWP, DC	4,500,000 GSIP
Pb, Coarse	2,500,000 DC	2,100,000 DC
Pb, Fine	4,400,000 DC	4,000,000 DC
Pb, Tot (Calc)	3,100,000 GSIP, DWP	2,800,000 GSIP, DWP
Hg	9,900 GSIP, DWP	10,000 GSIP, DWP
Se	31,000 GSIP, DWP	3,200 GSIP
Ag	4,200 GSIP	5,100 DWP, GSIP
Zn	5,400,000 GSIP, DWP	5,400,000 GSIP, DWP
Asbestos	>1 ≤ 3% PSIC	>1 ≤ 3% PSIC



- NOTES:
1. Concentrations are reported in micrograms per kilogram (µg/kg), unless otherwise indicated.
 2. Refer to Table 3 of the PSI Report for a detailed summary of analytical data compared to residential GCC.
 3. All samples were analyzed for PNAs, MI-10 metals, and asbestos.

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PAGE 10 OF 10	

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PREPARED FOR:

FIGURE 4
 DEBRIS PILE SOIL RESIDENTIAL EXCEEDANCE MAP
 PRELIMINARY SITE INVESTIGATION
 PLAZA AREA MDOT PARCELS 5409/5446
 201 & 221 South Post Street, Detroit MI