CONESTOGA-ROVERS & ASSOCIATES

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Report

Former Howard Warehouse-Vacant Land-No Further Action Report

Prepared for: Racer Trust

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Partners in Sustainability

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Section 1.0 Introduction

This report was prepared as the No Further Action (NFA) Report for a non-residential closure for the Former Howard Warehouse – Vacant Land (Site) located at 700 Garey Street in Saginaw, Michigan. The Site is located directly south of the Garey Street and Howard Street intersection in Saginaw, Michigan as presented on Figure 1.1. This NFA Report presents information from the previous environmental investigations and remedial activities performed at the Site. The Site is currently owned by Revitalizing Auto Communities Environmental Response Trust (RACER). The Site is currently vacant.

Appendix A presents the executed Request for DEQ Review of No Further Action (NFA) Report. In addition, the required attachments (Environmental Professionals Affidavit [Appendix A2], Environmental Professional Resume [Appendix A3], Environmental Professional Certificate of Insurance [Appendix A4], and Submitter's Affidavit [Appendix A5]) are also presented in Appendix A.

An Investigation Summary and Proposed Site Closure plan was submitted to MDEQ on October 13, 2011 to remove lead impacted soils, which exceeded Non-Residential Direct Contact criteria. The proposed closure plan was conditionally approved by the MDEQ in a letter dated December 1, 2011. The condition on the approval was the requirement for additional soil investigation to vertically delineate trichloroethene found in soils to verify deeper soil conditions. The trichloroethene soil investigation was conducted in March 2012 and the soil removal was conducted in April 2012. A summary of the investigation results and soil removal activities was presented in an email to MDEQ on April 23, 2012 (Appendix B).

This NFA Report presents the required information to support closure of the Site under the Non-Residential category. This NFA Report demonstrates that the environmental conditions, which exist at the Site are consistent with the criteria required to meet a Restricted (limited) Non-Residential NFA category.

Section 2.0 Background

The Site is located directly south of the Garey Street and Howard Street intersection in Saginaw, Michigan (700 Garey Street). A Site Plan is presented on Figure 2.1. The Site is approximately 3.8 acres in size and is currently vacant with grass cover and some trees along the southeastern Site boundary. The Site is bordered by railroad tracks to the south, vacated Owen Street to the west, Garey Street to the north, and Brown Street to the east. Land use to the west and south is industrial/commercial and land use to the north and east is residential.

The Site's first known development was between 1915 and 1935 by Nelson Brothers Company, a manufacturer of gasoline engines. The Site was occupied by Palace Corporation in 1950, and then functioned as a warehouse utilized by Sears Roebuck & Co. The Site was acquired by General Motors Corporation (GMC), in 1979 and it is believed that it was utilized as a warehouse until 1984, the year that the demolition Purchase Order is dated. The buildings and foundations were removed as part of the demolition process in 1988.

On June 1, 2009, GMC filed for Chapter 11 protection under U.S. Bankruptcy Code. On July 10, 2009 GMC was renamed Motors Liquidation Company (MLC). On the same day portions of the operating assets of MLC were sold to a newly formed company "General Motors Company". General Motors Company changed its name to General Motors LLC (GM LLC) on October 16, 2009. Assets not sold to GM LLC remained the property of the MLC, in its capacity as debtor-in-possession in the bankruptcy case. On March 31, 2011 the environmental remediation of the Sites was transferred from MLC to RACER Trust. Ownership of this and other MLC properties in Michigan was transferred to RACER Properties LLC, a wholly owned subsidiary of RACER Trust.

Section 3.0 Summary of Previous Investigations

The following sections summarize the previous investigations that have been conducted at the Site.

3.1 Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA) was completed in accordance with ASTM Standard E 1527-00 by CRA in September 2006 and submitted to GM. The assessment included an environmental database search, historical records review, a Site inspection of accessible areas, a review of relevant Site records made available to CRA, and interviews with individuals associated with the Site. No exceptions to ASTM E1527-00 were taken during this Phase I ESA.

The Phase I ESA identified 23 "recognized environmental conditions" (RECs), that were present at the Site including: former underground storage tanks (USTs), former aboveground storage tanks (ASTs), former gasoline engine operations, former outside material storage, potential subsurface demolition debris, and adjacent historical dry cleaning operations. Based on the Phase I ESA assessment, a Scope of Work was developed for the Phase II ESA.

3.2 Phase II Soil Investigation

Four sampling events have been completed, to date, as part of the Phase II Soil Investigation; December 2006, February 2007, September 2007, and November 2008. A total of 104 soil borings were advanced, with 50 borings advanced to a depth of 2 feet below ground surface (bgs), seven borings advanced to a depth of 4 feet bgs, 43 borings advanced to a depth of 5 feet bgs, and seven borings advanced to a depth of 10 feet bgs.

The Site is underlain by a continuous extensive layer of clay typically encountered at depths ranging from 1 to 3.5 feet bgs and extending at least as deep as the deepest boring at 10 feet bgs. Appendix C presents the soil boring logs. In addition to grid sampling across the Site, soil borings were advanced at each of the 23 RECs, at the three former doorways, one at the former loading area, and three at the vicinity of former tanks. Figure 3.1 presents the investigative locations. No groundwater was encountered during drilling operations; therefore, no groundwater samples were collected. In the two initial rounds of sampling (December 2006 and February 2007), samples were collected and analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), TCL Semi-volatile organic compounds (SVOCs), target analyte list (TAL) metals, and polychlorinated biphenyls (PCBs). The final two rounds of sampling (September 2007 and November 2008) were conducted to delineate previous exceedances of screening criteria and were analyzed for arsenic, total chromium, lead, benzo(a)pyrene, and trichloroethene.

3.2.1 Screening Criteria

CRA compared the detected concentrations to the following generic cleanup criteria and screening levels developed by the State of Michigan under Part 201 of the Natural Resources and Environmental Protection Act 451 (NREPA) – December 2013:

- Residential/Non-Residential - Statewide Default Background Levels
- Non-Residential – Ambient Air – Finite VSIC-2m Source Thickness
- Non-Residential – Ambient Air – Finite VSIC-5m Source Thickness
- Non-Residential – Ambient Air – infinite source VSIC
- Non-Residential - Direct Contact
- Non-Residential/Groundwater – Drinking Water Protection
- Non-Residential – Soil Volatilization to Indoor Air Inhalation
- Non-Residential – Ambient Air – Particulate Soil Inhalation

In addition, the metals data were compared with the background levels presented in the report entitled Michigan Background Soil Survey 2005.

3.2.2 Soil Sample Results

The following presents the results of the comparison to the screening criteria for those parameters that exceeded criteria:

Arsenic

The results of the soil samples collected as part of the Phase II activities indicated that arsenic exceeded Non-Residential - Drinking Water Protection criteria (4.6 milligrams per kilogram [mg/kg]) at seven locations ranging in concentration from 5.9 mg/kg to 15.5 mg/kg. The results are summarized on Figure 3.2.

Total Chromium

The results of soil samples collected as part of the Phase II activities indicated that total chromium exceeded Non-Residential - Drinking Water Protection criteria (30 mg/kg) at six locations ranging in concentration from 33.8 mg/kg to 56 mg/kg. The results are summarized on Figure 3.3.

Lead

The results of soil samples collected as part of the Phase II activities indicated that lead exceeded Non-Residential - Drinking Water Protection criteria (700 mg/kg) at three locations ranging in concentration from 823 mg/kg to 5,450 mg/kg.

The results of soil samples collected as part of the Phase II activities indicated that lead exceeded Non-Residential - Direct Contact criteria (900 mg/kg) at two locations in a relatively small area at concentrations of 995/897 mg/kg and 5,450 mg/kg. The results are summarized on Figure 3.4.

Benzo(a)pyrene

The results of the soil samples collected as part of the Phase II activities indicated that benzo(a)pyrene exceeded Non-Residential - Direct Contact criteria (8 mg/kg) at two locations at concentrations of 7/8.4 mg/kg and 14 mg/kg. The results are summarized on Figure 3.5.

Trichloroethene

The results of soil samples collected as part of the Phase II activities indicated that trichloroethene exceeded Non-Residential - Drinking Water Protection criteria (0.1 mg/kg) at three locations ranging in concentration from 0.12 mg/kg to 0.52 mg/kg. The results are summarized on Figure 3.6.

3.3 Additional Trichloroethene Soil Investigation

As part of MDEQ's conditional approval, the MDEQ requested additional soil investigation to vertically delineate trichloroethene found in soils. CRA conducted the additional trichloroethene soil investigation on March 28, 2012 in accordance with the detailed scope of work submitted to MDEQ on December 14, 2011.

One borehole was advanced at each of the following locations BH12, BH15, BH16, BH32E and screened with a PID. Each location previously exceeded the Non-Residential - Drinking Water Protection criteria (0.1 mg/kg). Please note that the Non-Residential - Drinking Water Protection criteria was used purely for screening purposes and is not a relevant criteria since no groundwater was encountered during the investigation. See attached Figure 3.6 for trichloroethene results for previous investigations.

Soil samples were collected at 8 to 10 feet bgs at each location or the first 1-foot interval below 8 to 10 feet with no PID reading. A second sample was collected at each borehole at the next deeper interval and placed on hold pending the results of the first sample.

Samples were collected at the following depth intervals and submitted for analysis of VOCs:

- BH12 - 8 to 10 feet bgs and 10 to 12 feet bgs
- BH15 - 12 to 13 feet bgs and 14 to 15 feet bgs
- BH16 - 8 to 10 feet bgs and 10 to 12 feet bgs
- BH32E - 8 to 10 feet bgs and 10 to 12 feet bgs

The trichloroethene results of the first interval sampled at each location were below screening criteria with the exception of BH15 which was above the Non-Residential - Drinking Water Protection (0.1 mg/kg) at 1.0 mg/kg. Several other VOCs were detected, however, none were above the screening criteria.

As a result of the exceedance at BH15, the laboratory was directed to analyze the second deeper interval sample at BH15, previously placed on hold. The sample results for the deeper sample at BH15 were non-detect for trichloroethene. Toluene and cis-1,2 dichloroethene were detected, however, they were not above screening criteria.

3.4 Identification of Potential Compounds of Concern (PCOCs)

Based on the investigations completed, arsenic, total chromium, lead, benzo(a)pyrene, and trichloroethene are the potential compound of concern (PCOCs) at the Site. Please refer to Section 4.0 for details on how each of the parameters were addressed.

Section 4.0 No Further Action

The PCOCs identified in Section 3.4 of the NFA Report were evaluated with regard to potential migration and exposure pathways at the Site. The following paragraphs discuss how protection against migration and exposure of PCOCs has been attained at the Site.

4.1 Remedial Activities

The results of the soil investigations conducted at the Site identified lead above the Non-Residential - Direct Contact criteria. As a result, during the week of April 9, 2012, approximately 543 tons (12 truck loads) of lead impacted soil above Non-Residential Direct Contact criteria was excavated and disposed of off Site at an applicable disposal facility. Figure 4.1 presents the excavation limits. The lead impacted soil was removed to concentrations below Non-Residential Drinking Water Protection criteria as opposed to below Non-Residential Direct Contact criteria concentrations since the additional volume of soil was minimal. The soil was excavated to a depth of 2 feet bgs and extended to adjacent sample locations with concentrations below criteria. The excavated soil was disposed of as non-hazardous waste, based on waste characterization, at the Whitefeather Landfill (Republic Services). Appendix D presents a copy of the waste manifests. Clean backfill and topsoil were imported to restore the Site. Therefore, following completion of the excavation, no further work is required to address the Non-Residential – Direct Contact pathway.

4.2 Applicability of Drinking Water Protection Criteria

Soil sample results exceeded the Non-Residential - Drinking Water Protection criteria for arsenic, total chromium, lead, and trichloroethene. However, since groundwater was not encountered during the investigation and the Site is underlain by a continuous extensive clay layer, the Non-Residential - Drinking Water Protection criteria is not applicable, consistent with a discussion with the MDEQ in a meeting on September 8, 2011. The results of the vertical delineation of trichloroethene further confirmed the absence of groundwater underlying the Site and confirmed the presence of a competent clay layer below the Site. As a result, the only action warranted related to these constituents and this pathway was to prohibit the construction of wells or other devices to extract groundwater for consumption, irrigation, dewatering, or any other use, except for wells and devices that are part of a DEQ-approved

response activity, which was completed through filing the Declaration of Restrictive Covenant (DRC) (Appendix E). Furthermore, potable water is available from the City of Saginaw.

4.3 Statistical Analysis

Soil sample results exceeded the Non-Residential Direct Contact criteria for lead and benzo(a)pyrene.

The two soil samples that exceeded the Non-Residential - Direct Contact criteria for benzo(a)pyrene are marginally above the criteria, are located near roads along the perimeter of the property, and are not believed to be Site related. A statistical analysis was completed for benzo(a)pyrene for all the samples collected on Site. The 95 percent upper confidence level (UCL) for benzo(a)pyrene was calculated to be 2.6 mg/kg, which is below the Non-Residential - Direct Contact criteria of 8 mg/kg. Appendix F presents the statistical calculations. The statistical calculations were completed using software recommended by the MDEQ (Pro UCL Version 4.1) in accordance with Statistical Guidesheet #19 out of the MDEQ Sampling Strategies and Statistics Training Materials for a Part 201 cleanup criteria (2002) guidance document. Therefore, consistent with the discussion at the September 8, 2011 meeting with the MDEQ, the only action warranted to address benzo(a)pyrene impacts was prohibiting land uses of the property that are not compatible with or are inconsistent with the assumptions and basis for the non-residential cleanup criteria established pursuant to Section 20120a(1)(b) of the NREPA, which was completed through filing the DRC (Appendix E).

4.4 Property Zoning

In accordance with Section 20120a(6) of Part 201, PA 451, a property for which remedial activities are proposed must have zoning that is consistent with the proposed categorical criteria. The Site is zoned industrial as identified in the zoning map of the area provided in Appendix G.

4.5 Future Use

Consistent with the zoning for the property, the future use of the Site is intended to remain non-residential as required by the filed DRC, which prohibits land uses of the property that are not compatible with or are inconsistent with the assumptions and basis for the non-residential cleanup criteria pursuant to Section 20120a(1)(b) of the NREPA.

4.6 Attainment of Closure Criteria

In accordance with Part 201, PA 451, to obtain closure of a site the PCOCs remaining in the soil must be protective considering migration and exposure pathways applicable to the site.

The only applicable potential migration and exposure pathway for the Site is the direct contact pathway. Based on the analysis of this migration and exposure pathway discussed in Section 4.0 of this report, the closure criteria for a generic non-residential closure have been achieved at the Site through filing the DRC.

4.7 Land and Resource Use Restrictions

Land and resource use restrictions were implemented for the Site in accordance with NREPA Section 20114c via a DRC approved by MDEQ and recorded by RACER that includes:

- Restriction of usage of the property to non-residential use
- Restriction of groundwater use for consumption, irrigation, dewatering, or any other purpose with the exception of wells constructed as part of a DEQ-approved response activity
- Management of soils, media and/or debris located on the property in accordance with the applicable requirements

A copy of the recorded DRC is included in Appendix E.

4.8 Monitoring

No additional monitoring of the Site is necessary.

4.9 Post-Closure Plan

The appropriate deed restrictions were filed for the Site. A copy of the Declaration of Restrictive Covenant is presented in Appendix E.

4.10 Contingency Plan

A contingency plan is not necessary because no long-term monitoring or maintenance is required.

4.11 Financial Assurance

No further activities are planned for the Site and therefore no financial assurance is required.

4.12 Permanent Markers

No permanent markers are required as the Site is being closed to generic non-residential standards.

4.13 Easement Holders

There are two public utility easements for the City of Saginaw that were identified as part of the legal survey.

4.14 Summary of Remedial Action

Exceedances of MDEQ generic criteria were identified in surface soil and subsurface soil at the Site. In accordance to the NREPA, 1994 PA 541, a generic non-residential closure has been achieved for the Site. Evaluation of the potential migration and exposure pathways applicable to the Site indicate the generic non-residential closure criteria have been achieved with the implementation of the completed soil excavation and DRC.

Section 5.0 References

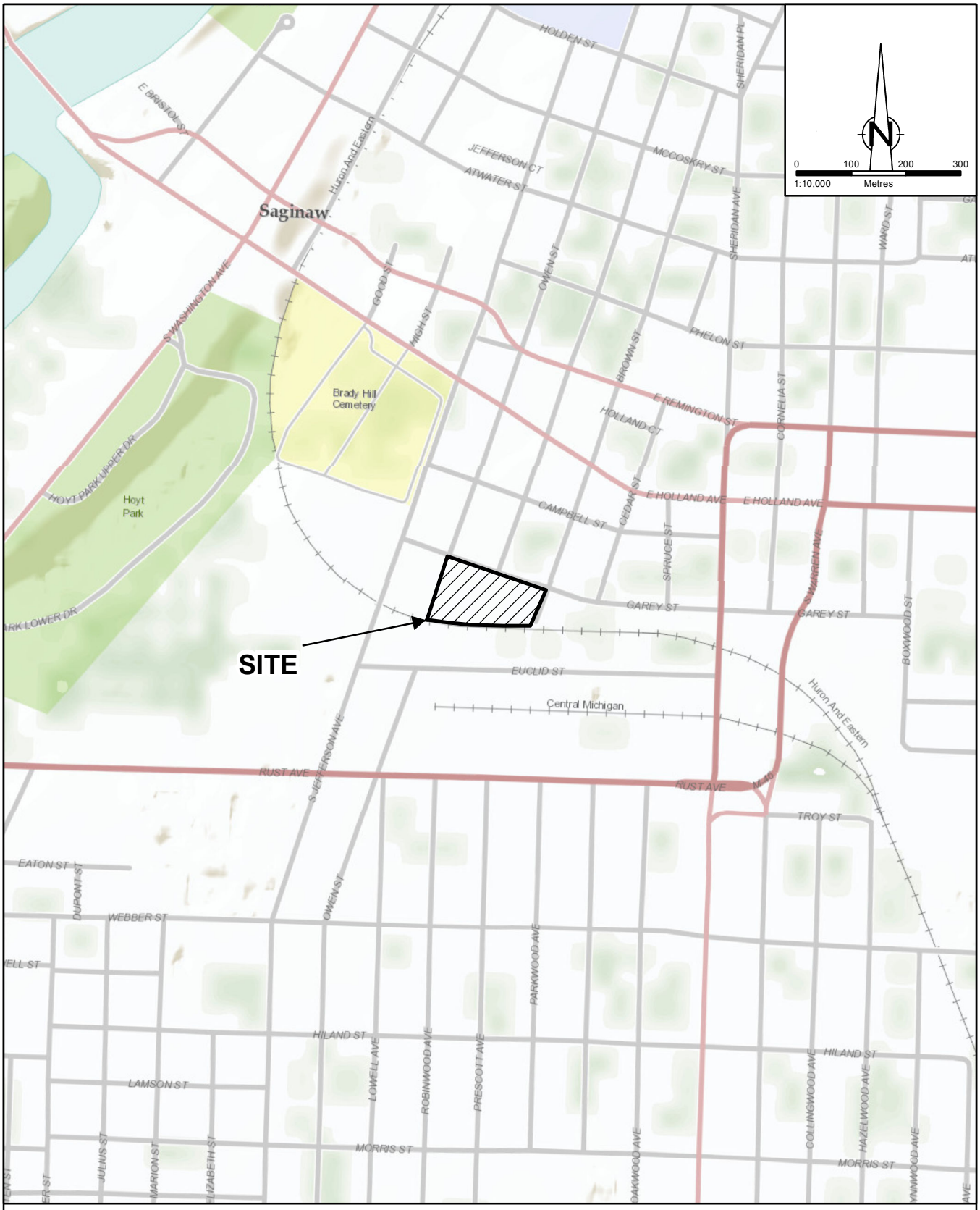
Phase I Environmental Site Assessment, Conestoga-Rovers & Associates, September 1, 2006.

Draft Memorandum on Phase II ESA Investigation Results, Conestoga-Rovers & Associates, April 2008.

Investigation Summary and Proposed Site Closure Letter, Conestoga-Rovers & Associates, October 13, 2011.

Executed Request for DEQ Review of Response Activity Plan Form, October 26, 2011.

Letter Approval with Conditions of the Response Activity Plan for 700 Garey Street, Michigan Department of Environmental Quality, December 1, 2011.



Source: ESRI Topographic Basemap, Accessed 2012;
Coordinate System: NAD 1983 UTM Zone 17N

figure 1.1

SITE LOCATION
FORMER HOWARD WAREHOUSE
700 GAREY STREET
Saginaw, MI

45285-T02(003)GIS-OT001 July 05, 2012

SOUTH JEFFERSON AVENUE

VACANT BUILDING

WOLVERINE PATTERN & MACHINE 1716 S. JEFFERSON

ELECTRICAL SUBSTATION

RESIDENTIAL

0 40 80ft

OWEN STREET (VACATED)

(FORMER FURSTENBERG BROTHERS & CO. LUMBER YARD)

VACANT

VACANT/ GRASS COVERED

G.T.W. RAILROAD

GAREY STREET (FORMERLY MORSE)

RESIDENTIAL

HOWARD STREET

RESIDENTIAL

VEGETATION & TREES

PARTIAL FENCE LINE

BROWN STREET

RESIDENTIAL

RESIDENTIAL

LEGEND

PROPERTY BOUNDARY

FENCE

figure 2.1

SITE PLAN
FORMER HOWARD WAREHOUSE
700 GAREY STREET
Saginaw, Michigan

SOURCE: MICHIGAN INSPECTION BUREAU; SAGINAW, MICHIGAN, JUNE 1940

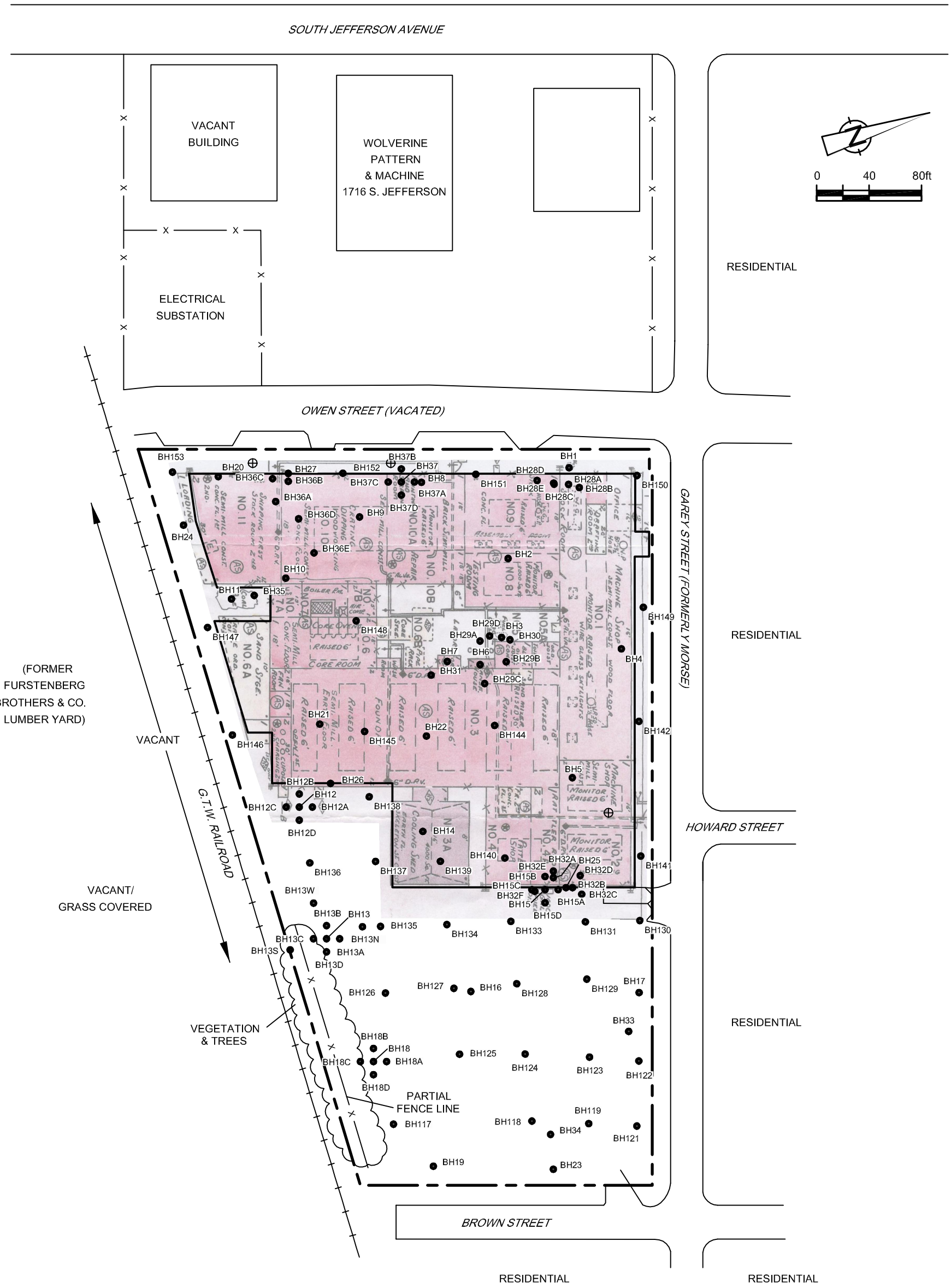


figure 3.1

GEOPROBE INVESTIGATIVE LOCATIONS
FORMER HOWARD WAREHOUSE
700 GAREY STREET
Saginaw, Michigan

SOURCE: MICHIGAN INSPECTION BUREAU; SAGINAW, MICHIGAN, JUNE 1940

Arsenic Criteria		
Code	Part 201 Generic Cleanup Criteria and Screening Levels December 2013	Criteria Value (mg/kg)
a	Residential/Non-Residential - Statewide Default Background Levels	5.8
b	Non-Residential - Ambient Air - Finite VSIC-2m Source Thickness	-
c	Non-Residential - Ambient Air - Finite VSIC-5m Source Thickness	-
d	Non-Residential - Ambient Air - Infinite Source VSIC	-
e	Non-Residential - Direct Contact	37
f	Non-Residential/Groundwater - Drinking Water Protection	4.6
g	Non-Residential - Soil Volatilization to Indoor Air Inhalation	-
h	Non-Residential - Ambient Air - Particulate Soil Inhalation	910

SOUTH JEFFERSON AVENUE

0 40 80ft

WOLVERINE PATTERN & MACHINE 1716 S. JEFFERSON

ELECTRICAL SUBSTATION

VACANT

VACANT/ GRASS COVERED

VEGETATION & TREES

PARTIAL FENCE LINE

RESIDENTIAL

OWEN STREET (VACATED)

HOWARD STREET, LIBER MR15 PAGE 471

GAREY STREET (FORMERLY MORSE)

G.T.W. RAILROAD

EAST PUBLIC UTILITY VACATED OWEN STREET, LIBER 570, PAGE 554, LIBER 1565, PAGE 679

BROTHER[illegible] YARD)

BH37C	9/27/2007 0-2 ft BGS
Arsenic	2.3

BH37	2/15/2007 0-2 ft BGS
Arsenic	15.5 (f)

BH37B	9/27/2007 0-2 ft BGS
Arsenic	1.5

BH37A	9/27/2007 0-2 ft BGS
Arsenic	1.2

BH37D	9/27/2007 0-2 ft BGS
Arsenic	1.3

BH151	11/11/2007 0-2 ft BGS
Arsenic	1.8

BH6	12/18/2006 0-2 ft BGS
Arsenic	3.5 J

BH3	12/18/2006 0-2 ft BGS	12/18/2006 2-4 ft BGS
Arsenic	3.0 J	2.2 J

BH152	11/11/2007 0-2 ft BGS
Arsenic	1.4

BH150	11/11/2007 0-2 ft BGS
Arsenic	2.6

BH9	12/18/2006 0-2 ft BGS
Arsenic	4.1 J

BH36D	2/15/2007 0-2 ft BGS
Arsenic	2.8

BH153	11/11/2007 0-2 ft BGS
Arsenic	1.5/1.6

BH138	11/11/2007 0-2 ft BGS
Arsenic	1.5

BH24	12/18/2006 0-2 ft BGS
Arsenic	2.6 J

BH149	11/11/2007 0-2 ft BGS
Arsenic	4.9

BH144	11/11/2007 0-2 ft BGS
Arsenic	1.9

BH148	11/11/2007 0-2 ft BGS
Arsenic	2.0

BH14	12/18/2006 0-2 ft BGS
Arsenic	3.5 J

BH147	11/11/2007 0-2 ft BGS
Arsenic	5.9 (f)

BH142	11/11/2007 0-2 ft BGS
Arsenic	2.1/4.2

BH31	2/15/2007 0-2 ft BGS
Arsenic	3.5

BH145	11/11/2007 0-2 ft BGS
Arsenic	1.8

BH139	11/11/2007 0-2 ft BGS
Arsenic	1.6

BH140	11/11/2007 0-2 ft BGS
Arsenic	1.9

BH146	11/11/2007 0-2 ft BGS
Arsenic	14.0 (f)

BH26	12/18/2006 0-2 ft BGS
Arsenic	5.5 J

BH15B	9/27/2007 0-2 ft BGS
Arsenic	3.4

BH12B	9/27/2007 2-2.5 ft BGS
Arsenic	5.8/3.9

BH12C	9/27/2007 2-2.5 ft BGS
Arsenic	5.8

BH15C	9/27/2007 0-2 ft BGS
Arsenic	1.4

BH141	11/11/2007 0-2 ft BGS
Arsenic	3.4

BH12	12/18/2006 0-2 ft BGS	2/15/2007 2-4 ft BGS
Arsenic	4.5 J	7.8 (f)

BH15A	9/27/2007 0-2 ft BGS
Arsenic	2.7/2.2

BH12A	9/27/2007 2-2.5 ft BGS
Arsenic	4.9

BH15	12/18/2006 0-2 ft BGS	2/15/2007 2-4 ft BGS
Arsenic	15.3 J (f)	7.1 (f)

BH12D	9/27/2007 2-2.5 ft BGS
Arsenic	5.4

BH136	11/11/2007 0-2 ft BGS
Arsenic	4.7

BH130	11/11/2007 0-2 ft BGS
Arsenic	1.6

BH137	11/11/2007 0-2 ft BGS
Arsenic	3.8

BH131	11/11/2007 0-2 ft BGS
Arsenic	1.5/1.5

BH13	12/18/2006 0-2 ft BGS	12/18/2006 2-4 ft BGS
Arsenic	14.2 J (f)	2.3

BH15D	9/27/2007 0-2 ft BGS
Arsenic	2.0

BH135	11/11/2007 0-2 ft BGS
Arsenic	2.7

BH133	11/11/2007 0-2 ft BGS
Arsenic	1.6

BH134	11/11/2007 0-2 ft BGS
Arsenic	1.0

BH127	11/11/2007 0-2 ft BGS
Arsenic	2.0

BH129	11/11/2007 0-2 ft BGS
Arsenic	1.9

BH19	12/18/2006 0-2 ft BGS	12/18/2006 2-4 ft BGS
Arsenic	4.1 J	2.3

BH122	11/11/2007 0-2 ft BGS
Arsenic	2.2

BH126	11/11/2007 0-2 ft BGS
Arsenic	1.8

BH18	12/18/2006 0-2 ft BGS	2/15/2007 2-4 ft BGS
Arsenic	4.4 J	4.0

BH117	11/11/2007 0-2 ft BGS
Arsenic	1.8

BH16	12/18/2006 0-2 ft BGS	12/18/2006 2-4 ft BGS
Arsenic	6.4 J (f)	2.1

BH125	11/11/2007 0-2 ft BGS
Arsenic	1.5

BH123	11/11/2007 0-2 ft BGS
Arsenic	1.8

BH118	11/11/2007 0-2 ft BGS
Arsenic	1.2

BH121	11/11/2007 0-2 ft BGS
Arsenic	2.2

BH124	11/11/2007 0-2 ft BGS
Arsenic	3.9

BH119	11/11/2007 0-2 ft BGS
Arsenic	1.3/2.3

BH128	11/11/2007 0-2 ft BGS
Arsenic	2.0

LEGEND

- PROPERTY BOUNDARY
- FENCE
- STORM SEWER
- GEOPROBE LOCATION
- UTILITY EASEMENT
- SAMPLE LOCATION
- SAMPLE DATE
- SAMPLE DEPTH
- RESULT (mg/kg)
- PARAMETER
- EXCEEDS CRITERIA

BH13	12/18/06	12/18/06
	0-2 ft BGS	2-4 ft BGS
Arsenic	14.2 J (f)	2.3

figure 3.2

SUMMARY OF DETECTS - ARSENIC
FORMER HOWARD WAREHOUSE
700 GAREY STREET
Saginaw, Michigan

SOURCE: MICHIGAN INSPECTION BUREAU; SAGINAW, MICHIGAN, JUNE 1940

Chromium Total Criteria		
Code	Part 201 Generic Cleanup Criteria and Screening Levels December 2013	Criteria Value (mg/kg)
a	Residential/Non-Residential - Statewide Default Background Levels	18
b	Non-Residential - Ambient Air - Finite VSIC-2m Source Thickness	-
c	Non-Residential - Ambient Air - Finite VSIC-5m Source Thickness	-
d	Non-Residential - Ambient Air - Infinite Source VSIC	-
e	Non-Residential - Direct Contact	9200
f	Non-Residential/Groundwater - Drinking Water Protection	30
g	Non-Residential - Soil Volatilization to Indoor Air Inhalation	-
h	Non-Residential - Ambient Air - Particulate Soil Inhalation	240

SOUTH JEFFERSON AVENUE

WOLVERINE PATTERN & MACHINE 1716 S. JEFFERSON

0 40 80ft

BH37	2/15/2007 0-2 ft BGS
Chromium	13.6

ELECTRICAL SUBSTATION

EASEMENT FOR PUBLIC UTILITIES OVER VACATED OWEN STREET, LIBER 570, PAGE 554, LIBER 1565, PAGE 679

BH6	12/18/2006 0-2 ft BGS
Chromium	8.5

RESIDENTIAL

BH3	12/18/2006 0-2 ft BGS	12/18/2006 2-4 ft BGS
Chromium	13.2	19.3

BH9	12/18/2006 0-2 ft BGS
Chromium	13.0

OWEN STREET (VACATED)

BH36D	2/15/2007 0-2 ft BGS
Chromium	11.2

BH24	12/18/2006 0-2 ft BGS
Chromium	7.8

BH31	2/15/2007 0-2 ft BGS
Chromium	8.6 E

MER NBERG BROTHERS & CO. LUMBER YARD)

VACANT

BH26	12/18/2006 0-2 ft BGS
Chromium	14.1

BH12	12/18/2006 0-2 ft BGS	2/15/2007 2-4 ft BGS
Chromium	39.1 (f)	44.4 (f)

VACANT/ GRASS COVERED

EASEMENT FOR PUBLIC UTILITIES OVER VACATED HOWARD STREET, LIBER MR15 PAGE 471

BH13	12/18/2006 0-2 ft BGS	12/18/2006 2-4 ft BGS
Chromium	56.0 (f)	22.3

VEGETATION & TREES

PARTIAL FENCE LINE

BH18	12/18/2006 0-2 ft BGS	2/15/2007 2-4 ft BGS
Chromium	39.3 (f)	5.4

G.T.W. RAILROAD

GAREY STREET (FORMERLY MORSE)

HOWARD STREET

BH14	12/18/2006 0-2 ft BGS
Chromium	7.3

RESIDENTIAL

BH15	12/18/2006 0-2 ft BGS	2/15/2007 2-4 ft BGS
Chromium	49.0 (f)	46.7 (f)

RESIDENTIAL

BH16	12/18/2006 0-2 ft BGS	12/18/2006 2-4 ft BGS
Chromium	33.8 (f)	15.9

BH19	12/18/2006 0-2 ft BGS	12/18/2006 2-4 ft BGS
Chromium	34.3 (f)	21.5

REET

RESIDENTIAL

RESIDENTIAL

BH153 BH20 BH36C BH27 BH36B BH36A BH36D BH24 BH36E BH10 BH11 BH35 BH147 BH21 BH146 BH12B BH26 BH12 BH12C BH12A BH12D BH136 BH13W BH13B BH13 BH13C BH13N BH13S BH13A BH13D BH126 BH18B BH18 BH18C BH18A BH18D BH117 BH19 BH152 BH37B BH37 BH37C BH8 BH37A BH37D BH9 BH148 BH149 BH147 BH145 BH22 BH144 BH138 BH14 BH140 BH137 BH139 BH135 BH134 BH133 BH131 BH130 BH141 BH32A BH25 BH32E BH32D BH15B BH15C BH32B BH32F BH32C BH15 BH15A BH15D BH127 BH16 BH128 BH129 BH17 BH33 BH125 BH124 BH123 BH122 BH118 BH34 BH119 BH121 BH23 BH151 BH28D BH28A BH28E BH28B BH28C BH150 BH1 BH2 BH29D BH3 BH29A BH30 BH7 BH6 BH29B BH4 BH31 BH29C BH142 BH5

LEGEND

- PROPERTY BOUNDARY
- FENCE
- STORM SEWER
- GEOPROBE LOCATION
- UTILITY EASEMENT
- SAMPLE LOCATION
- SAMPLE DATE
- SAMPLE DEPTH
- RESULT (mg/kg)
- PARAMETER
- EXCEEDS CRITERIA

BH18	12/18/06	12/18/06
	0-2 ft BGS	2-4 ft BGS
Chromium Total	39.3 (f)	5.4

figure 3.3

SUMMARY OF DETECTS - CHROMIUM TOTAL
FORMER HOWARD WAREHOUSE
700 GAREY STREET
Saginaw, Michigan

SOURCE: MICHIGAN INSPECTION BUREAU; SAGINAW, MICHIGAN, JUNE 1940

Lead Criteria		
Code	Part 201 Generic Cleanup Criteria and Screening Levels December 2013	Criteria Value (mg/kg)
a	Residential/Non-Residential - Statewide Default Background Levels	21
b	Non-Residential - Ambient Air - Finite VSIC-2m Source Thickness	-
c	Non-Residential - Ambient Air - Finite VSIC-5m Source Thickness	-
d	Non-Residential - Ambient Air - Infinite Source VSIC	-
e	Non-Residential - Direct Contact	900
f	Non-Residential/Groundwater - Drinking Water Protection	700
g	Non-Residential - Soil Volatilization to Indoor Air Inhalation	-
h	Non-Residential - Ambient Air - Particulate Soil Inhalation	44000

SOUTH JEFFERSON AVENUE

WOLVERINE PATTERN & MACHINE 1716 S. JEFFERSON

RESIDENTIAL

ELECTRICAL SUBSTATION

EASEMENT FOR PUBLIC UTILITIES OVER VACATED OWEN STREET, LIBER 570, PAGE 554, LIBER 1565, PAGE 679

OWEN STREET (VACATED)

GAREY STREET (FORMERLY MORSE)

HOWARD STREET

(FORMER R YARD)

VACANT

VACANT/

G.T.W. RAILROAD

VEGETATION & TREES

PARTIAL FENCE LINE

STREET

RESIDENTIAL

RESIDENTIAL

RESIDE

0 40 80ft

BH9	12/18/2006 0-2 ft BGS
Lead	126

BH152	11/11/2007 0-2 ft BGS
Lead	13.1

BH37	2/15/2007 0-2 ft BGS
Lead	317

BH151	11/11/2007 0-2 ft BGS
Lead	10.6

BH31	2/15/2007 0-2 ft BGS
Lead	47.8

BH6	12/18/2006 0-2 ft BGS
Lead	19.1

BH3	12/18/2006 0-2 ft BGS	12/18/2006 2-4 ft BGS
Lead	98.1	5.9

BH36D	2/15/2007 0-2 ft BGS
Lead	49.8

BH148	11/11/2007 0-2 ft BGS
Lead	14.1

BH153	11/11/2007 0-2 ft BGS
Lead	20.3/19.0

BH24	12/18/2006 0-2 ft BGS
Lead	43.8

BH150	11/11/2007 0-2 ft BGS
Lead	39.9

BH145	11/11/2007 0-2 ft BGS
Lead	11.1

BH147	11/11/2007 0-2 ft BGS
Lead	32.1

BH26	12/18/2006 0-2 ft BGS
Lead	269

BH146	11/11/2007 0-2 ft BGS
Lead	89.4

BH12	12/18/2006 0-2 ft BGS	2/15/2007 2-4 ft BGS
Lead	146	104

BH136	11/11/2007 0-2 ft BGS
Lead	243

BH137	11/11/2007 0-2 ft BGS
Lead	188

BH13W	11/11/2007 0-2 ft BGS	11/11/2007 2-4 ft BGS
Lead	823 (f)	6.8

BH13N	11/11/2007 0-2 ft BGS	11/11/2007 2-4 ft BGS
Lead	106	11.4

BH13B	9/27/2007 0-2 ft BGS
Lead	5450 (ef)

BH13	12/18/2006 0-2 ft BGS	12/18/2006 2-4 ft BGS
Lead	432	7.2 J

BH13C	9/27/2007 0-0.5 ft BGS
Lead	995 (ef)/897 (f)

BH13S	11/11/2007 0-2 ft BGS	11/11/2007 2-4 ft BGS
Lead	42.7	7.3

BH13A	9/27/2007 0-2 ft BGS
Lead	431

BH13D	9/27/2007 0-2 ft BGS
Lead	90.2

BH135	11/11/2007 0-2 ft BGS
Lead	37.0

BH134	11/11/2007 0-2 ft BGS
Lead	8.8

BH126	11/11/2007 0-2 ft BGS
Lead	12.3

BH18	12/18/2006 0-2 ft BGS	2/15/2007 2-4 ft BGS
Lead	172	28.1

BH127	11/11/2007 0-2 ft BGS
Lead	10.9

BH117	11/11/2007 0-2 ft BGS
Lead	10.4

BH19	12/18/2006 0-2 ft BGS	12/18/2006 2-4 ft BGS
Lead	182	9.7 J

BH16	12/18/2006 0-2 ft BGS	12/18/2006 2-4 ft BGS
Lead	386	6.0 J

BH125	11/11/2007 0-2 ft BGS
Lead	22.2

BH118	11/11/2007 0-2 ft BGS
Lead	8.7

BH124	11/11/2007 0-2 ft BGS
Lead	9.6

BH128	11/11/2007 0-2 ft BGS
Lead	10.6

BH119	11/11/2007 0-2 ft BGS
Lead	13.1/17.2

BH121	11/11/2007 0-2 ft BGS
Lead	116

BH123	11/11/2007 0-2 ft BGS
Lead	9.8

BH122	11/11/2007 0-2 ft BGS
Lead	26.6

BH129	11/11/2007 0-2 ft BGS
Lead	7.5

BH133	11/11/2007 0-2 ft BGS
Lead	64.5

BH131	11/11/2007 0-2 ft BGS
Lead	9.3/9.8

BH130	11/11/2007 0-2 ft BGS
Lead	71.7

BH15	12/18/2006 0-2 ft BGS	2/15/2007 2-4 ft BGS
Lead	104	220

BH141	11/11/2007 0-2 ft BGS
Lead	108

BH138	11/11/2007 0-2 ft BGS
Lead	18.8

BH149	11/11/2007 0-2 ft BGS
Lead	170

BH144	11/11/2007 0-2 ft BGS
Lead	13.0

BH14	12/18/2006 0-2 ft BGS
Lead	17.0

BH142	11/11/2007 0-2 ft BGS
Lead	84.4/118

BH139	11/11/2007 0-2 ft BGS
Lead	10.3

BH140	11/11/2007 0-2 ft BGS
Lead	72.7

LEGEND

- PROPERTY BOUNDARY
- FENCE
- STORM SEWER
- GEOPROBE LOCATION
- UTILITY EASEMENT
- EXCAVATED AREA (EXCAVATION TO A DEPTH OF 2-FEET)

BH13	12/18/06 0-2 ft BGS	12/18/06 2-4 ft BGS
Lead	172	28.1

SAMPLE LOCATION; SAMPLE DATE; SAMPLE DEPTH; RESULT (mg/kg); PARAMETER

EXCEEDS CRITERIA

SOURCE: MICHIGAN INSPECTION BUREAU; SAGINAW, MICHIGAN, JUNE 1940

figure 3.4

SUMMARY OF DETECTS - LEAD
FORMER HOWARD WAREHOUSE
700 GAREY STREET
Saginaw, Michigan

45285-T02(003)GN-WA005 MAY 12/2014

Benzo(a)pyrene Criteria		
Code	Part 201 Generic Cleanup Criteria and Screening Levels December 2013	Criteria Value (mg/kg)
a	Residential/Non-Residential - Statewide Default Background Levels	-
b	Non-Residential - Ambient Air - Finite VSIC-2m Source Thickness	-
c	Non-Residential - Ambient Air - Finite VSIC-5m Source Thickness	-
d	Non-Residential - Ambient Air - Infinite Source VSIC	-
e	Non-Residential - Direct Contact	8
f	Non-Residential/Groundwater - Drinking Water Protection	-
g	Non-Residential - Soil Volatilization to Indoor Air Inhalation	-
h	Non-Residential - Ambient Air - Particulate Soil Inhalation	1900

SOUTH JEFFERSON AVENUE

OWEN STREET (VACATED)

GAREY STREET (FORMERLY MORSE)

HOWARD STREET

BROWN STREET

WOLVERINE PATTERN

BROTHERS & CO. LUMBER YARD)

VACANT

VACANT/

RESIDENTIAL

RESIDENTIAL

VEGETATION & TREES

PARTIAL FENCE LINE

G.T.W. RAILROAD

EASEMENT FOR PUBLIC UTILITIES OVER VACATED HOWARD STREET, LIBER MR15 PAGE 471

EASEMENT FOR PUBLIC UTILITIES OVER VACATED OWEN STREET, LIBER 57 PAGE 554, LIBER 1565, PAGE 679

0 40 80ft

BH151	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.084 J

BH145	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.014 J

BH31	2/15/2007 0-2 ft BGS
Benzo(a)pyrene	0.52

BH6	12/18/2006 0-2 ft BGS
Benzo(a)pyrene	0.038 J

BH148	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.047 J

BH29D	2/15/2007 2-4 ft BGS
Benzo(a)pyrene	0.67

BH9	12/18/2006 0-2 ft BGS
Benzo(a)pyrene	0.22 J

BH3	12/18/2006 0-2 ft BGS	12/18/2006 2-4 ft BGS
Benzo(a)pyrene	0.018 J	0.3 U

BH26	12/18/2006 0-2 ft BGS
Benzo(a)pyrene	0.71

BH152	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.12 J

BH28C	2/15/2007 2-4 ft BGS
Benzo(a)pyrene	0.3 U

BH35	2/15/2007 2-4 ft BGS
Benzo(a)pyrene	0.31 U/0.3 U

BH36D	2/15/2007 0-2 ft BGS
Benzo(a)pyrene	0.31 U

BH30	2/15/2007 4-5 ft BGS
Benzo(a)pyrene	0.29 U

BH153	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.25 J/0.29 J

BH150	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.32

BH138	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.084 J

BH24	12/18/2006 0-2 ft BGS
Benzo(a)pyrene	1.8

BH144	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.025 J

BH137	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.69 J

BH149	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	3.7

BH147	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.35 J

BH14	12/18/2006 0-2 ft BGS
Benzo(a)pyrene	1.5 U

BH146	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	14 (e)

BH142	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	7/8.4 (e)

BH12	12/18/2006 0-2 ft BGS	2/15/2007 2-4 ft BGS
Benzo(a)pyrene	0.54 J	0.46

BH139	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.0096 J

BH136	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.42

BH140	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.38

BH32E	2/15/2007 2-4 ft BGS
Benzo(a)pyrene	0.31 U

BH15	12/18/2006 0-2 ft BGS	2/15/2007 2-4 ft BGS
Benzo(a)pyrene	0.37	0.36 U

BH134	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.015 J

BH141	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	6.7

BH135	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.022 J

BH133	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.3 U

BH13	12/18/2006 0-2 ft BGS
Benzo(a)pyrene	0.29 J

BH130	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.18 J

BH127	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.058 J

BH131	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.3 U/0.017 J

BH126	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.067 J

BH129	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.01 J

BH18B	9/27/2007 1-1.5 ft BGS
Benzo(a)pyrene	0.9

BH18C	9/27/2007 0.5-1 ft BGS
Benzo(a)pyrene	0.65

BH33	2/15/2007 0-2 ft BGS
Benzo(a)pyrene	1.6 U

BH18	12/18/2006 0-2 ft BGS	2/15/2007 2-4 ft BGS
Benzo(a)pyrene	4.8	0.36 U

BH122	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.15 J

BH18D	9/27/2007 1-1.5 ft BGS
Benzo(a)pyrene	0.28 J/0.36

BH19	12/18/2006 0-2 ft BGS
Benzo(a)pyrene	1.9

BH128	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.055 J

BH18A	9/27/2007 1-1.5 ft BGS
Benzo(a)pyrene	0.037 J

BH117	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.02 J

BH123	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.021 J

BH125	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.015 J

BH16	12/18/2006 0-2 ft BGS
Benzo(a)pyrene	0.12 J

BH121	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.51

BH118	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.019 J

BH119	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.05 J/0.18 J

BH34	2/15/2007 0-2 ft BGS
Benzo(a)pyrene	0.6 U

BH124	11/11/2007 0-2 ft BGS
Benzo(a)pyrene	0.01 J

LEGEND

- PROPERTY BOUNDARY
- FENCE
- STORM SEWER
- GEOPROBE LOCATION
- UTILITY EASEMENT
- SAMPLE LOCATION
- SAMPLE DATE
- SAMPLE DEPTH
- RESULT (mg/kg)
- PARAMETER
- EXCEEDS CRITERIA

BH13	9/27/07
	1-1.5 ft BGS
Benzo(a)pyrene	0.037 J

figure 3.5

SUMMARY OF DETECTS - BENZO(a)PYRENE
FORMER HOWARD WAREHOUSE
700 GAREY STREET
Saginaw, Michigan

SOURCE: MICHIGAN INSPECTION BUREAU; SAGINAW, MICHIGAN, JUNE 1940

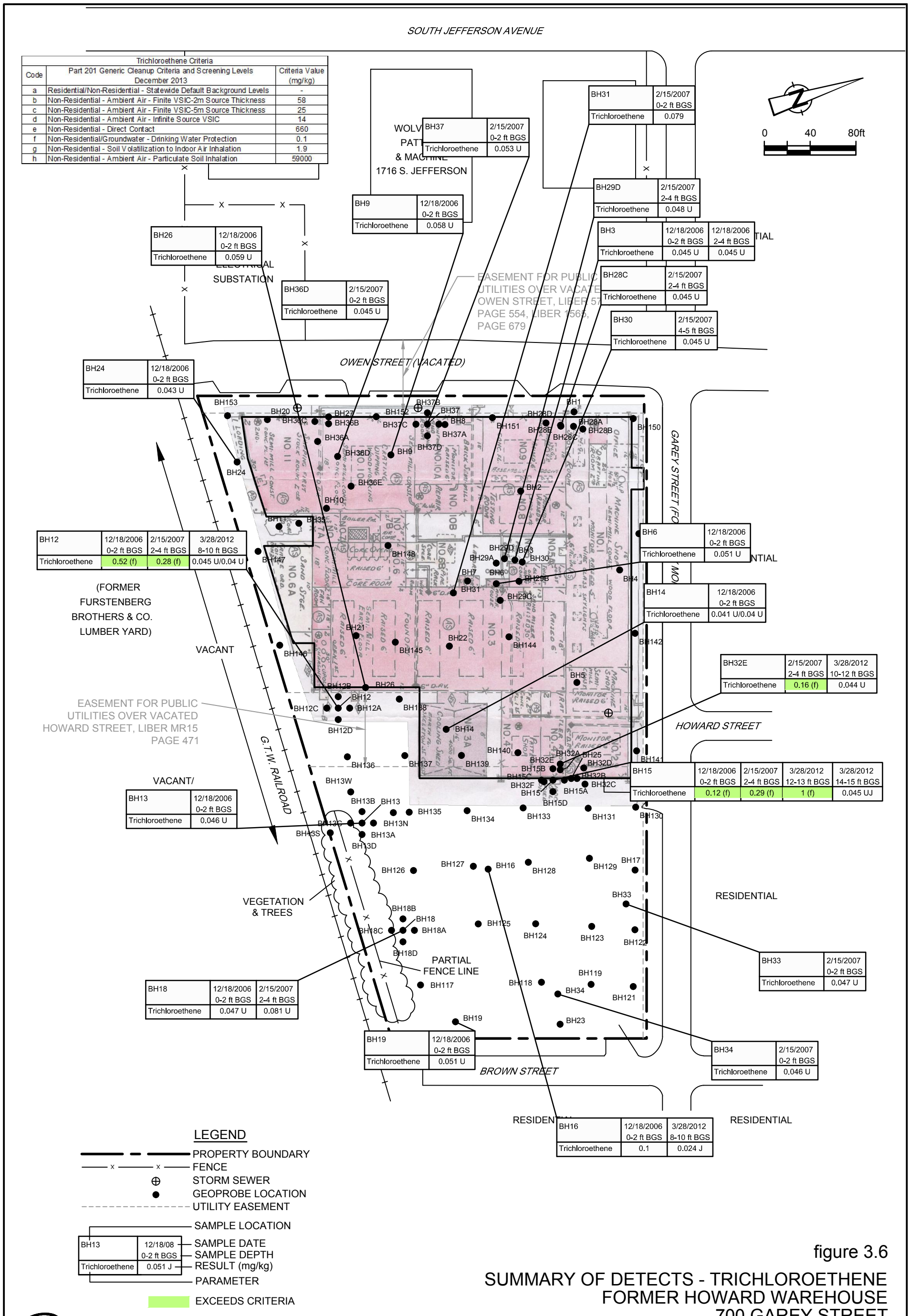
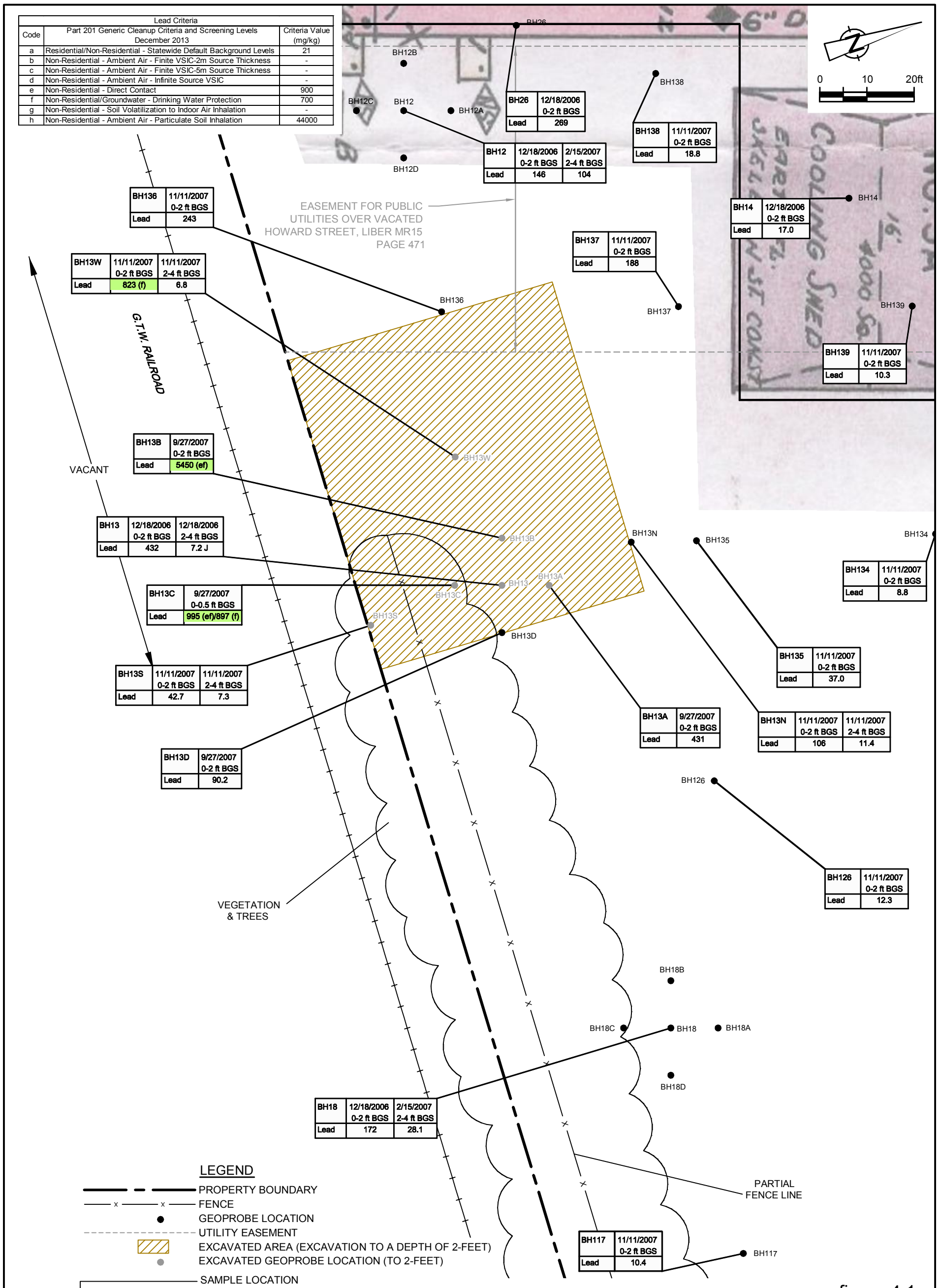


figure 3.6

SUMMARY OF DETECTS - TRICHLOROETHENE
FORMER HOWARD WAREHOUSE
700 GAREY STREET
Saginaw, Michigan

SOURCE: MICHIGAN INSPECTION BUREAU; SAGINAW, MICHIGAN, JUNE 1940

Lead Criteria		
Code	Part 201 Generic Cleanup Criteria and Screening Levels December 2013	Criteria Value (mg/kg)
a	Residential/Non-Residential - Statewide Default Background Levels	21
b	Non-Residential - Ambient Air - Finite VSIC-2m Source Thickness	-
c	Non-Residential - Ambient Air - Finite VSIC-5m Source Thickness	-
d	Non-Residential - Ambient Air - Infinite Source VSIC	-
e	Non-Residential - Direct Contact	900
f	Non-Residential/Groundwater - Drinking Water Protection	700
g	Non-Residential - Soil Volatilization to Indoor Air Inhalation	-
h	Non-Residential - Ambient Air - Particulate Soil Inhalation	44000



SOURCE: MICHIGAN INSPECTION BUREAU; SAGINAW, MICHIGAN, JUNE 1940

figure 4.1

LIMITS OF SOIL EXCAVATION
FORMER HOWARD WAREHOUSE
700 GAREY STREET
Saginaw, Michigan

Appendix A

No Further Action Submittal Documents

Appendix A-1

No Further Action Submittal Form

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - REMEDIATION AND REDEVELOPMENT DIVISION
PO BOX 30426, LANSING, MICHIGAN 48909-7926, Phone 517-373-9837, Fax 517-373-2637

Request for DEQ Review of No Further Action (NFA) Report

This form is required for submittal of a request for the DEQ to review a No Further Action Report, under Section 20114d, Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Section A: NFA Category (Check all that apply:)

Residential, unrestricted	☐	Restricted (limited) Residential	☐
		Restricted (limited) Non-Residential	☒
		Restricted (limited) Site Specific	☐

Does this NFA address the entire facility (as defined in Sec 20101 of Part 201): ☒

If the NFA does not cover the entire facility, please idenfity what is covered within the NFA report, (i.e. specific portion of facility, release(s), hazardous substance(s), media, or exposure pathway):

Section B: Facility Information:

Facility Name: Former Howard Warehouse

Street Address of Property: 700 Garey Street

City: Saginaw State: MI Zip: 48601

Property Tax ID (include all applicable IDs):
08 0002 00000

Status of submitter relative to the property (check all that apply):

	Former	Current	Prospective
Owner	☐	☒	☐
Operator	☐	☒	☐

County: Saginaw County
City/Village/Township: Saginaw
Range: 004 Section: 025
Town: 012
Quarter: SE Quarter-Quarter: NWSE

Decimal Degrees Latitude:43.413356
Decimal Degrees Longitute: -83.941276

Reference point for latitude and longitude:
Center of site ☒ Main/front door ☐
Front gate/main entrance ☐ Other ☐

Collection method:
Survey ☐ GPS ☐ Interpolation ☒

Section C: Submitter Information:

Entity/person requesting review: RACER Trust

Contact Person (name and title): Dave Favero (Deputy Cleanup Manager – Michigan)

Submitter's Address: 500 Woodward Avenue, Suite 1510

City: Detroit State: MI Zip: 48226

Telephone: (734) 879-9525 E-Mail: dfavero@racertrust.org

Relationship of Contact Person to the Submitter: Employee

Owner Name, if different from Submitter: Company:

Owner Address: City: State: Zip:

Telephone: E-Mail:

Section D: Facility/Property Subject to (Check all that apply):

Facility regulated under Part 201, other source, or source unknown Part 201 Site ID, if known:	☒
Leaking Underground Storage Tank regulated pursuant to Part 213 Part 211/213. Facility ID, if known:	☐
Oil or gas production and development regulated pursuant to Part 615 or 625	☐
Licensed landfill regulated pursuant to Part 115	☐
Licensed hazardous waste treatment, storage, or disposal facility regulated pursuant to Part 111	☐

Consent Agreement or other legal agreement with the MDEQ	☐

Section E: Are/were the following present at the facility (Check all that apply):

	Current	Previously	Unknown
Free product/Non aqueous phase liquids (NAPL)	☐	☐	☐
Soil contamination above residential criteria	☒	☐	☐
Soil contamination above non-residential criteria	☐	☒	☐
Soil aesthetic impacts	☐	☐	☐
Groundwater contamination above residential criteria	☐	☐	☐
Groundwater contamination above non-residential criteria	☐	☐	☐
Groundwater contamination above the Acute Inhalation Screening Level	☐	☐	☐
Groundwater aesthetic impacts	☐	☐	☐
Soil Gas contamination above residential vapor intrusion (vi) screening levels	☐	☐	☐
Soil Gas contamination above non-residential VIscreening levels	☐	☐	☐
Conditions immediately dangerous to life or health (IDLH)	☐	☐	☐
Fire & Explosion hazards related to releases	☐	☐	☐
Contamination existing in drinking water supply	☐	☐	☐
Imminent threat to drinking water supply	☐	☐	☐
Impact to surface water	☐	☐	☐
Impact to surface water sediments above screening levels	☐	☐	☐

Section F: The following questions assist MDEQ in evaluating the No Further Action Report:

Have other plans or reports, BEAs, DDCCs, NFAs, etc. been submitted for this facility?

Facility Name, if different than this submittal:

Date and Name of most recent submittal: Email – April 23, 2012 from CRA to MDEQ RE: Project Update, Garey Street

Response Activities or Remedial Action that have been Implemented (Check all that apply):

	Current	Previously
Excavation	☐	☒
Physical or Engineered Exposure Barrier	☐	☐
Active Soil Remediation System	☐	☐
In-situ Soil Remediation	☐	☐
Active Groundwater Remediation System	☐	☐
In-situ Groundwater Remediation	☐	☐
Groundwater Monitored Natural Attenuatio	☐	☐
Containment, Physical or Hydraulic	☐	☐
Vapor Intrusion Barrier	☐	☐
Vapor Intrusion Remediation System	☐	☐
Other, Specify:		

Remedial Action Relies on (Check all that apply):

Mixing Zone	☐
Part 201 Section 20118(5) and (6)	☐
Site-Specific Criteria Section 20120b	☐
MIOSHA demonstration Section 20120a(19)	☐

Post Closure Plan and Components:

Post Closure Plan Required? Yes ☒ No (Residential, Unrestricted Category Only) ☐

Plan Includes:

Permanent Markers	☐
Restrictive Covenant	☒
Institutional Controls	☐

Post Closure Agreement and Components:

Post Closure Agreement Required? Yes ☐ No ☒

Agreement Includes:

FAM	☐
FAM, de minimus	☐
Waiver of Permanent Marker	☐

Section G: Attachments (Required):

	Yes
Environmental Professional's Affidavit is attached:	☒
Environmental Professional's Certificate of Insurance is attached:	☒
Submitter's Affidavit is attached:	☒

Section H: Environmental Professional Signature:

With my signature below, I certify that this plan and all related materials are true, accurate, and complete to the best of my knowledge and belief.

Signature:_____ Date: October 7, 2014

Printed Name: Michael Tomka

Company: Conestoga-Rovers & Associates, Inc.

Mailing Address: 14496 Sheldon Road, Suite 200 City: Plymouth, Detroit State: MI Zip: 48170

Telephone: 519-884-0510 E-mail: mtomka@craworld.com

Section I: Submitter Signature:

With my signature below, I certify that this plan and all related materials are true, accurate, and complete to the best of my knowledge and belief and I am legally authorized to sign for the submitter.

Signature:_____ Date: Oct 13, 2014

(Person legally authorized to bind the legal entity)

Printed Name: Dave Favero (Deputy Cleanup Manager – Michigan)

Title and Relationship of signatory to submitter:

Address: 500 Woodward Avenue, Suite 1510 City: Detroit State: MI Zip: 48226

Telephone: (734) 879-9525 E-Mail: dfavero@racertrust.org

This form and the no further action report should be submitted to the DEQ Remediation and Redevelopment Division District Office unless the response activity is related to a facility that is regulated by another DEQ Division. A district map is located at www.michigan.gov/deqrrd. If regulated by another division, contact should be made with that division for information on where to submit the form and report.

Appendix A-2

Affidavit of Consultant (CRA)

ENVIRONMENTAL CONSULTANT AFFIDAVIT FOR NO FURTHER ACTION REPORT

Required pursuant to Section 20114d(5) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, for the Environmental Consultant who prepared a No Further Action (NFA) report that is being submitted to Michigan DEQ. All terms found in this document which are defined in Part 3, Definitions, and Part 201, Environmental Remediation, of NREPA shall have the same meaning as in the statute.

State of Michigan

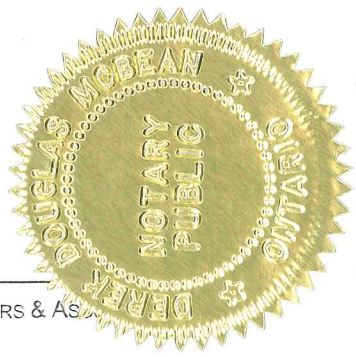
County of Saginaw

1. I, Michael Tomka, am an Environmental Consultant whose title is, Associate, and I am employed by Conestoga-Rovers & Associates.
2. I meet the professional qualifications set forth in MCL 324.20114e(2) of NREPA. A description of my qualifications, including education and work experience, is attached in Appendix A-3.
3. I have prepared a No Further Action (NFA) report dated October 2014 for the facility referred to as Former Howard Street Warehouse and located at 700 Garey Street, Saginaw, Michigan (the "Facility"). The property is located in the City of Saginaw, Michigan. A legal description and survey of the property is included in Appendix F.
   I am submitting this affidavit pursuant to MCL 324.20114d(5).
4. I prepared the NFA Report at the request of RACER Trust.
5. The remedial action at the Facility described in the NFA report was conducted in compliance with Part 201 of the NREPA, and all other applicable local, state, and federal laws and regulations.
6. I affirm to the best of my knowledge and belief that the NFA report prepared for this Facility, and all information, data, documents and reports relied upon for this NFA report, are true, accurate and complete.

Signature of Affiant

Sworn to before me and subscribed in my presence this 15th day of October, 2014.

Notary Public
Derek McBean



Appendix A-3

Resume of Consultant Engineer (Michael Tomka)

MICHAEL R. TOMKA, P. Eng., P.E.

EDUCATION

B.A.Sc. University of Waterloo, Civil Engineering - Water Resources Option, 1991

Other Courses/
Training:
- 40-Hour OSHA Health and Safety Training (as per OSHA 29 CFR 1910.120), June 1991
- 8-Hour OSHA Health and Safety Refresher Course (as per OSHA 29 CFR 1910.120), February 2010 (updated annually)
- Basic Certification and Workplace-Specific Hazard Training, WSIB, July 2004
- Standard First Aid with CPR Level A/AED, St. John Ambulance, expires April 11, 2013

EMPLOYMENT

2002-Present	Associate/Project Manager/Engineer Conestoga-Rovers & Associates, Waterloo, Ontario
1991-01	Project Manager/Coordinator/Engineer, Conestoga-Rovers & Associates, Waterloo, Ontario
1990	Engineering Assistant (co-op work term), Conestoga-Rovers & Associates
1990	Engineering Assistant (co-op work term), Kofman Engineering Services Limited

AFFILIATIONS/DESIGNATIONS

Registered Professional Engineer

- Province of Ontario (PEO #90328485)
- State of Michigan (License 43317)
- State of Ohio (License E-62008)
- State of Illinois (License 062-054754)

Certified Underground Storage Tank Professional – State of Michigan (#900)

PROFILE OF PROFESSIONAL ACTIVITIES

Environmental Investigation, Remediation, and Risk Assessment

- Project manager responsible for remedial investigation, agency liaison, and remedial action to remediate polychlorinated biphenyls (PCBs) in soil and groundwater at a large manufacturing facility on the Saginaw River located in Bay City, Michigan. The lead agency is the Michigan Department of Environmental Quality (MDEQ). The remedial action is a containment remedy with groundwater recovery and treatment. In addition, end-of-pipe treatment (sanitary, storm/non-contact cooling, process) was installed for all manufacturing discharges. Currently in operation and maintenance phase. However, as a result of a recent bankruptcy, the property is being split, therefore, the remedy will need to be split. Ongoing efforts include the evaluation of alternatives to address groundwater and surface water discharges. In addition, updated action plans and operation and maintenance plans will be developed.
- Project manager responsible for RCRA Facility Investigation and Corrective Measures Study (RFI/CMS) at a large manufacturing plant on the Saginaw River located in Saginaw, Michigan. The lead agency is the United States Environmental Protection Agency (U.S. EPA). The work is being completed under Unilateral Administrative Order from 1995. Several Interim Measures have been completed including passive LNAPL recovery, groundwater collection and treatment for PCBs, and excavation and off-Site disposal of PCB impacted soil. In addition, applicable RCRA and UST closures have been completed. Recently, an updated order for Operation and Maintenance Activities has been proposed. The RFI has been completed is several phases and the draft RFI Report including Human Health and Ecological Risk Assessments was submitted in March 2007. However, as a result of a recent bankruptcy, the property is being split, therefore, the RFI Report is being revised to reflect the split.
- Project engineer responsible for identification, evaluation, design, and implementation of remedial alternatives to address groundwater impacted by hexavalent chromium and volatile organic compounds (VOCs) to support redevelopment at a former manufacturing property in Livonia, Michigan. A soil/bentonite slurry wall was installed around the area of chromium impacted groundwater. The area with VOC impacted groundwater was address by in situ chemical oxidation using potassium permanganate.
- Project manager responsible for design and construction of wetland restorations and boat launch locations required as part of a Natural Resource Damage (NRD) settlement in the area of the Saginaw Bay (part of Lake Huron). The Trustee was the United States Fish and Wildlife Service (U.S. FWS). Restoration was completed at six wetland locations. Construction of three public boat launches was completed with the largest costing in excess of $1.5 million. A hydrologic study was completed at an 1,800-acre marsh and flow control improvements were implemented in order to improve habitat. U.S. FWS issued a Certificate of Completion in May 2009.
- Project manager responsible for Remedial Design/Remedial Action (RD/RA) to address soil and groundwater impacted by chlorinated solvents and metals at the Byron Salvage Yard Superfund Site in Bryon, Illinois. The lead agency is the U.S. EPA. Based on pre-design sampling, no soil remediation was warranted. Extended potable water for residential use in groundwater impacted areas. Currently implementing long-term groundwater monitoring program and preparation of 5-year review documents.
- Project manager and engineer responsible for Remedial Action Plan (RAP) to address groundwater impacted by VOCs, Semivolatile organic compounds (SVOCs), and tentatively identified compounds (TICs) at a former dump at an operating quarry in Rockwood, Michigan. The RAP proposed in-situ

chemical oxidation based on laboratory and field pilot tests. The RAP has not been implemented to date.

- Project manager and engineer responsible for an extensive sewer investigation to identify and eliminate sources of PCBs and free oil in discharges to the City sewer system at a large manufacturing plant in Saginaw, Michigan. Completed re-routing, abandoning, installation, and lining, as appropriate.
- Project manager and engineer responsible for RAP to address two former disposal areas impacted by VOCs and PCBs. The lead agency was the MDEQ. The RAP was excavation and off-Site disposal of impacted soils. The MDEQ issued a generic residential closure. A mitigation wetland was constructed on the property and approved by the MDEQ.
- Project manager and engineer responsible for Engineering Evaluation/Cost Analysis (EE/CA) to address soil and groundwater impacts at the Garland Road Landfill Superfund Site north of Dayton, Ohio. The lead agency was the U.S. EPA. Negotiated through a multi-year dispute resolution process. An Enforcement Action memorandum was issued by U.S. EPA in 2007. The client has since declared bankruptcy and the project has been assumed by the regulators.
- Project manager and engineer responsible for focused site characterization and remediation to address soils impacted by metals at a manufacturing plant in Circleville, Ohio. The lead agency was the Ohio EPA. The remedy included in situ stabilization, excavation, and off-site disposal. The Consent Judgment requirements were met and the project was completed on schedule and budget.
- Project manager and engineer responsible for investigation and remediation to address PCB and chromium impacted materials at ten locations near Bay City, Michigan. The lead agency was the MDEQ. The Consent Judgment requirements were met and the project was completed on schedule and under budget.
- Project manager and certified professional for more than 50 UST sites in Michigan.

Civil Experience

- Project engineer responsible for the design and budgeting of a water management mitigation system to support an extension application for a quarry in Acton, Ontario. The current design includes diffuse surface discharges and groundwater recharge during active quarry activities followed by lake management with passive gravity discharges following final rehabilitation.
- Project manager responsible for regulatory support (Certificate of Approval and Permit to Take Water) and characterization of surface water, groundwater, and ecological conditions of an existing quarry in Flamborough, Ontario.
- Project manager and engineer responsible for redevelopment of a former gravel pit into a high profile 150+ lot subdivision in Kincardine, Ontario. The subdivision was designed to focus attention towards the central lake and the 40 acres of recreational forest land. The subdivision was built with energy efficiency and sustainability in mind. All residences and the clubhouse have geothermal heating and materials used in construction will provide sustainability. Project scope included consulting services on various topics related to the development, site servicing and grading, construction inspection and surface works. The project has been completed and accepted by the municipality.
- Project manager responsible for the reconstruction of a section of Guelph Street in Kitchener, Ontario. The work also included a new stormwater management facility. Coordination and permitting involved the Ministry of the Environment (MOE), City of Kitchener, Region of Waterloo, and CN Rail.
- Project manager for the development and servicing of 10 residential building lots in St. Marys Ontario. The completed servicing included sanitary sewer, storm sewer, watermain, forcemain, road realignment and reconstruction, and a lift station design. The initial construction phase has been completed.

Appendix A-4

Consultant Certificate of Insurance (CRA)

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 01/08/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Program Brokerage Corporation
225 Metro Centre Boulevard
Warwick, RI 02886

CONTACT NAME: Tara Brown 416-597-0555 ext. 467
PHONE (A/C, No, Ext): **FAX (A/C, No):**
E-MAIL ADDRESS: tara.brown@hubinternational.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Chartis Specialty Insurance Company	26883
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Conestoga-Rovers & Associates, Inc.
2055 Niagara Falls Blvd., Suite 3
Niagara Falls, NY 14304

COVERAGES **CERTIFICATE NUMBER:** 2ZYY22LC **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
A	**GENERAL LIABILITY** [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC			12380282 LIMITS IN USD	09/30/2013	09/30/2014	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ $ $ $ $ $	2,000,000 1,000,000 25,000 2,000,000 2,000,000 2,000,000
	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [ ] HIRED AUTOS [ ] NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ $ $ $	
	[ ] **UMBRELLA LIAB** [ ] OCCUR [ ] **EXCESS LIAB** [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $						EACH OCCURRENCE AGGREGATE	$ $	
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? [ ] **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A					[ ] WC STATU-TORY LIMITS [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ $ $	
A	Pollution/Professional Liability			12456483 LIMITS IN USD	09/30/2013	09/30/2014	Each Claim Aggregate CovA-Prof Claims Made CovB-Poll Occurrence	$ $ $ $	10,000,000 20,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
Evidence of Insurance

Commercial General Liability includes Contractual Liability.

CERTIFICATE HOLDER

To Whom it May Concern

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 6/12/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER

First Niagara Risk Management, Inc
726 Exchange Street Suite 900

Buffalo NY 14210

CONTACT NAME: Andrew Frano
PHONE (A/C, No, Ext): (716)819-5500 FAX (A/C, No): (716)819-5140
E-MAIL ADDRESS: andrew.frano@fnrm.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Natl Union Fire Ins Co of PA	19445
INSURER B : New Hampshire Insurance Company	28341
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED

Conestoga-Rovers & Associates, Inc.
2055 Niagara Falls Blvd

Buffalo NY 14304

COVERAGES **CERTIFICATE NUMBER:** 14-15 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$
	[ ] COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	[ ] CLAIMS-MADE [ ] OCCUR						MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$
	[ ] POLICY [ ] PRO-JECT [ ] LOC							$
A	**AUTOMOBILE LIABILITY**	X	X	3500636	7/1/2014	7/1/2015	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	[X] ANY AUTO						BODILY INJURY (Per person)	$
	[ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	[X] HIRED AUTOS [X] NON-OWNED AUTOS			$500 Ded Coll;$250 Comp			PROPERTY DAMAGE (Per accident)	$
							Hired Phys Damage Max Limit	$ 100,000
	[ ] **UMBRELLA LIAB** [ ] OCCUR						EACH OCCURRENCE	$
	[ ] **EXCESS LIAB** [ ] CLAIMS-MADE						AGGREGATE	$
	[ ] DED [ ] RETENTION $							$
B	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N	N / A	X	018962465 (AOS)	7/1/2014	7/1/2015	[X] WC STATU-TORY LIMITS [ ] OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? [N] **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below			018962466 (CA)	7/1/2014	7/1/2015	E.L. EACH ACCIDENT	$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
Evidence of Insurance - Leased or Rented Vehicles

CERTIFICATE HOLDER

Auto Information

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

M Bonetto/AFRANO

Appendix A-5

Affidavit of Submitter (RACER)

AFFIDAVIT OF PERSON SUBMITTING A NO FURTHER ACTION REPORT

Required pursuant to Section 20114d(5) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, to be submitted by a person submitting a No Further Action (NFA) report to Michigan DEQ. All terms found in this document which are defined in Part 3, Definitions, and Part 201, Environmental Remediation, of NREPA shall have the same meaning as in the statute.

State of Michigan

County of ~~Saginaw~~ Wayne

1. I, David M. Favero am authorized to submit this affidavit on behalf of RACER Trust.
2. A NFA report dated October 2014 is being submitted for the facility referred to as Former Howard Street Warehouse and located at 700 Garey Street in Saginaw Michigan.
3. The purpose of the NFA report is to detail the completion of remedial action at the Facility, and includes a post-closure plan.
4. The remedial action at the Facility described in the NFA report was conducted in compliance with all applicable local, state, and federal laws and regulations.
5. I affirm to the best of my knowledge and belief that the NFA report prepared for this Facility, and all information, data, documents and reports relied upon for this NFA report, are true, accurate and complete.

Signature of Affiant

Sworn to before me and subscribed in my presence this 13 day of October, 2014.

Notary Public

TRACIE L. NICHOLS
Notary Public, State of Michigan
County of Oakland
My Commission Expires 03-19-2017
Acting in the County of Wayne

Appendix B

Summary of Investigation Results and Soil Removal Activities

Pardys, John-Eric

From: Tomka, Mike
Sent: Monday, April 23, 2012 1:31 PM
To: 'Kaelber-Matlock, Sue (DNRE)'
Cc: Dave Favero; Pardys, John-Eric; Project Email Hold
Subject: Project Update, Garey Street ~COR-045285~
Attachments: Supporting Documents.pdf

Sue,

The following email presents a summary of the work completed at the Garey Street Site in Saginaw, MI. We would like to set up a call with you to discuss the next steps for the project, moving closer to closure. Please let us know when you are available.

TCE Soil Investigation

- CRA conducted the TCE soil investigation on March 28, 2012 in accordance with the plan submitted to MDEQ on December 14, 2011 and acknowledged by the MDEQ in an email on March 12, 2012.
- The objective of the TCE soil investigation was to determine whether elevated concentrations of TCE exist in deeper soils.
- one borehole was advanced at each of the following locations BH12, BH15, BH16, BH32E and screened with a PID. Each location previously exceeded the Non-residential drinking water protection screening criteria (0.1 mg/kg). Please note that the Non-residential drinking water protection criteria was used purely for screening purposes and is not a relevant criteria since no groundwater was encountered during the investigation. See attached figure for TCE results for previous investigations (Summary of Detects - TCE).
- Soil samples were collected at the 8-10 feet bgs level at each location or the first 2-foot interval below 8-10 feet with no PID reading. A second sample was collected at each borehole at the next deeper interval and placed on hold pending the results of the first sample.
- Samples were collected at the following depth intervals and submitted for analysis of VOCs (with specific interest in TCE):
    - BH12 - 8-10 ft bgs and 10-12 ft bgs
    - BH15 - 12-13 ft bgs and 14-15 ft bgs
    - BH16 - 8-10 ft bgs and 10-12 ft bgs
    - BH32E - 8-10 ft bgs and 10-12 ft bgs
- The results of the first interval sample at each location is provided in the attached analytical report (Analytical Report for first interval samples). All locations were below screening criteria with the exception of BH15 which was above Non-residential drinking water protection (0.1 mg/kg) at 1.0 mg/kg for TCE. A few other VOCs were detected, however, they were not above screening criteria.
- As a result of the exceedance the laboratory was directed to analyze the second deeper interval sample at BH-15 , previously placed on hold. The results of the second deeper interval sample is provided in the attached analytical report (J9689-3 UDS Level 2 Report Final Report.pdf). The results were non-detect for TCE. Toluene and cis-1,2 dichloroethene were detected, however, they were not above screening criteria.
- Therefore, based on the results of the TCE soil investigation, elevated concentrations were not found in deeper soils and we believe no further action is appropriate at the Site with respect to TCE.

Lead Impacted Soil Excavation and Restoration

- The objective of the soil excavation was to remove lead impacted soil above direct contact criteria (see attached figure)
- Fisher Contracting (subcontractor) completed the removal of lead impacted soil on April 11 and 12, 2012
- The limits of the excavation were previously delineated. The excavation proceeded to a depth of 2 ft bgs and extended to adjacent sample locations with concentrations below the screening criteria (Non-residential drinking water protection - 700 mg/kg). Lead impacted soil was removed to concentrations below Non-residential drinking water protection criteria as opposed to below direct contact criteria concentrations since the additional volume of soil associated with removing soil to below Non-residential drinking water protection criteria was minimal. The adjacent samples were used as the verification samples for the excavation and therefore no further samples were collected. Please see figure attached for the extents of the excavation (Summary of Detects - Lead)
- Fisher removed approximately 350 tons (12 truck loads) of lead impacted soil
- Back on September 28, 2011 a 6-point composite of the lead impacted soil was collected and submitted for TCLP analysis of lead. The results of the sample were non-detect as identified in the attached analytical report (Analytical report

for lead characterization). Based on the TCLP analysis, the lead impacted soil was disposed of as non-hazardous waste at the Whitefeather Landfill (Republic Services)
- Clean virgin backfill and topsoil were supplied from DeShano's Pit in Kawkawlin and used to restore the Site on April 12, 2012.
- See photographs attached (Lead impacted soil excavation - photographs)

Should you have any questions or require clarification, please do not hesitate to contact us.

Thanks Mike

From: Pardys, John-Eric
Sent: Wednesday, April 11, 2012 3:57 PM 17
To: 'Kaelber-Matlock, Sue (DNRE)'
Cc: 'Dave Favero'; Tomka, Mike; Project Email Hold
Subject: ~COR-045285~Lead impacted soil excavation update

Sue,

Just wanted to give you an update on the status of the excavation out at Garey Street in Saginaw, MI.

Fisher contracting was on-Site all day and have removed approximately 3/4 of the material and started backfilling a portion of the excavation. Fisher is expecting to complete the soil removal tomorrow, finish backfilling the excavation, place topsoil, and seed.

Steve H. (CRA) has been providing oversight. We'll provide some photos of the work once Steve has a chance to send us the photos.

With regards to the TCE impacted soil investigation, we are expecting the last of the data early next week at which time we'll provide an update as to the results.

Should you have any questions, please do not hesitate to contact us.

Thanks

John-eric Pardys, B.A.Sc.
Conestoga-Rovers & Associates (CRA)
651 Colby Drive
Waterloo, ON N2V 1C2

Phone: 519.884.0510
Fax: 519.884.0525
Email: jpardys@CRAworld..com
www.CRAworld.com

From: Pardys, John-Eric
Sent: Tuesday, April 10, 2012 3:42 PM
To: 'Kaelber-Matlock, Sue (DNRE)'
Cc: 'Dave Favero'; Tomka, Mike; Project Email Hold
Subject: Garey St. Backfill soil ~PHO-045285~

Sue,

The attached photos were taken of the backfill proposed to be used for the restoration of the Garey Street excavation (scheduled for tomorrow).

We spoke with the pit and they ensured us that this was a "virgin wooded property". Unforunately they did not have any analytical or other documentation to support their view. That said, based on the photos and the location of the pit (backcountry) it is reasonable to assume that the material is virgin and therefore CRA would recommend that no sampling is necessary.

Fisher was planning on using sand from the pit as backfill and would place a bit of topsoil from the pit over the backfill.

Please let us know if you have any concerns with the use of the backfill identified.

Thanks

John-eric Pardys, B.A.Sc.
Conestoga-Rovers & Associates (CRA)
651 Colby Drive
Waterloo, ON N2V 1C2

Phone: 519.884.0510
Fax: 519.884.0525
Email: jpardys@CRAworld..com
www.CRAworld.com
Think before you print
Perform every task the safe way, the right way, every time!

Trichloroethene Criteria		
Code	Criteria Type	Criteria Value (mg/kg)
a	Residential/Non-Residential - Statewide Default Background Levels	-
b	Non-Residential - Ambient Air - Finite VSIC-2m Source Thickness	1100
c	Non-Residential - Ambient Air - Finite VSIC-5m Source Thickness	440
d	Non-Residential - Ambient Air - Infinite Source VSIC	260
e	Non-Residential - Direct Contact	500
f	Non-residential - Drinking Water Protection	0.1
g	Non-residential - Soil Volatilization to Indoor Air Inhalation	37
h	Non-residential - Ambient Air - Particulate Soil Inhalation	2300000

SOUTH JEFFERSON AVENUE

BH37	2/15/2007
	0-2 ft BGS
Trichloroethene	0.053 U

BH31	2/15/2007
	0-2 ft BGS
Trichloroethene	0.079

BH9	12/18/2006
	0-2 ft BGS
Trichloroethene	0.058 U

BH29D	2/15/2007
	2-4 ft BGS
Trichloroethene	0.048 U

BH3	12/18/2006	12/18/2006
	0-2 ft BGS	2-4 ft BGS
Trichloroethene	0.045 U	0.045 U

BH26	12/18/2006
	0-2 ft BGS
Trichloroethene	0.059 U

BH28C	2/15/2007
	2-4 ft BGS
Trichloroethene	0.045 U

BH36D	2/15/2007
	0-2 ft BGS
Trichloroethene	0.045 U

BH30	2/15/2007
	4-5 ft BGS
Trichloroethene	0.045 U

BH24	12/18/2006
	0-2 ft BGS
Trichloroethene	0.043 U

BH12	12/18/2006	2/15/2007
	0-2 ft BGS	2-4 ft BGS
Trichloroethene	0.52 (f)	0.28 (f)

BH6	12/18/2006
	0-2 ft BGS
Trichloroethene	0.051 U

BH14	12/18/2006
	0-2 ft BGS
Trichloroethene	0.041 U/0.04 U

BH32E	2/15/2007
	2-4 ft BGS
Trichloroethene	0.16 (f)

BH15	12/18/2006	2/15/2007
	0-2 ft BGS	2-4 ft BGS
Trichloroethene	0.12 (f)	0.29 (f)

BH13	12/18/2006
	0-2 ft BGS
Trichloroethene	0.046 U

BH18	12/18/2006	2/15/2007
	0-2 ft BGS	2-4 ft BGS
Trichloroethene	0.047 U	0.081 U

BH33	2/15/2007
	0-2 ft BGS
Trichloroethene	0.047 U

BH19	12/18/2006
	0-2 ft BGS
Trichloroethene	0.051 U

BH34	2/15/2007
	0-2 ft BGS
Trichloroethene	0.046 U

BH16	12/18/2006
	0-2 ft BGS
Trichloroethene	0.1

WOLV
PATT
& MACHINE
1716 S. JEFFERSON

ELECTRICAL
SUBSTATION

OWEN STREET (VACATED)

GAREY STREET (FO

HOWARD STREET

BROWN STREET

RESIDENTIAL

(FORMER
FURSTENBERG
BROTHERS & CO.
LUMBER YARD)

VACANT

VACANT/

G.T.W. RAILROAD

VEGETATION
& TREES

PARTIAL
FENCE LINE

RESIDENTIAL

RESIDENTIAL

0 40 80ft

LEGEND

- PROPERTY BOUNDARY
- FENCE
- STORM SEWER
- GEOPROBE LOCATION
- PROPOSED EXCAVATION AREA (EXCAVATION TO A DEPTH OF 2-FEET)
- SAMPLE LOCATION
- SAMPLE DATE
- SAMPLE DEPTH
- RESULT (mg/kg)
- PARAMETER
- EXCEEDS CRITERIA

BH13	12/18/08
	0-2 ft BGS
Trichloroethene	0.051 J

figure 7

SUMMARY OF DETECTS - TRICHLOROETHENE
FORMER WAREHOUSE
700 GAREY STREET
Saginaw, Michigan

SOURCE: MICHIGAN INSPECTION BUREAU; SAGINAW, MICHIGAN, JUNE 1940

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica North Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-9689-1
Client Project/Site: 45285-T01-003, RACER Garey Street

For:
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman

Denise D Heckler

Authorized for release by:
4/5/2012 1:08:38 PM

Denise Heckler
Project Manager II
denise.heckler@testamericainc.com

Table of Contents

Job ID: 240-9689-1

Laboratory: TestAmerica North Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 45285-T01-003, RACER Garey Street

Report Number: 240-9689-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 03/29/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.8 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples S-45285-032812-SSH-BH16 (240-9689-1), S-45285-032812-SSH-BH12 (240-9689-2), S-45285-032812-SSH-BH15 (240-9689-3), S-45285-032812-SSH-BH32E (240-9689-4), S-45285-032812-SSH-BH12A (240-9689-5) and S-45285-032812-SSH-TB (240-9689-6) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 04/02/2012 and analyzed on 04/03/2012 and 04/04/2012.

Methyl acetate failed the recovery criteria high for the MS/MSD of sample S-45285-032812-SSH-BH32E(240-9689-4) in batch 240-39001.

No other difficulties were encountered during the VOCs analyses.

All other quality control parameters were within the acceptance limits.

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-9689-1	S-45285-032812-SSH-BH16	Solid	03/28/12 11:50	03/29/12 09:10
240-9689-2	S-45285-032812-SSH-BH12	Solid	03/28/12 12:20	03/29/12 09:10
240-9689-3	S-45285-032812-SSH-BH15	Solid	03/28/12 12:45	03/29/12 09:10
240-9689-4	S-45285-032812-SSH-BH32E	Solid	03/28/12 13:15	03/29/12 09:10
240-9689-5	S-45285-032812-SSH-BH12A	Solid	03/28/12 12:22	03/29/12 09:10
240-9689-6	S-45285-032812-SSH-TB	Solid	03/28/12 13:30	03/29/12 09:10

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Client Sample ID: S-45285-032812-SSH-BH16 — Lab Sample ID: 240-9689-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	24	J	44	11	ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: S-45285-032812-SSH-BH12 — Lab Sample ID: 240-9689-2

No Detections

Client Sample ID: S-45285-032812-SSH-BH15 — Lab Sample ID: 240-9689-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1000		44	11	ug/Kg	1	☼	8260B	Total/NA
cis-1,2-Dichloroethene	390		44	7.6	ug/Kg	1	☼	8260B	Total/NA
trans-1,2-Dichloroethene	12	J	44	10	ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: S-45285-032812-SSH-BH32E — Lab Sample ID: 240-9689-4

No Detections

Client Sample ID: S-45285-032812-SSH-BH12A — Lab Sample ID: 240-9689-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trichlorobenzene	14	J	200	7.3	ug/Kg	1		8260B	Total/NA

Client Sample ID: S-45285-032812-SSH-TB — Lab Sample ID: 240-9689-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl acetate	27	J	960	25	ug/Kg	1		8260B	Total/NA

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NC
Moisture	Percent Moisture	EPA	TAL NC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NC = TestAmerica North Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-45285-032812-SSH-BH16
Date Collected: 03/28/12 11:50
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-1
Matrix: Solid
Percent Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	660	U	660	190	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Benzene	44	U	44	13	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Bromodichloromethane	89	U	89	11	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Bromoform	89	U	89	21	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Bromomethane	220	U	220	32	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
2-Butanone (MEK)	660	U	660	48	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Carbon disulfide	220	U	220	13	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Carbon tetrachloride	44	U	44	7.1	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Chlorobenzene	44	U	44	7.1	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Chloroethane	220	U	220	68	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Chloroform	44	U	44	9.8	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Chloromethane	220	U	220	16	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
1,1-Dichloroethane	44	U	44	19	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
1,2-Dichloroethane	44	U	44	11	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
1,1-Dichloroethene	44	U	44	20	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
1,2-Dichloropropane	44	U	44	9.1	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
cis-1,3-Dichloropropene	44	U	44	8.8	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
trans-1,3-Dichloropropene	44	U	44	22	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Ethylbenzene	44	U	44	6.0	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
2-Hexanone	2200	U	2200	22	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Methylene Chloride	220	U	220	85	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
4-Methyl-2-pentanone (MIBK)	2200	U	2200	53	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Styrene	44	U	44	6.2	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
1,1,2,2-Tetrachloroethane	44	U	44	9.9	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Tetrachloroethene	44	U	44	13	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Toluene	89	U	89	19	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Trichloroethene	**24**	**J**	44	11	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Vinyl chloride	35	U	35	20	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Xylenes, Total	130	U	130	9.0	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
1,1,1-Trichloroethane	44	U	44	23	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
1,1,2-Trichloroethane	44	U	44	13	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Cyclohexane	1100	U	1100	44	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
1,2-Dibromo-3-Chloropropane	220	U	220	55	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
1,2-Dibromoethane	220	U	220	11	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Dichlorodifluoromethane	89	U	89	18	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
cis-1,2-Dichloroethene	44	U	44	7.6	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
trans-1,2-Dichloroethene	44	U	44	10	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Isopropylbenzene	220	U	220	7.2	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Methyl acetate	1100	U	1100	28	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Methyl tert-butyl ether	220	U	220	7.9	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	220	U	220	43	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
1,2,4-Trichlorobenzene	220	U	220	8.1	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
1,2-Dichlorobenzene	89	U	89	9.5	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
1,3-Dichlorobenzene	89	U	89	5.3	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
1,4-Dichlorobenzene	89	U	89	8.9	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Trichlorofluoromethane	89	U	89	18	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Dibromochloromethane	44	U	44	13	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1
Methylcyclohexane	1100	U	1100	13	ug/Kg	☼	04/02/12 10:47	04/03/12 23:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*39 - 128*	*04/02/12 10:47*	*04/03/12 23:44*	*1*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-45285-032812-SSH-BH16
Date Collected: 03/28/12 11:50
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-1
Matrix: Solid
Percent Solids: 90.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		26 - 141	04/02/12 10:47	04/03/12 23:44	1
Toluene-d8 (Surr)	87		33 - 134	04/02/12 10:47	04/03/12 23:44	1
Dibromofluoromethane (Surr)	73		30 - 122	04/02/12 10:47	04/03/12 23:44	1

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-45285-032812-SSH-BH12
Date Collected: 03/28/12 12:20
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-2
Matrix: Solid
Percent Solids: 88.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	670	U	670	190	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Benzene	45	U	45	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Bromodichloromethane	90	U	90	11	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Bromoform	90	U	90	21	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Bromomethane	220	U	220	33	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
2-Butanone (MEK)	670	U	670	48	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Carbon disulfide	220	U	220	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Carbon tetrachloride	45	U	45	7.2	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Chlorobenzene	45	U	45	7.2	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Chloroethane	220	U	220	69	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Chloroform	45	U	45	9.9	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Chloromethane	220	U	220	16	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
1,1-Dichloroethane	45	U	45	19	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
1,2-Dichloroethane	45	U	45	11	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
1,1-Dichloroethene	45	U	45	20	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
1,2-Dichloropropane	45	U	45	9.2	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
cis-1,3-Dichloropropene	45	U	45	8.9	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
trans-1,3-Dichloropropene	45	U	45	22	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Ethylbenzene	45	U	45	6.1	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
2-Hexanone	2200	U	2200	22	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Methylene Chloride	220	U	220	87	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
4-Methyl-2-pentanone (MIBK)	2200	U	2200	54	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Styrene	45	U	45	6.3	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
1,1,2,2-Tetrachloroethane	45	U	45	10	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Tetrachloroethene	45	U	45	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Toluene	90	U	90	19	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Trichloroethene	45	U	45	11	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Vinyl chloride	36	U	36	20	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Xylenes, Total	130	U	130	9.1	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
1,1,1-Trichloroethane	45	U	45	24	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
1,1,2-Trichloroethane	45	U	45	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Cyclohexane	1100	U	1100	45	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
1,2-Dibromo-3-Chloropropane	220	U	220	56	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
1,2-Dibromoethane	220	U	220	11	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Dichlorodifluoromethane	90	U	90	18	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
cis-1,2-Dichloroethene	45	U	45	7.8	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
trans-1,2-Dichloroethene	45	U	45	10	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Isopropylbenzene	220	U	220	7.3	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Methyl acetate	1100	U	1100	28	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Methyl tert-butyl ether	220	U	220	8.0	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	220	U	220	44	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
1,2,4-Trichlorobenzene	220	U	220	8.2	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
1,2-Dichlorobenzene	90	U	90	9.7	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
1,3-Dichlorobenzene	90	U	90	5.4	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
1,4-Dichlorobenzene	90	U	90	9.0	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Trichlorofluoromethane	90	U	90	18	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Dibromochloromethane	45	U	45	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1
Methylcyclohexane	1100	U	1100	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*39 - 128*	*04/02/12 10:47*	*04/04/12 00:08*	*1*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-45285-032812-SSH-BH12
Date Collected: 03/28/12 12:20
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-2
Matrix: Solid
Percent Solids: 88.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		26 - 141	04/02/12 10:47	04/04/12 00:08	1
Toluene-d8 (Surr)	89		33 - 134	04/02/12 10:47	04/04/12 00:08	1
Dibromofluoromethane (Surr)	72		30 - 122	04/02/12 10:47	04/04/12 00:08	1

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-45285-032812-SSH-BH15
Date Collected: 03/28/12 12:45
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-3
Matrix: Solid
Percent Solids: 89.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	670	U	670	190	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Benzene	44	U	44	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Bromodichloromethane	89	U	89	11	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Bromoform	89	U	89	21	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Bromomethane	220	U	220	32	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
2-Butanone (MEK)	670	U	670	48	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Carbon disulfide	220	U	220	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Carbon tetrachloride	44	U	44	7.1	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Chlorobenzene	44	U	44	7.1	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Chloroethane	220	U	220	68	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Chloroform	44	U	44	9.8	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Chloromethane	220	U	220	16	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
1,1-Dichloroethane	44	U	44	19	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
1,2-Dichloroethane	44	U	44	11	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
1,1-Dichloroethene	44	U	44	20	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
1,2-Dichloropropane	44	U	44	9.1	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
cis-1,3-Dichloropropene	44	U	44	8.8	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
trans-1,3-Dichloropropene	44	U	44	22	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Ethylbenzene	44	U	44	6.0	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
2-Hexanone	2200	U	2200	22	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Methylene Chloride	220	U	220	85	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
4-Methyl-2-pentanone (MIBK)	2200	U	2200	53	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Styrene	44	U	44	6.2	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
1,1,2,2-Tetrachloroethane	44	U	44	9.9	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Tetrachloroethene	44	U	44	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Toluene	89	U	89	19	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Trichloroethene	**1000**		44	11	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Vinyl chloride	35	U	35	20	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Xylenes, Total	130	U	130	9.0	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
1,1,1-Trichloroethane	44	U	44	23	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
1,1,2-Trichloroethane	44	U	44	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Cyclohexane	1100	U	1100	44	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
1,2-Dibromo-3-Chloropropane	220	U	220	55	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
1,2-Dibromoethane	220	U	220	11	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Dichlorodifluoromethane	89	U	89	18	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
cis-1,2-Dichloroethene	**390**		44	7.6	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
trans-1,2-Dichloroethene	**12**	**J**	44	10	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Isopropylbenzene	220	U	220	7.2	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Methyl acetate	1100	U	1100	28	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Methyl tert-butyl ether	220	U	220	7.9	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	220	U	220	43	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
1,2,4-Trichlorobenzene	220	U	220	8.1	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
1,2-Dichlorobenzene	89	U	89	9.5	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
1,3-Dichlorobenzene	89	U	89	5.3	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
1,4-Dichlorobenzene	89	U	89	8.9	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Trichlorofluoromethane	89	U	89	18	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Dibromochloromethane	44	U	44	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1
Methylcyclohexane	1100	U	1100	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*39 - 128*	*04/02/12 10:47*	*04/04/12 00:32*	*1*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-45285-032812-SSH-BH15
Date Collected: 03/28/12 12:45
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-3
Matrix: Solid
Percent Solids: 89.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		26 - 141	04/02/12 10:47	04/04/12 00:32	1
Toluene-d8 (Surr)	89		33 - 134	04/02/12 10:47	04/04/12 00:32	1
Dibromofluoromethane (Surr)	72		30 - 122	04/02/12 10:47	04/04/12 00:32	1

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-45285-032812-SSH-BH32E
Date Collected: 03/28/12 13:15
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-4
Matrix: Solid
Percent Solids: 90.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	660	U	660	190	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Benzene	44	U	44	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Bromodichloromethane	89	U	89	11	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Bromoform	89	U	89	21	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Bromomethane	220	U	220	32	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
2-Butanone (MEK)	660	U	660	48	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Carbon disulfide	220	U	220	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Carbon tetrachloride	44	U	44	7.1	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Chlorobenzene	44	U	44	7.1	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Chloroethane	220	U	220	68	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Chloroform	44	U	44	9.7	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Chloromethane	220	U	220	15	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
1,1-Dichloroethane	44	U	44	19	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
1,2-Dichloroethane	44	U	44	11	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
1,1-Dichloroethene	44	U	44	20	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
1,2-Dichloropropane	44	U	44	9.1	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
cis-1,3-Dichloropropene	44	U	44	8.7	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
trans-1,3-Dichloropropene	44	U	44	22	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Ethylbenzene	44	U	44	6.0	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
2-Hexanone	2200	U	2200	22	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Methylene Chloride	220	U	220	85	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
4-Methyl-2-pentanone (MIBK)	2200	U	2200	53	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Styrene	44	U	44	6.2	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
1,1,2,2-Tetrachloroethane	44	U	44	9.9	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Tetrachloroethene	44	U	44	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Toluene	89	U	89	19	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Trichloroethene	44	U	44	11	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Vinyl chloride	35	U	35	20	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Xylenes, Total	130	U	130	9.0	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
1,1,1-Trichloroethane	44	U	44	23	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
1,1,2-Trichloroethane	44	U	44	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Cyclohexane	1100	U	1100	44	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
1,2-Dibromo-3-Chloropropane	220	U	220	55	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
1,2-Dibromoethane	220	U	220	11	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Dichlorodifluoromethane	89	U	89	18	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
cis-1,2-Dichloroethene	44	U	44	7.6	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
trans-1,2-Dichloroethene	44	U	44	10	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Isopropylbenzene	220	U	220	7.2	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Methyl acetate	1100	U	1100	28	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Methyl tert-butyl ether	220	U	220	7.9	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	220	U	220	43	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
1,2,4-Trichlorobenzene	220	U	220	8.1	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
1,2-Dichlorobenzene	89	U	89	9.5	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
1,3-Dichlorobenzene	89	U	89	5.3	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
1,4-Dichlorobenzene	89	U	89	8.9	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Trichlorofluoromethane	89	U	89	18	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Dibromochloromethane	44	U	44	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1
Methylcyclohexane	1100	U	1100	13	ug/Kg	☼	04/02/12 10:47	04/04/12 00:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*39 - 128*	*04/02/12 10:47*	*04/04/12 00:56*	*1*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-45285-032812-SSH-BH32E
Date Collected: 03/28/12 13:15
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-4
Matrix: Solid
Percent Solids: 90.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		26 - 141	04/02/12 10:47	04/04/12 00:56	1
Toluene-d8 (Surr)	89		33 - 134	04/02/12 10:47	04/04/12 00:56	1
Dibromofluoromethane (Surr)	72		30 - 122	04/02/12 10:47	04/04/12 00:56	1

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-45285-032812-SSH-BH12A
Date Collected: 03/28/12 12:22
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	600	U	600	170	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Benzene	40	U	40	12	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Bromodichloromethane	80	U	80	9.9	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Bromoform	80	U	80	19	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Bromomethane	200	U	200	29	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
2-Butanone (MEK)	600	U	600	43	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Carbon disulfide	200	U	200	12	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Carbon tetrachloride	40	U	40	6.4	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Chlorobenzene	40	U	40	6.4	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Chloroethane	200	U	200	61	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Chloroform	40	U	40	8.8	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Chloromethane	200	U	200	14	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
1,1-Dichloroethane	40	U	40	17	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
1,2-Dichloroethane	40	U	40	10	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
1,1-Dichloroethene	40	U	40	18	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
1,2-Dichloropropane	40	U	40	8.2	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
cis-1,3-Dichloropropene	40	U	40	7.9	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
trans-1,3-Dichloropropene	40	U	40	20	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Ethylbenzene	40	U	40	5.4	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
2-Hexanone	2000	U	2000	20	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Methylene Chloride	200	U	200	77	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
4-Methyl-2-pentanone (MIBK)	2000	U	2000	48	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Styrene	40	U	40	5.6	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
1,1,2,2-Tetrachloroethane	40	U	40	8.9	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Tetrachloroethene	40	U	40	12	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Toluene	80	U	80	17	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Trichloroethene	40	U	40	9.7	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Vinyl chloride	32	U	32	18	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Xylenes, Total	120	U	120	8.1	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
1,1,1-Trichloroethane	40	U	40	21	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
1,1,2-Trichloroethane	40	U	40	12	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Cyclohexane	960	U	960	40	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
1,2-Dibromo-3-Chloropropane	200	U	200	50	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
1,2-Dibromoethane	200	U	200	10	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Dichlorodifluoromethane	80	U	80	16	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
cis-1,2-Dichloroethene	40	U	40	6.9	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
trans-1,2-Dichloroethene	40	U	40	9.2	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Isopropylbenzene	200	U	200	6.5	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Methyl acetate	960	U	960	25	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Methyl tert-butyl ether	200	U	200	7.1	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	200	U	200	39	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
1,2,4-Trichlorobenzene	**14**	**J**	200	7.3	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
1,2-Dichlorobenzene	80	U	80	8.6	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
1,3-Dichlorobenzene	80	U	80	4.8	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
1,4-Dichlorobenzene	80	U	80	8.0	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Trichlorofluoromethane	80	U	80	16	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Dibromochloromethane	40	U	40	12	ug/Kg		04/02/12 10:47	04/04/12 02:09	1
Methylcyclohexane	960	U	960	12	ug/Kg		04/02/12 10:47	04/04/12 02:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*39 - 128*	*04/02/12 10:47*	*04/04/12 02:09*	*1*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-45285-032812-SSH-BH12A
Date Collected: 03/28/12 12:22
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-5
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		26 - 141	04/02/12 10:47	04/04/12 02:09	1
Toluene-d8 (Surr)	87		33 - 134	04/02/12 10:47	04/04/12 02:09	1
Dibromofluoromethane (Surr)	72		30 - 122	04/02/12 10:47	04/04/12 02:09	1

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-45285-032812-SSH-TB
Date Collected: 03/28/12 13:30
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	600	U	600	170	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Benzene	40	U	40	12	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Bromodichloromethane	80	U	80	9.9	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Bromoform	80	U	80	19	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Bromomethane	200	U	200	29	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
2-Butanone (MEK)	600	U	600	43	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Carbon disulfide	200	U	200	12	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Carbon tetrachloride	40	U	40	6.4	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Chlorobenzene	40	U	40	6.4	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Chloroethane	200	U	200	61	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Chloroform	40	U	40	8.8	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Chloromethane	200	U	200	14	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
1,1-Dichloroethane	40	U	40	17	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
1,2-Dichloroethane	40	U	40	10	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
1,1-Dichloroethene	40	U	40	18	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
1,2-Dichloropropane	40	U	40	8.2	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
cis-1,3-Dichloropropene	40	U	40	7.9	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
trans-1,3-Dichloropropene	40	U	40	20	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Ethylbenzene	40	U	40	5.4	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
2-Hexanone	2000	U	2000	20	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Methylene Chloride	200	U	200	77	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
4-Methyl-2-pentanone (MIBK)	2000	U	2000	48	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Styrene	40	U	40	5.6	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
1,1,2,2-Tetrachloroethane	40	U	40	8.9	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Tetrachloroethene	40	U	40	12	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Toluene	80	U	80	17	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Trichloroethene	40	U	40	9.7	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Vinyl chloride	32	U	32	18	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Xylenes, Total	120	U	120	8.1	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
1,1,1-Trichloroethane	40	U	40	21	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
1,1,2-Trichloroethane	40	U	40	12	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Cyclohexane	960	U	960	40	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
1,2-Dibromo-3-Chloropropane	200	U	200	50	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
1,2-Dibromoethane	200	U	200	10	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Dichlorodifluoromethane	80	U	80	16	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
cis-1,2-Dichloroethene	40	U	40	6.9	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
trans-1,2-Dichloroethene	40	U	40	9.2	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Isopropylbenzene	200	U	200	6.5	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Methyl acetate	**27**	**J**	960	25	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Methyl tert-butyl ether	200	U	200	7.1	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	200	U	200	39	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
1,2,4-Trichlorobenzene	200	U	200	7.3	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
1,2-Dichlorobenzene	80	U	80	8.6	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
1,3-Dichlorobenzene	80	U	80	4.8	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
1,4-Dichlorobenzene	80	U	80	8.0	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Trichlorofluoromethane	80	U	80	16	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Dibromochloromethane	40	U	40	12	ug/Kg		04/02/12 10:47	04/04/12 02:33	1
Methylcyclohexane	960	U	960	12	ug/Kg		04/02/12 10:47	04/04/12 02:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*39 - 128*	*04/02/12 10:47*	*04/04/12 02:33*	*1*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-45285-032812-SSH-TB
Date Collected: 03/28/12 13:30
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-6
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		26 - 141	04/02/12 10:47	04/04/12 02:33	1
Toluene-d8 (Surr)	86		33 - 134	04/02/12 10:47	04/04/12 02:33	1
Dibromofluoromethane (Surr)	70		30 - 122	04/02/12 10:47	04/04/12 02:33	1

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

GC/MS VOA

Prep Batch: 38785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-9689-1	S-45285-032812-SSH-BH16	Total/NA	Solid	5035	
240-9689-2	S-45285-032812-SSH-BH12	Total/NA	Solid	5035	
240-9689-3	S-45285-032812-SSH-BH15	Total/NA	Solid	5035	
240-9689-4	S-45285-032812-SSH-BH32E	Total/NA	Solid	5035	
240-9689-4 MS	S-45285-032812-SSH-BH32E	Total/NA	Solid	5035	
240-9689-4 MSD	S-45285-032812-SSH-BH32E	Total/NA	Solid	5035	
240-9689-5	S-45285-032812-SSH-BH12A	Total/NA	Solid	5035	
240-9689-6	S-45285-032812-SSH-TB	Total/NA	Solid	5035	
LCS 240-38785/2-A	Lab Control Sample	Total/NA	Solid	5035	
MB 240-38785/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 39001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-9689-1	S-45285-032812-SSH-BH16	Total/NA	Solid	8260B	38785
240-9689-2	S-45285-032812-SSH-BH12	Total/NA	Solid	8260B	38785
240-9689-3	S-45285-032812-SSH-BH15	Total/NA	Solid	8260B	38785
240-9689-4	S-45285-032812-SSH-BH32E	Total/NA	Solid	8260B	38785
240-9689-4 MS	S-45285-032812-SSH-BH32E	Total/NA	Solid	8260B	38785
240-9689-4 MSD	S-45285-032812-SSH-BH32E	Total/NA	Solid	8260B	38785
240-9689-5	S-45285-032812-SSH-BH12A	Total/NA	Solid	8260B	38785
240-9689-6	S-45285-032812-SSH-TB	Total/NA	Solid	8260B	38785
LCS 240-38785/2-A	Lab Control Sample	Total/NA	Solid	8260B	38785
MB 240-38785/1-A	Method Blank	Total/NA	Solid	8260B	38785

General Chemistry

Analysis Batch: 38631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-9689-1	S-45285-032812-SSH-BH16	Total/NA	Solid	Moisture	
240-9689-2	S-45285-032812-SSH-BH12	Total/NA	Solid	Moisture	
240-9689-3	S-45285-032812-SSH-BH15	Total/NA	Solid	Moisture	
240-9689-4	S-45285-032812-SSH-BH32E	Total/NA	Solid	Moisture	
240-9689-4 DU	S-45285-032812-SSH-BH32E	Total/NA	Solid	Moisture	

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-38785/1-A
Matrix: Solid
Analysis Batch: 39001

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38785

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	600	U	600	170	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Benzene	40	U	40	12	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Bromodichloromethane	80	U	80	9.9	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Bromoform	80	U	80	19	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Bromomethane	200	U	200	29	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
2-Butanone (MEK)	600	U	600	43	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Carbon disulfide	200	U	200	12	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Carbon tetrachloride	40	U	40	6.4	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Chlorobenzene	40	U	40	6.4	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Chloroethane	200	U	200	61	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Chloroform	40	U	40	8.8	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Chloromethane	200	U	200	14	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
1,1-Dichloroethane	40	U	40	17	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
1,2-Dichloroethane	40	U	40	10	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
1,1-Dichloroethene	40	U	40	18	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
1,2-Dichloropropane	40	U	40	8.2	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
cis-1,3-Dichloropropene	40	U	40	7.9	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
trans-1,3-Dichloropropene	40	U	40	20	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Ethylbenzene	40	U	40	5.4	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
2-Hexanone	2000	U	2000	20	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Methylene Chloride	200	U	200	77	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
4-Methyl-2-pentanone (MIBK)	2000	U	2000	48	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Styrene	40	U	40	5.6	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
1,1,2,2-Tetrachloroethane	40	U	40	8.9	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Tetrachloroethene	40	U	40	12	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Toluene	80	U	80	17	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Trichloroethene	40	U	40	9.7	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Vinyl chloride	32	U	32	18	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Xylenes, Total	120	U	120	8.1	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
1,1,1-Trichloroethane	40	U	40	21	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
1,1,2-Trichloroethane	40	U	40	12	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Cyclohexane	960	U	960	40	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
1,2-Dibromo-3-Chloropropane	200	U	200	50	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
1,2-Dibromoethane	200	U	200	10	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Dichlorodifluoromethane	80	U	80	16	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
cis-1,2-Dichloroethene	40	U	40	6.9	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
trans-1,2-Dichloroethene	40	U	40	9.2	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Isopropylbenzene	200	U	200	6.5	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Methyl acetate	960	U	960	25	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Methyl tert-butyl ether	200	U	200	7.1	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	200	U	200	39	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
1,2,4-Trichlorobenzene	200	U	200	7.3	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
1,2-Dichlorobenzene	80	U	80	8.6	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
1,3-Dichlorobenzene	80	U	80	4.8	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
1,4-Dichlorobenzene	80	U	80	8.0	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Trichlorofluoromethane	80	U	80	16	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Dibromochloromethane	40	U	40	12	ug/Kg		04/02/12 10:36	04/03/12 18:57	1
Methylcyclohexane	960	U	960	12	ug/Kg		04/02/12 10:36	04/03/12 18:57	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-38785/1-A
Matrix: Solid
Analysis Batch: 39001

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38785

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		39 - 128	04/02/12 10:36	04/03/12 18:57	1
4-Bromofluorobenzene (Surr)	86		26 - 141	04/02/12 10:36	04/03/12 18:57	1
Toluene-d8 (Surr)	88		33 - 134	04/02/12 10:36	04/03/12 18:57	1
Dibromofluoromethane (Surr)	75		30 - 122	04/02/12 10:36	04/03/12 18:57	1

Lab Sample ID: LCS 240-38785/2-A
Matrix: Solid
Analysis Batch: 39001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38785

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	1000	1070		ug/Kg		107	16 - 156
Benzene	500	510		ug/Kg		102	70 - 117
Bromodichloromethane	500	416		ug/Kg		83	28 - 123
Bromoform	500	283		ug/Kg		57	10 - 117
Bromomethane	500	477		ug/Kg		95	10 - 114
2-Butanone (MEK)	1000	1120		ug/Kg		112	10 - 199
Carbon disulfide	500	431		ug/Kg		86	10 - 132
Carbon tetrachloride	500	447		ug/Kg		89	29 - 118
Chlorobenzene	500	483		ug/Kg		97	71 - 116
Chloroethane	500	595		ug/Kg		119	10 - 120
Chloroform	500	447		ug/Kg		89	63 - 116
Chloromethane	500	489		ug/Kg		98	25 - 110
1,1-Dichloroethane	500	515		ug/Kg		103	63 - 117
1,2-Dichloroethane	500	492		ug/Kg		98	68 - 119
1,1-Dichloroethene	500	515		ug/Kg		103	44 - 143
1,2-Dichloropropane	500	535		ug/Kg		107	73 - 113
cis-1,3-Dichloropropene	500	429		ug/Kg		86	25 - 120
trans-1,3-Dichloropropene	500	457		ug/Kg		91	22 - 122
Ethylbenzene	500	482		ug/Kg		96	66 - 119
2-Hexanone	1000	1290	J	ug/Kg		129	43 - 130
Methylene Chloride	500	520		ug/Kg		104	27 - 172
4-Methyl-2-pentanone (MIBK)	1000	1170	J	ug/Kg		117	49 - 121
Styrene	500	491		ug/Kg		98	60 - 120
1,1,2,2-Tetrachloroethane	500	555		ug/Kg		111	54 - 121
Tetrachloroethene	500	458		ug/Kg		92	58 - 131
Toluene	500	500		ug/Kg		100	66 - 123
Trichloroethene	500	469		ug/Kg		94	59 - 124
Vinyl chloride	500	431		ug/Kg		86	33 - 110
Xylenes, Total	1500	1450		ug/Kg		97	68 - 119
1,1,1-Trichloroethane	500	479		ug/Kg		96	38 - 122
1,1,2-Trichloroethane	500	515		ug/Kg		103	74 - 114
Cyclohexane	500	590	J	ug/Kg		118	40 - 120
1,2-Dibromo-3-Chloropropane	500	358		ug/Kg		72	10 - 129
1,2-Dibromoethane	500	466		ug/Kg		93	47 - 123
Dichlorodifluoromethane	500	356		ug/Kg		71	10 - 110
cis-1,2-Dichloroethene	500	490		ug/Kg		98	60 - 125
trans-1,2-Dichloroethene	500	520		ug/Kg		104	58 - 121
Isopropylbenzene	500	490		ug/Kg		98	61 - 123
Methyl acetate	500	690	J	ug/Kg		138	44 - 173

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-38785/2-A
Matrix: Solid
Analysis Batch: 39001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38785

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	500	510		ug/Kg		102	34 - 157
1,1,2-Trichloro-1,2,2-trifluoroethane	500	500		ug/Kg		100	48 - 151
1,2,4-Trichlorobenzene	500	458		ug/Kg		92	41 - 135
1,2-Dichlorobenzene	500	498		ug/Kg		100	68 - 118
1,3-Dichlorobenzene	500	505		ug/Kg		101	66 - 121
1,4-Dichlorobenzene	500	486		ug/Kg		97	65 - 119
Trichlorofluoromethane	500	487		ug/Kg		97	17 - 145
Dibromochloromethane	500	348		ug/Kg		70	22 - 113
Methylcyclohexane	500	515	J	ug/Kg		103	41 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*84*		*39 - 128*
4-Bromofluorobenzene (Surr)	*85*		*26 - 141*
Toluene-d8 (Surr)	*86*		*33 - 134*
Dibromofluoromethane (Surr)	*74*		*30 - 122*

Lab Sample ID: 240-9689-4 MS
Matrix: Solid
Analysis Batch: 39001

Client Sample ID: S-45285-032812-SSH-BH32E
Prep Type: Total/NA
Prep Batch: 38785

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	660	U	972	1060		ug/Kg	☼	109	10 - 142
Benzene	44	U	486	469		ug/Kg	☼	96	10 - 199
Bromodichloromethane	89	U	486	340		ug/Kg	☼	70	18 - 133
Bromoform	89	U	486	219		ug/Kg	☼	45	10 - 147
Bromomethane	220	U	486	432		ug/Kg	☼	89	10 - 151
2-Butanone (MEK)	660	U	972	975		ug/Kg	☼	100	10 - 172
Carbon disulfide	220	U	486	364		ug/Kg	☼	75	10 - 155
Carbon tetrachloride	44	U	486	369		ug/Kg	☼	76	12 - 135
Chlorobenzene	44	U	486	444		ug/Kg	☼	91	47 - 118
Chloroethane	220	U	486	530		ug/Kg	☼	109	10 - 168
Chloroform	44	U	486	398		ug/Kg	☼	82	51 - 120
Chloromethane	220	U	486	440		ug/Kg	☼	91	16 - 115
1,1-Dichloroethane	44	U	486	462		ug/Kg	☼	95	18 - 160
1,2-Dichloroethane	44	U	486	457		ug/Kg	☼	94	25 - 150
1,1-Dichloroethene	44	U	486	456		ug/Kg	☼	94	10 - 179
1,2-Dichloropropane	44	U	486	474		ug/Kg	☼	98	58 - 118
cis-1,3-Dichloropropene	44	U	486	357		ug/Kg	☼	73	19 - 121
trans-1,3-Dichloropropene	44	U	486	385		ug/Kg	☼	79	10 - 136
Ethylbenzene	44	U	486	441		ug/Kg	☼	91	27 - 143
2-Hexanone	2200	U	972	1160	J	ug/Kg	☼	120	21 - 141
Methylene Chloride	220	U	486	483		ug/Kg	☼	99	10 - 148
4-Methyl-2-pentanone (MIBK)	2200	U	972	1080	J	ug/Kg	☼	111	19 - 151
Styrene	44	U	486	446		ug/Kg	☼	92	31 - 137
1,1,2,2-Tetrachloroethane	44	U	486	453		ug/Kg	☼	93	16 - 158
Tetrachloroethene	44	U	486	418		ug/Kg	☼	86	19 - 153
Toluene	89	U	486	471		ug/Kg	☼	97	10 - 168
Trichloroethene	44	U	486	447		ug/Kg	☼	92	10 - 193
Vinyl chloride	35	U	486	371		ug/Kg	☼	76	15 - 123

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-9689-4 MS
Matrix: Solid
Analysis Batch: 39001

Client Sample ID: S-45285-032812-SSH-BH32E
Prep Type: Total/NA
Prep Batch: 38785

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	130	U	1460	1330		ug/Kg	☼	91	16 - 150
1,1,1-Trichloroethane	44	U	486	406		ug/Kg	☼	83	10 - 159
1,1,2-Trichloroethane	44	U	486	461		ug/Kg	☼	95	34 - 152
Cyclohexane	1100	U	486	403	J	ug/Kg	☼	83	10 - 154
1,2-Dibromo-3-Chloropropane	220	U	486	290		ug/Kg	☼	60	10 - 137
1,2-Dibromoethane	220	U	486	443		ug/Kg	☼	91	32 - 127
Dichlorodifluoromethane	89	U	486	238		ug/Kg	☼	49	10 - 113
cis-1,2-Dichloroethene	44	U	486	457		ug/Kg	☼	94	34 - 137
trans-1,2-Dichloroethene	44	U	486	461		ug/Kg	☼	95	40 - 126
Isopropylbenzene	220	U	486	453		ug/Kg	☼	93	39 - 126
Methyl acetate	1100	U	486	870	J F	ug/Kg	☼	179	10 - 175
Methyl tert-butyl ether	220	U	486	459		ug/Kg	☼	95	26 - 159
1,1,2-Trichloro-1,2,2-trifluoroethane	220	U	486	399		ug/Kg	☼	82	23 - 168
1,2,4-Trichlorobenzene	220	U	486	418		ug/Kg	☼	86	10 - 136
1,2-Dichlorobenzene	89	U	486	460		ug/Kg	☼	95	27 - 126
1,3-Dichlorobenzene	89	U	486	471		ug/Kg	☼	97	29 - 124
1,4-Dichlorobenzene	89	U	486	457		ug/Kg	☼	94	30 - 123
Trichlorofluoromethane	89	U	486	398		ug/Kg	☼	82	10 - 157
Dibromochloromethane	44	U	486	274		ug/Kg	☼	56	10 - 128
Methylcyclohexane	1100	U	486	386	J	ug/Kg	☼	79	11 - 156

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*82*		*39 - 128*
4-Bromofluorobenzene (Surr)	*86*		*26 - 141*
Toluene-d8 (Surr)	*85*		*33 - 134*
Dibromofluoromethane (Surr)	*71*		*30 - 122*

Lab Sample ID: 240-9689-4 MSD
Matrix: Solid
Analysis Batch: 39001

Client Sample ID: S-45285-032812-SSH-BH32E
Prep Type: Total/NA
Prep Batch: 38785

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	660	U	926	1060		ug/Kg	☼	115	10 - 142	0	30
Benzene	44	U	463	471		ug/Kg	☼	102	10 - 199	0	30
Bromodichloromethane	89	U	463	352		ug/Kg	☼	76	18 - 133	4	30
Bromoform	89	U	463	220		ug/Kg	☼	47	10 - 147	0	30
Bromomethane	220	U	463	428		ug/Kg	☼	92	10 - 151	1	30
2-Butanone (MEK)	660	U	926	964		ug/Kg	☼	104	10 - 172	1	30
Carbon disulfide	220	U	463	384		ug/Kg	☼	83	10 - 155	5	30
Carbon tetrachloride	44	U	463	392		ug/Kg	☼	85	12 - 135	6	30
Chlorobenzene	44	U	463	438		ug/Kg	☼	95	47 - 118	1	30
Chloroethane	220	U	463	548		ug/Kg	☼	118	10 - 168	3	30
Chloroform	44	U	463	417		ug/Kg	☼	90	51 - 120	5	30
Chloromethane	220	U	463	447		ug/Kg	☼	97	16 - 115	2	30
1,1-Dichloroethane	44	U	463	481		ug/Kg	☼	104	18 - 160	4	30
1,2-Dichloroethane	44	U	463	467		ug/Kg	☼	101	25 - 150	2	30
1,1-Dichloroethene	44	U	463	463		ug/Kg	☼	100	10 - 179	2	30
1,2-Dichloropropane	44	U	463	473		ug/Kg	☼	102	58 - 118	0	30
cis-1,3-Dichloropropene	44	U	463	374		ug/Kg	☼	81	19 - 121	5	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-9689-4 MSD
Matrix: Solid
Analysis Batch: 39001

Client Sample ID: S-45285-032812-SSH-BH32E
Prep Type: Total/NA
Prep Batch: 38785

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	44	U	463	383		ug/Kg	☼	83	10 - 136	1	30
Ethylbenzene	44	U	463	430		ug/Kg	☼	93	27 - 143	2	30
2-Hexanone	2200	U	926	1110	J	ug/Kg	☼	120	21 - 141	5	30
Methylene Chloride	220	U	463	496		ug/Kg	☼	107	10 - 148	3	30
4-Methyl-2-pentanone (MIBK)	2200	U	926	1070	J	ug/Kg	☼	115	19 - 151	1	30
Styrene	44	U	463	443		ug/Kg	☼	96	31 - 137	1	30
1,1,2,2-Tetrachloroethane	44	U	463	460		ug/Kg	☼	99	16 - 158	1	30
Tetrachloroethene	44	U	463	413		ug/Kg	☼	89	19 - 153	1	30
Toluene	89	U	463	460		ug/Kg	☼	99	10 - 168	2	30
Trichloroethene	44	U	463	445		ug/Kg	☼	96	10 - 193	0	30
Vinyl chloride	35	U	463	375		ug/Kg	☼	81	15 - 123	1	30
Xylenes, Total	130	U	1390	1320		ug/Kg	☼	95	16 - 150	1	30
1,1,1-Trichloroethane	44	U	463	426		ug/Kg	☼	92	10 - 159	5	30
1,1,2-Trichloroethane	44	U	463	459		ug/Kg	☼	99	34 - 152	0	30
Cyclohexane	1100	U	463	413	J	ug/Kg	☼	89	10 - 154	2	30
1,2-Dibromo-3-Chloropropane	220	U	463	267		ug/Kg	☼	58	10 - 137	8	30
1,2-Dibromoethane	220	U	463	401		ug/Kg	☼	87	32 - 127	10	30
Dichlorodifluoromethane	89	U	463	249		ug/Kg	☼	54	10 - 113	5	30
cis-1,2-Dichloroethene	44	U	463	449		ug/Kg	☼	97	34 - 137	2	30
trans-1,2-Dichloroethene	44	U	463	472		ug/Kg	☼	102	40 - 126	2	30
Isopropylbenzene	220	U	463	440		ug/Kg	☼	95	39 - 126	3	30
Methyl acetate	1100	U	463	816	J F	ug/Kg	☼	176	10 - 175	6	30
Methyl tert-butyl ether	220	U	463	467		ug/Kg	☼	101	26 - 159	2	30
1,1,2-Trichloro-1,2,2-trifluoroethane	220	U	463	381		ug/Kg	☼	82	23 - 168	5	30
1,2,4-Trichlorobenzene	220	U	463	425		ug/Kg	☼	92	10 - 136	2	30
1,2-Dichlorobenzene	89	U	463	457		ug/Kg	☼	99	27 - 126	1	30
1,3-Dichlorobenzene	89	U	463	463		ug/Kg	☼	100	29 - 124	2	30
1,4-Dichlorobenzene	89	U	463	440		ug/Kg	☼	95	30 - 123	4	30
Trichlorofluoromethane	89	U	463	396		ug/Kg	☼	85	10 - 157	1	30
Dibromochloromethane	44	U	463	280		ug/Kg	☼	61	10 - 128	2	30
Methylcyclohexane	1100	U	463	409	J	ug/Kg	☼	88	11 - 156	6	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*83*		*39 - 128*
4-Bromofluorobenzene (Surr)	*84*		*26 - 141*
Toluene-d8 (Surr)	*84*		*33 - 134*
Dibromofluoromethane (Surr)	*72*		*30 - 122*

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(39-128)	(26-141)	(33-134)	(30-122)
240-9689-1	S-45285-032812-SSH-BH16	82	85	87	73
240-9689-2	S-45285-032812-SSH-BH12	84	87	89	72
240-9689-3	S-45285-032812-SSH-BH15	83	88	89	72
240-9689-4	S-45285-032812-SSH-BH32E	83	86	89	72
240-9689-4 MS	S-45285-032812-SSH-BH32E	82	86	85	71
240-9689-4 MSD	S-45285-032812-SSH-BH32E	83	84	84	72
240-9689-5	S-45285-032812-SSH-BH12A	83	85	87	72
240-9689-6	S-45285-032812-SSH-TB	82	84	86	70
LCS 240-38785/2-A	Lab Control Sample	84	85	86	74
MB 240-38785/1-A	Method Blank	84	86	88	75

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Client Sample ID: S-45285-032812-SSH-BH16

Lab Sample ID: 240-9689-1
Date Collected: 03/28/12 11:50
Matrix: Solid
Date Received: 03/29/12 09:10
Percent Solids: 90.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			38785	04/02/12 10:47	LM	TAL NC
Total/NA	Analysis	8260B		1	39001	04/03/12 23:44	TL	TAL NC
Total/NA	Analysis	Moisture		1	38631	03/30/12 14:06	CN	TAL NC

Client Sample ID: S-45285-032812-SSH-BH12

Lab Sample ID: 240-9689-2
Date Collected: 03/28/12 12:20
Matrix: Solid
Date Received: 03/29/12 09:10
Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			38785	04/02/12 10:47	LM	TAL NC
Total/NA	Analysis	8260B		1	39001	04/04/12 00:08	TL	TAL NC
Total/NA	Analysis	Moisture		1	38631	03/30/12 14:06	CN	TAL NC

Client Sample ID: S-45285-032812-SSH-BH15

Lab Sample ID: 240-9689-3
Date Collected: 03/28/12 12:45
Matrix: Solid
Date Received: 03/29/12 09:10
Percent Solids: 89.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			38785	04/02/12 10:47	LM	TAL NC
Total/NA	Analysis	8260B		1	39001	04/04/12 00:32	TL	TAL NC
Total/NA	Analysis	Moisture		1	38631	03/30/12 14:06	CN	TAL NC

Client Sample ID: S-45285-032812-SSH-BH32E

Lab Sample ID: 240-9689-4
Date Collected: 03/28/12 13:15
Matrix: Solid
Date Received: 03/29/12 09:10
Percent Solids: 90.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			38785	04/02/12 10:47	LM	TAL NC
Total/NA	Analysis	8260B		1	39001	04/04/12 00:56	TL	TAL NC
Total/NA	Analysis	Moisture		1	38631	03/30/12 14:06	CN	TAL NC

Client Sample ID: S-45285-032812-SSH-BH12A

Lab Sample ID: 240-9689-5
Date Collected: 03/28/12 12:22
Matrix: Solid
Date Received: 03/29/12 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			38785	04/02/12 10:47	LM	TAL NC
Total/NA	Analysis	8260B		1	39001	04/04/12 02:09	TL	TAL NC

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Client Sample ID: S-45285-032812-SSH-TB
Date Collected: 03/28/12 13:30
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			38785	04/02/12 10:47	LM	TAL NC
Total/NA	Analysis	8260B		1	39001	04/04/12 02:33	TL	TAL NC

Laboratory References:

TAL NC = TestAmerica North Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-003, RACER Garey Street

TestAmerica Job ID: 240-9689-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica North Canton	California	NELAC	9	01144CA
TestAmerica North Canton	Connecticut	State Program	1	PH-0590
TestAmerica North Canton	Florida	NELAC	4	E87225
TestAmerica North Canton	Georgia	State Program	4	N/A
TestAmerica North Canton	Illinois	NELAC	5	200004
TestAmerica North Canton	Kansas	NELAC	7	E-10336
TestAmerica North Canton	Kentucky	State Program	4	58
TestAmerica North Canton	L-A-B	DoD ELAP		L2315
TestAmerica North Canton	Minnesota	NELAC	5	039-999-348
TestAmerica North Canton	Nevada	State Program	9	OH-000482008A
TestAmerica North Canton	New Jersey	NELAC	2	OH001
TestAmerica North Canton	New York	NELAC	2	10975
TestAmerica North Canton	Ohio VAP	State Program	5	CL0024
TestAmerica North Canton	Pennsylvania	NELAC	3	68-00340
TestAmerica North Canton	USDA	Federal		P330-11-00328
TestAmerica North Canton	Virginia	NELAC Secondary AB	3	460175
TestAmerica North Canton	Washington	State Program	10	C971
TestAmerica North Canton	West Virginia DEP	State Program	3	210
TestAmerica North Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

CHAIN OF CUSTODY RECORD

CONESTOGA-ROVERS & ASSOCIATES
14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170
Phone: (734) 453-5123 Fax: (734) 453-5201

COC NO.: PL- 08926
PAGE 1 OF 2
(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 45285	Laboratory Name: Test America	Lab Location: North Canton OH	SSOW ID: 45285-003
Project Name: Gary St / Howard St	Lab Contact: D. Heckler	Lab Quote No:	Cooler No:
Project Location: Saginaw, MI			Carrier: FedEx
Chemistry Contact: P. Wiseman			Airbill No: 8987 4095 8997
Sampler(s): S. Howenstyn			Date Shipped: 3/28/12

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd//yy)	Time (hh:mm)	Sample Type: Matrix Code (see back of COC)	Sample Type: Grab (G) or Comp (C)	Container Quantity & Preservation: Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	Analysis Requested: VOCs	MS/MSD Request	Comments/ Special Instructions:
1	S-45285-032812-SSH-BH16	3/28/12	1150	So	G						X			2	X		
2	S-45285-032812-SSH-BH12		1220	So	G						X			2	X		
3	S-45285-032812-SSH-BH15		1245	So	G						X			2	X		
4	S-45285-032812-SSH-BH32E		1315	So	G						X			4	X	X	MS/MSD
5	S-45285-032812-SSH-BH12A		1222	So	G						X			2	X		
6	TB-45285-032812-SSH-TB		1330	So	G						X			1	X		
7	S-45285-032812-SSH-BH16B	3/28/12	1200	So	G						X			2	X		Hold
8	S-45285-032812-SSH-BH12B		1230	So	G						X			2	X		Hold
9	S-45285-032812-SSH-BH15B		1250	So	G						X			2	X		Hold
10	S-45285-032812-SSH-BH32EB		1325	So	G						X			2	X		Hold
11																	
12																	
13																	
14																	
15	SM4																

Loc: 240
9689

TAT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☒ 2 Week ☐ Other:

Total Number of Containers: 20
All Samples in Cooler must be on COC

Notes/ Special Requirements: Hold samples pending results

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1.	CRA	3/28/12	1600	1.	TAL	3-29-12	9:10
2.				2.			
3.				3.			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10A (20110804)

TestAmerica North Canton Sample Receipt Form/Narrative **Login # : 41689**

Client CRA Site Name _____ By: _____

Cooler Received on 3-29-12 Opened on 3-29-12 (Signature)

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # 241-1739 Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF -2°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C	☐ Multiple on Back
IR GUN# 4G	(CF -1°C)	Observed Sample Temp. 3.8 °C	Corrected Sample Temp. 2.8 °C	
IR GUN# 5G	(CF -1°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C	
IR GUN# 6Y	(CF -2°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes (No)
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No (NA)
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? Yes No (NA)
11. Were VOAs on the COC? Yes (No)
12. Were air bubbles >6 mm in any VOA vials? Yes No (NA)
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Sample BH12A will not be logged for percent moisture did not send solid volume.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ______________________________ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 110410-HNO3; Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 - NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? ____________

Client ID	pH	Date	Initials

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-9689-1

Login Number: 9689

List Source: TestAmerica North Canton

List Number: 1

Creator: Livengood, Chris

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	2.8
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica North Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-9689-3
Client Project/Site: 45285- Garey Street

For:
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman

Authorized for release by:
4/18/2012 9:33:20 AM
Nathan Pietras
Project Manager II
nathan.pietras@testamericainc.com

Designee for

Denise Heckler
Project Manager II
denise.heckler@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Job ID: 240-9689-3

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 45285- Garey Street

Report Number: 240-9689-3

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 03/29/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 2.8 C.

Sample -15B was taken off hold by CRA for VOC analysis on April 16, 2012. A revised chain of custody was not provided.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample S-45285-032812-SSH-BH15B (240-9689-9) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 04/02/2012 and analyzed on 04/16/2012.

No difficulties were encountered during the VOCs analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Sample S-45285-032812-SSH-BH15B (240-9689-9) was analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 04/16/2012.

No difficulties were encountered during the % solids analysis.

Job ID: 240-9689-3 (Continued)

Laboratory: TestAmerica Canton (Continued)

All quality control parameters were within the acceptance limits.

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285- Garey Street

TestAmerica Job ID: 240-9689-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285- Garey Street

TestAmerica Job ID: 240-9689-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-9689-9	S-45285-032812-SSH-BH15B	Solid	03/28/12 12:50	03/29/12 09:10

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285- Garey Street

TestAmerica Job ID: 240-9689-3

Client Sample ID: S-45285-032812-SSH-BH15B

Lab Sample ID: 240-9689-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	19	J	91	19	ug/Kg	1	☼	8260B	Total/NA
cis-1,2-Dichloroethene	48		45	7.8	ug/Kg	1	☼	8260B	Total/NA

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285- Garey Street

TestAmerica Job ID: 240-9689-3

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NC
Moisture	Percent Moisture	EPA	TAL NC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NC = TestAmerica North Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285- Garey Street

TestAmerica Job ID: 240-9689-3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-45285-032812-SSH-BH15B
Date Collected: 03/28/12 12:50
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-9
Matrix: Solid
Percent Solids: 88.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	680	U	680	190	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Benzene	45	U	45	14	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Bromodichloromethane	91	U	91	11	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Bromoform	91	U	91	22	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Bromomethane	230	U	230	33	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
2-Butanone (MEK)	680	U	680	49	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Carbon disulfide	230	U	230	14	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Carbon tetrachloride	45	U	45	7.3	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Chlorobenzene	45	U	45	7.3	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Chloroethane	230	U	230	69	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Chloroform	45	U	45	10	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Chloromethane	230	U	230	16	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
1,1-Dichloroethane	45	U	45	19	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
1,2-Dichloroethane	45	U	45	11	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
1,1-Dichloroethene	45	U	45	20	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
1,2-Dichloropropane	45	U	45	9.3	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
cis-1,3-Dichloropropene	45	U	45	9.0	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
trans-1,3-Dichloropropene	45	U	45	23	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Ethylbenzene	45	U	45	6.1	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
2-Hexanone	2300	U	2300	23	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Methylene Chloride	230	U	230	87	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
4-Methyl-2-pentanone (MIBK)	2300	U	2300	54	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Styrene	45	U	45	6.4	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
1,1,2,2-Tetrachloroethane	45	U	45	10	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Tetrachloroethene	45	U	45	14	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Toluene	**19**	**J**	91	19	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Trichloroethene	45	U	45	11	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Vinyl chloride	36	U	36	20	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Xylenes, Total	140	U	140	9.2	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
1,1,1-Trichloroethane	45	U	45	24	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
1,1,2-Trichloroethane	45	U	45	14	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Cyclohexane	1100	U	1100	45	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
1,2-Dibromo-3-Chloropropane	230	U	230	57	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
1,2-Dibromoethane	230	U	230	11	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Dichlorodifluoromethane	91	U	91	18	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
cis-1,2-Dichloroethene	**48**		45	7.8	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
trans-1,2-Dichloroethene	45	U	45	10	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Isopropylbenzene	230	U	230	7.4	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Methyl acetate	1100	U	1100	28	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Methyl tert-butyl ether	230	U	230	8.1	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	230	U	230	44	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
1,2,4-Trichlorobenzene	230	U	230	8.3	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
1,2-Dichlorobenzene	91	U	91	9.8	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
1,3-Dichlorobenzene	91	U	91	5.4	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
1,4-Dichlorobenzene	91	U	91	9.1	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Trichlorofluoromethane	91	U	91	18	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Dibromochloromethane	45	U	45	14	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1
Methylcyclohexane	1100	U	1100	14	ug/Kg	☼	04/02/12 10:47	04/16/12 21:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*80*		*39 - 128*	*04/02/12 10:47*	*04/16/12 21:33*	*1*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285- Garey Street

TestAmerica Job ID: 240-9689-3

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-45285-032812-SSH-BH15B
Date Collected: 03/28/12 12:50
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-9
Matrix: Solid
Percent Solids: 88.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		26 - 141	04/02/12 10:47	04/16/12 21:33	1
Toluene-d8 (Surr)	88		33 - 134	04/02/12 10:47	04/16/12 21:33	1
Dibromofluoromethane (Surr)	73		30 - 122	04/02/12 10:47	04/16/12 21:33	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285- Garey Street

TestAmerica Job ID: 240-9689-3

GC/MS VOA

Prep Batch: 38785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-9689-9	S-45285-032812-SSH-BH15B	Total/NA	Solid	5035	

Analysis Batch: 40451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-9689-9	S-45285-032812-SSH-BH15B	Total/NA	Solid	8260B	38785

General Chemistry

Analysis Batch: 40424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-9689-9	S-45285-032812-SSH-BH15B	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285- Garey Street

TestAmerica Job ID: 240-9689-3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		12DCE	BFB	TOL	DBFM				
Lab Sample ID	Client Sample ID	(39-128)	(26-141)	(33-134)	(30-122)				
240-9689-9	S-45285-032812-SSH-BH15B	80	87	88	73				

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285- Garey Street

TestAmerica Job ID: 240-9689-3

Client Sample ID: S-45285-032812-SSH-BH15B
Date Collected: 03/28/12 12:50
Date Received: 03/29/12 09:10

Lab Sample ID: 240-9689-9
Matrix: Solid
Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			38785	04/02/12 10:47	LM	TAL NC
Total/NA	Analysis	8260B		1	40451	04/16/12 21:33	TL	TAL NC
Total/NA	Analysis	Moisture		1	40424	04/16/12 14:19	CN	TAL NC

Laboratory References:

TAL NC = TestAmerica North Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285- Garey Street

TestAmerica Job ID: 240-9689-3

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica North Canton	California	NELAC	9	01144CA
TestAmerica North Canton	Connecticut	State Program	1	PH-0590
TestAmerica North Canton	Florida	NELAC	4	E87225
TestAmerica North Canton	Georgia	State Program	4	N/A
TestAmerica North Canton	Illinois	NELAC	5	200004
TestAmerica North Canton	Kansas	NELAC	7	E-10336
TestAmerica North Canton	Kentucky	State Program	4	58
TestAmerica North Canton	L-A-B	DoD ELAP		L2315
TestAmerica North Canton	Minnesota	NELAC	5	039-999-348
TestAmerica North Canton	Nevada	State Program	9	OH-000482008A
TestAmerica North Canton	New Jersey	NELAC	2	OH001
TestAmerica North Canton	New York	NELAC	2	10975
TestAmerica North Canton	Ohio VAP	State Program	5	CL0024
TestAmerica North Canton	Pennsylvania	NELAC	3	68-00340
TestAmerica North Canton	USDA	Federal		P330-11-00328
TestAmerica North Canton	Virginia	NELAC	3	460175
TestAmerica North Canton	Washington	State Program	10	C971
TestAmerica North Canton	West Virginia DEP	State Program	3	210
TestAmerica North Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

CHAIN OF CUSTODY RECORD

CONESTOGA-ROVERS & ASSOCIATES

14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170
Phone: (734) 453-5123 Fax: (734) 453-5201

COC NO.: PL- 08926
PAGE 1 OF 2
(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 45285	Laboratory Name: Test America
Project Name: Gary St / Howard St	Lab Contact: D. Heckler
Project Location: Saginaw, MI	Chemistry Contact: P. Wiseman
Sampler(s): S. Howenstyn	

Lab Location: North Canton OH
Lab Quote No:

SSOW ID: 45285-003
Cooler No:
Carrier: FedEx
Airbill No: 8987 4095 8997
Date Shipped: 3/28/12

Item	SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)	DATE (mm/dd//yy)	TIME (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	VOCs	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
1	S-45285-032812-SSH-BH16	3/28/12	1150	So	G						X			2	X		
2	S-45285-032812-SSH-BH12		1220	So	G						X			2	X		
3	S-45285-032812-SSH-BH15		1245	So	G						X			2	X		
4	S-45285-032812-SSH-BH32E		1315	So	G						X			4	X	X	MS/MSD
5	S-45285-032812-SSH-BH12A		1222	So	G						X			2	X		
6	TB-45285-032812-SSH-TB		1330	So	G						X			1	X		
7	S-45285-032812-SSH-BH16B	3/28/12	1200	So	G						X			2	X		Hold
8	S-45285-032812-SSH-BH12B		1230	So	G						X			2	X		Hold
9	S-45285-032812-SSH-BH15B		1250	So	G						X			2	X		Hold
10	S-45285-032812-SSH-BH32EB		1325	So	G						X			2	X		Hold
11																	
12																	
13																	
14																	
15	SM4																

Loc: 240
9689

TAT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☒ 2 Week ☐ Other:

Total Number of Containers: 20
All Samples in Cooler must be on COC

Notes/ Special Requirements: Hold samples pending results

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
1.	CRA	3/28/12	1600	1.	TAL	3-29-12	9:10
2.				2.			
3.				3.			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10A (20110804)

TestAmerica North Canton Sample Receipt Form/Narrative **Login # : 9689**

Client CRA Site Name _____ By: _____

Cooler Received on 3-29-12 Opened on 3-29-12 (Signature)

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # 241-1739 Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF -2°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C	☐ Multiple on Back
IR GUN# 4G	(CF -1°C)	Observed Sample Temp. 3.8 °C	Corrected Sample Temp. 2.8 °C	
IR GUN# 5G	(CF -1°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C	
IR GUN# 6Y	(CF -2°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____	Yes (No)
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes No (NA)
-Were custody seals on the bottle(s)?	Yes (No)
3. Shippers' packing slip attached to the cooler(s)?	(Yes) No
4. Did custody papers accompany the sample(s)?	(Yes) No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6. Did all bottles arrive in good condition (Unbroken)?	(Yes) No
7. Could all bottle labels be reconciled with the COC?	(Yes) No
8. Were correct bottle(s) used for the test(s) indicated?	(Yes) No
9. Sufficient quantity received to perform indicated analyses?	(Yes) No
10. Were sample(s) at the correct pH upon receipt?	Yes No (NA)
11. Were VOAs on the COC?	Yes (No)
12. Were air bubbles >6 mm in any VOA vials?	Yes No (NA)
13. Was a trip blank present in the cooler(s)?	(Yes) No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Sample BH12A will not be logged for percent moisture did not send solid volume.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ______________________________________ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 110410-HNO3; Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 -NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? __________________________

Client ID	pH	Date	Initials

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-9689-3

Login Number: 9689

List Source: TestAmerica North Canton

List Number: 1

Creator: Livengood, Chris

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	2.8
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

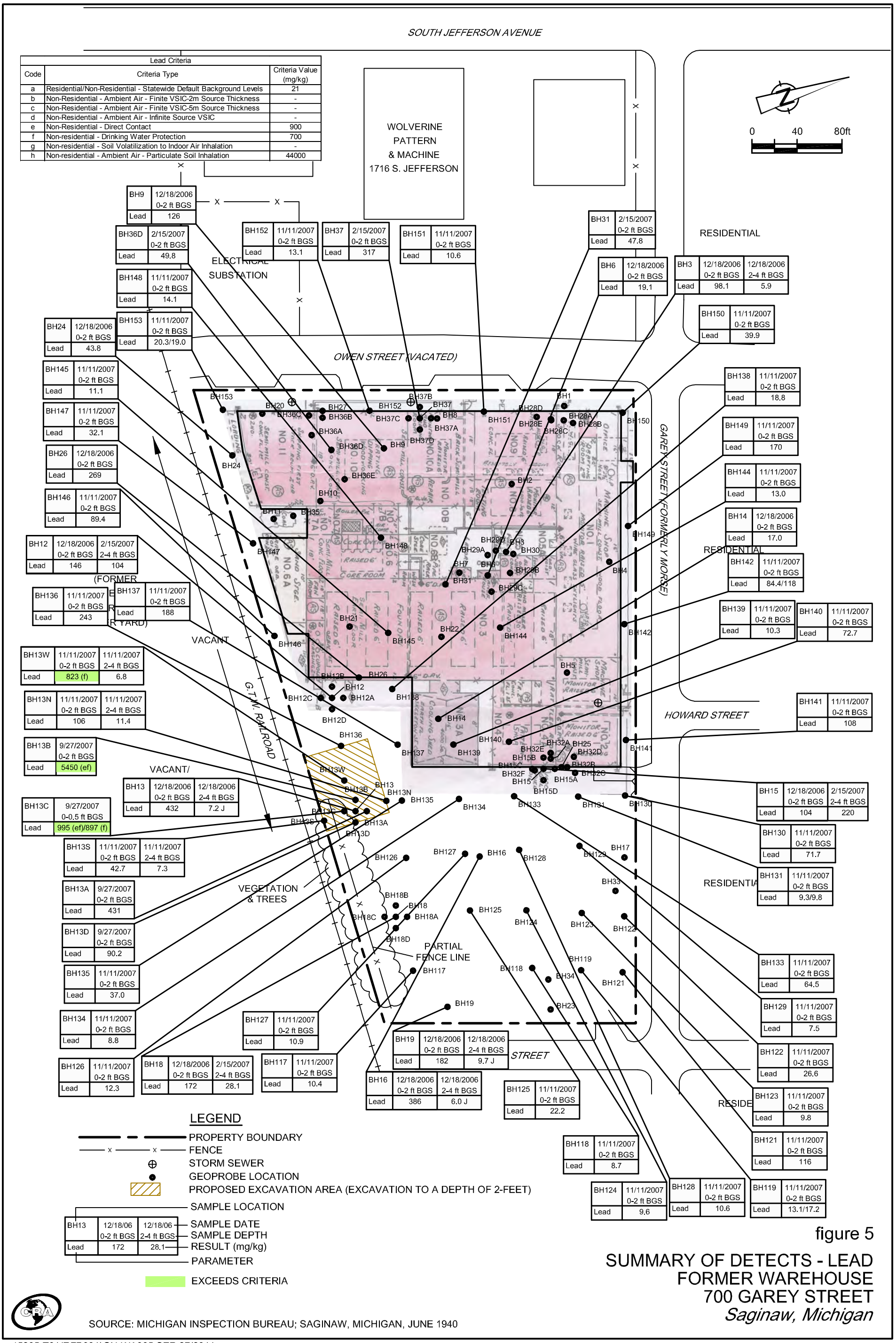


figure 5

SUMMARY OF DETECTS - LEAD
FORMER WAREHOUSE
700 GAREY STREET
Saginaw, Michigan

SOURCE: MICHIGAN INSPECTION BUREAU; SAGINAW, MICHIGAN, JUNE 1940

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica North Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-4348-1
Client Project/Site: 45285-T01-002, Howard St

For:
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman

Denise D Heckler

Authorized for release by:
10/10/2011 02:39:15 PM

Denise Heckler
Project Manager II
denise.heckler@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Table of Contents

Job ID: 240-4348-1

Laboratory: TestAmerica North Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 45285-T01-002, Howard St

Report Number: 240-4348-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 09/29/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.9 C.

TCLP METALS (ICP)

Sample S-45285-092811-SSH-PB01 (240-4348-1) was analyzed for TCLP metals (ICP) in accordance with EPA SW-846 Methods 1311/ 6010B. The samples were leached on 10/03/2011, prepared on 10/05/2011 and analyzed on 10/06/2011.

No difficulties were encountered during the metals analysis.

All quality control parameters were within the acceptance limits.

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-002, Howard St

TestAmerica Job ID: 240-4348-1

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-002, Howard St

TestAmerica Job ID: 240-4348-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-4348-1	S-45285-092811-SSH-PB01	Solid	09/28/11 09:20	09/29/11 09:30

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-002, Howard St

TestAmerica Job ID: 240-4348-1

Client Sample ID: S-45285-092811-SSH-PB01 **Lab Sample ID: 240-4348-1**

No Detections

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-002, Howard St

TestAmerica Job ID: 240-4348-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL NC

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NC = TestAmerica North Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-002, Howard St

TestAmerica Job ID: 240-4348-1

Method: 6010B - Metals (ICP) - TCLP

Client Sample ID: S-45285-092811-SSH-PB01
Date Collected: 09/28/11 09:20
Date Received: 09/29/11 09:30

Lab Sample ID: 240-4348-1
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.50	U	0.50		mg/L		10/05/11 07:38	10/06/11 21:01	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-002, Howard St

TestAmerica Job ID: 240-4348-1

Metals

Leach Batch: 17660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-4348-1	S-45285-092811-SSH-PB01	TCLP	Solid	1311	
LB 240-17660/9-B LB	Method Blank	TCLP	Solid	1311	

Prep Batch: 17955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-4348-1	S-45285-092811-SSH-PB01	TCLP	Solid	3010A	17660
LB 240-17660/9-B LB	Method Blank	TCLP	Solid	3010A	17660
LCS 240-17955/3-A	Lab Control Sample	Total/NA	Solid	3010A	
MB 240-17955/2-A	Method Blank	Total/NA	Solid	3010A	

Analysis Batch: 18281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-4348-1	S-45285-092811-SSH-PB01	TCLP	Solid	6010B	17955
LB 240-17660/9-B LB	Method Blank	TCLP	Solid	6010B	17955
LCS 240-17955/3-A	Lab Control Sample	Total/NA	Solid	6010B	17955
MB 240-17955/2-A	Method Blank	Total/NA	Solid	6010B	17955

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-002, Howard St

TestAmerica Job ID: 240-4348-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-17955/2-A
Matrix: Solid
Analysis Batch: 18281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17955

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.50	U	0.50		mg/L		10/05/11 07:38	10/06/11 20:16	1

Lab Sample ID: LCS 240-17955/3-A
Matrix: Solid
Analysis Batch: 18281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17955

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Lead			0.500	0.50	U	mg/L		98	50 - 150		

Lab Sample ID: LB 240-17660/9-B LB
Matrix: Solid
Analysis Batch: 18281

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 17955

Analyte	LB Result	LB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.50	U	0.50		mg/L		10/05/11 07:38	10/06/11 20:10	1

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-002, Howard St

TestAmerica Job ID: 240-4348-1

Client Sample ID: S-45285-092811-SSH-PB01
Date Collected: 09/28/11 09:20
Date Received: 09/29/11 09:30

Lab Sample ID: 240-4348-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
TCLP	Leach	1311			17660	10/03/11 11:15	DJ	TAL NC
TCLP	Prep	3010A			17955	10/05/11 07:38	LM	TAL NC
TCLP	Analysis	6010B		1	18281	10/06/11 21:01	NJM	TAL NC

Laboratory References:
TAL NC = TestAmerica North Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 45285-T01-002, Howard St

TestAmerica Job ID: 240-4348-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica North Canton	ACLASS	DoD ELAP		ADE-1437
TestAmerica North Canton	California	NELAC	9	01144CA
TestAmerica North Canton	Connecticut	State Program	1	PH-0590
TestAmerica North Canton	Florida	NELAC	4	E87225
TestAmerica North Canton	Georgia	Georgia EPD	4	N/A
TestAmerica North Canton	Illinois	NELAC	5	200004
TestAmerica North Canton	Kansas	NELAC	7	E-10336
TestAmerica North Canton	Kentucky	State Program	4	58
TestAmerica North Canton	Minnesota	NELAC	5	039-999-348
TestAmerica North Canton	Nevada	State Program	9	OH-000482008A
TestAmerica North Canton	New Jersey	NELAC	2	OH001
TestAmerica North Canton	New York	NELAC	2	10975
TestAmerica North Canton	Ohio	OVAP	5	CL0024
TestAmerica North Canton	Pennsylvania	NELAC	3	68-00340
TestAmerica North Canton	USDA	USDA		P330-11-00328
TestAmerica North Canton	Virginia	NELAC Secondary AB	3	460175
TestAmerica North Canton	West Virginia	West Virginia DEP	3	210
TestAmerica North Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

CONESTOGA-ROVERS & ASSOCIATES

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

PAGE 1 OF 1

ID # Nº D 9898

SSOW Ref. Code: 45285-002

Required Client Information:

Company: CRA, Inc.	Report To: Paul Wiseman
Address: 14496 Sheldon Rd.	Copy To: Mike Tomka
Suite 200	Invoice To:
Plymouth, MI 48170	P.O.:
Phone: 734-453-5123	Project Name: Howard St.
Fax: 734-453-5201	Project Number: 45285
Email:	

Laboratory:	Test America
Laboratory Location:	North Canton, OH
Laboratory Contact:	Denise Hubler
Requested Due Date:	TAT: 2 weeks
QA/QC Requirements:	

Valid Matrix Codes:
WG Groundwater
WB Borehole Water
WS Surface Water
SO Soil
SE Sediment
See Back for Additional Codes

	Sample Identification:	Matrix Code	Date Collected	Time Collected	# Containers	Preservative: Unpreserved	HCl	H2SO4	HNO3	NaOH	Other:	Analysis and Method: XTCLP Lead	Remarks/Lab ID
1.	S-45285-092811-SSH-PB01	SO	9/28/11	0920	1	X						X	
2.													
3.													
4.													
5.													
6.													
7.													
8.													
9.													
10.													
11.													
12.													
13.													
14.													
15.	SSH												
	TOTAL NUMBER OF CONTAINERS												

SHIPMENT METHOD	NO. OF COOLERS	RELINQUISHED BY / AFFILIATION	DATE	TIME	RECEIVED BY / AFFILIATION	DATE	TIME
FedEx	1	[signature] / CRA	9/28/11	1600	[signature]	9/29/11	9:30
AIRBILL NO. 8762 5881 7720							

Sample Condition

Temp in °C	
Received on Ice	Y / N
Sealed Cooler	Y / N
Samples Intact	Y / N

Additional Comments:

Sampler Name: Steven S. Hoernemyer

Sampler Signature: [signature] Date: 9/28/11

Distribution: WHITE - Fully Executed Copy YELLOW - Receiving Laboratory Copy PINK - Shipper GOLDENROD - Sampler Copy

REV 01 6/04

TestAmerica Cooler Receipt Form/Narrative **Lot Number:**_____
North Canton Facility

Client CRA Project _____ By: _____
Cooler Received on 9/29/11 Opened on 9/29/11 (Signature)
FedEx ☐ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____
TestAmerica Cooler # 241-2157 Multiple Coolers ☐ Foam Box ☐ Client Cooler ☐ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☐ No ☑ Intact? Yes ☐ No ☐ NA ☑
   If YES, Quantity_____ Quantity Unsalvageable_____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☐ No ☐ NA ☑
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☑ Foam ☐ None ☐ Other _____
6. Cooler temperature upon receipt 4.9 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☑ Other ☐ _____
   COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☑
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☐ NA ☑
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☐ No ☑ Were VOAs on the COC? Yes ☐ No ☑

Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot# 100110-HNO_3; Sulfuric Acid Lot# 110410-H_2SO_4; Sodium Hydroxide Lot# 100108 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-$(CH_3COO)_2ZN/NaOH$.* What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-4348-1

Login Number: 4348

List Source: TestAmerica North Canton

List Number: 1

Creator: Sutek, Nick

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	


CATERPILLAR
225B LC
Fisher
115OG

Appendix C

Soil Boring Logs

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH1
DATE/TIME STARTED 12/12/06
DATE/TIME COMPLETED 12/12/06
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6" 6" 6" 6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, wet to moist		geoprobe						
1		2	brown to black soft clay, trace sand + gravel, little silt, moist to dry	-064					0-2	–	
2		4	brown soft clay, trace sand + gravel, little silt moist to dry	-065/066					2-4	–	
4		10	hard mottled brown/grey clay, trace sand, silt, gravel, dry	-067					4-5	–	

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS 1
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS:

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH2
DATE/TIME STARTED 12/12
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).
0		1/2	topsoil, black moist to wet
1/2		3/4	concrete
3/4		1 1/2	brown to black soft clay, some silt + sand, little gravel, moist
1 1/2		4 1/2	brown soft clay, little silt, some sand + gravel, moist
4 1/2		5	brown w/grey mottling clay, little gravel, trace sand + silt, dry to moist

SAMPLE DETAILS SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH3
DATE/TIME STARTED 12/19/06
DATE/TIME COMPLETED 12/18/06
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, wet to moist		geoprobe								
1		2	black sand + gravel, moist, trace silt, med grained sand	-068						0-2	-		
2		5 1/2	soft brown clay, little gray mottling, little sand trace gravel, little silt, moist to dry	-069	MS/MSD					2-4	-		
5 1/2		10	hard clay, mottled brown/gray, trace sand, silt and gravel, dry	070						4-5	-		
		Note:	petroleum odor in BH										

ORDER OF DESCRIPTORS:
SOIL TYPE SYMBOL(S) - MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS

NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).

NOTES AND COMMENTS

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

CRA

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH4
DATE/TIME STARTED 12/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, wet to moist												
1		3	brown soft clay, little silt, moist, trace sand + gravel												
3		5	brown w/grey mottling clay dense, little gravel, trace sand + silt, moist to dry												

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS:

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH5
DATE/TIME STARTED 12/18
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).
0		1	topsoil, black, moist to wet
1		3 1/2	brown soft clay, little silt, trace sand & gravel, moist
3 1/2		5	brown w/grey mottling clay, moist to dry, little gravel, trace sand & silt, dense

SAMPLE DETAILS											
SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH6
DATE/TIME STARTED 12/12
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN (ft)/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1/2	topsoil, black, moist to wet										
1/2		5	concrete pieces, bricks										
			low recovery due to brick pieces										

ORDER OF DESCRIPTORS:
SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS

NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).

NOTES AND COMMENTS

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____

WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____

COMPLETION DETAILS:

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

CRA

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH7
DATE/TIME STARTED 12/16
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1/2	topsoil, black, wet to moist												
1/2		1	black sand little gravel, trace silt wet to moist												
1		4	brown soft clay, little silt, trace sand + gravel, moist												
4		5	brown w/grey mottling clay, dense, moist to dry, little gravel												

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH8
DATE/TIME STARTED 12/18
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6" 6" 6" 6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1/2	topsoil, black, wet to moist							
1/2		1'1/2	black sand + gravel, wet to moist, trace silt							
1'1/2		5	brown soft clay, little silt, trace sand + gravel, moist							

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH9
DATE/TIME STARTED 12/18
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).
0		1/2	topsoil, black, moist to wet
1/2		1	black sand + gravel, moist to wet, pieces of slag
1		2	brown/black soft clay, little silt, trace sand + gravel, moist
2		5	brown soft clay, little silt, trace sand + gravel, moist

SAMPLE DETAILS											
SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH 10
DATE/TIME STARTED 12/18/06
DATE/TIME COMPLETED 12/18/06
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1/2	topsoil, black, moist to wet		geoprobe						-		
1/2		1 1/2	Concrete pieces (low recovery)	[redacted]-052						0-2			
1 1/2		5	brown soft clay, little silt, trace sand + gravel, moist to dry										
5		10	hard clay, brown/grey mottled, trace sand, silt + gravel, dry	053						5-6			

ORDER OF DESCRIPTORS:
SOIL TYPE SYMBOL(S) - MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS

NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER ____ HOURS ____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH11
DATE/TIME STARTED 12/8
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION (ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).)	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		3/4	topsoil, black, wet to moist													
3/4		1 1/2	brown/black clay, little silt, moist, trace sand & gravel, soft													
1 1/2		4	brown soft clay, little silt trace sand & gravel, moist													
4		5	brown w/grey mottling clay, little gravel, trace sand & silt, dense, dry to moist													

NOTES AND COMMENTS

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

CRA

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH12
DATE/TIME STARTED 12/18/06
DATE/TIME COMPLETED 12/18/06
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, moist to wet		grab								
1		2	black sand, little gravel, trace silt, wet to moist, red	033	~~grab~~ SS					0-2			
2		4	soft brown clay, little silt, trace sand + gravel, moist to dry	034 035	~~grab~~ SS					2-4			
4		10	hard clay, brown/grey mottled, trace silt, sand + gravel, dry										

ORDER OF DESCRIPTORS:
SOIL TYPE SYMBOL(S) - MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS

NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).

NOTES AND COMMENTS

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____

WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____

COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

CRA

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH13
DATE/TIME STARTED 12/13
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION (ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).)	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1/2	topsoil, black, moist to wet												
1/2		1	black to grey sand + gravel, coarse sand, wet, trace silt												
1		2	blackish brown clay, dense, trace silt + gravel, dry												
2		4	brown soft clay, little silt, trace sand + gravel, moist												
4		5	brown clay w/ grey mottling, dense, dry trace sand + silt, little gravel												

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH14
DATE/TIME STARTED 12/13
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN (ft)/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).
0		1/2	topsoil, black, moist to wet
1/2		1	concrete, sand + gravel, dry, grey
1		2	black sand, trace silt + gravel, moist, pieces of slag
2		3	brown soft clay, little silt, trace sand + gravel, moist
3		5	brown w/grey mottling clay, dense dry to moist, trace silt and sand, little gravel

SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH 15
DATE/TIME STARTED 12/12/06
DATE/TIME COMPLETED 12/12/06
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1/2	topsoil, black, moist to wet										
1/2		2	black sand with gravel, spots of red wet to moist, trace silt, med										
2		4 1/2	soft brown clay, little silt, trace sand + gravel, moist to dry										
4 1/2		10	hard clay, brown/grey mottled, trace sand, silt + gravel, dry										

ORDER OF DESCRIPTORS:
SOIL TYPE SYMBOL(S) - MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS

NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____

WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____

COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH/6
DATE/TIME STARTED 12/12
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).
0		3/4	topsoil, black, moist to wet
3/4		1	blackish tan sand, med, trace silt + gravel, moist
1		2	black to brown soft clay, little silt trace sand + gravel, moist
2		4'/2	brown clay, soft little silt + gravel, trace sand, moist
4'/2		5	brown w/ grey mottling clay, trace silt, sand + gravel, dry to moist

SAMPLE DETAILS SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER ____ HOURS ____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH17
DATE/TIME STARTED 12/18
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN (ft)/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, moist to wet										
1		4.5	brown clay, med soft, little sand + gravel trace silt, moist										
4.5		5	brown w/ grey mottling, clay, dense, trace sand + silt, little gravel, dry										

ORDER OF DESCRIPTORS:
SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS

NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).

NOTES AND COMMENTS

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

CRA

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH18
DATE/TIME STARTED 12/13
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).
0		1	topsoil, black, moist to wet
1		2.5	black sand + gravel moist, pieces of slag + concrete, moist, trace silt
2.5		3	black to grey silt, little clay + gravel, trace sand moist, soft
3		5	brown soft clay, little silt, trace sand + gravel, moist

SAMPLE DETAILS										
SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE

NOTES AND COMMENTS

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

CRA

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH 19
DATE/TIME STARTED 12/13/06
DATE/TIME COMPLETED 12/15/06
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1/2	topsoil, black, wet to moist										
1/2		1	black sand with gravel, wet, trace silt red										
1		2	soft brown clay, little silt, trace sand + gravel, moist to wet										
2		4 1/2	hard brown clay, mottled gray, trace silt, sand, gravel, moist to wet										
4 1/2		6	brown soft clay, wet, channels thru clay, trace sand + gravel, little silt										
6		10	brown/grey mottled clay, dry to moist, trace sand, silt + gravel										

ORDER OF DESCRIPTORS:
SOIL TYPE SYMBOL(S) - MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS

NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).

NOTES AND COMMENTS

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

CRA

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH20
DATE/TIME STARTED 12/10
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN (ft)/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, wet to moist												
1		1 1/2	black sand + gravel, wet trace silt, pieces of slag												
1 1/2		2	brown/black clay, little silt, soft, moist, trace sand + gravel												
2		5	brown soft clay, little silt, trace sand + gravel, moist												

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____

WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____

COMPLETION DETAILS:

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH21
DATE/TIME STARTED 12/10
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, moist to wet												
1		5	brown soft clay, little silt, trace sand & gravel, moist												

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH22
DATE/TIME STARTED 12/18
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSA

STRATIGRAPHIC INTERVALS (DEPTHS IN (ft)/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, moist to wet										
1		4	brown soft clay, little silt, trace sand & gravel, moist										
4		5	brown w/grey mottling clay, trace sand & silt, little gravel, moist to dry										

ORDER OF DESCRIPTORS:
SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS

NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).

NOTES AND COMMENTS

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____

WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____

COMPLETION DETAILS:

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

CRA

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH23
DATE/TIME STARTED 12/1/8
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).
0		1	topsoil, black, moist to wet
1		1.5	dark brown to black silt, little clay trace sand + gravel, moist
1.5			soft clay, little silt, trace sand + gravel moist, brown
	3.5		silt has red tint
		4	
4		5	clay, dense, brown w/ grey mottling, trace large gravel, trace silt

SAMPLE DETAILS											
SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____ AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH24
DATE/TIME STARTED 12/18
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).
0		1/2	topsoil, black, moist to wet
1/2		2½	grey to brown sand & gravel, dry to moist (mtl)
			low recovery
2½		5	brown soft clay, little silt, trace sand & gravel, moist

SAMPLE DETAILS SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE

NOTES AND COMMENTS

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

CRA

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH25
DATE/TIME STARTED 12/16
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1/2	topsoil, moist, black										
1/2		1	concrete										
1		2	tan sand, wet, med, trace silt, (fill)										
2		3	brown soft clay, little silt moist, black/grey tint in places, trace sand + gravel										
3		5	brown w/ grey mottling clay, moist to dry, trace sand + silt, little gravel										

ORDER OF DESCRIPTORS:
SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS

NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).

NOTES AND COMMENTS

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____

WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____

COMPLETION DETAILS:

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

CRA

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH15/25 (between)
DATE/TIME STARTED 12/12
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1/2	topsoil, black, moist to wet												
1/2		3	black sand + gravel, trace silt, pieces of slag												
3		5	brown soft clay, little silt, trace sand + gravel, moist												

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH26
DATE/TIME STARTED 12/18
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).
0		1	topsoil, black, moist to wet
1		2	black sand + gravel, moist, trace silt
2		4	brown soft clay, little silt, trace sand + gravel, moist
4		5	brown w/grey mottling clay, dry to moist, trace sand + ~~gravel~~ silt, little gravel, loose

SAMPLE DETAILS SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH27
DATE/TIME STARTED 12/13
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).
0		1	topsoil, black, wet to moist
1		2	brown/black silty clay, soft, trace sand & gravel, moist
2		5	brown soft clay, little silt, trace sand & gravel, moist

SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH28A
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).
0		1	topsoil, black, wet to moist
1		3	brown/black sand, little silt & clay, moist, pieces of bricks
3		3½	tan sand, med, moist to dry, (fill)
3½		4	brown soft clay
4		5	brown/grey hard clay

SAMPLE DETAILS											
SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____ AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH28B
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, wet to moist												
1		2	black/brown silty sandy clay trace gravel, wet to moist, brick pieces												
2		3	soft brown clay												
3		5	brown/grey hard clay												

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH28C
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, wet to moist										
1		3	brown/black silty sandy clay, trace gravel moist										
3		5	tan sand, med, moist to dry, (fill)										

ORDER OF DESCRIPTORS:
SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS

NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).

NOTES AND COMMENTS

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____

WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____

COMPLETION DETAILS:

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

CRA

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH28D
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, wet to moist										
1		2	sandy clay, little silt & gravel, moist brown										
2		3	black to brown sand, little silt, trace clay & gravel, moist										
3		3 1/2	tan sand, med, moist to dry, (silt)										
3 1/2		4 1/2	brown soft clay										
4 1/2		5	brown/grey hard clay										

ORDER OF DESCRIPTORS:
SOIL TYPE SYMBOL(S) - MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS

NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____ AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH 28 E (10')
DATE/TIME STARTED 7/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
			ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).										
5		5'4	tan sand, moist to dry, med, (fill)										
5'4		10	hard brown/grey clay										

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____ AFTER _____ HOURS _____
COMPLETION DETAILS: 6" from 28C

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH29C
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).
0		1	topsoil, black, wet to moist
1		2 1/2	concrete
2 1/2		3	black sand with slag, concrete, moist
3		4 1/2	brown soft clay
4 1/2		5	brown/grey hard clay slight petroleum odor

SAMPLE DETAILS										
SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____ AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH29D
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION (ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).)	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, moist to wet													
1		4'/2	mottled brown/black clay, soft													
			little sand + silt, trace gravel, moist													
4'/2		5	brown/grey hard clay													

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____

WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____ AFTER ____ HOURS ____

COMPLETION DETAILS:

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH30
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		3/4	topsoil, black, wet to moist										
3/4		3	sandy clay, little silt, trace gravel brown to black, moist										
3		5	brown hard and soft clay seams, little silt, trace gravel, moist to dry (4" seams) (petroleum odor)										

ORDER OF DESCRIPTORS:
SOIL TYPE SYMBOL(S) - MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS

NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____

WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____ AFTER _____ HOURS _____

COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH31
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
			ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).										
0		1	topsoil, black, wet to moist										
1		3	black/brown sand, med moist to wet, pieces of concrete, trace silt										
3		5	brown/grey hard clay										

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____ AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH32A
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil black, wet to moist										
1		2	brown/black silty sandy clay, pieces of slag + concrete, moist										
2		4 1/2	brown soft clay										
4 1/2		5	brown/grey hard clay										

ORDER OF DESCRIPTORS:
SOIL TYPE SYMBOL(S) - MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS

NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____

WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____ AFTER _____ HOURS _____

COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH32D
DATE/TIME STARTED
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil black, wet to moist												
1		3	brown/black silty sandy clay, moist trace gravel												
3		4	soft brown clay												
4		5	brown/grey hard clay												

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER ____ HOURS ____
COMPLETION DETAILS:

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH32E
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION (ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).)	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, wet to moist												
1		4	brown/black/red silty sandy clay, trace gravel, moist												
4		5	brown/grey hard clay												

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____

WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____

COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH32F
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION (ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).)
0		1	topsoil, black, wet to moist, concrete pieces
1		3	black sand, pieces of slag + concrete, moist
3		4'/2	brown soft clay
4'/2		5	brown/grey hard clay

SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE

NOTES AND COMMENTS

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

CRA

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH33
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, wet to moist												
1		2	black sand, med, wet to moist, pieces of slag												
2		2 1/2	brown silty sand, trace gravel, moist												
2 1/2		4 1/2	brown soft clay, little silt, trace sand & gravel, moist												
4 1/2		5	brown w/grey mottling clay, dense moist to dry, little gravel, trace silt & sand												

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH34
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION (ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).)	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil black, moist to wet													
1		2'/2	brown/black sand, concrete pieces, trace silt moist													
2'/2		4	brown soft clay, little silt, trace sand & gravel, moist													
4		5	brown w/grey mottling clay dense, little gravel, trace sand & silt, moist to dry													

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH35
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
			ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).										
0		1	topsoil, black, wet to moist										
1		1 1/2	brown/black silty sand, wet to moist										
			some gravel										
1 1/2		3	black sand, slag pieces, little gravel, moist										
3		4	brown soft clay										
4		5	brown/grey hard clay										

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH36A
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
			ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) - MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).										
0		1	topsoil, black, wet to moist										
1			soft silty sandy clay, brown, trace gravel, moist										
	3'		pieces of slag + concrete										
		5											

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____

WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____ AFTER _____ HOURS _____

COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH36B
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION (ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).)
0		1	topsoil, black, wet to moist
1		2	black sand, med, piece of slag, moist
2		5	brown soft clay

SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____ AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH36C
DATE/TIME STARTED
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION (ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).)	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, wet to moist												
1		2	black sand, pieces of concrete + slag												
2		3 1/2	brown soft clay												
~~3 1/2~~	3 1/2	~~4~~	seam of sand + gravel												
3 1/2		5	brown soft clay												

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH36D
DATE/TIME STARTED 2/25
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black moist to wet										
1		2	black sand, med, pieces of slag with blue/green material										
2		4	brown soft clay										
4		5	brown/grey hard clay										

ORDER OF DESCRIPTORS:
SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS

NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER ____ HOURS ____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH36E
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION (ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).)	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, black, wet to moist													
1		2	dark brown silty sandy clay, soft moist													
2		4	brown soft clay													
4		5	brown/grey hard clay													

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME Former Warehouse
PROJECT NUMBER 45285
CLIENT GM Remediation
LOCATION 700 Garey St. Saginaw, MI

DRILLING CONTRACTOR Altech
DRILLER
SURFACE ELEVATION vacant lot - grass
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH37
DATE/TIME STARTED 2/15
DATE/TIME COMPLETED
DRILLING METHOD geoprobe
CRA SUPERVISOR SSH

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION
			ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – MAIN COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).
0		3/4	topsoil, black, wet to moist
3/4		1'1/2	black sand, med pieces of slag + concrete moist to wet
1'1/2		3	brown/black silty sandy clay, trace gravel, moist
3		4	brown soft clay
4		5	brown/grey hard clay

SAMPLE DETAILS												
SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE

NOTES AND COMMENTS

CRA

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS _____
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER _____ HOURS _____
COMPLETION DETAILS: _____

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME
PROJECT NUMBER 45285
CLIENT
LOCATION

DRILLING CONTRACTOR
DRILLER
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH12
DATE/TIME STARTED 3/26/12
DATE/TIME COMPLETED
DRILLING METHOD
CRA SUPERVISOR

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	N	R	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, moist, black									0-5			
1		2	black sand (fill), debris, moist, fine to med grained										0.1		
2		3	SM - silty sand, trace gravel, brown, dry firm												
3		4	SM - silty sand trace gravel + clay, moist, soft												
4		5	CL - clay little silt trace sand/gravel, brown, firm, dry to moist												
5		5.25	black sand seam, trace debris									5-10	0.1		
5.25		15	CL - clay mottled brown/grey trace, dry sand/gravel, little silt, med plas									10-15	0.0		

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS 1

WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER ____ HOURS ____

COMPLETION DETAILS: 15' BGS

NOTES AND COMMENTS

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.
NOTES:

Sample BH12/12A 8'-10' / 8'-10' dup 1220

BH12B 10-12' 1230

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME
PROJECT NUMBER 45285
CLIENT
LOCATION

DRILLING CONTRACTOR
DRILLER
SURFACE ELEVATION
WEATHER (A.M.)
(P.M.)

HOLE DESIGNATION BH15
DATE/TIME STARTED 3/28/12
DATE/TIME COMPLETED
DRILLING METHOD
CRA SUPERVISOR

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	N	R	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, moist, black									0			
1		2	black sand, debris, med grained, dry										3.7	(2')	
2		3	SM - silty sand, trace clay/gravel												
3		5	CL - clay some silt, brown/grey mottled, trace sand/gravel, dry										0.2	(4')	
5		5.25	black sand seam, med to fine grained										0.4	(5-5.25')	
5.25		15	CL - clay, trace silt + gravel, dry, fine med plas, mottled brown/grey										1.7	(5.25-6')	
													2.4	(8-9')	
													0.2	(10-11')	
													0.1	(11-12')	
													0.0	(12-15')	

NOTES AND COMMENTS

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS 1'

WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER ____ HOURS ____

COMPLETION DETAILS: 15 bgs

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

NOTES:

Sample BH15 (12-13') 1245

BH15B (14-15') 1250

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME: Garey / Howard St
PROJECT NUMBER: 45285
CLIENT: Rayl Trust
LOCATION: Saginaw, MI

DRILLING CONTRACTOR: CRA Services
DRILLER: Pat + Dan
SURFACE ELEVATION:
WEATHER (A.M.):
(P.M.):

HOLE DESIGNATION: BH16
DATE/TIME STARTED: 3/28/12
DATE/TIME COMPLETED: 3/28/12
DRILLING METHOD: geoprobe
CRA SUPERVISOR: S. Holsinger

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION (ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – PRIMARY COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).)	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	N	R	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, moist black	drive	tube							0-5	0.0		
1		2	SM - silty sand, dry, black/brown, fine to med, trace clay												
2		3	SM - silty sand trace gravel, brown, dry												
3		4	ML - silt, trace gravel, stiff, dry, brown												
4		6	CL - clay, mottled brown/grey, little silt, trace sand + gravel									5-10	0.0		
6		6.25	seam of black sand, med to fine, debris (bricks, concrete)												
6.25		15	CL - clay, brown, little silt trace sand + gravel, med plas, dry									10-15	0.0		

DEPTH OF BOREHOLE CAVING: _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER: _____ TOPSOIL THICKNESS: 1

WATER LEVEL IN OPEN BOREHOLE ON COMPLETION: _____ AFTER ____ HOURS ____

COMPLETION DETAILS: 15' bgs

NOTES AND COMMENTS

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.

NOTES:

Sample BH16 8-10' 1150

BH16B 10-12' 1200

STRATIGRAPHY LOG (OVERBURDEN)

PROJECT NAME _____
PROJECT NUMBER 45285
CLIENT _____
LOCATION _____

DRILLING CONTRACTOR _____
DRILLER _____
SURFACE ELEVATION _____
WEATHER (A.M.) _____
(P.M.) _____

HOLE DESIGNATION BH32E
DATE/TIME STARTED _____
DATE/TIME COMPLETED 3/20/12
DRILLING METHOD _____
CRA SUPERVISOR _____

STRATIGRAPHIC INTERVALS (DEPTHS IN ft/m BGS) FROM	AT	TO	SAMPLE DESCRIPTION (ORDER OF DESCRIPTORS: SOIL TYPE SYMBOL(S) – PRIMARY COMPONENT(S), (NATURE OF DEPOSIT), SECONDARY COMPONENTS, RELATIVE DENSITY/CONSISTENCY, GRAIN SIZE/PLASTICITY, GRADATION/STRUCTURE, COLOUR, MOISTURE CONTENT, SUPPLEMENTARY DESCRIPTORS. NOTE: PLASTICITY DETERMINATION REQUIRES THE ADDITION OF MOISTURE IF THE SAMPLE IS TOO DRY TO ROLL (INDICATE IF MOISTURE WAS ADDED OR NOT).)	SAMPLE DETAILS: SAMPLE #	SAMPLING METHOD	PENETRATION RECORD SPLIT SPOON BLOWS (RECORD N-VALUES & RECOVERIES) 6"	6"	6"	6"	N	R	SAMPLE INTERVAL	PID / FID (ppm)	CHEMICAL ANALYSIS	GRAIN SIZE
0		1	topsoil, moist, black									0-5	0.0		
1		2	sand fill, debris (concrete/metal), med grained, dry, black/brown, red												
2		3	SM – silty sand, trace gravel, brown ~~to mottled grey~~ and, dry to moist												
3		4	SM – silty sand / ML – silt, soft moist, brown to mottled grey												
4		10	CL – clay, mottled brown/grey, trace sand/gravel, little silt, firm, dry									5-10	0.0		
10		15	CL – clay, brown, little sand/silt trace gravel, med plas, moist to dry									10-15	0.0		

DEPTH OF BOREHOLE CAVING _____ DEPTH OF FIRST GROUNDWATER ENCOUNTER _____ TOPSOIL THICKNESS 1'
WATER LEVEL IN OPEN BOREHOLE ON COMPLETION _____, AFTER ____ HOURS ____
COMPLETION DETAILS: 15' bgs

NOTES AND COMMENTS

NOTE: FOR EACH SPLIT-SPOON SAMPLE, RECORD BLOW COUNTS, N-VALUE, SAMPLE RECOVERY LENGTH, AND SAMPLE INTERVAL.
NOTES:

Sample BH32E 8'-10' 1315
BH32EB 10'-12' 1325

Appendix D

Non-Hazardous Waste Manifests – Whitefeather Landfill

estimated at 40 ton

MANIFEST NUMBER
716301

NON-HAZARDOUS SPECIAL WASTE MANIFEST

Directions: Print or type all information except where signature is required. Make sure information is transmitted on all copies.

GENERATOR INFORMATION

a. Generator Name: RACER TRUST
b. Generator Location:
c. Address: 700 GAREY ST. SAGINAW, MI
d. Address: 2930 ECORSE RD. YPSILANTI, MI
e. Phone No.: 217-741-6235
f. Phone No.:
g. Waste Common Name: LEAD IMPACTED SOIL & DEBRIS
Color: BROWN
Odor: NONE
h. Special Waste Approval Number: 3070 11 19719
i. Customer Account Number: #128

J. Containers No.	Type	K. Total Quantity	L. Unit Wt/Vol
1	TR		Y

TYPE	
DM	METAL DRUM
DP	PLASTIC DRUM
DF	FIBER DRUM
BG	BAG
TR	TRUCK
OT	OTHER
UNITS	
P	POUNDS
Y	CUBIC YARDS
T	TONS
O	OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above mentioned material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law; has been properly classified and packaged, and is in proper condition for transportation according to applicable regulations. on behalf of Racer Trust

Steven S. Hoewemeyer - LEA [signature] 04/12/12
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER INFORMATION

TRANSPORTER 1

a. Name: FISHER CONTRACTING CO.
b. Address: 614 JEFFERSON AVE. MIDLAND, MI
c. Driver Name:
d. Phone No.: 989-835-7771 e. Truck No.: 305
f. Vehicle License No./State:
Acknowledgement of Receipt of Materials Described Above.
g. [signature] 04/12/12
Driver Signature — Shipment Date

TRANSPORTER 2

h. Name:
i. Address:
j. Driver Name:
k. Phone No.: l. Truck No.:
m. Vehicle License No./State:
Acknowledgement of Receipt of Materials Described Above.
n.
Driver Signature — Shipment Date

DISPOSAL FACILITY INFORMATION

a. Site Name: WHITEFEATHER LANDFILL
b. Phone No.:
c. Physical Address: 2401 E. WHITEFEATHER RD. PINCONNING, MI 48650 989-879-2700
d. Mailing Address:
e. TICKET No.:

I hereby certify that the material described above has been accepted for disposal at this facility.

Jennifer LaBrom [signature] 04/15/12
Authorized Agent Name — Signature — Shipment Date

White - Disposal Facility Yellow - Transporter Copy Pink - Generator 2nd Copy Gold - Generator 1st Copy

Republic #48729 - 49.14 Ton

MANIFEST NUMBER
716302

NON-HAZARDOUS SPECIAL WASTE MANIFEST

Directions: Print or type all information except where signature is required.
Make sure information is transmitted on all copies.

GENERATOR INFORMATION

a. Generator Name: RACER TRUST
b. Generator Location:
c. Address: 700 GAREY ST.
d. Address: 2X : ECORSE RD.
SAGINAW, MI
YP SILANTI, MI
e. Phone No.: 217-741-6235
f. Phone No.:
g. Waste Common Name: LEAD IMPACTED SOIL & DEBRIS
Color: BROWN
Odor: NONE
h. Special Waste Approval Number: 3070 11 19719
I. Customer Account Number: #123

J. Containers No.	J. Containers Type	K. Total Quantity	L. Unit Wt/Vol
1	TR		Y

TYPE		
DM	-	METAL DRUM
DP	-	PLASTIC DRUM
DF	-	FIBER DRUM
BG	-	BAG
TR	-	TRUCK
OT	-	OTHER

UNITS		
P	-	POUNDS
Y	-	CUBIC YARDS
T	-	TONS
O	-	OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above mentioned material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law; has been properly classified and packaged, and is in proper condition for transportation according to applicable regulations. on behalf of Racer Trust

Steven S. Hawmeyer - CRA — Generator Authorized Agent Name
Signature
Shipment Date: 04/11/12

TRANSPORTER INFORMATION

TRANSPORTER 1

a. Name: FISHER CONTRACTING CO.
b. Address: 614 JEFFERSON AVE.
MIDLAND, MI
c. Driver Name: Mick Eldred
d. Phone No.: 89-835-7771
e. Truck No.: FT 318
f. Vehicle License No./State: AC28627
Acknowledgement of Receipt of Materials Described Above.
g. Mick Eldred — Driver Signature
Shipment Date: 4/11/12

TRANSPORTER 2

h. Name:
i. Address:
j. Driver Name:
k. Phone No.:
l. Truck No.:
m. Vehicle License No./State:
Acknowledgement of Receipt of Materials Described Above.
n. Driver Signature
Shipment Date

DISPOSAL FACILITY INFORMATION

a. Site Name: WHITEFEATHER LANDFILL
b. Phone No.:
c. Physical Address: 2401 E. WHITEFEATHER RD.
PINCONNING, MI 48650 989-879-2700
d. Mailing Address:
e. TICKET No.:

I hereby certify that the material described above has been accepted for disposal at this facility.

f. Jennifer LaBrant — Authorized Agent Name
Signature
Shipment Date: 04/11/12

White - Disposal Facility Yellow - Transporter Copy Pink - Generator 2nd Copy Gold - Generator 1st Copy

REPUBLIC SERVICES, INC. SM

WHITEFEATHER LANDFILL

2401 East Whitefeather Road, Pinconning, MI 48650

WASTE COLLECTION • RECYCLING • TRANSFER • DISPOSAL

SITE	TICKET	GRID	WEIGHMASTER
	048745		JENNIFER L
DATE IN / TIME IN			VEHICLE
12 Apr 12	9:22 am		WFIS-332
DATE OUT / TIME OUT			ROLL OFF
12 Apr 12	9:47 am		
REFERENCE		ORIGIN	
MANIFEST #716288		SAGINAW	

000128

FISHER CONTRACTING

PO BOX 1787
MIDLAND, MI 48641

Contract: 30701119719

00 Gross Weight	159,100.00	lb	
Tare Weight	49,840.00	lb	
Net Weight	109,260.00	lb	54.63 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
54.63	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				
		Inbound - SCALE TICKET				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

SIGNATURE _____

MANIFEST NUMBER
716288

NON-HAZARDOUS SPECIAL WASTE MANIFEST

**Directions: Print or type all information except where signature is required.
Make sure information is transmitted on all copies.**

GENERATOR INFORMATION

a. Generator Name: R A C E R TRUST

b. Generator Location:

c. Address: 700 GAREY ST.
SAGINAW, MI

d. Address: 2?? ECORSE RD.
YPSILANTI, MI

e. Phone No.: 217-741-6235

f. Phone No.:

g. Waste Common Name: LEAD IMPACTED SOIL & DEBRIS

Color: BROWN

Odor: NONE

h. Special Waste Approval Number: 3070 11 19719

i. Customer Account Number: #128

J. Containers No.	Type	K. Total Quantity	L. Unit Wt/Vol
1	TR		Y

TYPE	
DM	- METAL DRUM
DP	- PLASTIC DRUM
DF	- FIBER DRUM
BG	- BAG
TR	- TRUCK
OT	- OTHER
UNITS	
P	- POUNDS
Y	- CUBIC YARDS
T	- TONS
O	- OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above mentioned material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law; has been properly classified and packaged, and is in proper condition for transportation according to applicable regulations.

on behalf of Racer Trust

Steven S. Hoxxxx - CA [signature] 04 12 12

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER INFORMATION

TRANSPORTER 1

a. Name: FISHER CONTRACTING CO.

b. Address: 6?4 JEFFERSON AVE.
MIDLAND, MI

c. Driver Name: Matt Hale

d. Phone No.: 989-835-7771

e. Truck No.: FT332

f. Vehicle License No./State: AA50515

Acknowledgement of Receipt of Materials Described Above.

g. [signature] 04 12 12

Driver Signature — Shipment Date

TRANSPORTER 2

h. Name:

i. Address:

j. Driver Name:

k. Phone No.:

l. Truck No.:

m. Vehicle License No./State:

Acknowledgement of Receipt of Materials Described Above.

n.

Driver Signature — Shipment Date

DISPOSAL FACILITY INFORMATION

a. Site Name: WHITEFEATHER LANDFILL

b. Phone No.:

c. Physical Address: 2401 E. WHITEFEATHER RD.
PINCONNING, MI 48650 989-879-2700

d. Mailing Address:

e. TICKET No.: 048745 54.63 TN

I hereby certify that the material described above has been accepted for disposal at this facility.

f. Jennifer [signature] [signature]

Authorized Agent Name — Signature — Shipment Date

White - Disposal Facility Yellow - Transporter Copy Pink - Generator 2nd Copy Gold - Generator 1st Copy

REPUBLIC SERVICES, INC. SM

WHITEFEATHER LANDFILL
2401 East Whitefeather Road, Pinconning, MI 48650
WASTE COLLECTION • RECYCLING • TRANSFER • DISPOSAL

SITE	TICKET	GRID	WEIGHMASTER
	048728		JENNIFER L
DATE IN / TIME IN			VEHICLE
11 Apr 12	3:34 pm		WFIS-314
DATE OUT / TIME OUT			ROLL OFF
11 Apr 12	3:34 pm		
REFERENCE		ORIGIN	
MANIFEST #716304		SAGINAW	

000128

FISHER CONTRACTING

PO BOX 1787
MIDLAND, MI 48641

Contract: 30701119719

00 Gross Weight	149,680.00	lb	
Stored Tare Weight	52,980.00	lb	
Net Weight	96,700.00	lb	48.35 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
48.35	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				
		Inbound - SCALE TICKET				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

SIGNATURE _____

MANIFEST NUMBER

716304

NON-HAZARDOUS SPECIAL WASTE MANIFEST

Directions: Print or type all information except where signature is required.
Make sure information is transmitted on all copies.

GENERATOR INFORMATION

a. Generator Name: RACER TRUST

b. Generator Location:

c. Address: 700 GAKEY ST.

d. Address: 25C ICORSE RD.

SAGINAW, MI

YP SANTI, MI

e. Phone No.: 217-441-6235

f. Phone No.:

g. Waste Common Name: LEAD IMPACTED SOIL & DEBRIS

Color: BROWN

Odor: NONE

h. Special Waste Approval Number: 3070 11 19719

i. Customer Account Number: #128

J. Containers No.	J. Containers Type	K. Total Quantity	L. Unit Wt/Vol
1	TR		Y

TYPE
DM - METAL DRUM
DP - PLASTIC DRUM
DF - FIBER DRUM
BG - BAG
TR - TRUCK
OT - OTHER

UNITS
P - POUNDS
Y - CUBIC YARDS
T - TONS
O - OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above mentioned material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law; has been properly classified and packaged, and is in proper condition for transportation according to applicable regulations.

on behalf of RACER Trust

Steven S. Hoewmeyer - CRA

Generator Authorized Agent Name

Signature

Shipment Date: 04/11/12

TRANSPORTER INFORMATION

TRANSPORTER 1

a. Name: FISHER CONTRACTING CO.

b. Address: 604 JEFFERSON AVE.

MIDLAND, MI

c. Driver Name: Ben Laurin

d. Phone No.: 989-835-1761 e. Truck No.:

f. Vehicle License No./State: AB8231

Acknowledgement of Receipt of Materials Described Above.

g. Driver Signature

Shipment Date: 04/11/12

TRANSPORTER 2

h. Name:

i. Address:

j. Driver Name:

k. Phone No.: l. Truck No.:

m. Vehicle License No./State:

Acknowledgement of Receipt of Materials Described Above.

n. Driver Signature

Shipment Date:

DISPOSAL FACILITY INFORMATION

a. Site Name: WHITEFEATHER LANDFILL

b. Phone No.:

c. Physical Address: 4301 E. WHITEFEATHER RD.

d. Mailing Address:

PINCONNING, MI 48650 989-879-2700

e. TICKET No.: 48728

4/8.35 Ton

I hereby certify that the material described above has been accepted for disposal at this facility.

f. Jennifer Hart

Authorized Agent Name

Signature

Shipment Date: 04/11/12

White - Disposal Facility Yellow - Transporter Copy Pink - Generator 2nd Copy Gold - Generator 1st Copy

REPUBLIC SERVICES, INC. SM

WHITEFEATHER LANDFILL

2401 East Whitefeather Road, Pinconning, MI 48650

WASTE COLLECTION • RECYCLING • TRANSFER • DISPOSAL

SITE	TICKET	GRID	WEIGHMASTER
	048726		JENNIFER L
DATE IN / TIME IN			VEHICLE
11 Apr 12	3:27 pm		WFIS-305
DATE OUT / TIME OUT			ROLL OFF
11 Apr 12	3:27 pm		
REFERENCE		ORIGIN	
MANIFEST #716303		SAGINAW	

000128

FISHER CONTRACTING

PO BOX 1787

MIDLAND, MI 48641

Contract: 30701119719

00 Gross Weight	166,920.00	lb	
Stored Tare Weight	54,740.00	lb	
Net Weight	112,180.00	lb	56.09 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
56.09	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				
		Inbound - SCALE TICKET				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

SIGNATURE _____

MANIFEST NUMBER

716303

NON-HAZARDOUS SPECIAL WASTE MANIFEST

Directions: Print or type all information except where signature is required.
Make sure information is transmitted on all copies.

GENERATOR INFORMATION

a. Generator Name: RACER TRUST

b. Generator Location:

c. Address: 700 GAREY ST.

d. Address: 29[illegible] ECORSE RD.

SAGINAW, MI

YP[illegible]ANTI, MI

e. Phone No.: 217-741-6235

f. Phone No.:

g. Waste Common Name: LEAD IMPACTED SOIL & DEBRIS

Color: BROWN

Odor: NONE

h. Special Waste Approval Number: 3070 11 19719

i. Customer Account Number: #128

J. Containers No.	J. Containers Type	K. Total Quantity	L. Unit Wt/Vol

TYPE		
DM	-	METAL DRUM
DP	-	PLASTIC DRUM
DF	-	FIBER DRUM
BG	-	BAG
TR	-	TRUCK
OT	-	OTHER

UNITS		
P	-	POUNDS
Y	-	CUBIC YARDS
T	-	TONS
O	-	OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above mentioned material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law; has been properly classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steven S Heumayer - CR1 — on behalf of Racer Trust — 04/11/12

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER INFORMATION

TRANSPORTER 1

a. Name: PISNER CONTRACTING CO.

b. Address: 514 JEFFERSON AVE.

MIDLAND, MI

c. Driver Name:

d. Phone No.: [illegible] e. Truck No.: 305

f. Vehicle License No./State:

Acknowledgement of Receipt of Materials Described Above.

g. Maggie Mitchell — 04/11/12

Driver Signature — Shipment Date

TRANSPORTER 2

h. Name:

i. Address:

j. Driver Name:

k. Phone No.: l. Truck No.:

m. Vehicle License No./State:

Acknowledgement of Receipt of Materials Described Above.

n. Driver Signature — Shipment Date

DISPOSAL FACILITY INFORMATION

a. Site Name: WHITEFEATHER LANDFILL

b. Phone No.:

c. Physical Address: 3401 E. WHITEFEATHER RD.

d. Mailing Address:

BINCONNING, MI 48650 989-875-2700

e. TICKET No.:

I hereby certify that the material described above has been accepted for disposal at this facility.

f. [illegible] — [illegible] — Shipment Date

Authorized Agent Name — Signature

White - Disposal Facility — Yellow - Transporter Copy — Pink - Generator 2nd Copy — Gold - Generator 1st Copy

REPUBLIC SERVICES, INC. SM

WHITEFEATHER LANDFILL

2401 East Whitefeather Road, Pinconning, MI 48650

WASTE COLLECTION • RECYCLING • TRANSFER • DISPOSAL

SITE	TICKET	GRID	WEIGHMASTER
	048741		JENNIFER L
DATE IN / TIME IN			VEHICLE
12 Apr 12	8:57 am		WFIS-314
DATE OUT / TIME OUT			ROLL OFF
12 Apr 12	8:57 am		
REFERENCE		ORIGIN	
MANIFEST #716287		SAGINAW	

000128

FISHER CONTRACTING

PO BOX 1787
MIDLAND, MI 48641

Contract: 30701119719

00 Gross Weight	163,560.00	lb	
Stored Tare Weight	52,980.00	lb	
Net Weight	110,580.00	lb	55.29 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
55.29	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				
		Inbound - SCALE TICKET				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

SIGNATURE _____

MANIFEST NUMBER

716287

NON-HAZARDOUS SPECIAL WASTE MANIFEST

Directions: Print or type all information except where signature is required. Make sure information is transmitted on all copies.

GENERATOR INFORMATION

a. Generator Name: RACER TRUST

b. Generator Location:

c. Address: 700 GARFEY ST. SAGINAW, MI

d. Address: 2930 ECORSE RD. YPSILANTI, MI

e. Phone No.: 217-741-8235

f. Phone No.:

g. Waste Common Name: LEAD IMPACTED SOIL & DEBRIS

Color: BROWN

Odor: NONE

h. Special Waste Approval Number: 3070 11 19719

i. Customer Account Number: #128

J. Containers No.	Type	K. Total Quantity	L. Unit Wt/Vol
1	TR		Y

TYPE	
DM	- METAL DRUM
DP	- PLASTIC DRUM
DF	- FIBER DRUM
BG	- BAG
TR	- TRUCK
OT	- OTHER
UNITS	
P	- POUNDS
Y	- CUBIC YARDS
T	- TONS
O	- OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above mentioned material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law; has been properly classified and packaged, and is in proper condition for transportation according to applicable regulations.

on behalf of Racer Trust

Steven S. Hoeweler - CRA — [signature] — 04/12/12

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER INFORMATION

TRANSPORTER 1

a. Name: FISHER CONTRACTING CO.

b. Address: 2434 JEFFERSON AVE. MIDLAND, MI

c. Driver Name: Ben Lauria

d. Phone No.: 989-835-7771

e. Truck No.: 314

f. Vehicle License No./State: AB86231 MI

Acknowledgement of Receipt of Materials Described Above.

g. [signature] — 04/12/12

Driver Signature — Shipment Date

TRANSPORTER 2

h. Name:

i. Address:

j. Driver Name:

k. Phone No.:

l. Truck No.:

m. Vehicle License No./State:

Acknowledgement of Receipt of Materials Described Above.

n.

Driver Signature — Shipment Date

DISPOSAL FACILITY INFORMATION

a. Site Name: WHITEFEATHER LANDFILL

b. Phone No.:

c. Physical Address: 2401 E. WHITEFEATHER RD. PINCONNING, MI 48650 989-879-2700

d. Mailing Address:

e. TICKET No.: 048741 55.29 TN

I hereby certify that the material described above has been accepted for disposal at this facility.

f. [signature] — [signature] — [illegible]

Authorized Agent Name — Signature — Shipment Date

White - Disposal Facility — Yellow - Transporter Copy — Pink - Generator 2nd Copy — Gold - Generator 1st Copy

REPUBLIC SERVICES, INC. SM

WHITEFEATHER LANDFILL

2401 East Whitefeather Road, Pinconning, MI 48650

WASTE COLLECTION • RECYCLING • TRANSFER • DISPOSAL

SITE	TICKET	GRID	WEIGHMASTER
	048738		JENNIFER L
DATE IN / TIME IN			VEHICLE
12 Apr 12	8:50 am		WFIS-305
DATE OUT / TIME OUT			ROLL OFF
12 Apr 12	8:50 am		
REFERENCE		ORIGIN	
MANIFEST #716286		SAGINAW	

000128

FISHER CONTRACTING

PO BOX 1787
MIDLAND, MI 48641

Contract: 30701119719

00 Gross Weight	159,140.00	lb	
Stored Tare Weight	54,740.00	lb	
Net Weight	104,400.00	lb	52.20 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
52.20	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				
		Inbound - SCALE TICKET				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

SIGNATURE _____

Re-order from BFI Print & Promotion Solutions 1-888-254-8784

MANIFEST NUMBER

716286

NON-HAZARDOUS SPECIAL WASTE MANIFEST

Directions: Print or type all information except where signature is required. Make sure information is transmitted on all copies.

GENERATOR INFORMATION

a. Generator Name: RACER TRUST

b. Generator Location:

c. Address: 700 GAREY ST. SAGINAW, MI

d. Address: 2% ECORSE RD. YPSILANTI, MI

e. Phone No.: 217-741-6235

f. Phone No.:

g. Waste Common Name: LEAD IMPACTED SOIL & DEBRIS

Color: BROWN

Odor: NONE

h. Special Waste Approval Number: 3070 11 19719

i. Customer Account Number: #125

J. Containers No.	Type	K. Total Quantity	L. Unit Wt/Vol
1	TR		Y

TYPE	
DM	- METAL DRUM
DP	- PLASTIC DRUM
DF	- FIBER DRUM
BG	- BAG
TR	- TRUCK
OT	- OTHER

UNITS	
P	- POUNDS
Y	- CUBIC YARDS
T	- TONS
O	- OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above mentioned material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law; has been properly classified and packaged, and is in proper condition for transportation according to applicable regulations.

On behalf of Racer Trust

Steven S. Hoeveney - CRA

Generator Authorized Agent Name

Signature

04 12 12

Shipment Date

TRANSPORTER INFORMATION

TRANSPORTER 1

a. Name: FISHER CONTRACTING CO.

b. Address: 614 JEFFERSON AVE. MIDLAND, MI

c. Driver Name:

d. Phone No.: 989-835-7771 e. Truck No.: 305

f. Vehicle License No./State:

Acknowledgement of Receipt of Materials Described Above.

g. Driver Signature

04 12 12

Shipment Date

TRANSPORTER 2

h. Name:

i. Address:

j. Driver Name:

k. Phone No.: l. Truck No.:

m. Vehicle License No./State:

Acknowledgement of Receipt of Materials Described Above.

n. Driver Signature

Shipment Date

DISPOSAL FACILITY INFORMATION

a. Site Name: WHITEFEATHER LANDFILL

b. Phone No.:

c. Physical Address: 2401 E. WHITEFEATHER RD. PINCONNING, MI 48650 989-879-2700

d. Mailing Address:

e. TICKET No.:

I hereby certify that the material described above has been accepted for disposal at this facility.

f. Authorized Agent Name

Signature

Shipment Date

White - Disposal Facility Yellow - Transporter Copy Pink - Generator 2nd Copy Gold - Generator 1st Copy

REPUBLIC SERVICES, INC. SM

WHITEFEATHER LANDFILL
2401 East Whitefeather Road, Pinconning, MI 48650
WASTE COLLECTION • RECYCLING • TRANSFER • DISPOSAL

SITE	TICKET	GRID	WEIGHMASTER
	048711		JENNIFER L
DATE IN / TIME IN			VEHICLE
11 Apr 12	1:30 pm		WFISH-302
DATE OUT / TIME OUT			ROLL OFF
11 Apr 12	1:30 pm		
REFERENCE		ORIGIN	
MANIFEST #716305		SAGINAW	

000128

FISHER CONTRACTING

PO BOX 1787
MIDLAND, MI 48641

Contract: 30701119719

00 Gross Weight	153,300.00	lb	
Stored Tare Weight	54,540.00	lb	
Net Weight	98,760.00	lb	49.38 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
49.38	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				
		Inbound - SCALE TICKET				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

SIGNATURE _____

MANIFEST NUMBER

716305

NON-HAZARDOUS SPECIAL WASTE MANIFEST

Directions: Print or type all information except where signature is required.
Make sure information is transmitted on all copies.

GENERATOR INFORMATION

a. Generator Name: RACER TRUST

b. Generator Location:

c. Address: 700 GAREY ST.

d. Address: SW COURSE RD.

SAGINAW, MI

WYANTI, MI

e. Phone No.: 217-741-6235

f. Phone No.:

g. Waste Common Name: LEAD IMPACTED SOIL & DEBRIS

Color: BROWN

Odor: NONE

h. Special Waste Approval Number: 3070 11 19719

i. Customer Account Number: #125

J. Containers No.	J. Containers Type	K. Total Quantity	L. Unit Wt/Vol
1	TR		Y

TYPE		
DM	-	METAL DRUM
DP	-	PLASTIC DRUM
DF	-	FIBER DRUM
BG	-	BAG
TR	-	TRUCK
OT	-	OTHER

UNITS		
P	-	POUNDS
Y	-	CUBIC YARDS
T	-	TONS
O	-	OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above mentioned material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law; has been properly classified and packaged, and is in proper condition for transportation according to applicable regulations.

Steven E Newman - CRA on behalf of Racer Trust

Generator Authorized Agent Name

Signature

04/11/12

Shipment Date

TRANSPORTER INFORMATION

TRANSPORTER 1

a. Name: FISHER CONTRACTING CO.

b. Address: 04 JEFFERSON AVE.

MIDLAND, MI

c. Driver Name:

d. Phone No.: 989-835-7770 e. Truck No.: 720

f. Vehicle License No./State:

Acknowledgement of Receipt of Materials Described Above.

g. Driver Signature

04/11/12

Shipment Date

TRANSPORTER 2

h. Name:

i. Address:

j. Driver Name:

k. Phone No.: l. Truck No.:

m. Vehicle License No./State:

Acknowledgement of Receipt of Materials Described Above.

n. Driver Signature

Shipment Date

DISPOSAL FACILITY INFORMATION

a. Site Name: WHITEFEATHER LANDFILL

b. Phone No.:

c. Physical Address: 2401 E. WHITEFEATHER RD.

d. Mailing Address:

HONCONNING, MI 48650 989-379-2700

e. TICKET No.:

I hereby certify that the material described above has been accepted for disposal at this facility.

f. DON FLORENCE

Authorized Agent Name

Signature

Shipment Date

White - Disposal Facility Yellow - Transporter Copy Pink - Generator 2nd Copy Gold - Generator 1st Copy

REPUBLIC SERVICES, INC.℠

WHITEFEATHER LANDFILL

2401 East Whitefeather Road, Pinconning, MI 48650

WASTE COLLECTION • RECYCLING • TRANSFER • DISPOSAL

SITE	TICKET	GRID	WEIGHMASTER
	048706		JENNIFER L

DATE IN / TIME IN	VEHICLE
11 Apr 12 12:40 pm	WFISH-318

DATE OUT / TIME OUT	ROLL OFF
11 Apr 12 1:19 pm	

REFERENCE	ORIGIN
MANIFEST #716306	SAGINAW

000128

FISHER CONTRACTING

PO BOX 1787

MIDLAND, MI 48641

Contract: 30701119719

00 Gross Weight	132,840.00	lb	
Stored Tare Weight	52,160.00	lb	
Net Weight	80,680.00	lb	40.34 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
40.34	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				
		Inbound - SCALE TICKET				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

SIGNATURE _____

MANIFEST NUMBER

716306

NON-HAZARDOUS SPECIAL WASTE MANIFEST

Directions: Print or type all information except where signature is required.
Make sure information is transmitted on all copies.

GENERATOR INFORMATION

a. Generator Name: RACER TRUST

b. Generator Location:

c. Address: 700 GAKEY ST.

SAGINAW, MI

d. Address: 29[illegible] COORSE RD.

[illegible]P , ANTI, MI

e. Phone No.: 217-741-6235

f. Phone No.:

g. Waste Common Name: LEAD IMPACTED SOIL & DEBRIS

Color: BROWN

Odor: NONE

h. Special Waste Approval Number: 3070 11 15719

i. Customer Account Number: #125

J. Containers No.	J. Containers Type	K. Total Quantity	L. Unit Wt/Vol

TYPE		
DM	-	METAL DRUM
DP	-	PLASTIC DRUM
DF	-	FIBER DRUM
BG	-	BAG
TR	-	TRUCK
OT	-	OTHER

UNITS		
P	-	POUNDS
Y	-	CUBIC YARDS
T	-	TONS
O	-	OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above mentioned material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law; has been properly classified and packaged, and is in proper condition for transportation according to applicable regulations. on behalf of Racer Trust

Steven S. Howerzyer — Generator Authorized Agent Name

[signature] — Signature

6/1/1/12 — Shipment Date

TRANSPORTER INFORMATION

TRANSPORTER 1

a. Name: FISHER CONTRACTING CO.

b. Address: 614 JEFFERSON AVE.

MIDLAND, MI

c. Driver Name:

d. Phone No.: [illegible] e. Truck No.: #318

f. Vehicle License No./State: AC28627

Acknowledgement of Receipt of Materials Described Above.

g. Mick Eldred — Driver Signature

4/1/1/12 — Shipment Date

TRANSPORTER 2

h. Name:

i. Address:

j. Driver Name:

k. Phone No.: l. Truck No.:

m. Vehicle License No./State:

Acknowledgement of Receipt of Materials Described Above.

n. Driver Signature

Shipment Date

DISPOSAL FACILITY INFORMATION

a. Site Name: WHITEFEATHER LANDFILL

b. Phone No.:

c. Physical Address: 3401 E. WHITEFEATHER RD.

CINCONNING, MI 48614 989-879-2700

d. Mailing Address:

e. TICKET No.:

I hereby certify that the material described above has been accepted for disposal at this facility.

f. Jennifer Lapeer — Authorized Agent Name

[signature] — Signature

Shipment Date

White - Disposal Facility Yellow - Transporter Copy Pink - Generator 2nd Copy Gold - Generator 1st Copy

REPUBLIC SERVICES, INC. ℠

WHITEFEATHER LANDFILL

2401 East Whitefeather Road, Pinconning, MI 48650

WASTE COLLECTION • RECYCLING • TRANSFER • DISPOSAL

SITE	TICKET	GRID	WEIGHMASTER
	048702		JENNIFER L
DATE IN / TIME IN			VEHICLE
11 Apr 12	12:30 pm		WFIS-314
DATE OUT / TIME OUT			ROLL OFF
11 Apr 12	12:57 pm		
REFERENCE		ORIGIN	
MANIFEST #716307		SAGINAW	

000128

FISHER CONTRACTING

PO BOX 1787
MIDLAND, MI 48641

Contract: 30701119719

00 Gross Weight	130,580.00	lb	
Stored Tare Weight	52,980.00	lb	
Net Weight	77,600.00	lb	38.80 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
38.80	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				
		Inbound - SCALE TICKET				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

SIGNATURE _____

MANIFEST NUMBER

716307

NON-HAZARDOUS SPECIAL WASTE MANIFEST

Directions: Print or type all information except where signature is required.
Make sure information is transmitted on all copies.

GENERATOR INFORMATION

a. Generator Name: RACER TRUST

b. Generator Location:

c. Address: 700 GAREY ST.
SAGINAW, MI

d. Address: 2% ECORSE RD.
YP ANTI, MI

e. Phone No.: 217-741-6235

f. Phone No.:

g. Waste Common Name: LEAD IMPACTED SOIL & DEBRIS

Color: BROWN

Odor: NONE

h. Special Waste Approval Number: 3070 11 19719

i. Customer Account Number: #126

J. Containers No.	Type	K. Total Quantity	L. Unit Wt/Vol
		38.8	T

TYPE	
DM	- METAL DRUM
DP	- PLASTIC DRUM
DF	- FIBER DRUM
BG	- BAG
TR	- TRUCK
OT	- OTHER
UNITS	
P	- POUNDS
Y	- CUBIC YARDS
T	- TONS
O	- OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above mentioned material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law; has been properly classified and packaged, and is in proper condition for transportation according to applicable regulations.

St D. Howimyer — Generator Authorized Agent Name

[signature] — Signature

04/11/12 — Shipment Date

TRANSPORTER INFORMATION

TRANSPORTER 1

a. Name: FISHER CONTRACTING CO.

b. Address: 514 JEFFERSON AVE.
MIDLAND, MI

c. Driver Name: Ben Lauria

d. Phone No.: 89-835-7771

e. Truck No.: 314

f. Vehicle License No./State: AB8623

Acknowledgement of Receipt of Materials Described Above.

g. [signature] — Driver Signature

04/11/12 — Shipment Date

TRANSPORTER 2

h. Name:

i. Address:

j. Driver Name:

k. Phone No.:

l. Truck No.:

m. Vehicle License No./State:

Acknowledgement of Receipt of Materials Described Above.

n. Driver Signature

Shipment Date

DISPOSAL FACILITY INFORMATION

a. Site Name: WHITEFEATHER LANDFILL

b. Phone No.:

c. Physical Address: 401 E. WHITEFEATHER RD.
PINCONNING, MI 48650 989-879-2700

d. Mailing Address:

e. TICKET No.:

Jennifer Lavoie [signature] 4.11.12

I hereby certify that the material described above has been accepted for disposal at this facility.

on behalf of Racer Trust

f. Steven S. Howimyer — Authorized Agent Name

[signature] — Signature

04/11/12 — Shipment Date

White - Disposal Facility Yellow - Transporter Copy Pink - Generator 2nd Copy Gold - Generator 1st Copy

REPUBLIC SERVICES, INC. SM

WHITEFEATHER LANDFILL
2401 East Whitefeather Road, Pinconning, MI 48650
WASTE COLLECTION • RECYCLING • TRANSFER • DISPOSAL

SITE	TICKET	GRID	WEIGHMASTER
	048696		JENNIFER L

DATE IN / TIME IN	VEHICLE
11 Apr 12 12:06 pm	WFIS-305

DATE OUT / TIME OUT	ROLL OFF
11 Apr 12 12:36 pm	

REFERENCE	ORIGIN
MANIFEST #716309	SAGINAW

000128

FISHER CONTRACTING

PO BOX 1787
MIDLAND, MI 48641

Contract: 30701119719

00 Gross Weight	102,940.00	lb	
Stored Tare Weight	54,740.00	lb	
Net Weight	48,200.00	lb	24.10 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
24.10	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				
		Inbound - SCALE TICKET				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

SIGNATURE _____

MANIFEST NUMBER
716309

NON-HAZARDOUS SPECIAL WASTE MANIFEST

Directions: Print or type all information except where signature is required.
Make sure information is transmitted on all copies.

GENERATOR INFORMATION

a. Generator Name: RACER TRUST

b. Generator Location:

c. Address: 700 GARFIELD ST.

d. Address: 2X ECORSE RD.

SAGINAW, MI

YPSILANTI, MI

e. Phone No.: 217-741-6235

f. Phone No.:

g. Waste Common Name: LEAD IMPACTED SOIL & DEBRIS

Color: BROWN

Odor: NONE

h. Special Waste Approval Number: 3070 11 19719

i. Customer Account Number: #122

J. Containers No.	J. Containers Type	K. Total Quantity	L. Unit Wt/Vol

TYPE		
DM	-	METAL DRUM
DP	-	PLASTIC DRUM
DF	-	FIBER DRUM
BG	-	BAG
TR	-	TRUCK
OT	-	OTHER
UNITS		
P	-	POUNDS
Y	-	CUBIC YARDS
T	-	TONS
O	-	OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above mentioned material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law; has been properly classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name | Signature | Shipment Date

TRANSPORTER INFORMATION

TRANSPORTER 1

a. Name: FISHER CONTRACTING CO.

b. Address: 644 JEFFERSON AVE.

MIDLAND, MI

c. Driver Name:

d. Phone No.: 989-835-7700 e. Truck No.: FT 305

f. Vehicle License No./State:

Acknowledgement of Receipt of Materials Described Above.

g. Maggie Mitchell
Driver Signature | Shipment Date: 04/11/12

TRANSPORTER 2

h. Name:

i. Address:

j. Driver Name:

k. Phone No.: l. Truck No.:

m. Vehicle License No./State:

Acknowledgement of Receipt of Materials Described Above.

n.
Driver Signature | Shipment Date

DISPOSAL FACILITY INFORMATION

a. Site Name: WHITEFEATHER LANDFILL

b. Phone No.:

c. Physical Address: 3401 E. WHITEFEATHER RD.

d. Mailing Address:

PINCONNING, MI 48650 989-879-2700

e. TICKET No.:

I hereby certify that the material described above has been accepted for disposal at this facility.

f. Steve Howemeyer on behalf of Racer Trust
Authorized Agent Name | Signature | Shipment Date: 04/11/12

White - Disposal Facility | Yellow - Transporter Copy | Pink - Generator 2nd Copy | Gold - Generator 1st Copy

REPUBLIC SERVICES, INC.℠

WHITEFEATHER LANDFILL

2401 East Whitefeather Road, Pinconning, MI 48650

WASTE COLLECTION • RECYCLING • TRANSFER • DISPOSAL

SITE	TICKET	GRID	WEIGHMASTER
	048685		JENNIFER L

DATE IN / TIME IN	VEHICLE
11 Apr 12 10:47 am	WFISH-302

DATE OUT / TIME OUT	ROLL OFF
11 Apr 12 11:04 am	

REFERENCE	ORIGIN
MANIFEST #716285	SAGINAW

000128

FISHER CONTRACTING

PO BOX 1787

MIDLAND, MI 48641

Contract: 30701119719

00 Gross Weight	122,760.00	lb	
Stored Tare Weight	54,540.00	lb	
Net Weight	68,220.00	lb	34.11 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
34.11	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				
		Inbound - SCALE TICKET				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

SIGNATURE _____

MANIFEST NUMBER
716285

NON-HAZARDOUS SPECIAL WASTE MANIFEST

Directions: Print or type all information except where signature is required.
Make sure information is transmitted on all copies.

GENERATOR INFORMATION

a. Generator Name: RACER TRUST

b. Generator Location:

c. Address: 700 GAREY ST.

d. Address: 29[illegible] ECORSE RD.

SAGINAW, MI

YP[illegible]LANTI, MI

e. Phone No.: 217-741-6235

f. Phone No.:

g. Waste Common Name: LEAD IMPACTED SOIL & DEBRIS

Color: BROWN

Odor: NONE

h. Special Waste Approval Number: 3070 11 19719

i. Customer Account Number: #128

J. Containers No.	Type	K. Total Quantity	L. Unit Wt/Vol

TYPE		
DM	-	METAL DRUM
DP	-	PLASTIC DRUM
DF	-	FIBER DRUM
BG	-	BAG
TR	-	TRUCK
OT	-	OTHER

UNITS		
P	-	POUNDS
Y	-	CUBIC YARDS
T	-	TONS
O	-	OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above mentioned material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law; has been properly classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name | Signature | Shipment Date

TRANSPORTER INFORMATION

TRANSPORTER 1

a. Name: FISHER CONTRACTING CO.

b. Address: 514 JEFFERSON AVE.

MIDLAND, MI

c. Driver Name: [illegible]

d. Phone No.: 989-835-7770 e. Truck No.:

f. Vehicle License No./State:

Acknowledgement of Receipt of Materials Described Above.

g. Driver Signature | Shipment Date: 04/11/12

TRANSPORTER 2

h. Name:

i. Address:

j. Driver Name:

k. Phone No.: l. Truck No.:

m. Vehicle License No./State:

Acknowledgement of Receipt of Materials Described Above.

n. Driver Signature | Shipment Date

DISPOSAL FACILITY INFORMATION

a. Site Name: WHITEFEATHER LANDFILL

b. Phone No.:

c. Physical Address: 2401 E. WHITEFEATHER RD.

d. Mailing Address:

PINCONNING, MI 48650 989-879-2700

e. TICKET No.:

I hereby certify that the material described above has been accepted for disposal at this facility.

f. Steve Hoevenaar on behalf of RacerTrust | Authorized Agent Name | Signature | Shipment Date: 04/11/12

White - Disposal Facility | Yellow - Transporter Copy | Pink - Generator 2nd Copy | Gold - Generator 1st Copy

Appendix E

Declaration of Restrictive Covenant

2014021735
L-2780 P-1475 R RS Page 1 of 10
OFFICIAL SEAL Saginaw County, Michigan
Mildred M. Dodak Register Of Deeds
July 28, 2014 09:46 AM

DECLARATION OF RESTRICTIVE COVENANT

DEQ Reference No: RC-RRD-201-13-11

This Declaration of Restrictive Covenant ("Restrictive Covenant") has been recorded with the Saginaw County Register of Deeds for the purpose of protecting public health, safety, and welfare, and the environment by prohibiting or restricting activities that could result in unacceptable exposure to environmental contamination present at the property located at 700 Garey Street, Saginaw, MI (Tax Identification Number 08-0002-0000), and legally described in Exhibit 1 attached hereto ("Property") and illustrated in Exhibit 2.

10p #44.00

Response activities were implemented to address environmental contamination at the Property pursuant to Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), MCL 324.20101 *et seq.* The response activities that were implemented to address environmental contamination are fully described in a letter entitled Investigation Summary and Proposed Site Closure dated October 13, 2011, prepared by Conestoga-Rovers & Associates, Inc. The Michigan Department of Environmental Quality (DEQ) approved the proposed Site closure activities on December 1, 2011, pursuant to Part 201 of NREPA.

The Property described contains hazardous substances in excess of the concentrations developed as the unrestricted residential criteria under Section 20120a(1)(a) or (17) of the NREPA. The DEQ recommends that prospective purchasers or users of the Property undertake appropriate due diligence prior to acquiring or using this Property, and undertake appropriate actions to comply with the requirements of Section 20107a of NREPA.

The response activities required the recording of this Restrictive Covenant with the Saginaw County Register of Deeds to: 1) restrict unacceptable exposures to hazardous substances located on the Property; 2) assure that the use of Property is consistent with the exposure assumptions used to develop the nonresidential cleanup criteria under Section 20120a(1)(b) of the NREPA and the exposure control measures relied upon at the Property.

The restrictions contained in this Restrictive Covenant are based upon information available at the time the response activities were implemented. Failure of the response activities to achieve and maintain the criteria, exposure controls, and any requirements specified by the response activities; future changes in the environmental condition of the Property or changes in the nonresidential cleanup criteria under Section 20120a(1)(b) of NREPA; the discovery of environmental conditions at the Property that were not accounted for during implementation of the response activities; or use of the Property in a manner inconsistent with the restrictions

David Tavero
500 Woodward Ave
Ste 1510
Detroit MI 48226

described herein, may result in this Restrictive Covenant not being protective of public health, safety, and welfare, and the environment.

Exhibit 2 provides a survey of the Property that is subject to the land use or resource use restrictions specified herein.

Definitions

For the purposes of this Restrictive Covenant, the following definitions shall apply:

"DEQ" means the Michigan Department of Environmental Quality, its successor entities, and those persons or entities acting on its behalf.

"Owner" means at any given time the then current title holder of the Property or any portion thereof. The current Owner of the Property is RACER Properties, LLC, the wholly-owned subsidiary of Revitalizing Auto Communities Environmental Response Trust ("Trust") (RACER Properties and the Trust are collectively referred to herein as "RACER"). RACER was established and assumed the rights, title, and interest of Motors Liquidation Company in and to the Property pursuant to an Environmental Response Trust Consent Decree and Settlement Agreement ("Settlement Agreement") entered by the U.S. Bankruptcy Court for the Southern District of New York on March 29, 2011, in the case of *In re Motors Liquidation Company*, etc. et al, Debtors, Case No. 09-50026 (REG), among the Debtors, the United States of America, certain states including the State of Michigan, the Saint Regis Mohawk Tribe, and EPLET, LLC, (not individually but solely in its representative capacity as Administrative Trustee of the Trust).

All other terms used in this document which are defined in Part 3, Definitions, of NREPA; Part 201 of the NREPA; or the Part 201 Administrative Rules, 2002 Michigan Register; Effective December 21, 2002, shall have the same meaning in this document as in Parts 3 and 201 of NREPA and the Part 201 Administrative Rules, as of the date of filing of this Restrictive Covenant.

Summary of Response Activities

Hazardous substances including lead, trichloroethylene (TCE), benzo(a)pyrene, total chromium, and arsenic were identified above screening criteria (Act 451 Part 201 nonresidential direct contact criteria and/or drinking water protection criteria) and are present on the Property. Prior to the recording of this Restrictive Covenant, response activities were undertaken to remove some of the hazardous substances. Approximately 600 cubic yards of soil were removed and disposed of off-Site to eliminate direct contact exposures to soils containing lead above Act 451 Part 201 nonresidential direct contact criteria at the Site. Soil marginally exceeds Act 451 Part 201 nonresidential direct contact for benzo(a)pyrene at two locations. A statistical analysis was completed for benzo(a)pyrene for all the samples collected on Site. The 95 percent upper confidence level (UCL) for benzo(a)pyrene was calculated to be 2.6 mg/kg, which is below the Act 451 Part 201 nonresidential direct contact criteria of 8 mg/kg. The remaining hazardous substances (TCE, total chromium, and arsenic) exceed the Act 451 Part 201 nonresidential drinking water protection criteria, however, since groundwater was not encountered during the investigation and the Site is underlain by a continuous extensive clay layer, the Act 451 Part 201 nonresidential drinking water protection criteria is not applicable.

NOW THEREFORE,

1. Declaration of Land Use or Resource Use Restrictions. RACER Properties, LLC (RACER) the Owner of the Property, hereby declares and covenants that the Property shall be subject to the following restrictions and conditions:

a. Prohibited Land Uses: The Owner shall prohibit uses of the property that are not compatible with or are inconsistent with the assumptions and basis for the nonresidential cleanup criteria established pursuant to Section 20120a(1)(b) of the NREPA. Uses that are compatible with nonresidential cleanup criteria are generally described in Exhibit 3 (Allowable Uses). Cleanup criteria for land-use based response activities are located in the Government Documents Section of the State of Michigan Library.

b. Prohibited Activities to Eliminate Unacceptable Exposure to Hazardous Substances. The Owner shall prohibit activities on the property that may result in exposures to hazardous substances at the Property. These prohibited activities include:

> Any construction of wells or other devices to extract groundwater for consumption, irrigation, dewatering, or any other use, except for wells and devices that are part of a DEQ-approved response activity.

c. Contaminated Soil Management. The Owner shall manage all soils, media and/or debris located on the property in accordance with the applicable requirements of Section 20120c of the NREPA; Part 111, Hazardous Waste Management, of the NREPA; Subtitle C of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 *et seq.*; the administrative rules promulgated thereunder; and all other r elevant state and federal laws.

2. Access for DEQ. The Owner grants to the DEQ and other governmental agencies and their respective designated representatives the right to enter the Property at reasonable times for the purpose of determining and monitoring compliance with the response activities, including the right to take samples, inspect the operation of the response activities and inspect any records relating thereto, and to perform any actions necessary to maintain compliance with Part 201.

3. Conveyance of Property Interest. The Owner shall provide notice to the DEQ of the Owner's intent to transfer any interest in the Property at least fourteen (14) business days prior to consummating the conveyance. A conveyance of title, easement, or other interest in the Property shall not be consummated by the Owner without adequate and complete provision for compliance with the applicable provisions of Section 20116 of NREPA. The notice required to be made to the DEQ under this Paragraph shall be made to: Chief, Remediation Division, Michigan DEQ, P.O. Box 30426, Lansing, Michigan 48909-7926; and shall include a statement that the notice is being made pursuant to the requirements of this Restrictive Covenant, DEQ Reference Number RC-RD-201-13-11. A copy of this Restrictive Covenant shall be provided to all future owners, heirs, successors, lessees, easement holders, assigns, and transferees by the person transferring the interest.

4. Term of Restrictive Covenant. This Restrictive Covenant shall run with the Property and shall be binding on the Owner; future owners; and their successors and assigns, lessees, easement holders, and any authorized agents, employees, or persons acting under their direction and control. This Restrictive Covenant shall continue in effect until the DEQ or its successor determines that hazardous substances no longer present an unacceptable risk to the

public health, safety, or welfare, or the environment. This Restrictive Covenant may only be modified or rescinded with the written approval of the DEQ.

5. Enforcement of Restrictive Covenant. The State of Michigan, through the DEQ, and RACER may individually enforce the restrictions set forth in this Restrictive Covenant by legal action in a court of competent jurisdiction.

6. Limitation on RACER's Liability. RACER's and the Administrative Trustee's liability is limited by the terms and conditions of the Settlement Agreement, which are incorporated herein by reference.

7. Severability. If any provision of this Restrictive Covenant is held to be invalid by any court of competent jurisdiction, the invalidity of such provision shall not affect the validity of any other provisions hereof, and all such other provisions shall continue unimpaired and in full force and effect.

8. Authority to Execute Restrictive Covenant. The undersigned person executing this Restrictive Covenant represents and certifies that he is a duly authorized representative of the Owner and has been empowered to execute and deliver this Restrictive Covenant.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK. SIGNATURE PAGES FOLLOW.]

IN WITNESS WHEREOF, RACER Properties LLC has caused this Restrictive Covenant, RC-RRD-201-13-11, to be executed on this 28 day of July, 2014.

RACER PROPERTIES LLC

By: EPLET, LLC, a Delaware limited liability company, acting solely in its representative capacity as Non-Member Manager

By: _____
Elliott P. Laws, not individually, but acting solely in his representative capacity as Managing Member of EPLET, LLC

STATE OF MICHIGAN
COUNTY OF Oakland

The foregoing instrument was acknowledged before me this July 28, 2014 by Elliott P. Laws, not individually, but acting solely in his capacity as Managing Member of EPLET, LLC, a Delaware limited liability company acting solely in its representative capacity as Non-Member Manager of RACER Properties LLC, a Delaware limited liability company, and in its capacity as Administrative Trustee of Revitalizing Auto Communities Environmental Response Trust, a New York trust, on behalf of said limited liability company and said trust.

_____
Notary Public Signature

TRACIE L. NICHOLS
Notary Public, State of Michigan
County of Oakland
My Commission Expires 03-19-2017
Acting in the County of Wayne

Name of Notary Public Tracie L Nichols
Notary Public, State of Michigan
County of Oakland
My Commission Expires: 3/19/17
Acting in the County of Wayne

This document is exempt from state and county transfer taxes pursuant MCL 207.505(a) and MCL 207.526(a).]

When recorded return to:

David Favero
RACER Trust Deputy Cleanup Manager – Michigan
500 Woodward Avenue, Suite 1510
Detroit, Michigan 48226

EXHIBIT 1

LEGAL DECRIPTION OF PROPERTY

Spicer Group
230 S. Washington Avenue
Saginaw, MI 48607-1286
TEL (989) 754-4717
FAX (989) 754-4440
www.SpicerGroup.com

DWG. NO.:A-26925-2

SURVEY FOR: Conestoga Rovers & Associates
651 Colby Drive
Waterloo, Ontario, Canada

DATE: September 10, 2012

SURVEY OF:

TITLE SOURCE, COMMITMENT #45158607

A parcel of land, being part of Block 6 and 7, all in BREWSTER PARK ADDITION to the City of East Saginaw, now the City of Saginaw, Saginaw County, Michigan, according to the plat thereof recorded in Liber 38, Page 195, and that part of Owen Street vacated by Saginaw City Council December 23, 1919, and that part of Howard Street, vacated by Saginaw City Council June 8, 1915, and that part of Morse(now known as Garey) Street vacated by Saginaw City Council December 24, 1935, described as follows: Commencing at the point of intersection of the West line of the Brown street right-of-way and the North line of the Grand Trunk Western Railroad Company right-of-way; thence S.88°-21'-28"W., on said North line of the Grand Trunk Western Railroad Company right-of-way, 584.74 feet to the Easterly line of the existing Owen Street right-of-way, said Easterly line being the arc of a curve to the right having a radius of 488.67 feet; thence Northeasterly on said Easterly line of existing Owen Street and on the arc of said curve to the right, 60.26 feet to the point of tangency of said curve, said arc being subtended by a chord bearing, N.11°-47'-04"E., 60.22 feet to said point of tangency; thence N.15°-19'-00"E., on said Easterly line of the existing Owen Street right-of-way, 326.17 feet to the South line of existing Garey Street right-of-way; thence S.74°-34'-23"E., on said South line of Garey Street; 15.00 feet to the Northwest corner of said Block 6 of said Brewster Park Addition, according to the plat thereof recorded in Liber 38, Page 195 of Plats, Saginaw County Records; thence N.15 °-19'-00"E., on the Northerly extension of the Westerly line of Block 6 of said Brewster Park Addition, 3.00 feet; thence S.74°-34'-23"E., on the North line of a 3.00 foot strip of said Morse (now Garey) street vacated by Council December 24, 1935, and also on a line which is parallel to and 30.00 feet, measured at right angles, South of the centerline of said Garey Street right-of-way, 547.00 feet to said West line of Brown Street; thence S.15°-13'-51"W., on said West line of Brown Street, 217.63 feet to the point of beginning.

STATE OF MICHIGAN
ERIC S. BARDEN
PROFESSIONAL SURVEYOR
No. 54049
LICENSED PROFESSIONAL SURVEYOR

I hereby certify that I have surveyed the parcel of land hereon shown and described.

By: _____ Date: 9/11/12
Eric S. Barden
Professional Surveyor No. 54049

DRAWN BY: MJE
CHECKED BY: ESB

PLOT DATE: 09/10/12 15:18

JOB#:120063SG2012
DWG#: A-26925-2

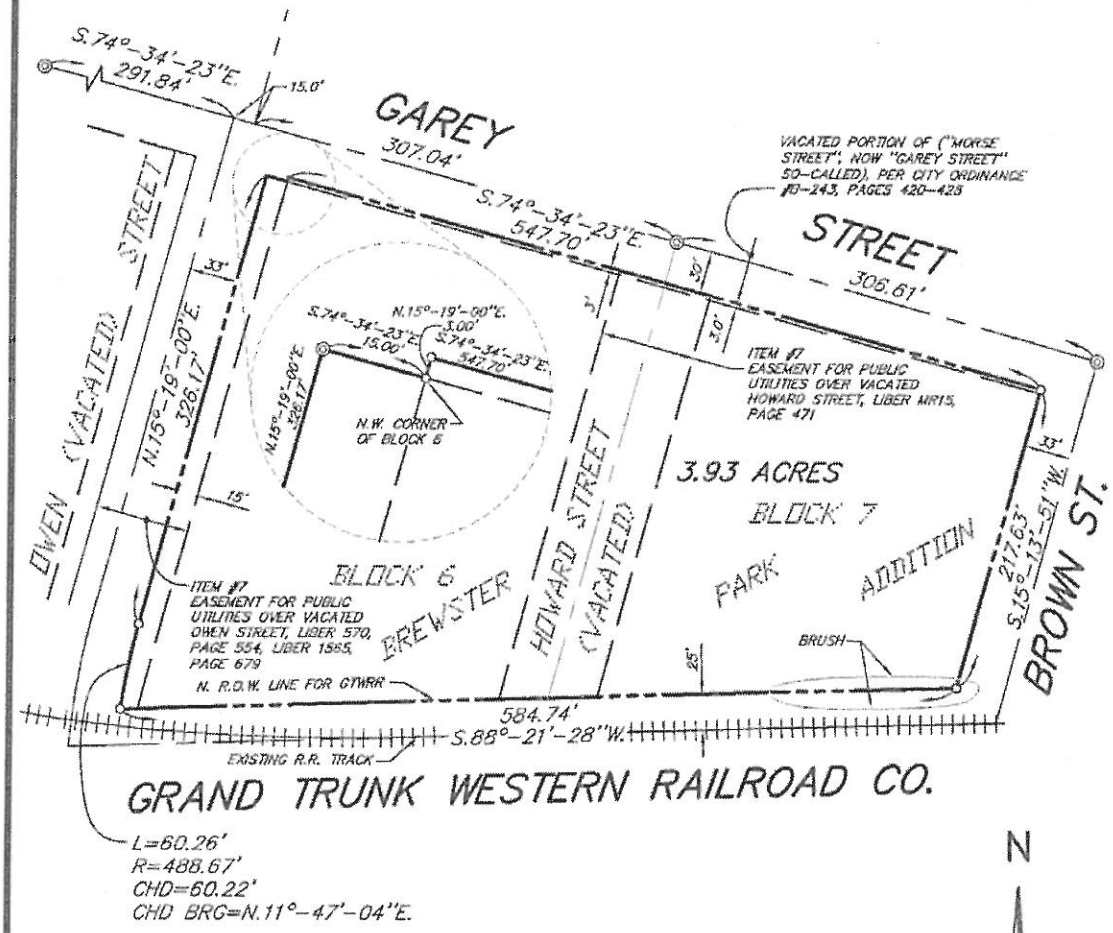
EXHIBIT 2

SURVEY OF THE PROPERTY

Spicer Group
230 S. Washington Avenue
Saginaw, MI 48607-1286
TEL (989) 754-4717
FAX (989) 754-4440
www.SpicerGroup.com

SCALE: 1" = 100'
DWG. NO.:A-26925-1

◎ - FOUND SURVEY CORNER
o - SET 1/2" IRON ROD WITH CAP #54049



SURVEY FOR: Conestoga Rovers & Associates
651 Colby Drive
Waterloo, Ontario, Canada

DATE: September 10, 2012

SURVEY OF:

SEE SHEET A-26925-2 FOR DESCRIPTION

STATE OF MICHIGAN
ERIC S. BARDEN
PROFESSIONAL SURVEYOR
No. 54049
LICENSED PROFESSIONAL SURVEYOR

I hereby certify that I have surveyed the parcel of land hereon shown and described.

By Eric S. Barden Date: 9/11/12
Eric S. Barden
Professional Surveyor No. 54049

DRAWN BY: MJE
CHECKED BY: ESB
PLOT DATE: 09/10/12 15:18
JOB#:1200635G2012
DWG#: A-26925-1

EXHIBIT 3

DESCRIPTION OF ALLOWABLE USES

Nonresidential Land Use: This land use is characterized by any use which is not residential in nature and is primarily characterized by industrial and commercial uses. Industrial uses typically involve manufacturing operations engaged in processing and manufacturing of materials or products. Other examples of industrial uses are utility companies, industrial research and development, and petroleum bulk storage. Commercial uses include any business or income-producing use such as commercial warehouses, lumber yards, retail gas stations, auto dealerships and service stations, as well as office buildings, banks, and medical/dental offices (not including hospitals). Commercial uses also include retail businesses whose principal activity is the sale of food or merchandise within an enclosed building and personal service establishments which perform services indoors such as health clubs, barber/beauty salons, photographic studios, etc.

Any residential use is specifically prohibited from the non-residential land use category. This would include the primary use of the property for human habitation and includes structures such as single family dwellings, multiple family structures, mobile homes, condominiums, and apartment buildings. Residential use is also characterized by any use which is intended to house, educate, or provide care for children, the elderly, the infirm, or other sensitive populations, and therefore could include day care centers, educational facilities, hospitals, elder care facilities, and nursing homes. The use of any accessory building or portion of an existing building as a dwelling unit permitted for a proprietor or storekeeper and their families, located in the same building as their place of occupation, or for a watchman or caretaker is also prohibited. Any authority that allows for residential use of the Property as a legal non-conforming is also restricted per the prohibitions contained in this restrictive covenant.

The Property is zoned for light industrial in accordance with Section 20120a(6) of Part 201, PA 451 and the intended future use of the Property will remain industrial/commercial.

Based on available data discussed in the No Further Action Report, the Property is suitable for construction of nonresidential (*i.e.*, industrial/commercial) buildings as long as proper health and safety procedures are followed during excavation activities, the soils are managed in accordance with the requirements of section 20120c of NREPA and other applicable state and federal laws

Appendix F

Memorandum on the Determination of Upper Confidence Limits for Lead and Benzo(a)pyrene in Soil

CONESTOGA-ROVERS & ASSOCIATES

651 Colby Drive, Waterloo, Ontario, Canada N2V 1C2
Telephone: (519) 884-0510 Fax: (519) 884-0525
www.CRAworld.com

MEMORANDUM

TO:	John-Eric Pardys	REF. NO.:	045285
FROM:	Wesley Dyck; Daniela Araujo/ev/5	DATE:	October 13, 2011
RE:	Determination of Upper Confidence Limits for Lead and Benzo(a)pyrene in Soil Former Warehouse, 700 Garey Street, Saginaw, Michigan		

1.0 INTRODUCTION

This memorandum describes the calculation 95 percent upper confidence limits (UCLs) of the mean concentrations of lead and benzo[a]pyrene (BaP) in soils at the former warehouse property located at 700 Garey Street in Saginaw, Michigan (Site). The calculation of 95 percent UCLs is recommended under Michigan's Part 201 Regulation for demonstrating the compliance of chemical concentrations in soils with applicable direct contact criteria and volatile soil inhalation criteria. The soil data considered were generated through the chemical analysis of soil samples collected from boreholes advanced at the Site in 2006 and 2007.

Recommended procedures for statistically analyzing data sets and generating 95 percent UCLs are found in Tab 7 (Statistical Methods) of Michigan's *Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria* (Michigan, 2002). Historically, Michigan also provided a web-based software tool ("P201 StatSoft") for performing the calculations, but the tool was discontinued at the end of 2009 with an indication that alternative software such as USEPA's "ProUCL" software be used. Therefore, the current evaluation has utilized the strategies and procedures present in ProUCL (current version 4.1) for the calculation of 95 percent UCL values for lead and BaP in soil.

As noted in Michigan (2002), and fully discussed in USEPA (2010), the calculation of an appropriate 95 percent UCL for a data set depends on observed characteristics of the data, such as the number of samples, the presence of censored (non-detect) data, and the observed data distribution (e.g., normal, gamma-distributed, lognormal). The Part 201 guidance (Michigan 2002) provides methods for calculating 95 percent UCL values for data sets that are normally or lognormally distributed and which contain up to 50 percent non-detects. Additional methods for other cases (i.e., different distributions and non-detect frequencies) are available in USEPA's ProUCL software and described in the accompanying Technical Guide (USEPA, 2010).

2.0 LEAD

The available data for lead were compiled and used for statistical analyses. These data are shown in Table 1. The lead data set contained no non-detects, and therefore no special accommodation of such censored data were required. ProUCLs output for the generation of a 95 percent UCL for lead in soil is provided in Attachment A.

The following table provides a summary of the results obtained from ProUCL during 95 percent UCL calculations for lead in Site soils:

Lead Statistical Summary	
Number of samples	59
Percentage of non-detects	0%
Sample mean	71.4 mg/kg
Interpreted data distribution	lognormal
UCL calculation method*	95% Chebyshev (Mean, Sd)
UCL of the mean	119.7 mg/kg

3.0 BENZO(A)PYRENE

The available data for benzo(a)pyrene were compiled and used for statistical analyses. These data are shown in Table 1. The appropriate accommodation of any non-detects present in the data set was handled internally using ProUCL's calculation algorithms (described in full in USEPA, 2010). ProUCLs output for the generation of a 95 percent UCL for BaP in soil is provided in Attachment A.

The following table provides a summary of the results obtained from ProUCL during 95 percent UCL calculations for BaP in Site soils:

Benzo(a)pyrene Statistical Summary	
Number of samples	62
Percentage of non-detects	19.4%
Sample mean	0.864 mg/Kg
Interpreted data distribution	not normal
UCL calculation method*	97.5% KM (Chebyshev)
UCL of the mean	2.61 mg/Kg

* See USEPA, 2010, for descriptions of specific UCL methods

4.0 REFERENCES

Michigan, 2002. Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria. Michigan Department of Environmental Quality, Environmental Response Division.

USEPA, May 2010. ProUCL Version 4.1.00 Technical Guide (Draft). United States Environmental Protection Agency, Office of Research and Development, Washington DC. EPA/600/R-07/041.

TABLE 1

SOIL CHEMISTRY USE FOR 95 PERCENT UPPER CONFIDENCE LIMIT (UCL) CALCULATIONS
FORMER WAREHOUSE, 700 GAREY STREET
SAGINAW, MICHIGAN

Location	*Sample ID*	*Date*	*Depth (ft)*	*Lead (mg/kg)*	*BaP (mg/kg)*
BH03	S-121806-SSH-068	18-Dec-2006	0-2	98.1	0.018
BH03	S-121806-SSH-069	18-Dec-2006	2-4	5.9	0.3 U
BH06	S-121806-SSH-044	18-Dec-2006	0-2	19.1	0.038
BH09	S-121806-SSH-050	18-Dec-2006	0-2	126	0.22
BH12	S-121806-SSH-033	18-Dec-2006	0-2	146	0.54
BH12	S-021507-SSH-076	15-Feb-2007	2-4	104	0.46
BH13D	S-092707-SSH-105	27-Sep-2007	0-2	90.2	--
BH13N	S-45285-111107-SSH-111	11-Nov-2007	0-2	106	--
BH13N	S-45285-111107-SSH-112	11-Nov-2007	2-4	11.4	--
BH13S	S-45285-111107-SSH-115	11-Nov-2007	0-2	42.7	--
BH13S	S-45285-111107-SSH-116	11-Nov-2007	2-4	7.3	--
BH14	S-121806-SSH-029	18-Dec-2006	0-2	17	1.5 U
BH15	S-121806-SSH-019	18-Dec-2006	0-2	104	0.37
BH15	S-021507-SSH-085	15-Feb-2007	2-4	220	0.36 U
BH16	S-121806-SSH-016	18-Dec-2006	0-2	386	0.12
BH16	S-121806-SSH-017	18-Dec-2006	2-4	6	--
BH18	S-121806-SSH-010	18-Dec-2006	0-2	172	4.8
BH18	S-021507-SSH-075	15-Feb-2007	2-4	28.1	0.36 U
BH18A	S-092707-SSH-106	27-Sep-2007	1-1.5	--	0.037
BH18B	S-092707-SSH-107	27-Sep-2007	1-1.5	--	0.9
BH18C	S-092707-SSH-108	27-Sep-2007	0.5-1	--	0.65
BH18D	S-092707-SSH-109 / 110	27-Sep-2007	1-1.5	--	0.32
BH19	S-121806-SSH-007	18-Dec-2006	0-2	182	1.9
BH19	S-121806-SSH-008	18-Dec-2006	2-4	9.7	--
BH24	S-121806-SSH-057	18-Dec-2006	0-2	43.8	1.8
BH26	S-121806-SSH-036	18-Dec-2006	0-2	269	0.71
BH28C	S-021507-SSH-081	15-Feb-2007	2-4	--	0.3 U
BH29D	S-021507-SSH-084	15-Feb-2007	2-4	--	0.67
BH30	S-021507-SSH-082	15-Feb-2007	4-5	--	0.29 U
BH31	S-021507-SSH-083	15-Feb-2007	0-2	47.8	0.52
BH32E	S-021507-SSH-086	15-Feb-2007	2-4	--	0.31 U
BH33	S-021507-SSH-073	15-Feb-2007	0-2	--	1.6 U
BH34	S-021507-SSH-074	15-Feb-2007	0-2	--	0.6 U
BH35	S-021507-SSH-077 / 078	15-Feb-2007	2-4	--	0.305 U
BH36D	S-021507-SSH-079	15-Feb-2007	0-2	49.8	0.31 U
BH37	S-021507-SSH-080	15-Feb-2007	0-2	317	--
BH117	S-45285-111107-SSH-117	11-Nov-2007	0-2	10.4	0.02
BH118	S-45285-111107-SSH-118	11-Nov-2007	0-2	8.7	0.019

TABLE 1

SOIL CHEMISTRY USE FOR 95 PERCENT UPPER CONFIDENCE LIMIT (UCL) CALCULATIONS
FORMER WAREHOUSE, 700 GAREY STREET
SAGINAW, MICHIGAN

Location	*Sample ID*	*Date*	*Depth (ft)*	*Lead (mg/kg)*	*BaP (mg/kg)*
BH119	S-45285-111107-SSH-119 / 120	11-Nov-2007	0-2	15.15	0.115
BH121	S-45285-111107-SSH-121	11-Nov-2007	0-2	116	0.51
BH122	S-45285-111107-SSH-122	11-Nov-2007	0-2	26.6	0.15
BH123	S-45285-111107-SSH-123	11-Nov-2007	0-2	9.8	0.021
BH124	S-45285-111107-SSH-124	11-Nov-2007	0-2	9.6	0.01
BH125	S-45285-111107-SSH-125	11-Nov-2007	0-2	22.2	0.015
BH126	S-45285-111107-SSH-126	11-Nov-2007	0-2	12.3	0.067
BH127	S-45285-111107-SSH-127	11-Nov-2007	0-2	10.9	0.058
BH128	S-45285-111107-SSH-128	11-Nov-2007	0-2	10.6	0.055
BH129	S-45285-111107-SSH-129	11-Nov-2007	0-2	7.5	0.01
BH130	S-45285-111107-SSH-130	11-Nov-2007	0-2	71.7	0.18
BH131	S-45285-111107-SSH-131 / 132	11-Nov-2007	0-2	9.55	0.017
BH133	S-45285-111107-SSH-133	11-Nov-2007	0-2	64.5	0.3 U
BH134	S-45285-111107-SSH-134	11-Nov-2007	0-2	8.8	0.015
BH135	S-45285-111107-SSH-135	11-Nov-2007	0-2	37	0.022
BH136	S-45285-111107-SSH-136	11-Nov-2007	0-2	243	0.42
BH137	S-45285-111107-SSH-137	11-Nov-2007	0-2	188	0.69
BH138	S-45285-111107-SSH-138	11-Nov-2007	0-2	18.8	0.084
BH139	S-45285-111107-SSH-139	11-Nov-2007	0-2	10.3	0.0096
BH140	S-45285-111107-SSH-140	11-Nov-2007	0-2	72.7	0.38
BH141	S-45285-111107-SSH-141	11-Nov-2007	0-2	108	6.7
BH142	S-45285-111107-SSH-142 / 143	11-Nov-2007	0-2	101.2	7.7
BH144	S-45285-111107-SSH-144	11-Nov-2007	0-2	13	0.025
BH145	S-45285-111107-SSH-145	11-Nov-2007	0-2	11.1	0.014
BH146	S-45285-111107-SSH-146	11-Nov-2007	0-2	89.4	14
BH147	S-45285-111107-SSH-147	11-Nov-2007	0-2	32.1	0.35
BH148	S-45285-111107-SSH-148	11-Nov-2007	0-2	14.1	0.047
BH149	S-45285-111107-SSH-149	11-Nov-2007	0-2	170	3.7
BH150	S-45285-111107-SSH-150	11-Nov-2007	0-2	39.9	0.32
BH151	S-45285-111107-SSH-151	11-Nov-2007	0-2	10.6	0.084
BH152	S-45285-111107-SSH-152	11-Nov-2007	0-2	13.1	0.12
BH153	S-45285-111107-SSH-153 / 154	11-Nov-2007	0-2	19.65	0.27

Notes:

Field duplicates (indicated by " / " in sample id) have been averaged prior to statistical calculations.
"U" denotes that analyte concentration was below the indicated detection limit.

ATTACHMENT A

General UCL Statistics for Data Sets with Non-Detects

User Selected Options

From File	D:\EAMgroup\45285 (Garey St. Saginaw)\45285 ProUCL Data.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	10000

Lead

General Statistics

Number of Valid Observations	59	Number of Distinct Observations	57
Number of Missing Values	11		

Raw Statistics

Minimum	5.9
Maximum	386
Mean	71.44
Median	32.1
SD	85.01
Std. Error of Mean	11.07
Coefficient of Variation	1.19
Skewness	1.79

Log-transformed Statistics

Minimum of Log Data	1.775
Maximum of Log Data	5.956
Mean of log Data	3.579
SD of log Data	1.218

Relevant UCL Statistics

Normal Distribution Test

Lilliefors Test Statistic	0.22
Lilliefors Critical Value	0.115

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Lilliefors Test Statistic	0.135
Lilliefors Critical Value	0.115

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	89.94

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	92.4
95% Modified-t UCL (Johnson-1978)	90.37

Assuming Lognormal Distribution

95% H-UCL	116.7
95% Chebyshev (MVUE) UCL	137.4
97.5% Chebyshev (MVUE) UCL	165
99% Chebyshev (MVUE) UCL	219.1

Gamma Distribution Test

k star (bias corrected)	0.821
Theta Star	87.03
MLE of Mean	71.44
MLE of Standard Deviation	78.85
nu star	96.87
Approximate Chi Square Value (.05)	75.17
Adjusted Level of Significance	0.0459
Adjusted Chi Square Value	74.69
Anderson-Darling Test Statistic	2.009
Anderson-Darling 5% Critical Value	0.787
Kolmogorov-Smirnov Test Statistic	0.165
Kolmogorov-Smirnov 5% Critical Value	0.12

Data not Gamma Distributed at 5% Significance Level

Data Distribution

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

95% CLT UCL	89.65
95% Jackknife UCL	89.94
95% Standard Bootstrap UCL	89.7
95% Bootstrap-t UCL	93.59
95% Hall's Bootstrap UCL	92.96
95% Percentile Bootstrap UCL	90.18
95% BCA Bootstrap UCL	93.19
95% Chebyshev(Mean, Sd) UCL	119.7

97.5% Chebyshev(Mean, Sd) UCL 140.6

99% Chebyshev(Mean, Sd) UCL 181.6

Assuming Gamma Distribution

95% Approximate Gamma UCL 92.07

95% Adjusted Gamma UCL 92.66

Potential UCL to Use | Use 95% Chebyshev (Mean, Sd) UCL 119.7

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

BaP

General Statistics

Number of Valid Data	62	Number of Detected Data	50
Number of Distinct Detected Data	45	Number of Non-Detect Data	12
Number of Missing Values	8	Percent Non-Detects	19.35%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.0096	Minimum Detected	-4.646
Maximum Detected	14	Maximum Detected	2.639
Mean of Detected	1.005	Mean of Detected	-1.791
SD of Detected	2.466	SD of Detected	1.936
Minimum Non-Detect	0.29	Minimum Non-Detect	-1.238
Maximum Non-Detect	1.6	Maximum Non-Detect	0.47

Note: Data have multiple DLs - Use of KM Method is recommended

For all methods (except KM, DL/2, and ROS Methods),

Observations < Largest ND are treated as NDs

Number treated as Non-Detect	55
Number treated as Detected	7
Single DL Non-Detect Percentage	88.71%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Shapiro Wilk Test Statistic	0.456	Shapiro Wilk Test Statistic	0.944
5% Shapiro Wilk Critical Value	0.947	5% Shapiro Wilk Critical Value	0.947
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.864	Mean	-1.741
SD	2.232	SD	1.759
95% DL/2 (t) UCL	1.337	95% H-Stat (DL/2) UCL	1.55
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-1.992
		SD in Log Scale	1.802
		Mean in Original Scale	0.824
		SD in Original Scale	2.241
		95% t UCL	1.299
		95% Percentile Bootstrap UCL	1.319
		95% BCA Bootstrap UCL	1.524

95% H-UCL	1.339

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.362
Theta Star	2.779
nu star	36.18
A-D Test Statistic	2.695
5% A-D Critical Value	0.845
K-S Test Statistic	0.845
5% K-S Critical Value	0.135

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	14
Mean	0.811
Median	0.0755
SD	2.246
k star	0.195
Theta star	4.156
Nu star	24.19
AppChi2	14
95% Gamma Approximate UCL	1.402
95% Adjusted Gamma UCL	1.42

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	0.83
SD	2.222
SE of Mean	0.285
95% KM (t) UCL	1.306
95% KM (z) UCL	1.299
95% KM (jackknife) UCL	1.305
95% KM (bootstrap t) UCL	1.777
95% KM (BCA) UCL	1.37
95% KM (Percentile Bootstrap) UCL	1.343
95% KM (Chebyshev) UCL	2.073
97.5% KM (Chebyshev) UCL	2.611
99% KM (Chebyshev) UCL	3.667

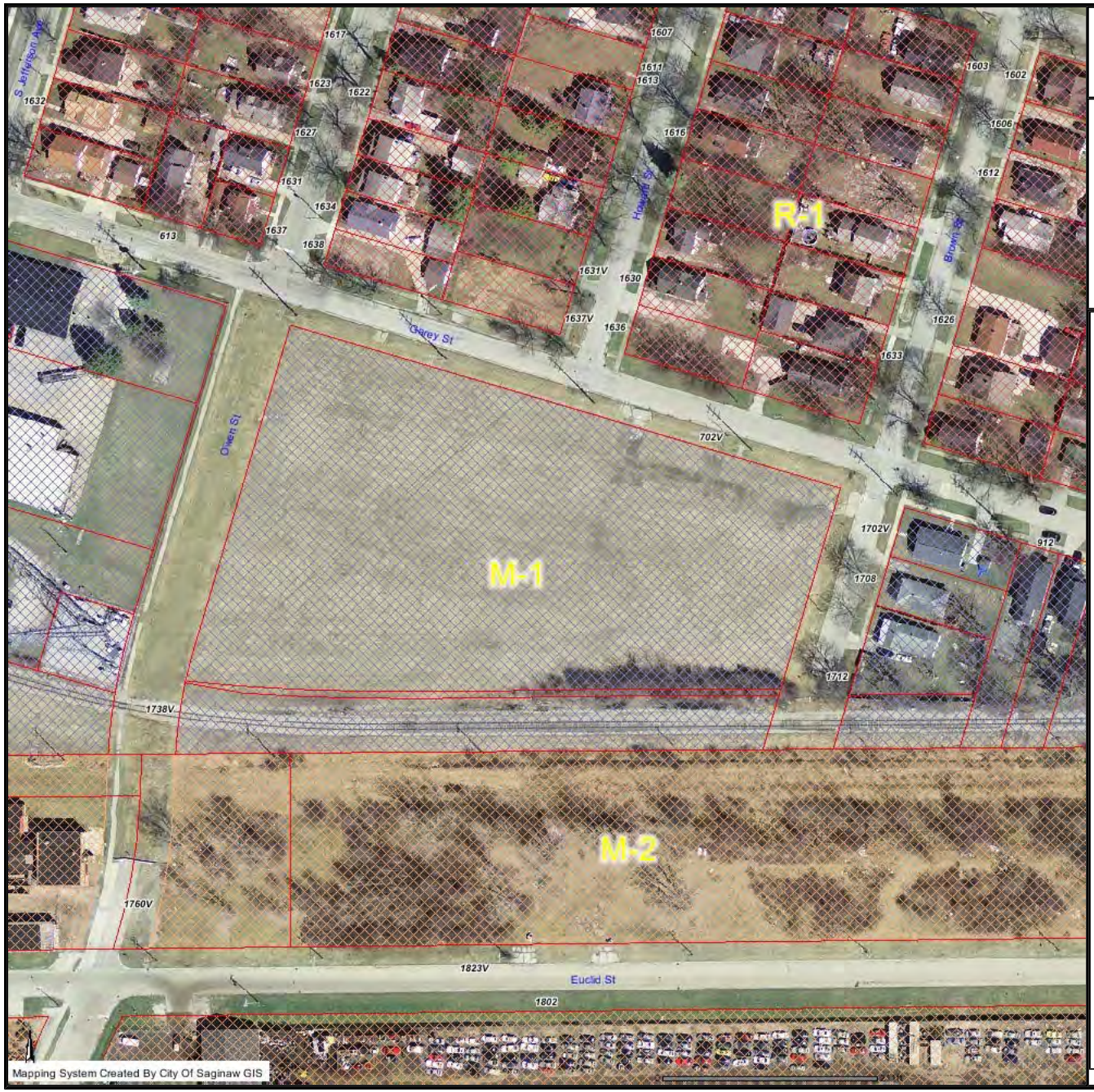
Potential UCLs to Use

97.5% KM (Chebyshev) UCL	2.611

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Appendix G

Zoning Documentation and Map



45285 700 Garey Street - zoning

M1 - THE INTENT OF THIS DISTRICT IS TO PERMIT CERTAIN INDUSTRIES, WHICH ARE OF A LIGHT MANUFACTURING, WAREHOUSING, AND WHOLESALING CHARACTER. EXAMPLES OF USES ALLOWED IN THIS ZONE INCLUDE BUILDING SUPPLY, CONTRACTING FIRMS, LABS, TOOL AND DIE SHOPS, SHEET METAL SHOPS, AUTOMOBILE REPAIR, WHOLESALE AND WAREHOUSING. THIS DISTRICT ALSO PERMITS AUTOMOBILE SERVICE STATIONS, BARBER AND BEAUTY SHOPS, EATING AND DRINKING ESTABLISHMENTS, AND HOTELS AND MOTELS AFTER APPROVAL OF A SPECIAL LAND USE BY THE CITY PLANNING COMMISSION. DWELLING UNITS ARE NOT ALLOWED IN THIS DISTRICT.