Rose & Westra
A Division of GZA

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

The Widdicomb Building
601 Fifth Street NW
Suite 102
Grand Rapids, MI 49504
T: 616.956.6123
F: 616.288.3327
www.rosewestra.com
www.gza.com

MEMORANDUM

To: Abby Hendershott, EGLE

From: Lori Powers, Rose & Westra, a Division of GZA GeoEnvironmental, Inc.

Date: November 6, 2019

File No.: 16.0062335.52 / 16.0062335.53

Re: Wolverine World Wide, Inc. (Wolverine) – House Street Disposal Area Monthly Progress Report

This EGLE Monthly Progress Report (MPR) is being submitted on behalf of Wolverine. This EGLE MPR is completed as agreed upon in Mr. John Byl's July 9, 2018 letter entitled *Response to May 29 Correspondence regarding Tannery Meeting Summary and Action Items.*

This progress report also includes information to supplement the October 11, 2019 U.S. EPA MPR (attached).

SITE INVESTIGATION ACTIONS

Continued effort for access to off-site drilling locations. Completed drilling at location PMW-12 for installation of a total of five wells and PMW-24 for installation of two wells. Boring logs for these two locations are currently being completed.

Fence installation continued with an estimated completion date of November 1, 2019.

SITE ANALYTICAL DATA RECIEVED

PFAS data received since the last update from the on-Site investigation as well as vertical profiling data for locations PMW-12 and PMW-24 and Q3 RI monitoring well data is summarized in the attached tables.

SITE MAPPING

A revised RI map was recently submitted to EGLE.

SITE ANTICIPATED ACTIONS AND SCHEDULE FOR NEXT REPORTING PERIOD

R&W/GZA will continue to make efforts to gain access to locations PMW-22, PMW-13, and PMW-16 for possible additional well installation.

Continue to implement TCRA actions at the Tannery and House Street sites.

An Equal Opportunity Employer M/F/V/H

OFF-SITE SUMMARY

Draft scopes of work for parcels on the south side of House Street are being prepared for submittal to EGLE, EPA, MDOT, and the property owners and their counsel for review and approval prior to implementing any removal actions.

R&W/GZA is also working on approval for waste disposal. Revised waste profiles and approval are underway.

R&W/GZA and Wolverine are evaluating possible actions at the Imperial Pine Parcel (7900 Imperial Pine Drive NE). As you know, R&W/GZA met with EGLE and EPA at this site to discuss next steps including possible erosion control measures and a summary memo of investigative tasks to date. R&W/GZA has contacted a contractor regarding erosion control and will develop a plan for implementation. We anticipate submitting the summary memo the week of November 11, 2019.

J:\62000\623xx\62335.52 - House St Pre-Inv\MDEQ Updates\October 2019 Update\WWW-House Street-MDEQMonthlyUpdate-11062019-F.docx

TABLE 1
SUMMARY OF Q3 2019 GROUNDWATER SAMPLE ANALYSIS - PFAS
1855 House Street NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air Inhalation[2]	U.S. EPA Residential Tap Water Regional Removal Management Levels[3]	HS-MW-1D	HS-MW-1S	HS-MW-2S	HS-MW-3S	HS-MW-4S	HS-MW-5D	HS-MW-5S	HS-MW-6D	HS-MW-6S	HS-MW-7S	HS-MW-8	HS-MW-9D	HS-MW-9M
Sample Name					HS-GW-MW1D	HS-GW-MW1S	HS-GW-MW2	HS-GW-MW3S	HS-GW-MW4S	HS-GW-MW5D	HS-GW-MW5S	HS-GW-MW6D	HS-GW-MW6S	HS-GW-MW7S	HS-GW-MW8	HS-GW-MW9D	HS-GW-MW9M
Depth Interval (feet below ground surface)					170.1 - 174.7	68.4 - 73.1	78.5 - 83.1	69.7 - 74.6	71.1 - 75.7	188 - 198	61.9 - 66.6	155 - 160	57.1 - 61.8	70.1 - 74.7	27.7 - 32.7	203 - 208	126 - 131
Laboratory Sample ID(s)					UI28005-011	UI28005-010	UI28005-012	UI26001-008	UI26001-009	UI26001-007	UI26001-006	UI28005-004	UI28005-005	UI26001-004	UI26001-010	UI26001-014	UI26001-020
Sample Date					09/27/2019	09/27/2019	09/27/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/26/2019	09/26/2019	09/23/2019	09/24/2019	09/25/2019	09/25/2019
Parameter (µg/L)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	<0.0036	<0.0035	<0.0035	<0.0036	<0.07	<0.0036	<0.0036	<0.0034	<0.0039	<0.0034	<0.0036
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	<0.0036	<0.0035	<0.0035	<0.0036	<0.07	<0.0036	<0.0036	<0.0034	<0.0039	<0.0034	<0.0036
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	<0.0036	<0.0035	<0.0035	<0.0036	<0.07	<0.0036	<0.0036	<0.0034	<0.0039	<0.0034	<0.0036
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	<0.0068	<0.007	<0.0071	<0.0069	<0.007	<0.0073	<0.14	<0.0072	<0.0072	<0.0067	<0.0078	<0.0068	<0.0071
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	1,200	0.005	0.0051	0.089	0.4	0.033	<0.0036	1.4	<0.0036	0.034	0.0046	0.075	<0.0034	<0.0036
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	<0.0036	<0.0035	<0.0035	<0.0036	<0.07	<0.0036	<0.0036	<0.0034	<0.0039	<0.0034	<0.0036
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	<0.0036	0.056	0.27	<0.0036	2.2	<0.0036	<0.0036	<0.0034	0.09	<0.0034	<0.0036
Perfluoro-1-nonanesulfonate (PFNS)	NCL	NCL	NCL	NCL	<0.0068	<0.007	<0.0071	<0.0069	<0.007	<0.0073	<0.14	<0.0072	<0.0072	<0.0067	<0.0078	<0.0068	<0.0071
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	<0.0036	<0.0035	<0.0035	<0.0036	<0.07	<0.0036	<0.0036	<0.0034	<0.0039	<0.0034	<0.0036
Perfluoro-1-pentanesulfonate (PFPeS)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	0.094	0.71	0.14	<0.0036	2.8	<0.0036	0.036	<0.0034	0.13	<0.0034	<0.0036
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	<0.0034	0.026	0.03	1.7	2.1	0.0058	9.9	<0.0036	0.074	0.0089	0.39	<0.0034	<0.0036
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	0.01	0.1	0.047	<0.0036	0.47	<0.0036	0.0036	<0.0034	0.012	<0.0034	<0.0036
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	<0.0036	<0.0035	<0.0035	<0.0036	<0.07	<0.0036	<0.0036	<0.0034	<0.0039	<0.0034	<0.0036
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	<0.0036	<0.0035	<0.0035	<0.0036	<0.07	<0.0036	<0.0036	<0.0034	<0.0039	<0.0034	<0.0036
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	0.018	0.2	0.15	<0.0036	1.4	<0.0036	0.012	<0.0034	0.06	<0.0034	<0.0036
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	0.05	0.36	0.12	<0.0036	1.3	<0.0036	0.021	<0.0034	0.028	<0.0034	<0.0036
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	<0.0036	<0.0035	<0.0035	<0.0036	<0.07	<0.0036	<0.0036	<0.0034	<0.0039	<0.0034	<0.0036
Perfluorooctanoic acid (PFOA)	0.07 (JJ)	12	ID	NCL	0.0087	0.0064	0.006	***0.83***	***0.82***	0.0035	***8.2***	<0.0018	0.043	0.0029	***1.3***	<0.0017	<0.0018
Perfluorooctane sulfonic acid (PFOS)	0.07 (JJ)	0.012	NLV	NCL	0.0034	<0.0035	<0.0036	***0.024***	***1.1***	0.0083	***59***	<0.0036	0.005	0.0047	***0.099***	<0.0034	<0.0036
PFOA + PFOS (Calculated)	0.07	NCL	NCL	NCL	0.012	0.0064	0.006	***0.85***	***1.9***	0.012	***67***	ND	0.048	0.0076	***1.4***	ND	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	0.014	0.13	0.048	<0.0036	0.54	<0.0036	0.006	<0.0034	0.01	<0.0034	<0.0036
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	<0.0036	<0.0035	<0.0035	<0.0036	<0.07	<0.0036	<0.0036	<0.0034	<0.0039	<0.0034	<0.0036
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	<0.0036	<0.0035	<0.0035	<0.0036	<0.07	<0.0036	<0.0036	<0.0034	<0.0039	<0.0034	<0.0036
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	<0.0034	<0.0035	<0.0036	<0.0035	<0.0035	<0.0036	<0.07	<0.0036	<0.0036	<0.0034	<0.0039	<0.0034	<0.0036
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	0.017	0.038	0.31	4.5	4.8	0.018	87	ND	0.23	0.021	2.2	ND	ND

TABLE 1
SUMMARY OF Q3 2019 GROUNDWATER SAMPLE ANALYSIS - PFAS
1855 House Street NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air Inhalation[2]	U.S. EPA Residential Tap Water Regional Removal Management Levels[3]	HS-MW-9S	HS-MW-10D	HS-MW-10M	HS-MW-10M	HS-MW-10S	HS-MW-11D	HS-MW-11M	HS-MW-11S	HS-MW-14D	HS-MW-14M	HS-MW-14S	HS-MW-15D	HS-MW-15M
Sample Name					HS-GW-MW9S	HS-GW-MW10D	HS-GW-MW10M	HS-GW-MW10M DUP	HS-GW-MW10S	HS-GW-MW11D	HS-GW-MW11M	HS-GW-MW11S	HS-GW-MW14D	HS-GW-MW14M	HS-GW-MW14S	HS-GW-MW15D	HS-GW-MW15M
Depth Interval (feet below ground surface)					26 - 31	185 - 190	125 - 130	125 - 130	49 - 59	150 - 155	95 - 100	21 - 31	107 - 112	68 - 73	13 - 23	108 - 118	45 - 50
Laboratory Sample ID(s)					UI26001-016	UI26001-015	UI26001-017	UI26001-018	UI26001-019	UI28005-003	UI28005-002	UI28005-001	UI12010-007	UI12010-009	UI12010-008	UI21016-005	UI21016-004
Sample Date					09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/26/2019	09/26/2019	09/26/2019	09/10/2019	09/10/2019	09/10/2019	09/19/2019	09/19/2019
Parameter (µg/L)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	0.0039	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	<0.0074	<0.0072	<0.0072	<0.0071	<0.0072	<0.0073	<0.0074	<0.0077	<0.0074	<0.0075	<0.0072	<0.0073	<0.0075
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	1,200	<0.0037	<0.0036	0.0075	0.0079	<0.0036	<0.0036	0.046	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Perfluoro-1-nonanesulfonate (PFNS)	NCL	NCL	NCL	NCL	<0.0074	<0.0072	<0.0072	<0.0071	<0.0072	<0.0073	<0.0074	<0.0077	<0.0074	<0.0075	<0.0072	<0.0073	<0.0075
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Perfluoro-1-pentanesulfonate (PFPeS)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	0.0039	0.0039	0.014	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Perfluorooctanoic acid (PFOA)	0.07 (JJ)	12	ID	NCL	<0.0018	<0.0018	0.0096	0.0094	0.018	<0.0018	<0.0018	<0.0019	<0.0019	<0.0019	0.0023	<0.0018	<0.0019
Perfluorooctane sulfonic acid (PFOS)	0.07 (JJ)	0.012	NLV	NCL	<0.0037	<0.0036	0.012	0.011	***0.024***	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	0.0036	<0.0036	<0.0037
PFOA + PFOS (Calculated)	0.07	NCL	NCL	NCL	ND	ND	0.022	0.02	0.042	ND	ND	ND	ND	ND	0.0059	ND	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	<0.0037	<0.0036	<0.0036	<0.0035	<0.0036	<0.0036	<0.0037	<0.0038	<0.0037	<0.0038	<0.0036	<0.0036	<0.0037
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	0.0039	ND	0.033	0.032	0.056	ND	0.046	ND	ND	ND	0.0059	ND	ND

TABLE 1
SUMMARY OF Q3 2019 GROUNDWATER SAMPLE ANALYSIS - PFAS
1855 House Street NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air Inhalation[2]	U.S. EPA Residential Tap Water Regional Removal Management Levels[3]	HS-MW-15S	HS-MW-17D	HS-MW-17M	HS-MW-17S	HS-MW-18D	HS-MW-18S	HS-MW-19D	HS-MW-19S	HS-MW-20D	HS-MW-20M	HS-MW-20M	HS-MW-20S	HS-MW-21D
Sample Name					HS-GW-MW15S	HS-GW-MW17D	HS-GW-MW17M	HS-GW-MW17S	HS-GW-MW18D	HS-GW-MW18S	HS-GW-MW19D	HS-GW-MW19S	HS-GW-MW20D	HS-GW-MW20M	HS-GW-MW20M DUP	HS-GW-MW20S	HS-GW-MW21D
Depth Interval (feet below ground surface)					7 - 17	213 - 218	163 - 168	103 - 108	138 - 143	13 - 23	85 - 95	58 - 61	124.5 - 129.5	100 - 105	100 - 105	60 - 65	75.8 - 85.8
Laboratory Sample ID(s)					UI21016-003	UI19006-002	UI12010-016	UI12010-014	UI12010-006	UI12010-010	UI26001-003	UI26001-002	UI19006-022	UI19006-020	UI19006-021	UI19006-019	UI19006-003
Sample Date					09/19/2019	09/16/2019	09/11/2019	09/11/2019	09/10/2019	09/10/2019	09/23/2019	09/23/2019	09/18/2019	09/18/2019	09/18/2019	09/18/2019	09/16/2019
Parameter (µg/L)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	<0.0038	<0.004	<0.0033	<0.0033	<0.0034	<0.0034	<0.0034	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	<0.0038	<0.004	<0.0033	<0.0033	<0.0034	<0.0034	<0.0034	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	0.0058
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	<0.0038	<0.004	<0.0033	<0.0033	<0.0034	<0.0034	<0.0034	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	<0.0077	<0.007900001	<0.0066	<0.0067	<0.0068	<0.0068	<0.0069	<0.0077	<0.007	<0.0069	<0.007	<0.0071	<0.0072
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	1,200	0.0068	0.47	0.0036	0.014	0.025	<0.0034	<0.0034	<0.0038	0.17	0.069	0.07	0.018	<0.0036
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	<0.0038	<0.004	<0.0033	<0.0033	<0.0034	<0.0034	<0.0034	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	<0.0038	0.028	<0.0033	<0.0033	<0.0034	<0.0034	<0.0034	<0.0038	<0.0035	0.008	0.0084	<0.0035	<0.0036
Perfluoro-1-nonanesulfonate (PFNS)	NCL	NCL	NCL	NCL	<0.0077	<0.007900001	<0.0066	<0.0067	<0.0068	<0.0068	<0.0069	<0.0077	<0.007	<0.0069	<0.007	<0.0071	<0.0072
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	<0.0038	<0.004	<0.0033	<0.0033	<0.0034	<0.0034	<0.0034	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036
Perfluoro-1-pentanesulfonate (PFPeS)	NCL	NCL	NCL	NCL	<0.0038	0.57	<0.0033	<0.0033	0.012	<0.0034	<0.0034	<0.0038	0.11	0.08	0.085	0.016	<0.0036
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	<0.0038	1.1	<0.0033	<0.0033	0.0062	<0.0034	<0.0034	<0.0038	0.046	0.15	0.14	0.019	<0.0036
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	<0.0038	0.12	<0.0033	0.0034	0.018	<0.0034	<0.0034	<0.0038	0.05	0.015	0.014	0.0047	<0.0036
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	<0.0038	<0.004	<0.0033	<0.0033	<0.0034	<0.0034	<0.0034	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	<0.0038	<0.004	<0.0033	<0.0033	<0.0034	<0.0034	<0.0034	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	<0.0038	0.33	<0.0033	<0.0033	0.01	<0.0034	<0.0034	<0.0038	0.077	0.039	0.045	0.0094	<0.0036
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	<0.0038	0.27	<0.0033	<0.0033	0.021	<0.0034	<0.0034	<0.0038	0.1	0.036	0.034	0.0093	<0.0036
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	<0.0038	<0.004	<0.0033	<0.0033	<0.0034	<0.0034	<0.0034	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036
Perfluorooctanoic acid (PFOA)	0.07 (JJ)	12	ID	NCL	<0.0019	***1.2***	<0.0017	<0.0017	0.015	<0.0017	<0.0017	<0.0019	***0.12***	***0.17***	***0.17***	0.022	<0.0018
Perfluorooctane sulfonic acid (PFOS)	0.07 (JJ)	0.012	NLV	NCL	<0.0038	***0.072***	<0.0033	<0.0033	<0.0034	<0.0034	<0.0034	<0.0038	<0.0035	***0.033***	***0.032***	<0.0035	<0.0036
PFOA + PFOS (Calculated)	0.07	NCL	NCL	NCL	ND	***1.3***	ND	ND	0.015	ND	ND	ND	***0.12***	***0.2***	***0.2***	0.022	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	<0.0038	0.13	<0.0033	0.0048	0.016	<0.0034	<0.0034	<0.0038	0.052	0.015	0.016	0.0045	<0.0036
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	<0.0038	<0.004	<0.0033	<0.0033	<0.0034	<0.0034	<0.0034	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	<0.0038	<0.004	<0.0033	<0.0033	<0.0034	<0.0034	<0.0034	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	<0.0038	<0.004	<0.0033	<0.0033	<0.0034	<0.0034	<0.0034	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	0.0068	4.3	0.0036	0.022	0.12	ND	ND	ND	0.73	0.62	0.61	0.1	0.0058

TABLE 1
SUMMARY OF Q3 2019 GROUNDWATER SAMPLE ANALYSIS - PFAS
1855 House Street NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air Inhalation[2]	U.S. EPA Residential Tap Water Regional Removal Management Levels[3]	HS-MW-21M	HS-MW-21S	HS-MW-23A	HS-MW-23B	HS-MW-23C	HS-MW-23D	HS-MW-25D	HS-MW-25S	HS-MW-26D	HS-MW-26M	HS-MW-26S	HS-MW-26S	HS-MW-27B
Sample Name					HS-GW-MW21M	HS-GW-MW21S	HS-GW-MW23A	HS-GW-MW23B	HS-GW-MW23C	HS-GW-MW23D	HS-GW-MW25D	HS-GW-MW25S	HS-GW-MW26D	HS-GW-MW26M	HS-GW-MW26S	HS-GW-MW26S DUP	HS-GW-MW27B
Depth Interval (feet below ground surface)					59 - 64	10 - 20	70 - 75	137.2 - 142.1	209.6 - 214.4	234 - 239	65 - 70	49.6 - 54.6	78 - 83	60 - 65	25 - 30	25 - 30	34.8 - 37.4
Laboratory Sample ID(s)					UI19006-004	UI19006-006	UI21016-007	UI21016-009	UI26001-001	UI21016-008	UI19006-009	UI19006-012	UI12010-013	UI12010-017	UI12010-015	UI12010-018	UI12010-002
Sample Date					09/16/2019	09/16/2019	09/20/2019	09/20/2019	09/23/2019	09/20/2019	09/17/2019	09/17/2019	09/11/2019	09/11/2019	09/11/2019	09/11/2019	09/09/2019
Parameter (µg/L)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	<0.0036	<0.0034	<0.0035	<0.0035	<0.0037	<0.0038	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	<0.0036	<0.0034	<0.0035	<0.0035	<0.0037	<0.0038	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	<0.0036	<0.0034	<0.0035	<0.0035	<0.0037	<0.0038	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	<0.0071	<0.0074	<0.0072	<0.0068	<0.007	<0.0069	<0.0073	<0.0076	<0.0077	<0.0071	<0.0076	<0.0073	<0.0068
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	1,200	<0.0036	<0.0037	0.02	0.015	0.26	0.23	0.011	0.0082	<0.0038	0.0049	<0.0038	<0.0037	<0.0034
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	<0.0036	<0.0034	<0.0035	<0.0035	<0.0037	<0.0038	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	<0.0036	<0.0034	<0.0035	<0.0035	<0.0037	<0.0038	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
Perfluoro-1-nonanesulfonate (PFNS)	NCL	NCL	NCL	NCL	<0.0071	<0.0074	<0.0072	<0.0068	<0.007	<0.0069	<0.0073	<0.0076	<0.0077	<0.0071	<0.0076	<0.0073	<0.0068
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	<0.0036	<0.0034	<0.0035	<0.0035	<0.0037	<0.0038	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
Perfluoro-1-pentanesulfonate (PFPeS)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	0.011	0.0081	0.22	0.15	<0.0037	<0.0038	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	0.02	0.019	0.091	0.016	0.007	0.0045	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	<0.0036	<0.0034	0.064	0.067	0.0045	<0.0038	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	<0.0036	<0.0034	<0.0035	<0.0035	<0.0037	<0.0038	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	<0.0036	<0.0034	<0.0035	<0.0035	<0.0037	<0.0038	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	<0.0036	<0.0034	0.05	0.037	<0.0037	<0.0038	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	0.0047	0.0061	0.22	0.24	0.0076	0.0068	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	<0.0036	<0.0034	<0.0035	<0.0035	<0.0037	<0.0038	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
Perfluorooctanoic acid (PFOA)	0.07 (JJ)	12	ID	NCL	<0.0018	0.0034	0.013	0.0075	0.03	0.013	0.01	0.011	<0.0019	0.0054	<0.0019	<0.0018	<0.0017
Perfluorooctane sulfonic acid (PFOS)	0.07 (JJ)	0.012	NLV	NCL	<0.0036	<0.0037	0.0042	<0.0034	<0.0035	<0.0035	***0.039***	***0.057***	<0.0038	***0.016***	<0.0038	<0.0037	<0.0034
PFOA + PFOS (Calculated)	0.07	NCL	NCL	NCL	ND	0.0034	0.017	0.0075	0.03	0.013	0.049	0.068	ND	0.021	ND	ND	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	<0.0036	<0.0034	0.1	0.13	0.0061	0.0047	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	<0.0036	<0.0034	<0.0035	<0.0035	<0.0037	<0.0038	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	<0.0036	<0.0034	<0.0035	<0.0035	<0.0037	<0.0038	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	<0.0036	<0.0037	<0.0036	<0.0034	<0.0035	<0.0035	<0.0037	<0.0038	<0.0038	<0.0035	<0.0038	<0.0037	<0.0034
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	ND	0.0034	0.073	0.056	1	0.88	0.085	0.092	ND	0.026	ND	ND	ND

TABLE 1
SUMMARY OF Q3 2019 GROUNDWATER SAMPLE ANALYSIS - PFAS
1855 House Street NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air Inhalation[2]	U.S. EPA Residential Tap Water Regional Removal Management Levels[3]	HS-MW-27C	HS-MW-27D	HS-MW-27E	HS-MW-28A	HS-MW-28B	HS-MW-28C	HS-MW-28D	HS-MW-28E	HS-MW-30A	HS-MW-30A	HS-MW-30B	HS-MW-30B	HS-MW-30C
Sample Name					HS-GW-MW27C	HS-GW-MW27D	HS-GW-MW27E	HS-GW-MW28A	HS-GW-MW28B	HS-GW-MW28C	HS-GW-MW28D	HS-GW-MW28E	HS-GW-MW30A	HS-GW-MW30A	HS-GW-MW30B	HS-GW-MW30B	HS-GW-MW30C
Depth Interval (feet below ground surface)					40.8 - 45.4	52 - 56	59 - 63	37.5 - 42.1	41.9 - 46.5	47.5 - 52.1	60.4 - 65	80.6 - 85.2	45.1 - 49.7	45.1 - 49.7	49.3 - 53.9	49.3 - 53.9	74.3 - 78.9
Laboratory Sample ID(s)					UI12010-001	UI12010-003	UI12010-004	UI19006-013	UI19006-005	UI19006-001	UI19006-010	UI19006-011	UG03026-005	UI19006-014	UG03026-007	UI21016-001	UG06001-001
Sample Date					09/09/2019	09/09/2019	09/09/2019	09/17/2019	09/16/2019	09/16/2019	09/17/2019	09/17/2019	07/02/2019	09/17/2019	07/02/2019	09/19/2019	07/03/2019
Parameter (µg/L)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	0.011	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	<0.0072	<0.0068	<0.0073	<0.0072	<0.0074	<0.0076	<0.007	<0.007	<0.0071	<0.0069	<0.0072	<0.0075	<0.0074
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	1,200	<0.0036	<0.0034	<0.0036	0.0063	0.0083	<0.0038	<0.0035	<0.0035	0.0061	0.0068	0.0071	0.0074	0.0057
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
Perfluoro-1-nonanesulfonate (PFNS)	NCL	NCL	NCL	NCL	<0.0072	<0.0068	<0.0073	<0.0072	<0.0074	<0.0076	<0.007	<0.007	<0.0071	<0.0069	<0.0072	<0.0075	<0.0074
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
Perfluoro-1-pentanesulfonate (PFPeS)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	0.0038	<0.0035	0.0038	<0.0038	<0.0037
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	0.01	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	0.0037	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
Perfluorooctanoic acid (PFOA)	0.07 (JJ)	12	ID	NCL	<0.0018	<0.0017	0.0031	<0.0018	0.0023	<0.0019	<0.0017	<0.0018	0.0033	0.0025	0.0064	0.0035	<0.0018
Perfluorooctane sulfonic acid (PFOS)	0.07 (JJ)	0.012	NLV	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
PFOA + PFOS (Calculated)	0.07	NCL	NCL	NCL	ND	ND	0.0031	ND	0.0023	ND	ND	ND	0.0033	0.0025	0.0064	0.0035	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	<0.0036	<0.0034	<0.0036	<0.0036	<0.0037	<0.0038	<0.0035	<0.0035	<0.0035	<0.0035	<0.0036	<0.0038	<0.0037
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	ND	ND	0.017	0.0063	0.011	0.011	ND	ND	0.013	0.0093	0.017	0.011	0.0057

TABLE 1
SUMMARY OF Q3 2019 GROUNDWATER SAMPLE ANALYSIS - PFAS
1855 House Street NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air Inhalation[2]	U.S. EPA Residential Tap Water Regional Removal Management Levels[3]	HS-MW-30C	HS-MW-30D	HS-MW-30D	HS-MW-30E	HS-MW-30E	HS-MW-31A	HS-MW-31B	HS-MW-31C	HS-MW-31D	HS-MW-31E	HS-MW-31E	HS-MW-31E	HS-MW-32A
Sample Name					HS-GW-MW30C	HS-GW-MW30D	HS-GW-MW30D	HS-GW-MW30E	HS-GW-MW30E	HS-GW-MW31A	HS-GW-MW31B	HS-GW-MW31C	HS-GW-MW31D	HS-GW-MW31E	HS-GW-MW31E DUP	HS-GW-MW31E	HS-GW-MW32A
Depth Interval (feet below ground surface)					74.3 - 78.9	109.5 - 114.1	109.5 - 114.1	120.7 - 125.2	120.7 - 125.2	16.1 - 20.6	24.2 - 28.7	39.4 - 43.9	45.6 - 50.2	61.8 - 66.4	61.8 - 66.4	61.8 - 66.4	57.8 - 62.4
Laboratory Sample ID(s)					UI19006-015	UG03026-008	UI21016-002	UG03026-006	UI19006-016	UI13033-001	UI13033-004	UI13033-003	UI13033-002	UG06001-002	UG06001-003	UI13033-005	UI07020-001
Sample Date					09/17/2019	07/02/2019	09/19/2019	07/02/2019	09/17/2019	09/12/2019	09/12/2019	09/12/2019	09/12/2019	07/03/2019	07/03/2019	09/12/2019	09/06/2019
Parameter (µg/L)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	<0.0037	<0.0035	<0.0034	<0.0037	<0.0036	<0.0034	<0.0037
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	0.0047	<0.0035	<0.0037	<0.0035	<0.0034	<0.0037	<0.0036	<0.0034	<0.0037
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	<0.0037	<0.0035	<0.0034	<0.0037	<0.0036	<0.0034	<0.0037
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	<0.0069	<0.0071	<0.007	<0.0074	<0.0069	<0.007	<0.0075	<0.007	<0.0069	<0.0075	<0.0072	<0.0068	<0.0074
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	1,200	0.0055	0.0048	0.0053	0.0055	0.0063	0.0055	0.012	0.016	0.011	<0.0037	<0.0036	<0.0034	<0.0037
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	<0.0037	<0.0035	<0.0034	<0.0037	<0.0036	<0.0034	<0.0037
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	<0.0037	<0.0035	<0.0034	<0.0037	<0.0036	<0.0034	<0.0037
Perfluoro-1-nonanesulfonate (PFNS)	NCL	NCL	NCL	NCL	<0.0069	<0.0071	<0.007	<0.0074	<0.0069	<0.007	<0.0075	<0.007	<0.0069	<0.0075	<0.0072	<0.0068	<0.0074
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	<0.0037	<0.0035	<0.0034	<0.0037	<0.0036	<0.0034	<0.0037
Perfluoro-1-pentanesulfonate (PFPeS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	0.0049	0.0052	0.0035	<0.0037	<0.0036	<0.0034	<0.0037
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	0.0075	0.011	0.0095	0.0069	<0.0037	<0.0036	<0.0034	<0.0037
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	0.0042	0.0048	0.0035	<0.0037	<0.0036	<0.0034	<0.0037
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	<0.0037	<0.0035	<0.0034	<0.0037	<0.0036	<0.0034	<0.0037
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	<0.0037	<0.0035	<0.0034	<0.0037	<0.0036	<0.0034	<0.0037
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	<0.0037	<0.0035	0.0038	<0.0037	<0.0036	<0.0034	<0.0037
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	0.0082	0.0063	0.0064	<0.0037	<0.0036	<0.0034	<0.0037
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	<0.0037	<0.0035	<0.0034	<0.0037	<0.0036	<0.0034	<0.0037
Perfluorooctanoic acid (PFOA)	0.07 (JJ)	12	ID	NCL	<0.0017	<0.0018	<0.0018	<0.0018	<0.0017	0.0038	0.012	0.0086	0.0075	<0.0019	<0.0018	<0.0017	<0.0019
Perfluorooctane sulfonic acid (PFOS)	0.07 (JJ)	0.012	NLV	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	0.005	0.0059	0.0053	<0.0037	<0.0036	<0.0034	<0.0037
PFOA + PFOS (Calculated)	0.07	NCL	NCL	NCL	ND	ND	ND	ND	ND	0.0038	0.017	0.015	0.013	ND	ND	ND	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	0.0059	0.0045	0.0048	<0.0037	<0.0036	<0.0034	<0.0037
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	<0.0037	<0.0035	<0.0034	<0.0037	<0.0036	<0.0034	<0.0037
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	<0.0037	<0.0035	<0.0034	<0.0037	<0.0036	<0.0034	<0.0037
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035	<0.0037	<0.0034	<0.0035	<0.0037	<0.0035	<0.0034	<0.0037	<0.0036	<0.0034	<0.0037
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	0.0055	0.0048	0.0053	0.0055	0.011	0.017	0.063	0.061	0.053	ND	ND	ND	ND

TABLE 1
SUMMARY OF Q3 2019 GROUNDWATER SAMPLE ANALYSIS - PFAS
1855 House Street NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air Inhalation[2]	U.S. EPA Residential Tap Water Regional Removal Management Levels[3]	HS-MW-32B	HS-MW-32C	HS-MW-32D
Sample Name					HS-GW-MW32B	HS-GW-MW32C	HS-GW-MW32D
Depth Interval (feet below ground surface)					78.2 - 82.8	107.2 - 111.8	137.6 - 142.2
Laboratory Sample ID(s)					UI07020-003	UI07020-002	UI07020-004
Sample Date					09/06/2019	09/06/2019	09/06/2019
Parameter (µg/L)							
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	<0.0069	<0.0071	<0.0069
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	1,200	<0.0035	<0.0036	<0.0035
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
Perfluoro-1-nonanesulfonate (PFNS)	NCL	NCL	NCL	NCL	<0.0069	<0.0071	<0.0069
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
Perfluoro-1-pentanesulfonate (PFPeS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	0.0044
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
Perfluorooctanoic acid (PFOA)	0.07 (JJ)	12	ID	NCL	<0.0017	<0.0018	<0.0017
Perfluorooctane sulfonic acid (PFOS)	0.07 (JJ)	0.012	NLV	NCL	<0.0035	<0.0036	<0.0035
PFOA + PFOS (Calculated)	0.07	NCL	NCL	NCL	ND	ND	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0035
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	ND	ND	0.0044

TABLE 2
SUMMARY OF VERTICAL AQUIFER PROFILING GROUNDWATER SAMPLE ANALYSIS - PFAS
1855 House Street NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air Inhalation[2]	U.S. EPA Residential Tap Water Regional Removal Management Levels[3]	HS-PMW-12	HS-PMW-12	HS-PMW-12	HS-PMW-12	HS-PMW-12	HS-PMW-12	HS-PMW-12	HS-PMW-12	HS-PMW-12	HS-PMW-12	HS-PMW-12	HS-PMW-12	HS-PMW-12
Sample Name					HS-MW-12 (15-20)	HS-MW-12 (25-30)	HS-MW-12 (35-40)	HS-MW-12 (49-54)	HS-MW-12 (75-80)	HS-MW-12 (85-90)	HS-MW-12 (105-110)	HS-MW-12 (115-120)	HS-MW-12 (125-130)	HS-MW-12 (95-100)	HS-MW-12 (135-140)	HS-MW-12 (145-150)	HS-MW-12 (155-160)
Depth Interval (feet below ground surface)					15 - 20	25 - 30	35 - 40	49 - 54	75 - 80	85 - 90	105 - 110	115 - 120	125 - 130	95 - 100	135 - 140	145 - 150	155 - 160
Laboratory Sample ID(s)					UI05015-001	UI05015-002	UI05015-003	UI12066-001	UI12066-002	UI12066-003	UI12066-005	UI12066-006	UI12066-007	UI12066-004	UI18051-001	UI18051-002	UI18051-003
Sample Date					09/04/2019	09/04/2019	09/04/2019	09/06/2019	09/10/2019	09/10/2019	09/11/2019	09/11/2019	09/11/2019	09/11/2019	09/12/2019	09/12/2019	09/12/2019
Parameter (µg/L)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	<0.0036	<0.0039	<0.0037	<0.0038	<0.0038	<0.0035	<0.0036	<0.0039	<0.0034	<0.0037	<0.0039	<0.0036	<0.0037
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	<0.0036	<0.0039	<0.0037	<0.0038	<0.0038	<0.0035	<0.0036	<0.0039	<0.0034	<0.0037	<0.0039	<0.0036	<0.0037
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	<0.0036	<0.0039	<0.0037	<0.0038	<0.0038	<0.0035	<0.0036	<0.0039	<0.0034	<0.0037	<0.0039	<0.0036	<0.0037
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	<0.0071	<0.0078	<0.0075	<0.0075	<0.0076	<0.007	<0.0072	<0.0078	<0.0068	<0.0074	<0.0079	<0.0072	<0.0074
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	1,200	0.034	<0.0039	<0.0037	<0.0038	<0.0038	0.0083	0.035	0.06	0.095	0.054	0.079	0.11	0.17
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	<0.0036	<0.0039	<0.0037	<0.0038	<0.0038	<0.0035	<0.0036	<0.0039	<0.0034	<0.0037	<0.0039	<0.0036	<0.0037
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	<0.0036	<0.0039	<0.0037	<0.0038	<0.0038	<0.0035	<0.0036	<0.0039	<0.0034	<0.0037	<0.0039	<0.0036	<0.0037
Perfluoro-1-nonanesulfonate (PFNS)	NCL	NCL	NCL	NCL	<0.0071	<0.0078	<0.0075	<0.0075	<0.0076	<0.007	<0.0072	<0.0078	<0.0068	<0.0074	<0.0079	<0.0072	<0.0074
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	<0.0036	<0.0039	<0.0037	<0.0038	<0.0038	<0.0035	<0.0036	<0.0039	<0.0034	<0.0037	<0.0039	<0.0036	<0.0037
Perfluoro-1-pentanesulfonate (PFPeS)	NCL	NCL	NCL	NCL	0.029	<0.0039	<0.0037	<0.0038	<0.0038	0.0065	0.022	0.055	0.09	0.052	0.085	0.11	0.13
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	0.038	0.0067	0.0052	0.0038	<0.0038	0.0062	0.015	0.064	0.09	0.069	0.082	0.1	0.06
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	0.0071	<0.0039	<0.0037	<0.0038	<0.0038	<0.0035	0.012	0.018	0.029	0.013	0.021	0.026	0.054
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	<0.0036	<0.0039	<0.0037	<0.0038	<0.0038	<0.0035	<0.0036	<0.0039	<0.0034	<0.0037	<0.0039	<0.0036	<0.0037
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	<0.0036	<0.0039	<0.0037	<0.0038	<0.0038	<0.0035	<0.0036	<0.0039	<0.0034	<0.0037	<0.0039	<0.0036	<0.0037
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	0.012	<0.0039	<0.0037	<0.0038	<0.0038	0.0035	0.018	0.035	0.056	0.027	0.045	0.057	0.078
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	0.013	<0.0039	<0.0037	<0.0038	<0.0038	0.0044	0.02	0.034	0.056	0.028	0.045	0.061	0.1
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	<0.0036	<0.0039	<0.0037	<0.0038	<0.0038	<0.0035	<0.0036	<0.0039	<0.0034	<0.0037	<0.0039	<0.0036	<0.0037
Perfluorooctanoic acid (PFOA)	0.07 (JJ)	12	ID	NCL	0.026	0.0065	<0.0019	<0.0019	<0.0019	0.0093	0.033	***0.1***	***0.15***	***0.086***	***0.13***	***0.15***	***0.14***
Perfluorooctane sulfonic acid (PFOS)	0.07 (JJ)	0.012	NLV	NCL	<0.0036	<0.0039	<0.0037	<0.0038	<0.0038	<0.0035	<0.0036	<0.0039	<0.0034	0.0046	<0.0039	<0.0036	<0.0037
PFOA + PFOS (Calculated)	0.07	NCL	NCL	NCL	0.026	0.0065	ND	ND	ND	0.0093	0.033	***0.1***	***0.15***	***0.091***	***0.13***	***0.15***	***0.14***
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	0.0064	<0.0039	<0.0037	<0.0038	<0.0038	<0.0035	0.011	0.017	0.028	0.012	0.023	0.029	0.059
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	<0.0036	<0.0039	<0.0037	<0.0038	<0.0038	<0.0035	<0.0036	<0.0039	<0.0034	<0.0037	<0.0039	<0.0036	<0.0037
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	<0.0036	<0.0039	<0.0037	<0.0038	<0.0038	<0.0035	<0.0036	<0.0039	<0.0034	<0.0037	<0.0039	<0.0036	<0.0037
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	<0.0036	<0.0039	<0.0037	<0.0038	<0.0038	<0.0035	<0.0036	<0.0039	<0.0034	<0.0037	<0.0039	<0.0036	<0.0037
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	0.17	0.013	0.0052	0.0038	ND	0.038	0.17	0.38	0.59	0.35	0.51	0.64	0.79

TABLE 2
SUMMARY OF VERTICAL AQUIFER PROFILING GROUNDWATER SAMPLE ANALYSIS - PFAS
1855 House Street NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air Inhalation[2]	U.S. EPA Residential Tap Water Regional Removal Management Levels[3]	HS-PMW-12	HS-PMW-12	HS-PMW-12	HS-PMW-24	HS-PMW-24	HS-PMW-24	HS-PMW-24	HS-PMW-24	HS-PMW-24	HS-PMW-24	HS-PMW-24	HS-PMW-24	HS-PMW-24
Sample Name					HS-MW-12 (165-170)	HS-MW-12 (175-180)	HS-MW-12 (185-190)	MW-24A (55-60)	MW-24A (65-70)	MW-24A (75-80)	MW-24A (105-110)	MW-24A (115-120)	MW-24A (125-130)	MW-24A (85-90)	MW-24A (95-100)	MW-24A(135-140)	MW-24A(145-150)
Depth Interval (feet below ground surface)					165 - 170	175 - 180	185 - 190	55 - 60	65 - 70	75 - 80	105 - 110	115 - 120	125 - 130	85 - 90	95 - 100	135 - 140	145 - 150
Laboratory Sample ID(s)					UI18051-004	UI18051-005	UI18051-006	UI26018-001	UI26018-002	UI26018-003	UI26018-006	UI26018-007	UI26018-008	UI26018-004	UI26018-005	UI28012-001	UI28012-002
Sample Date					09/13/2019	09/13/2019	09/16/2019	09/23/2019	09/23/2019	09/23/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/25/2019	09/25/2019
Parameter (µg/L)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	<0.0037	<0.0037	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	<0.0037	<0.0037	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	<0.0037	<0.0037	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	<0.0074	<0.0074	<0.0069	<0.0068	<0.0068	<0.007	<0.007	<0.0068	<0.007	<0.0072	<0.007	<0.0073	<0.007
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	1,200	0.13	0.061	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	<0.0037	<0.0037	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	<0.0037	<0.0037	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Perfluoro-1-nonanesulfonate (PFNS)	NCL	NCL	NCL	NCL	<0.0074	<0.0074	<0.0069	<0.0068	<0.0068	<0.007	<0.007	<0.0068	<0.007	<0.0072	<0.007	<0.0073	<0.007
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	<0.0037	<0.0037	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Perfluoro-1-pentanesulfonate (PFPeS)	NCL	NCL	NCL	NCL	0.11	0.037	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	0.06	0.013	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	0.037	0.023	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	<0.0037	<0.0037	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	<0.0037	<0.0037	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	0.065	0.025	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	0.074	0.037	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	<0.0037	<0.0037	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Perfluorooctanoic acid (PFOA)	0.07 (JJ)	12	ID	NCL	***0.13***	0.037	<0.0017	<0.0017	<0.0017	<0.0017	<0.0018	<0.0017	<0.0017	<0.0018	<0.0017	<0.0018	<0.0018
Perfluorooctane sulfonic acid (PFOS)	0.07 (JJ)	0.012	NLV	NCL	<0.0037	<0.0037	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
PFOA + PFOS (Calculated)	0.07	NCL	NCL	NCL	***0.13***	0.037	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	0.036	0.023	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	<0.0037	<0.0037	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	<0.0037	<0.0037	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	<0.0037	<0.0037	<0.0035	<0.0034	<0.0034	<0.0035	<0.0035	<0.0034	<0.0035	<0.0036	<0.0035	<0.0036	<0.0035
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	0.64	0.26	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 2
SUMMARY OF VERTICAL AQUIFER PROFILING GROUNDWATER SAMPLE ANALYSIS - PFAS
1855 House Street NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air Inhalation[2]	U.S. EPA Residential Tap Water Regional Removal Management Levels[3]	HS-PMW-24	HS-PMW-24	HS-PMW-24	HS-PMW-24	HS-PMW-24	HS-PMW-24	HS-PMW-24	HS-PMW-24
Sample Name					MW-24A(155-160)	MW-24A(165-170)	MW-24A(175-180)	MW-24A(185-190)	MW-24A(195-200)	HS-MW24 205-210	HS-MW24 215-220	HS-MW24 225-230
Depth Interval (feet below ground surface)					155 - 160	165 - 170	175 - 180	185 - 190	195 - 200	205 - 210	215 - 220	225 - 230
Laboratory Sample ID(s)					UI28012-003	UI28012-004	UI28012-005	UI28012-006	UI28012-007	UJ02010-001	UJ02010-002	UJ02010-003
Sample Date					09/25/2019	09/26/2019	09/26/2019	09/26/2019	09/27/2019	09/30/2019	09/30/2019	09/30/2019
Parameter (µg/L)												
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	<0.0071	<0.0071	<0.0068	<0.007	<0.0069	<0.0076	<0.0072	<0.0072
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	1,200	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Perfluoro-1-nonanesulfonate (PFNS)	NCL	NCL	NCL	NCL	<0.0071	<0.0071	<0.0068	<0.007	<0.0069	<0.0076	<0.0072	<0.0072
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Perfluoro-1-pentanesulfonate (PFPeS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Perfluorooctanoic acid (PFOA)	0.07 (JJ)	12	ID	NCL	<0.0018	<0.0018	<0.0017	<0.0017	<0.0017	<0.0019	<0.0018	<0.0018
Perfluorooctane sulfonic acid (PFOS)	0.07 (JJ)	0.012	NLV	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
PFOA + PFOS (Calculated)	0.07	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	<0.0035	<0.0036	<0.0034	<0.0035	<0.0035	<0.0038	<0.0036	<0.0036
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 3
SUMMARY OF PERCHED GROUNDWATER SAMPLE ANALYSIS - PFAS
1855 House Street NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air Inhalation[2]	U.S. EPA Residential Tap Water Regional Removal Management Levels[3]	HS-SB-4803	HS-SB-4803	HS-SB-4804	HS-SB-4805	HS-SB-4807	HS-SB-4904	HS-SB-4915
Sample Name					HS-SB-4803	HS-SB-4803 DUP	HS-SB-4804	HS-SB-4805	HS-SB-4807	HS-SB-4904	HS-SB-4915
Depth Interval (feet below ground surface)					7.9 - 15	7.9 - 15	8 - 20	5 - 11.5	10 - 20	10 - 20	1 - 10
Boring Location					Off-Site	Off-Site	Off-Site	House St Site	Off-Site	Off-Site	House St Site
Laboratory Sample ID(s)					UH21055-003	UH21055-004	UH21055-001	UH21055-007	UH21055-005	UH21055-006	UH21055-008
Sample Date					08/20/2019	08/20/2019	08/19/2019	08/21/2019	08/20/2019	08/20/2019	08/21/2019
Parameter (µg/L)											
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	<0.0082	<0.0083	<0.0074	<0.0071	<0.0082	<0.0075	<0.0078
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	1,200	0.0058	0.0069	<0.0037	0.0059	<0.0041	0.0047	<0.0039
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluoro-1-nonanesulfonate (PFNS)	NCL	NCL	NCL	NCL	<0.0082	<0.0083	<0.0074	<0.0071	<0.0082	<0.0075	<0.0078
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluoro-1-pentanesulfonate (PFPeS)	NCL	NCL	NCL	NCL	0.0046	0.0044	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	0.029	0.029	<0.0037	0.0094	<0.0041	0.015	0.004
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorooctanoic acid (PFOA)	0.07	12	ID	NCL	0.003 [B]	0.0031 [B]	0.0041 [B]	0.011	0.004 [B]	0.003 [B]	0.0088
Perfluorooctane sulfonic acid (PFOS)	0.07	0.012	NLV	NCL	***0.015 [B]***	0.01 [B]	***0.014 [B]***	0.011	0.012 [B]	***0.019 [B]***	***0.013***
PFOA + PFOS (Calculated)	0.07	NCL	NCL	NCL	0.018	0.013	0.018	0.022	0.016	0.022	0.022
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	0.057	0.053	0.018	0.037	0.016	0.042	0.026

TABLES 1 TO 3 NOTES
1855 House Street NE
Plainfield Twp, Kent Co, MI

NOTES:

1. Concentration and criteria units are micrograms per Liter (µg/L) or parts per billion (ppb). Calculated criteria and concentrations are rounded to two significant digits. "ND" indicates the parameters used in the calculation were not detected. "NC" indicates not calculated. Blank indicates the parameter was not analyzed.
2. Michigan Part 201 Groundwater Cleanup Criteria are based on "Table 1, Groundwater: Residential and Nonresidential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Tier I Risk Based Screening Levels," Michigan Administrative Code, Cleanup Criteria Requirements for Response Activity, Rules 299.44 and 299.49, effective December 30, 2013; updated June 25, 2018.
   Abbreviations Include:
   "ID" indicates insufficient data to develop criterion.
   "NCL" indicates no criterion listed in EGLE Table 1.
   "NLV" indicates the substance is not likely to volatilize under most conditions.
   Footnotes Include:
   (JJ) - Compliance with the drinking water criteria shall require comparing the sum of the PFOA and PFOS groundwater concentrations to the drinking water criterion of 0.07 µg/L.
3. U.S. EPA Residential Tap Water Regional Removal Management Levels (RMLs) were based on "Generic RML Tables," updated November 2018.
4. To the extent that samples listed in these tables contain or consist of perched water, the comparison to the EGLE Part 201 generic cleanup criteria does not imply applicability of the criteria because the physical and chemical properties of the perched water are expected to be different from the default values or assumptions (aquifer or groundwater) used to derive the Generic Groundwater Cleanup Criteria in the Cleanup Criteria Requirements for Response Activity Rules (R299.1-299.50).
5. Bold, italic number with thick line border or italic parameter name indicates that parameter was detected above the Michigan Part 201 Groundwater Cleanup Criteria. U.S. EPA RMLs are provided for reference only and results detected above the EPA RMLs are not bolded or italicized. The perched groundwater is not likely representative of aquifer conditions at the Site and the RMLs are based on tap water. The perched groundwater results were compared to Michigan Part 201 Groundwater Cleanup Criteria for screening purposes only.
6. Abbreviations include:
   "< RL" indicates the parameter was analyzed for but not detected above the method detection limit; RL = Reporting Limit.
   "DUP" indicates a duplicate sample.
   "B" indicates the parameter was also detected in the method blank.
7. Depth interval presented for monitoring wells and VAP temporary wells is the top of the screen interval to the bottom of the screen interval in feet below ground surface. Depth interval presented for perched groundwater temporary wells is the top of the filter pack to the bottom of well screen in feet below ground surface.

Rose & Westra
A Division of GZA

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

The Widdicomb Building
601 Fifth Street NW
Suite 102
Grand Rapids, MI 49504
T: 616.956.6123
F: 616.288.3327
www.rosewestra.com
www.gza.com

MEMORANDUM

To: Jeffrey Kimble, U.S. EPA, Region 5

From: Loretta Powers, Rose & Westra, a Division of GZA GeoEnvironmental, Inc.

Date: October 11, 2019

File No.: 16.0062335.52 Task 006

Re: Wolverine World Wide, Inc. (Wolverine) – House Street – Monthly Progress Report

This Monthly Progress Report (MPR) is being provided at the request of the U.S. EPA to support the July 12, 2019 *Work Plan, House Street Disposal Area, Plainfield Township, Kent County, Michigan* (2019 WP). The 2019 WP was prepared in response to the U.S. EPA Region 5 Unilateral Administrative Order for Removal Actions[1] (UAO) effective February 1, 2018, associated with the Former Wolverine Tannery and House Street Disposal Area. This MPR is submitted pursuant to Paragraph 25 of the UAO.

Per Paragraph 25 of the UAO, this MPR summarizes the following items for the period of September 7 to October 4, 2019: "*. . . significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.*" Subsequent to issuance of the UAO and completion of the 2019 WP, R&W/GZA and U.S. EPA agreed that approved modifications to the 2019 WP will also be summarized in the MPRs.

ACTIONS PERFORMED

1) Evaluation of the on-Site data is on-going as received.

2) Clearing, permitting, and logistics associated with the fence installation are on-going. Fence installation began.

3) Evaluation of steps going forward on-Site is on-going. This includes submittal of concept drawings to address five TCLP chromium areas.

The remaining boring logs (identified in the attached as HS-SB-4274 to HS-SB-4915) are attached.

Enclosed working draft figures F1-F4 illustrate the approximate delineation of the five TCLP chromium areas. The investigation figures provided in the previous MPR did not change and not included in this submittal.

[1]. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Docket No. V-W-18-C-004.

An Equal Opportunity Employer M/F/V/H

ANALYTICAL DATA RECIEVED

Soil analytical data received during this reporting period is summarized in Tables 1A through 1F. Groundwater (perched) data received during this period is summarized in Tables 2A to 2E.

ANTICIPATED ACTIONS AND SCHEDULE FOR NEXT REPORTING PERIOD

During the next reporting period, October 5, 2019 to November 6, the following tasks are anticipated to begin or be completed:

1) Confirm receipt of all analytical from laboratory and compile comprehensive tables
2) Finish clearing and begin installation of fencing
3) Complete final versions of investigation and delineation figures
4) Continue to work with EPA regarding next steps at the Site

IDENTIFIED PROBLEMS AND RESOLUTIONS

No significant problems were identified during this reporting period.

The original fencing plan required some modifications to the placement. R&W/GZA discussed these variations with both Kent County Road Commission and EPA. A revised installation figure was previously provided to EPA.

APPROVED 2019 WP MODIFICATIONS

No modifications were approved during this reporting period.

J:\62000\623xx\62335.52 - House St Pre-Inv\0 - Task 006 - 2019 WorkPlan\EPA MPRs\October 2019\House Street-EPA-MonthlyUpdate-10112019-F.docx

TABLE 1A
SUMMARY OF SOIL SAMPLE ANALYSIS - VOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2104	HS-SB-2104	HS-SB-2105	HS-SB-2105	HS-SB-2106	HS-SB-2106	HS-SB-2106	HS-SB-2107	HS-SB-2107
Sample Name									HS-SB-2104 (1-2)	HS-SB-2104 (3-4)	HS-SB-2105 (2-3)	HS-SB-2105 (3-4)	HS-SB-2106 (2-3)	HS-SB-2106 (2-3) DUP	HS-SB-2106 (5-6)	HS-SB-2107 (2-3)	HS-SB-2107 (6-7)
Depth Interval (Feet below ground surface)									1 - 2	3 - 4	2 - 3	3 - 4	2 - 3	2 - 3	5 - 6	2 - 3	6 - 7
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UG02019-019	UG02019-020	UG02019-022	UG02019-023	UG09018-001	UG09018-003	UG09018-002	UG09018-004	UG09018-005
Sample Date									6/28/2019	6/28/2019	6/28/2019	6/28/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019
Parameter (µg/kg)																	
Acetone	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000	23,000,000	260,000	180,000,000	<630	<590	<590	<530	<480	<680	<640	<540	<580
Benzene	100	4,000	1,600	13,000	380,000,000	180,000	1.7 (M)	120,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
Bromodichloromethane	1,600 (W)	ID	1,200	9,100	84,000,000	110,000	NCL	29,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
Bromoform	1,600 (W)	ID	150,000	900,000	2,800,000,000	820,000	NCL	1,900,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
2-Butanone (MEK)	260,000	44,000	54,000,000 (C)	29,000,000	67,000,000,000	120,000,000 (C,DD)	NCL	81,000,000	<630	<590	<590	<530	<480	<680	<640	<540	<580
Bromomethane (Methyl bromide)	200	100	860	11,000	330,000,000	320,000	NCL	21,000	<130	<120	<120	<110	<97	<140	<130	<110	<120
Carbon disulfide	16,000	ID	76,000	1,300,000	47,000,000,000	7,200,000 (C,DD)	NCL	2,300,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
Carbon tetrachloride	100	760	190	3,500	130,000,000	96,000	NCL	65,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
Chlorobenzene	2,000	500	120,000	770,000	4,700,000,000	4,300,000 (C)	82	830,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
Chloroethane	8,600	22,000	2,900,000 (C)	30,000,000	670,000,000,000	2,600,000 (C)	330	41,000,000	<130	<120	<120	<110	<97	<140	<130	<110	<120
Chloroform	1,600 (W)	7,000	7,200	45,000	1,300,000,000	1,200,000	0.26 (M)	32,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
Chloromethane (Methyl chloride)	5,200	ID	2,300	40,000	4,900,000,000	1,600,000 (C)	6.9 (M)	330,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
Cyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	20,000,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
1,2-Dibromo-3-chloropropane (DBCP)	10 (M)	ID	220	260	560,000	4,400 (C)	NCL	530	<63	<59	<59	<53	<48	<68	<64	<54	<58
Dibromochloromethane	1,600 (W)	ID	3,900	24,000	130,000,000	110,000	NCL	830,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
1,2-Dibromoethane (EDB)	20 (M)	110	670	1,700	14,000,000	92	NCL	3,600	<63	<59	<59	<53	<48	<68	<64	<54	<58
1,2-Dichlorobenzene	14,000	280	11,000,000 (C)	39,000,000	100,000,000,000	19,000,000 (C)	NCL	5,400,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
1,3-Dichlorobenzene	170	680	26,000	79,000	200,000,000	200,000 (C)	10 (M)	NCL	<63	<59	<59	<53	<48	<68	<64	<54	<58
1,4-Dichlorobenzene	1,700	360	19,000	77,000	450,000,000	400,000	23 (M)	260,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
Dichlorodifluoromethane	95,000	ID	900,000	53,000,000	3,300,000,000,000	52,000,000 (C)	NCL	260,000	<130	<120	<120	<110	<97	<140	<130	<110	<120
1,1-Dichloroethane	18,000	15,000	230,000	2,100,000	33,000,000,000	27,000,000 (C)	2.6 (M)	360,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
1,2-Dichloroethane	100	7,200	2,100	6,200	120,000,000	91,000	NCL	46,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
1,1-Dichloroethene	140	2,600	62	1,100	62,000,000	200,000	12 (M)	680,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
cis-1,2-Dichloroethene	1,400	12,000	22,000	180,000	2,300,000,000	2,500,000 (C)	2.1 (M)	470,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
trans-1,2-Dichloroethene	2,000	30,000	23,000	280,000	4,700,000,000	3,800,000 (C)	39 (M)	4,700,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
1,2-Dichloropropane	100	4,600	4,000	25,000	270,000,000	140,000	NCL	47,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
cis-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<63	<59	<59	<53	<48	<68	<64	<54	<58
trans-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<63	<59	<59	<53	<48	<68	<64	<54	<58
1,3-Dichloropropene (Calculated: cis + trans)	170	180	1,000	18,000	780,000,000	10,000	NCL	180,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,500	360	87,000	720,000	10,000,000,000	22,000,000 (C)	12 (M)	580,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
2-Hexanone	20,000	ID	990,000	1,100,000	2,700,000,000	32,000,000 (C)	NCL	600,000	<630	<590	<590	<530	<480	<680	<640	<540	<580
Isopropylbenzene	91,000	3,200	400,000 (C)	1,700,000	5,800,000,000	25,000,000 (C)	NCL	5,800,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
Methyl acetate	NCL	NCL	NCL	NCL	NCL	NCL	NCL	230,000,000	<63	<59	<59	<53	<48	34 [J]	<64	<54	<58
Methyl tertiary butyl ether (MTBE)	800	140,000	9,900,000 (C)	25,000,000	200,000,000,000	1,500,000	74 (M)	4,700,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
4-Methyl-2-pentanone	36,000	ID	37,000,000 (C)	45,000,000	140,000,000,000	56,000,000 (C)	NCL	99,000,000	<630	<590	<590	<530	<480	<680	<640	<540	<580
Methylcyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<320	<300	<290	<260	<240	<340	<320	<270	<290
Methylene chloride	100	30,000	45,000	210,000	6,600,000,000	1,300,000	130	1,000,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
Styrene	2,700	2,100	250,000	970,000	5,500,000,000	400,000	NCL	18,000,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
1,1,2,2-Tetrachloroethane	170	1,600	4,300	10,000	54,000,000	53,000	NCL	60,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
Tetrachloroethene	100	1,200	11,000	170,000	2,700,000,000	200,000 (C)	6.2 (M)	240,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
Toluene	16,000	5,400	330,000 (C)	2,800,000	27,000,000,000	50,000,000 (C)	3,700	15,000,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
1,1,2-Trichloro-1,2,2-Trifluoroethane	9,000,000 (C)	1,700	5,100,000 (C)	180,000,000	5,100,000,000,000	1,000,000,000 (C,D)	NCL	20,000,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
1,2,4-Trichlorobenzene	4,200	5,900	9,600,000 (C)	28,000,000	25,000,000,000	990,000 (DD)	53 (M)	170,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
1,1,1-Trichloroethane	4,000	1,800	250,000	3,800,000	67,000,000,000	500,000,000 (C)	450	24,000,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
1,1,2-Trichloroethane	100	6,600	4,600	17,000	190,000,000	180,000	NCL	4,500	<63	<59	<59	<53	<48	<68	<64	<54	<58
Trichloroethene	100	4,000	1,000	11,000	130,000,000	110,000 (DD)	0.33 (M)	12,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
Trichlorofluoromethane	52,000	NA	2,800,000 (C)	92,000,000	3,800,000,000,000	79,000,000 (C)	NCL	70,000,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
Vinyl chloride	40	260	270	4,200	350,000,000	3,800	0.082 (M)	5,900	<63	<59	<59	<53	<48	<68	<64	<54	<58
m+p - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<63	<59	<59	<53	<48	<68	<64	<54	<58
o - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,900,000	<63	<59	<59	<53	<48	<68	<64	<54	<58
Xylenes (total)	5,600	980	6,300,000 (C)	46,000,000	290,000,000,000	410,000,000 (C)	280	1,700,000	<130	<120	<120	<110	<97	<140	<130	<110	<120
Trihalomethanes (Calculation: Bromodichloromentane + Bromoform + Chloroform + Dibromochloromethane)	1,600 (W)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1A
SUMMARY OF SOIL SAMPLE ANALYSIS - VOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2108	HS-SB-2108	HS-SB-2109	HS-SB-2109	HS-SB-2110	HS-SB-2110	HS-SB-2111	HS-SB-2111	HS-SB-2112
Sample Name									HS-SB-2108 (1-2)	HS-SB-2108 (3-4)	HS-SB-2109 (0-1)	HS-SB-2109 (2-3)	HS-SB-2110 (1-2)	HS-SB-2110 (3-4)	HS-SB-2111 (0-1)	HS-SB-2111 (2-3)	HS-SB-2112 (2-3)
Depth Interval (Feet below ground surface)									1 - 2	3 - 4	0 - 1	2 - 3	1 - 2	3 - 4	0 - 1	2 - 3	2 - 3
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UG09018-006	UG09018-007	UG09018-008	UG09018-009	UG09018-010	UG09018-011	UG09018-012	UG09018-013	UG09018-014
Sample Date									7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/2/2019
Parameter (µg/kg)																	
Acetone	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000	23,000,000	260,000	180,000,000	<520	<480	<730	<530	<570	<550	<560	<520	<520
Benzene	100	4,000	1,600	13,000	380,000,000	180,000	1.7 (M)	120,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
Bromodichloromethane	1,600 (W)	ID	1,200	9,100	84,000,000	110,000	NCL	29,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
Bromoform	1,600 (W)	ID	150,000	900,000	2,800,000,000	820,000	NCL	1,900,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
2-Butanone (MEK)	260,000	44,000	54,000,000 (C)	29,000,000	67,000,000,000	120,000,000 (C,DD)	NCL	81,000,000	<520	<480	<730	<530	<570	<550	<560	<520	<520
Bromomethane (Methyl bromide)	200	100	860	11,000	330,000,000	320,000	NCL	21,000	<100	<96	<150	<110	<110	<110	<110	<100	<100
Carbon disulfide	16,000	ID	76,000	1,300,000	47,000,000,000	7,200,000 (C,DD)	NCL	2,300,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
Carbon tetrachloride	100	760	190	3,500	130,000,000	96,000	NCL	65,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
Chlorobenzene	2,000	500	120,000	770,000	4,700,000,000	4,300,000 (C)	82	830,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
Chloroethane	8,600	22,000	2,900,000 (C)	30,000,000	670,000,000,000	2,600,000 (C)	330	41,000,000	<100	<96	<150	<110	<110	<110	<110	<100	<100
Chloroform	1,600 (W)	7,000	7,200	45,000	1,300,000,000	1,200,000	0.26 (M)	32,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
Chloromethane (Methyl chloride)	5,200	ID	2,300	40,000	4,900,000,000	1,600,000 (C)	6.9 (M)	330,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
Cyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	20,000,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
1,2-Dibromo-3-chloropropane (DBCP)	10 (M)	ID	220	260	560,000	4,400 (C)	NCL	530	<52	<48	<73	<53	<57	<55	<56	<52	<52
Dibromochloromethane	1,600 (W)	ID	3,900	24,000	130,000,000	110,000	NCL	830,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
1,2-Dibromoethane (EDB)	20 (M)	110	670	1,700	14,000,000	92	NCL	3,600	<52	<48	<73	<53	<57	<55	<56	<52	<52
1,2-Dichlorobenzene	14,000	280	11,000,000 (C)	39,000,000	100,000,000,000	19,000,000 (C)	NCL	5,400,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
1,3-Dichlorobenzene	170	680	26,000	79,000	200,000,000	200,000 (C)	10 (M)	NCL	<52	<48	<73	<53	<57	<55	<56	<52	<52
1,4-Dichlorobenzene	1,700	360	19,000	77,000	450,000,000	400,000	23 (M)	260,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
Dichlorodifluoromethane	95,000	ID	900,000	53,000,000	3,300,000,000,000	52,000,000 (C)	NCL	260,000	<100	<96	<150	<110	<110	<110	<110	<100	<100
1,1-Dichloroethane	18,000	15,000	230,000	2,100,000	33,000,000,000	27,000,000 (C)	2.6 (M)	360,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
1,2-Dichloroethane	100	7,200	2,100	6,200	120,000,000	91,000	NCL	46,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
1,1-Dichloroethene	140	2,600	62	1,100	62,000,000	200,000	12 (M)	680,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
cis-1,2-Dichloroethene	1,400	12,000	22,000	180,000	2,300,000,000	2,500,000 (C)	2.1 (M)	470,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
trans-1,2-Dichloroethene	2,000	30,000	23,000	280,000	4,700,000,000	3,800,000 (C)	39 (M)	4,700,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
1,2-Dichloropropane	100	4,600	4,000	25,000	270,000,000	140,000	NCL	47,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
cis-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<52	<48	<73	<53	<57	<55	<56	<52	<52
trans-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<52	<48	<73	<53	<57	<55	<56	<52	<52
1,3-Dichloropropene (Calculated: cis + trans)	170	180	1,000	18,000	780,000,000	10,000	NCL	180,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,500	360	87,000	720,000	10,000,000,000	22,000,000 (C)	12 (M)	580,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
2-Hexanone	20,000	ID	990,000	1,100,000	2,700,000,000	32,000,000 (C)	NCL	600,000	<520	<480	<730	<530	<570	<550	<560	<520	<520
Isopropylbenzene	91,000	3,200	400,000 (C)	1,700,000	5,800,000,000	25,000,000 (C)	NCL	5,800,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
Methyl acetate	NCL	NCL	NCL	NCL	NCL	NCL	NCL	230,000,000	29 [J]	<48	130	<53	34 [J]	<55	<56	<52	<52
Methyl tertiary butyl ether (MTBE)	800	140,000	9,900,000 (C)	25,000,000	200,000,000,000	1,500,000	74 (M)	4,700,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
4-Methyl-2-pentanone	36,000	ID	37,000,000 (C)	45,000,000	140,000,000,000	56,000,000 (C)	NCL	99,000,000	<520	<480	<730	<530	<570	<550	<560	<520	<520
Methylcyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<260	<240	<370	<270	<280	<280	<280	<260	<260
Methylene chloride	100	30,000	45,000	210,000	6,600,000,000	1,300,000	130	1,000,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
Styrene	2,700	2,100	250,000	970,000	5,500,000,000	400,000	NCL	18,000,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
1,1,2,2-Tetrachloroethane	170	1,600	4,300	10,000	54,000,000	53,000	NCL	60,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
Tetrachloroethene	100	1,200	11,000	170,000	2,700,000,000	200,000 (C)	6.2 (M)	240,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
Toluene	16,000	5,400	330,000 (C)	2,800,000	27,000,000,000	50,000,000 (C)	3,700	15,000,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
1,1,2-Trichloro-1,2,2-Trifluoroethane	9,000,000 (C)	1,700	5,100,000 (C)	180,000,000	5,100,000,000,000	1,000,000,000 (C,D)	NCL	20,000,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
1,2,4-Trichlorobenzene	4,200	5,900	9,600,000 (C)	28,000,000	25,000,000,000	990,000 (DD)	53 (M)	170,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
1,1,1-Trichloroethane	4,000	1,800	250,000	3,800,000	67,000,000,000	500,000,000 (C)	450	24,000,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
1,1,2-Trichloroethane	100	6,600	4,600	17,000	190,000,000	180,000	NCL	4,500	<52	<48	<73	<53	<57	<55	<56	<52	<52
Trichloroethene	100	4,000	1,000	11,000	130,000,000	110,000 (DD)	0.33 (M)	12,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
Trichlorofluoromethane	52,000	NA	2,800,000 (C)	92,000,000	3,800,000,000,000	79,000,000 (C)	NCL	70,000,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
Vinyl chloride	40	260	270	4,200	350,000,000	3,800	0.082 (M)	5,900	<52	<48	<73	<53	<57	<55	<56	<52	<52
m+p - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<52	<48	<73	<53	<57	<55	<56	<52	<52
o - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,900,000	<52	<48	<73	<53	<57	<55	<56	<52	<52
Xylenes (total)	5,600	980	6,300,000 (C)	46,000,000	290,000,000,000	410,000,000 (C)	280	1,700,000	<100	<96	<150	<110	<110	<110	<110	<100	<100
Trihalomethanes (Calculation: Bromodichloromentane + Bromoform + Chloroform + Dibromochloromethane)	1,600 (W)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1A
SUMMARY OF SOIL SAMPLE ANALYSIS - VOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2112	HS-SB-2113	HS-SB-2113	HS-SB-2114	HS-SB-2114	HS-SB-2115	HS-SB-2115	HS-SB-2116	HS-SB-2116
Sample Name									HS-SB-2112 (4-5)	HS-SB-2113 (1-2)	HS-SB-2113 (3-4)	HS-SB-2114 (0-1)	HS-SB-2114 (3-4)	HS-SB-2115 (0-1)	HS-SB-2115 (3-4)	HS-SB-2116 (0-1)	HS-SB-2116 (3-4)
Depth Interval (Feet below ground surface)									4 - 5	1 - 2	3 - 4	0 - 1	3 - 4	0 - 1	3 - 4	0 - 1	3 - 4
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UG09018-015	UG09018-016	UG09018-017	UG09018-018	UG09018-019	UG09013-001	UG09013-002	UG09013-003	UG09013-004
Sample Date									7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019
Parameter (µg/kg)																	
Acetone	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000	23,000,000	260,000	180,000,000	<480	<640	<710	<640	<550	<570	<510	<520	<460
Benzene	100	4,000	1,600	13,000	380,000,000	180,000	1.7 (M)	120,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
Bromodichloromethane	1,600 (W)	ID	1,200	9,100	84,000,000	110,000	NCL	29,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
Bromoform	1,600 (W)	ID	150,000	900,000	2,800,000,000	820,000	NCL	1,900,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
2-Butanone (MEK)	260,000	44,000	54,000,000 (C)	29,000,000	67,000,000,000	120,000,000 (C,DD)	NCL	81,000,000	<480	<640	<710	<640	<550	<570	<510	<520	<460
Bromomethane (Methyl bromide)	200	100	860	11,000	330,000,000	320,000	NCL	21,000	<97	<130	<140	<130	<110	<110	<100	<100	<92
Carbon disulfide	16,000	ID	76,000	1,300,000	47,000,000,000	7,200,000 (C,DD)	NCL	2,300,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
Carbon tetrachloride	100	760	190	3,500	130,000,000	96,000	NCL	65,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
Chlorobenzene	2,000	500	120,000	770,000	4,700,000,000	4,300,000 (C)	82	830,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
Chloroethane	8,600	22,000	2,900,000 (C)	30,000,000	670,000,000,000	2,600,000 (C)	330	41,000,000	<97	<130	<140	<130	<110	<110	<100	<100	<92
Chloroform	1,600 (W)	7,000	7,200	45,000	1,300,000,000	1,200,000	0.26 (M)	32,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
Chloromethane (Methyl chloride)	5,200	ID	2,300	40,000	4,900,000,000	1,600,000 (C)	6.9 (M)	330,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
Cyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	20,000,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
1,2-Dibromo-3-chloropropane (DBCP)	10 (M)	ID	220	260	560,000	4,400 (C)	NCL	530	<48	<64	<71	<64	<55	<57	<51	<52	<46
Dibromochloromethane	1,600 (W)	ID	3,900	24,000	130,000,000	110,000	NCL	830,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
1,2-Dibromoethane (EDB)	20 (M)	110	670	1,700	14,000,000	92	NCL	3,600	<48	<64	<71	<64	<55	<57	<51	<52	<46
1,2-Dichlorobenzene	14,000	280	11,000,000 (C)	39,000,000	100,000,000,000	19,000,000 (C)	NCL	5,400,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
1,3-Dichlorobenzene	170	680	26,000	79,000	200,000,000	200,000 (C)	10 (M)	NCL	<48	<64	<71	<64	<55	<57	<51	<52	<46
1,4-Dichlorobenzene	1,700	360	19,000	77,000	450,000,000	400,000	23 (M)	260,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
Dichlorodifluoromethane	95,000	ID	900,000	53,000,000	3,300,000,000,000	52,000,000 (C)	NCL	260,000	<97	<130	<140	<130	<110	<110	<100	<100	<92
1,1-Dichloroethane	18,000	15,000	230,000	2,100,000	33,000,000,000	27,000,000 (C)	2.6 (M)	360,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
1,2-Dichloroethane	100	7,200	2,100	6,200	120,000,000	91,000	NCL	46,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
1,1-Dichloroethene	140	2,600	62	1,100	62,000,000	200,000	12 (M)	680,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
cis-1,2-Dichloroethene	1,400	12,000	22,000	180,000	2,300,000,000	2,500,000 (C)	2.1 (M)	470,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
trans-1,2-Dichloroethene	2,000	30,000	23,000	280,000	4,700,000,000	3,800,000 (C)	39 (M)	4,700,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
1,2-Dichloropropane	100	4,600	4,000	25,000	270,000,000	140,000	NCL	47,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
cis-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<48	<64	<71	<64	<55	<57	<51	<52	<46
trans-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<48	<64	<71	<64	<55	<57	<51	<52	<46
1,3-Dichloropropene (Calculated: cis + trans)	170	180	1,000	18,000	780,000,000	10,000	NCL	180,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,500	360	87,000	720,000	10,000,000,000	22,000,000 (C)	12 (M)	580,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
2-Hexanone	20,000	ID	990,000	1,100,000	2,700,000,000	32,000,000 (C)	NCL	600,000	<480	<640	<710	<640	<550	<570	<510	<520	<460
Isopropylbenzene	91,000	3,200	400,000 (C)	1,700,000	5,800,000,000	25,000,000 (C)	NCL	5,800,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
Methyl acetate	NCL	NCL	NCL	NCL	NCL	NCL	NCL	230,000,000	<48	<64	<71	<64	<55	<57	<51	21 [J]	<46
Methyl tertiary butyl ether (MTBE)	800	140,000	9,900,000 (C)	25,000,000	200,000,000,000	1,500,000	74 (M)	4,700,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
4-Methyl-2-pentanone	36,000	ID	37,000,000 (C)	45,000,000	140,000,000,000	56,000,000 (C)	NCL	99,000,000	<480	<640	<710	<640	<550	<570	<510	<520	<460
Methylcyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<240	<320	<350	<320	<280	<280	<260	<260	<230
Methylene chloride	100	30,000	45,000	210,000	6,600,000,000	1,300,000	130	1,000,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
Styrene	2,700	2,100	250,000	970,000	5,500,000,000	400,000	NCL	18,000,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
1,1,2,2-Tetrachloroethane	170	1,600	4,300	10,000	54,000,000	53,000	NCL	60,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
Tetrachloroethene	100	1,200	11,000	170,000	2,700,000,000	200,000 (C)	6.2 (M)	240,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
Toluene	16,000	5,400	330,000 (C)	2,800,000	27,000,000,000	50,000,000 (C)	3,700	15,000,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
1,1,2-Trichloro-1,2,2-Trifluoroethane	9,000,000 (C)	1,700	5,100,000 (C)	180,000,000	5,100,000,000,000	1,000,000,000 (C,D)	NCL	20,000,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
1,2,4-Trichlorobenzene	4,200	5,900	9,600,000 (C)	28,000,000	25,000,000,000	990,000 (DD)	53 (M)	170,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
1,1,1-Trichloroethane	4,000	1,800	250,000	3,800,000	67,000,000,000	500,000,000 (C)	450	24,000,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
1,1,2-Trichloroethane	100	6,600	4,600	17,000	190,000,000	180,000	NCL	4,500	<48	<64	<71	<64	<55	<57	<51	<52	<46
Trichloroethene	100	4,000	1,000	11,000	130,000,000	110,000 (DD)	0.33 (M)	12,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
Trichlorofluoromethane	52,000	NA	2,800,000 (C)	92,000,000	3,800,000,000,000	79,000,000 (C)	NCL	70,000,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
Vinyl chloride	40	260	270	4,200	350,000,000	3,800	0.082 (M)	5,900	<48	<64	<71	<64	<55	<57	<51	<52	<46
m+p - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<48	<64	<71	<64	<55	<57	<51	<52	<46
o - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,900,000	<48	<64	<71	<64	<55	<57	<51	<52	<46
Xylenes (total)	5,600	980	6,300,000 (C)	46,000,000	290,000,000,000	410,000,000 (C)	280	1,700,000	<97	<130	<140	<130	<110	<110	<100	<100	<92
Trihalomethanes (Calculation: Bromodichloromentane + Bromoform + Chloroform + Dibromochloromethane)	1,600 (W)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1A
SUMMARY OF SOIL SAMPLE ANALYSIS - VOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2117	HS-SB-2117	HS-SB-2117	HS-SB-2118	HS-SB-2118	HS-SB-2119	HS-SB-2119	HS-SB-2120	HS-SB-2120
Sample Name									HS-SB-2117 (0-1)	HS-SB-2117 (2-3)	HS-SB-2117 (2-3) DUP	HS-SB-2118 (0-1)	HS-SB-2118 (3-4)	HS-SB-2119 (0-1)	HS-SB-2119 (3-4)	HS-SB-2120 (1-2)	HS-SB-2120 (1-2) DUP
Depth Interval (Feet below ground surface)									0 - 1	2 - 3	2 - 3	0 - 1	3 - 4	0 - 1	3 - 4	1 - 2	1 - 2
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UG09013-005	UG09013-006	UG09013-007	UG09013-008	UG09013-009	UG09013-010	UG09013-011	UG09013-012	UG09013-013
Sample Date									7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019
Parameter (µg/kg)																	
Acetone	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000	23,000,000	260,000	180,000,000	<560	<530	<750	<580	<620	<550	<540	<560	<540
Benzene	100	4,000	1,600	13,000	380,000,000	180,000	1.7 (M)	120,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
Bromodichloromethane	1,600 (W)	ID	1,200	9,100	84,000,000	110,000	NCL	29,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
Bromoform	1,600 (W)	ID	150,000	900,000	2,800,000,000	820,000	NCL	1,900,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
2-Butanone (MEK)	260,000	44,000	54,000,000 (C)	29,000,000	67,000,000,000	120,000,000 (C,DD)	NCL	81,000,000	<560	<530	<750	<580	<620	<550	<540	<560	<540
Bromomethane (Methyl bromide)	200	100	860	11,000	330,000,000	320,000	NCL	21,000	<110	<110	<150	<120	<120	<110	<110	<110	<110
Carbon disulfide	16,000	ID	76,000	1,300,000	47,000,000,000	7,200,000 (C,DD)	NCL	2,300,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
Carbon tetrachloride	100	760	190	3,500	130,000,000	96,000	NCL	65,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
Chlorobenzene	2,000	500	120,000	770,000	4,700,000,000	4,300,000 (C)	82	830,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
Chloroethane	8,600	22,000	2,900,000 (C)	30,000,000	670,000,000,000	2,600,000 (C)	330	41,000,000	<110	<110	<150	<120	<120	<110	<110	<110	<110
Chloroform	1,600 (W)	7,000	7,200	45,000	1,300,000,000	1,200,000	0.26 (M)	32,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
Chloromethane (Methyl chloride)	5,200	ID	2,300	40,000	4,900,000,000	1,600,000 (C)	6.9 (M)	330,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
Cyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	20,000,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
1,2-Dibromo-3-chloropropane (DBCP)	10 (M)	ID	220	260	560,000	4,400 (C)	NCL	530	<56	<53	<75	<58	<62	<55	<54	<56	<54
Dibromochloromethane	1,600 (W)	ID	3,900	24,000	130,000,000	110,000	NCL	830,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
1,2-Dibromoethane (EDB)	20 (M)	110	670	1,700	14,000,000	92	NCL	3,600	<56	<53	<75	<58	<62	<55	<54	<56	<54
1,2-Dichlorobenzene	14,000	280	11,000,000 (C)	39,000,000	100,000,000,000	19,000,000 (C)	NCL	5,400,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
1,3-Dichlorobenzene	170	680	26,000	79,000	200,000,000	200,000 (C)	10 (M)	NCL	<56	<53	<75	<58	<62	<55	<54	<56	<54
1,4-Dichlorobenzene	1,700	360	19,000	77,000	450,000,000	400,000	23 (M)	260,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
Dichlorodifluoromethane	95,000	ID	900,000	53,000,000	3,300,000,000,000	52,000,000 (C)	NCL	260,000	<110	<110	<150	<120	<120	<110	<110	<110	<110
1,1-Dichloroethane	18,000	15,000	230,000	2,100,000	33,000,000,000	27,000,000 (C)	2.6 (M)	360,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
1,2-Dichloroethane	100	7,200	2,100	6,200	120,000,000	91,000	NCL	46,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
1,1-Dichloroethene	140	2,600	62	1,100	62,000,000	200,000	12 (M)	680,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
cis-1,2-Dichloroethene	1,400	12,000	22,000	180,000	2,300,000,000	2,500,000 (C)	2.1 (M)	470,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
trans-1,2-Dichloroethene	2,000	30,000	23,000	280,000	4,700,000,000	3,800,000 (C)	39 (M)	4,700,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
1,2-Dichloropropane	100	4,600	4,000	25,000	270,000,000	140,000	NCL	47,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
cis-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<56	<53	<75	<58	<62	<55	<54	<56	<54
trans-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<56	<53	<75	<58	<62	<55	<54	<56	<54
1,3-Dichloropropene (Calculated: cis + trans)	170	180	1,000	18,000	780,000,000	10,000	NCL	180,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,500	360	87,000	720,000	10,000,000,000	22,000,000 (C)	12 (M)	580,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
2-Hexanone	20,000	ID	990,000	1,100,000	2,700,000,000	32,000,000 (C)	NCL	600,000	<560	<530	<750	<580	<620	<550	<540	<560	<540
Isopropylbenzene	91,000	3,200	400,000 (C)	1,700,000	5,800,000,000	25,000,000 (C)	NCL	5,800,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
Methyl acetate	NCL	NCL	NCL	NCL	NCL	NCL	NCL	230,000,000	<56	<53	<75	24 [J]	<62	<55	<54	<56	<54
Methyl tertiary butyl ether (MTBE)	800	140,000	9,900,000 (C)	25,000,000	200,000,000,000	1,500,000	74 (M)	4,700,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
4-Methyl-2-pentanone	36,000	ID	37,000,000 (C)	45,000,000	140,000,000,000	56,000,000 (C)	NCL	99,000,000	<560	<530	<750	<580	<620	<550	<540	<560	<540
Methylcyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<280	<270	<380	<290	<310	<270	<270	<280	<270
Methylene chloride	100	30,000	45,000	210,000	6,600,000,000	1,300,000	130	1,000,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
Styrene	2,700	2,100	250,000	970,000	5,500,000,000	400,000	NCL	18,000,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
1,1,2,2-Tetrachloroethane	170	1,600	4,300	10,000	54,000,000	53,000	NCL	60,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
Tetrachloroethene	100	1,200	11,000	170,000	2,700,000,000	200,000 (C)	6.2 (M)	240,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
Toluene	16,000	5,400	330,000 (C)	2,800,000	27,000,000,000	50,000,000 (C)	3,700	15,000,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
1,1,2-Trichloro-1,2,2-Trifluoroethane	9,000,000 (C)	1,700	5,100,000 (C)	180,000,000	5,100,000,000,000	1,000,000,000 (C,D)	NCL	20,000,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
1,2,4-Trichlorobenzene	4,200	5,900	9,600,000 (C)	28,000,000	25,000,000,000	990,000 (DD)	53 (M)	170,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
1,1,1-Trichloroethane	4,000	1,800	250,000	3,800,000	67,000,000,000	500,000,000 (C)	450	24,000,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
1,1,2-Trichloroethane	100	6,600	4,600	17,000	190,000,000	180,000	NCL	4,500	<56	<53	<75	<58	<62	<55	<54	<56	<54
Trichloroethene	100	4,000	1,000	11,000	130,000,000	110,000 (DD)	0.33 (M)	12,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
Trichlorofluoromethane	52,000	NA	2,800,000 (C)	92,000,000	3,800,000,000,000	79,000,000 (C)	NCL	70,000,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
Vinyl chloride	40	260	270	4,200	350,000,000	3,800	0.082 (M)	5,900	<56	<53	<75	<58	<62	<55	<54	<56	<54
m+p - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<56	<53	<75	<58	<62	<55	<54	<56	<54
o - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,900,000	<56	<53	<75	<58	<62	<55	<54	<56	<54
Xylenes (total)	5,600	980	6,300,000 (C)	46,000,000	290,000,000,000	410,000,000 (C)	280	1,700,000	<110	<110	<150	<120	<120	<110	<110	<110	<110
Trihalomethanes (Calculation: Bromodichloromentane + Bromoform + Chloroform + Dibromochloromethane)	1,600 (W)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1A
SUMMARY OF SOIL SAMPLE ANALYSIS - VOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2120	HS-SB-2125	HS-SB-2125	HS-SB-2125	HS-SB-2125	HS-SB-2125	HS-SB-2126	HS-SB-2126	HS-SB-2126
Sample Name									HS-SB-2120 (4-5)	HS-SB-2125 (1-2)	HS-SB-2125 (7-8)	HS-SB-2125 (25-27)	HS-SB-2125 (30-32)	HS-SB-2125 (35-37)	HS-SB-2126 (25-27)	HS-SB-2126 (31-33)	HS-SB-2126 (37-39)
Depth Interval (Feet below ground surface)									4 - 5	1 - 2	7 - 8	25 - 27	30 - 32	35 - 37	25 - 27	31 - 33	37 - 39
Boring Location									House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)									UG09013-014	UG02019-008	UG02019-009	UG02019-010	UG02019-013	UG02019-012	UG02019-003	UG02019-004	UG02019-005
Sample Date									7/2/2019	6/27/2019	6/27/2019	6/27/2019	6/28/2019	6/28/2019	6/27/2019	6/27/2019	6/27/2019
Parameter (µg/kg)																	
Acetone	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000	23,000,000	260,000	180,000,000	<700	<630	<620	<600	<550	<800	<590	<620	<900
Benzene	100	4,000	1,600	13,000	380,000,000	180,000	1.7 (M)	120,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
Bromodichloromethane	1,600 (W)	ID	1,200	9,100	84,000,000	110,000	NCL	29,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
Bromoform	1,600 (W)	ID	150,000	900,000	2,800,000,000	820,000	NCL	1,900,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
2-Butanone (MEK)	260,000	44,000	54,000,000 (C)	29,000,000	67,000,000,000	120,000,000 (C,DD)	NCL	81,000,000	<700	<630	<620	<600	<550	<800	<590	<620	<900
Bromomethane (Methyl bromide)	200	100	860	11,000	330,000,000	320,000	NCL	21,000	<140	<130	<120	<120	<110	<160	<120	<120	<180
Carbon disulfide	16,000	ID	76,000	1,300,000	47,000,000,000	7,200,000 (C,DD)	NCL	2,300,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
Carbon tetrachloride	100	760	190	3,500	130,000,000	96,000	NCL	65,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
Chlorobenzene	2,000	500	120,000	770,000	4,700,000,000	4,300,000 (C)	82	830,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
Chloroethane	8,600	22,000	2,900,000 (C)	30,000,000	670,000,000,000	2,600,000 (C)	330	41,000,000	<140	<130	<120	<120	<110	<160	<120	<120	<180
Chloroform	1,600 (W)	7,000	7,200	45,000	1,300,000,000	1,200,000	0.26 (M)	32,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
Chloromethane (Methyl chloride)	5,200	ID	2,300	40,000	4,900,000,000	1,600,000 (C)	6.9 (M)	330,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
Cyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	20,000,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
1,2-Dibromo-3-chloropropane (DBCP)	10 (M)	ID	220	260	560,000	4,400 (C)	NCL	530	<70	<63	<62	<60	<55	<80	<59	<62	<90
Dibromochloromethane	1,600 (W)	ID	3,900	24,000	130,000,000	110,000	NCL	830,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
1,2-Dibromoethane (EDB)	20 (M)	110	670	1,700	14,000,000	92	NCL	3,600	<70	<63	<62	<60	<55	<80	<59	<62	<90
1,2-Dichlorobenzene	14,000	280	11,000,000 (C)	39,000,000	100,000,000,000	19,000,000 (C)	NCL	5,400,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
1,3-Dichlorobenzene	170	680	26,000	79,000	200,000,000	200,000 (C)	10 (M)	NCL	<70	<63	<62	<60	<55	<80	<59	<62	<90
1,4-Dichlorobenzene	1,700	360	19,000	77,000	450,000,000	400,000	23 (M)	260,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
Dichlorodifluoromethane	95,000	ID	900,000	53,000,000	3,300,000,000,000	52,000,000 (C)	NCL	260,000	<140	<130	<120	<120	<110	<160	<120	<120	<180
1,1-Dichloroethane	18,000	15,000	230,000	2,100,000	33,000,000,000	27,000,000 (C)	2.6 (M)	360,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
1,2-Dichloroethane	100	7,200	2,100	6,200	120,000,000	91,000	NCL	46,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
1,1-Dichloroethene	140	2,600	62	1,100	62,000,000	200,000	12 (M)	680,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
cis-1,2-Dichloroethene	1,400	12,000	22,000	180,000	2,300,000,000	2,500,000 (C)	2.1 (M)	470,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
trans-1,2-Dichloroethene	2,000	30,000	23,000	280,000	4,700,000,000	3,800,000 (C)	39 (M)	4,700,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
1,2-Dichloropropane	100	4,600	4,000	25,000	270,000,000	140,000	NCL	47,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
cis-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<70	<63	<62	<60	<55	<80	<59	<62	<90
trans-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<70	<63	<62	<60	<55	<80	<59	<62	<90
1,3-Dichloropropene (Calculated: cis + trans)	170	180	1,000	18,000	780,000,000	10,000	NCL	180,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,500	360	87,000	720,000	10,000,000,000	22,000,000 (C)	12 (M)	580,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
2-Hexanone	20,000	ID	990,000	1,100,000	2,700,000,000	32,000,000 (C)	NCL	600,000	<700	<630	<620	<600	<550	<800	<590	<620	<900
Isopropylbenzene	91,000	3,200	400,000 (C)	1,700,000	5,800,000,000	25,000,000 (C)	NCL	5,800,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
Methyl acetate	NCL	NCL	NCL	NCL	NCL	NCL	NCL	230,000,000	<70	36 [J]	<62	<60	<55	<80	<59	<62	<90
Methyl tertiary butyl ether (MTBE)	800	140,000	9,900,000 (C)	25,000,000	200,000,000,000	1,500,000	74 (M)	4,700,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
4-Methyl-2-pentanone	36,000	ID	37,000,000 (C)	45,000,000	140,000,000,000	56,000,000 (C)	NCL	99,000,000	<700	<630	<620	<600	<550	<800	<590	<620	<900
Methylcyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<350	<310	<310	<300	<280	<400	<290	<310	<450
Methylene chloride	100	30,000	45,000	210,000	6,600,000,000	1,300,000	130	1,000,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
Styrene	2,700	2,100	250,000	970,000	5,500,000,000	400,000	NCL	18,000,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
1,1,2,2-Tetrachloroethane	170	1,600	4,300	10,000	54,000,000	53,000	NCL	60,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
Tetrachloroethene	100	1,200	11,000	170,000	2,700,000,000	200,000 (C)	6.2 (M)	240,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
Toluene	16,000	5,400	330,000 (C)	2,800,000	27,000,000,000	50,000,000 (C)	3,700	15,000,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
1,1,2-Trichloro-1,2,2-Trifluoroethane	9,000,000 (C)	1,700	5,100,000 (C)	180,000,000	5,100,000,000,000	1,000,000,000 (C,D)	NCL	20,000,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
1,2,4-Trichlorobenzene	4,200	5,900	9,600,000 (C)	28,000,000	25,000,000,000	990,000 (DD)	53 (M)	170,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
1,1,1-Trichloroethane	4,000	1,800	250,000	3,800,000	67,000,000,000	500,000,000 (C)	450	24,000,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
1,1,2-Trichloroethane	100	6,600	4,600	17,000	190,000,000	180,000	NCL	4,500	<70	<63	<62	<60	<55	<80	<59	<62	<90
Trichloroethene	100	4,000	1,000	11,000	130,000,000	110,000 (DD)	0.33 (M)	12,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
Trichlorofluoromethane	52,000	NA	2,800,000 (C)	92,000,000	3,800,000,000,000	79,000,000 (C)	NCL	70,000,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
Vinyl chloride	40	260	270	4,200	350,000,000	3,800	0.082 (M)	5,900	<70	<63	<62	<60	<55	<80	<59	<62	<90
m+p - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<70	<63	<62	<60	<55	<80	<59	<62	<90
o - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,900,000	<70	<63	<62	<60	<55	<80	<59	<62	<90
Xylenes (total)	5,600	980	6,300,000 (C)	46,000,000	290,000,000,000	410,000,000 (C)	280	1,700,000	<140	<130	<120	<120	<110	<160	<120	<120	<180
Trihalomethanes (Calculation: Bromodichloromentane + Bromoform + Chloroform + Dibromochloromethane)	1,600 (W)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1A
SUMMARY OF SOIL SAMPLE ANALYSIS - VOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2220	HS-SB-2220	HS-SB-2221	HS-SB-2221	HS-SB-2224	HS-SB-2224	HS-SB-2224	HS-SB-2224	HS-SB-2224
Sample Name									HS-SB-2220 (3-4)	HS-SB-2220 (8-9)	HS-SB-2221 (0-1)	HS-SB-2221 (8-9)	HS-SB-2224 (1-2)	HS-SB-2224 (6-7)	HS-SB-2224 (20-22)	HS-SB-2224 (31-33)	HS-SB-2224 (37-39)
Depth Interval (Feet below ground surface)									3 - 4	8 - 9	0 - 1	8 - 9	1 - 2	6 - 7	20 - 22	31 - 33	37 - 39
Boring Location									Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)									UG02019-006	UG02019-007	UG02019-001	UG02019-002	UG02019-014	UG02019-015	UG02019-016	UG02019-017	UG02019-018
Sample Date									6/27/2019	6/27/2019	6/27/2019	6/27/2019	6/28/2019	6/28/2019	6/28/2019	6/28/2019	6/28/2019
Parameter (µg/kg)																	
Acetone	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000	23,000,000	260,000	180,000,000	<630	<660	<890	<720	<620	<530	<690	<630	<580
Benzene	100	4,000	1,600	13,000	380,000,000	180,000	1.7 (M)	120,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
Bromodichloromethane	1,600 (W)	ID	1,200	9,100	84,000,000	110,000	NCL	29,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
Bromoform	1,600 (W)	ID	150,000	900,000	2,800,000,000	820,000	NCL	1,900,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
2-Butanone (MEK)	260,000	44,000	54,000,000 (C)	29,000,000	67,000,000,000	120,000,000 (C,DD)	NCL	81,000,000	<630	<660	<890	<720	<620	<530	<690	<630	<580
Bromomethane (Methyl bromide)	200	100	860	11,000	330,000,000	320,000	NCL	21,000	<130	<130	<180	<140	<120	<110	<140	<130	<120
Carbon disulfide	16,000	ID	76,000	1,300,000	47,000,000,000	7,200,000 (C,DD)	NCL	2,300,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
Carbon tetrachloride	100	760	190	3,500	130,000,000	96,000	NCL	65,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
Chlorobenzene	2,000	500	120,000	770,000	4,700,000,000	4,300,000 (C)	82	830,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
Chloroethane	8,600	22,000	2,900,000 (C)	30,000,000	670,000,000,000	2,600,000 (C)	330	41,000,000	<130	<130	<180	<140	<120	<110	<140	<130	<120
Chloroform	1,600 (W)	7,000	7,200	45,000	1,300,000,000	1,200,000	0.26 (M)	32,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
Chloromethane (Methyl chloride)	5,200	ID	2,300	40,000	4,900,000,000	1,600,000 (C)	6.9 (M)	330,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
Cyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	20,000,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
1,2-Dibromo-3-chloropropane (DBCP)	10 (M)	ID	220	260	560,000	4,400 (C)	NCL	530	<63	<66	<89	<72	<62	<53	<69	<63	<58
Dibromochloromethane	1,600 (W)	ID	3,900	24,000	130,000,000	110,000	NCL	830,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
1,2-Dibromoethane (EDB)	20 (M)	110	670	1,700	14,000,000	92	NCL	3,600	<63	<66	<89	<72	<62	<53	<69	<63	<58
1,2-Dichlorobenzene	14,000	280	11,000,000 (C)	39,000,000	100,000,000,000	19,000,000 (C)	NCL	5,400,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
1,3-Dichlorobenzene	170	680	26,000	79,000	200,000,000	200,000 (C)	10 (M)	NCL	<63	<66	<89	<72	<62	<53	<69	<63	<58
1,4-Dichlorobenzene	1,700	360	19,000	77,000	450,000,000	400,000	23 (M)	260,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
Dichlorodifluoromethane	95,000	ID	900,000	53,000,000	3,300,000,000,000	52,000,000 (C)	NCL	260,000	<130	<130	<180	<140	<120	<110	<140	<130	<120
1,1-Dichloroethane	18,000	15,000	230,000	2,100,000	33,000,000,000	27,000,000 (C)	2.6 (M)	360,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
1,2-Dichloroethane	100	7,200	2,100	6,200	120,000,000	91,000	NCL	46,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
1,1-Dichloroethene	140	2,600	62	1,100	62,000,000	200,000	12 (M)	680,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
cis-1,2-Dichloroethene	1,400	12,000	22,000	180,000	2,300,000,000	2,500,000 (C)	2.1 (M)	470,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
trans-1,2-Dichloroethene	2,000	30,000	23,000	280,000	4,700,000,000	3,800,000 (C)	39 (M)	4,700,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
1,2-Dichloropropane	100	4,600	4,000	25,000	270,000,000	140,000	NCL	47,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
cis-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<63	<66	<89	<72	<62	<53	<69	<63	<58
trans-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<63	<66	<89	<72	<62	<53	<69	<63	<58
1,3-Dichloropropene (Calculated: cis + trans)	170	180	1,000	18,000	780,000,000	10,000	NCL	180,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,500	360	87,000	720,000	10,000,000,000	22,000,000 (C)	12 (M)	580,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
2-Hexanone	20,000	ID	990,000	1,100,000	2,700,000,000	32,000,000 (C)	NCL	600,000	<630	<660	<890	<720	<620	<530	<690	<630	<580
Isopropylbenzene	91,000	3,200	400,000 (C)	1,700,000	5,800,000,000	25,000,000 (C)	NCL	5,800,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
Methyl acetate	NCL	NCL	NCL	NCL	NCL	NCL	NCL	230,000,000	<63	<66	130	<72	<62	<53	<69	<63	<58
Methyl tertiary butyl ether (MTBE)	800	140,000	9,900,000 (C)	25,000,000	200,000,000,000	1,500,000	74 (M)	4,700,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
4-Methyl-2-pentanone	36,000	ID	37,000,000 (C)	45,000,000	140,000,000,000	56,000,000 (C)	NCL	99,000,000	<630	<660	<890	<720	<620	<530	<690	<630	<580
Methylcyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<310	<330	<450	<360	<310	<270	<350	<320	<290
Methylene chloride	100	30,000	45,000	210,000	6,600,000,000	1,300,000	130	1,000,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
Styrene	2,700	2,100	250,000	970,000	5,500,000,000	400,000	NCL	18,000,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
1,1,2,2-Tetrachloroethane	170	1,600	4,300	10,000	54,000,000	53,000	NCL	60,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
Tetrachloroethene	100	1,200	11,000	170,000	2,700,000,000	200,000 (C)	6.2 (M)	240,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
Toluene	16,000	5,400	330,000 (C)	2,800,000	27,000,000,000	50,000,000 (C)	3,700	15,000,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
1,1,2-Trichloro-1,2,2-Trifluoroethane	9,000,000 (C)	1,700	5,100,000 (C)	180,000,000	5,100,000,000,000	1,000,000,000 (C,D)	NCL	20,000,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
1,2,4-Trichlorobenzene	4,200	5,900	9,600,000 (C)	28,000,000	25,000,000,000	990,000 (DD)	53 (M)	170,000	<63	<66	***66 [J]***	30 [J]	<62	<53	<69	<63	<58
1,1,1-Trichloroethane	4,000	1,800	250,000	3,800,000	67,000,000,000	500,000,000 (C)	450	24,000,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
1,1,2-Trichloroethane	100	6,600	4,600	17,000	190,000,000	180,000	NCL	4,500	<63	<66	<89	<72	<62	<53	<69	<63	<58
Trichloroethene	100	4,000	1,000	11,000	130,000,000	110,000 (DD)	0.33 (M)	12,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
Trichlorofluoromethane	52,000	NA	2,800,000 (C)	92,000,000	3,800,000,000,000	79,000,000 (C)	NCL	70,000,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
Vinyl chloride	40	260	270	4,200	350,000,000	3,800	0.082 (M)	5,900	<63	<66	<89	<72	<62	<53	<69	<63	<58
m+p - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<63	<66	<89	<72	<62	<53	<69	<63	<58
o - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,900,000	<63	<66	<89	<72	<62	<53	<69	<63	<58
Xylenes (total)	5,600	980	6,300,000 (C)	46,000,000	290,000,000,000	410,000,000 (C)	280	1,700,000	<130	<130	<180	<140	<120	<110	<140	<130	<120
Trihalomethanes (Calculation: Bromodichloromentane + Bromoform + Chloroform + Dibromochloromethane)	1,600 (W)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1A
SUMMARY OF SOIL SAMPLE ANALYSIS - VOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4800	HS-SB-4800	HS-SB-4801	HS-SB-4801	HS-SB-4802	HS-SB-4802	HS-SB-4803	HS-SB-4803	HS-SB-4804
Sample Name									HS-SB-4800 (0-2)	HS-SB-4800 (15-17)	HS-SB-4801 (0-2)	HS-SB-4801 (15-17)	HS-SB-4802 (0-2)	HS-SB-4802 (15-17)	HS-SB-4803 (0-2)	HS-SB-4803 (6-8)	HS-SB-4804 (0-2)
Depth Interval (Feet below ground surface)									0 - 2	15 - 17	0 - 2	15 - 17	0 - 2	15 - 17	0 - 2	6 - 8	0 - 2
Boring Location									Off-Site	Off-Site	House St Site	House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)									UH23024-002	UH23024-003	UH23030-001	UH23030-002	UH17001-020	UH17001-021	UH23024-010	UH23024-011	UH23024-012
Sample Date									8/19/2019	8/19/2019	8/20/2019	8/20/2019	8/16/2019	8/16/2019	8/20/2019	8/20/2019	8/20/2019
Parameter (µg/kg)																	
Acetone	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000	23,000,000	260,000	180,000,000	<730	<810	<840	<640	<450	<630	<580	<450	<750
Benzene	100	4,000	1,600	13,000	380,000,000	180,000	1.7 (M)	120,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
Bromodichloromethane	1,600 (W)	ID	1,200	9,100	84,000,000	110,000	NCL	29,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
Bromoform	1,600 (W)	ID	150,000	900,000	2,800,000,000	820,000	NCL	1,900,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
2-Butanone (MEK)	260,000	44,000	54,000,000 (C)	29,000,000	67,000,000,000	120,000,000 (C,DD)	NCL	81,000,000	<730	<810	<840	<640	<450	<630	<580	<450	<750
Bromomethane (Methyl bromide)	200	100	860	11,000	330,000,000	320,000	NCL	21,000	<150	<160	<170	<130	<90	<130	<120	<91	<150
Carbon disulfide	16,000	ID	76,000	1,300,000	47,000,000,000	7,200,000 (C,DD)	NCL	2,300,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
Carbon tetrachloride	100	760	190	3,500	130,000,000	96,000	NCL	65,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
Chlorobenzene	2,000	500	120,000	770,000	4,700,000,000	4,300,000 (C)	82	830,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
Chloroethane	8,600	22,000	2,900,000 (C)	30,000,000	670,000,000,000	2,600,000 (C)	330	41,000,000	<150	<160	<170	<130	<90	<130	<120	<91	<150
Chloroform	1,600 (W)	7,000	7,200	45,000	1,300,000,000	1,200,000	0.26 (M)	32,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
Chloromethane (Methyl chloride)	5,200	ID	2,300	40,000	4,900,000,000	1,600,000 (C)	6.9 (M)	330,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
Cyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	20,000,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
1,2-Dibromo-3-chloropropane (DBCP)	10 (M)	ID	220	260	560,000	4,400 (C)	NCL	530	<73	<81	<84	<64	<45	<63	<58	<45	<75
Dibromochloromethane	1,600 (W)	ID	3,900	24,000	130,000,000	110,000	NCL	830,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
1,2-Dibromoethane (EDB)	20 (M)	110	670	1,700	14,000,000	92	NCL	3,600	<73	<81	<84	<64	<45	<63	<58	<45	<75
1,2-Dichlorobenzene	14,000	280	11,000,000 (C)	39,000,000	100,000,000,000	19,000,000 (C)	NCL	5,400,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
1,3-Dichlorobenzene	170	680	26,000	79,000	200,000,000	200,000 (C)	10 (M)	NCL	<73	<81	<84	<64	<45	<63	<58	<45	<75
1,4-Dichlorobenzene	1,700	360	19,000	77,000	450,000,000	400,000	23 (M)	260,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
Dichlorodifluoromethane	95,000	ID	900,000	53,000,000	3,300,000,000,000	52,000,000 (C)	NCL	260,000	<150	<160	<170	<130	<90	<130	<120	<91	<150
1,1-Dichloroethane	18,000	15,000	230,000	2,100,000	33,000,000,000	27,000,000 (C)	2.6 (M)	360,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
1,2-Dichloroethane	100	7,200	2,100	6,200	120,000,000	91,000	NCL	46,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
1,1-Dichloroethene	140	2,600	62	1,100	62,000,000	200,000	12 (M)	680,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
cis-1,2-Dichloroethene	1,400	12,000	22,000	180,000	2,300,000,000	2,500,000 (C)	2.1 (M)	470,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
trans-1,2-Dichloroethene	2,000	30,000	23,000	280,000	4,700,000,000	3,800,000 (C)	39 (M)	4,700,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
1,2-Dichloropropane	100	4,600	4,000	25,000	270,000,000	140,000	NCL	47,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
cis-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<73	<81	<84	<64	<45	<63	<58	<45	<75
trans-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<73	<81	<84	<64	<45	<63	<58	<45	<75
1,3-Dichloropropene (Calculated: cis + trans)	170	180	1,000	18,000	780,000,000	10,000	NCL	180,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,500	360	87,000	720,000	10,000,000,000	22,000,000 (C)	12 (M)	580,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
2-Hexanone	20,000	ID	990,000	1,100,000	2,700,000,000	32,000,000 (C)	NCL	600,000	<730	<810	<840	<640	<450	<630	<580	<450	<750
Isopropylbenzene	91,000	3,200	400,000 (C)	1,700,000	5,800,000,000	25,000,000 (C)	NCL	5,800,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
Methyl acetate	NCL	NCL	NCL	NCL	NCL	NCL	NCL	230,000,000	49 [J]	34 [J]	<84	<64	44 [J]	<63	<58	<45	<75
Methyl tertiary butyl ether (MTBE)	800	140,000	9,900,000 (C)	25,000,000	200,000,000,000	1,500,000	74 (M)	4,700,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
4-Methyl-2-pentanone	36,000	ID	37,000,000 (C)	45,000,000	140,000,000,000	56,000,000 (C)	NCL	99,000,000	<730	<810	<840	<640	<450	<630	<580	<450	<750
Methylcyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<370	<410	<420	<320	<230	<320	<290	<230	<380
Methylene chloride	100	30,000	45,000	210,000	6,600,000,000	1,300,000	130	1,000,000	<73	45 [J]	46 [J]	38 [J]	<45	<63	28 [J]	28 [J]	<75
Styrene	2,700	2,100	250,000	970,000	5,500,000,000	400,000	NCL	18,000,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
1,1,2,2-Tetrachloroethane	170	1,600	4,300	10,000	54,000,000	53,000	NCL	60,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
Tetrachloroethene	100	1,200	11,000	170,000	2,700,000,000	200,000 (C)	6.2 (M)	240,000	<73	<81	<84	<64	***22 [J]***	<63	<58	<45	<75
Toluene	16,000	5,400	330,000 (C)	2,800,000	27,000,000,000	50,000,000 (C)	3,700	15,000,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
1,1,2-Trichloro-1,2,2-Trifluoroethane	9,000,000 (C)	1,700	5,100,000 (C)	180,000,000	5,100,000,000,000	1,000,000,000 (C,D)	NCL	20,000,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
1,2,4-Trichlorobenzene	4,200	5,900	9,600,000 (C)	28,000,000	25,000,000,000	990,000 (DD)	53 (M)	170,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
1,1,1-Trichloroethane	4,000	1,800	250,000	3,800,000	67,000,000,000	500,000,000 (C)	450	24,000,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
1,1,2-Trichloroethane	100	6,600	4,600	17,000	190,000,000	180,000	NCL	4,500	<73	<81	<84	<64	<45	<63	<58	<45	<75
Trichloroethene	100	4,000	1,000	11,000	130,000,000	110,000 (DD)	0.33 (M)	12,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
Trichlorofluoromethane	52,000	NA	2,800,000 (C)	92,000,000	3,800,000,000,000	79,000,000 (C)	NCL	70,000,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
Vinyl chloride	40	260	270	4,200	350,000,000	3,800	0.082 (M)	5,900	<73	<81	<84	<64	<45	<63	<58	<45	<75
m+p - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<73	<81	<84	<64	<45	<63	<58	<45	<75
o - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,900,000	<73	<81	<84	<64	<45	<63	<58	<45	<75
Xylenes (total)	5,600	980	6,300,000 (C)	46,000,000	290,000,000,000	410,000,000 (C)	280	1,700,000	<150	<160	<170	<130	<90	<130	<120	<91	<150
Trihalomethanes (Calculation: Bromodichloromentane + Bromoform + Chloroform + Dibromochloromethane)	1,600 (W)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1A
SUMMARY OF SOIL SAMPLE ANALYSIS - VOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4804	HS-SB-4805	HS-SB-4805	HS-SB-4806	HS-SB-4806	HS-SB-4807	HS-SB-4807	HS-SB-4808	HS-SB-4808
Sample Name									HS-SB-4804 (10-12)	HS-SB-4805 (0-2)	HS-SB-4805 (7-9)	HS-SB-4806 (0-2)	HS-SB-4806 (7-9)	HS-SB-4807 (0-2)	HS-SB-4807 (10-12)	HS-SB-4808 (0-2)	HS-SB-4808 (6-8)
Depth Interval (Feet below ground surface)									10 - 12	0 - 2	7 - 9	0 - 2	7 - 9	0 - 2	10 - 12	0 - 2	6 - 8
Boring Location									Off-Site	House St Site	House St Site	Off-Site	Off-Site	Off-Site	Off-Site	House St Site	House St Site
Laboratory Sample ID(s)									UH23024-013	UH23030-012	UH23030-013	UH17001-026	UH17001-027	UH23024-006	UH23024-007	UH23030-005	UH23030-006
Sample Date									8/20/2019	8/21/2019	8/21/2019	8/16/2019	8/16/2019	8/19/2019	8/19/2019	8/20/2019	8/20/2019
Parameter (µg/kg)																	
Acetone	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000	23,000,000	260,000	180,000,000	<610	<810	<650	<650	<360	<720	<630	<890	<620
Benzene	100	4,000	1,600	13,000	380,000,000	180,000	1.7 (M)	120,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
Bromodichloromethane	1,600 (W)	ID	1,200	9,100	84,000,000	110,000	NCL	29,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
Bromoform	1,600 (W)	ID	150,000	900,000	2,800,000,000	820,000	NCL	1,900,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
2-Butanone (MEK)	260,000	44,000	54,000,000 (C)	29,000,000	67,000,000,000	120,000,000 (C,DD)	NCL	81,000,000	<610	<810	<650	<650	<360	<720	<630	<890	<620
Bromomethane (Methyl bromide)	200	100	860	11,000	330,000,000	320,000	NCL	21,000	<120	<160	<130	<130	<72	<140	<130	<180	<120
Carbon disulfide	16,000	ID	76,000	1,300,000	47,000,000,000	7,200,000 (C,DD)	NCL	2,300,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
Carbon tetrachloride	100	760	190	3,500	130,000,000	96,000	NCL	65,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
Chlorobenzene	2,000	500	120,000	770,000	4,700,000,000	4,300,000 (C)	82	830,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
Chloroethane	8,600	22,000	2,900,000 (C)	30,000,000	670,000,000,000	2,600,000 (C)	330	41,000,000	<120	<160	<130	<130	<72	<140	<130	<180	<120
Chloroform	1,600 (W)	7,000	7,200	45,000	1,300,000,000	1,200,000	0.26 (M)	32,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
Chloromethane (Methyl chloride)	5,200	ID	2,300	40,000	4,900,000,000	1,600,000 (C)	6.9 (M)	330,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
Cyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	20,000,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
1,2-Dibromo-3-chloropropane (DBCP)	10 (M)	ID	220	260	560,000	4,400 (C)	NCL	530	<61	<81	<65	<65	<36	<72	<63	<89	<62
Dibromochloromethane	1,600 (W)	ID	3,900	24,000	130,000,000	110,000	NCL	830,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
1,2-Dibromoethane (EDB)	20 (M)	110	670	1,700	14,000,000	92	NCL	3,600	<61	<81	<65	<65	<36	<72	<63	<89	<62
1,2-Dichlorobenzene	14,000	280	11,000,000 (C)	39,000,000	100,000,000,000	19,000,000 (C)	NCL	5,400,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
1,3-Dichlorobenzene	170	680	26,000	79,000	200,000,000	200,000 (C)	10 (M)	NCL	<61	<81	<65	<65	<36	<72	<63	<89	<62
1,4-Dichlorobenzene	1,700	360	19,000	77,000	450,000,000	400,000	23 (M)	260,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
Dichlorodifluoromethane	95,000	ID	900,000	53,000,000	3,300,000,000,000	52,000,000 (C)	NCL	260,000	<120	<160	<130	<130	<72	<140	<130	<180	<120
1,1-Dichloroethane	18,000	15,000	230,000	2,100,000	33,000,000,000	27,000,000 (C)	2.6 (M)	360,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
1,2-Dichloroethane	100	7,200	2,100	6,200	120,000,000	91,000	NCL	46,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
1,1-Dichloroethene	140	2,600	62	1,100	62,000,000	200,000	12 (M)	680,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
cis-1,2-Dichloroethene	1,400	12,000	22,000	180,000	2,300,000,000	2,500,000 (C)	2.1 (M)	470,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
trans-1,2-Dichloroethene	2,000	30,000	23,000	280,000	4,700,000,000	3,800,000 (C)	39 (M)	4,700,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
1,2-Dichloropropane	100	4,600	4,000	25,000	270,000,000	140,000	NCL	47,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
cis-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<61	<81	<65	<65	<36	<72	<63	<89	<62
trans-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<61	<81	<65	<65	<36	<72	<63	<89	<62
1,3-Dichloropropene (Calculated: cis + trans)	170	180	1,000	18,000	780,000,000	10,000	NCL	180,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,500	360	87,000	720,000	10,000,000,000	22,000,000 (C)	12 (M)	580,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
2-Hexanone	20,000	ID	990,000	1,100,000	2,700,000,000	32,000,000 (C)	NCL	600,000	<610	<810	<650	<650	<360	<720	<630	<890	<620
Isopropylbenzene	91,000	3,200	400,000 (C)	1,700,000	5,800,000,000	25,000,000 (C)	NCL	5,800,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
Methyl acetate	NCL	NCL	NCL	NCL	NCL	NCL	NCL	230,000,000	<61	<81	<65	55 [J]	<36	45 [J]	<63	39 [J]	<62
Methyl tertiary butyl ether (MTBE)	800	140,000	9,900,000 (C)	25,000,000	200,000,000,000	1,500,000	74 (M)	4,700,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
4-Methyl-2-pentanone	36,000	ID	37,000,000 (C)	45,000,000	140,000,000,000	56,000,000 (C)	NCL	99,000,000	<610	<810	<650	<650	<360	<720	<630	<890	<620
Methylcyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<310	<400	<330	<330	<180	<360	<320	<440	<310
Methylene chloride	100	30,000	45,000	210,000	6,600,000,000	1,300,000	130	1,000,000	36 [J]	50 [BJ]	44 [BJ]	<65	<36	32 [BJ]	<63	55 [J]	31 [J]
Styrene	2,700	2,100	250,000	970,000	5,500,000,000	400,000	NCL	18,000,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
1,1,2,2-Tetrachloroethane	170	1,600	4,300	10,000	54,000,000	53,000	NCL	60,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
Tetrachloroethene	100	1,200	11,000	170,000	2,700,000,000	200,000 (C)	6.2 (M)	240,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
Toluene	16,000	5,400	330,000 (C)	2,800,000	27,000,000,000	50,000,000 (C)	3,700	15,000,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
1,1,2-Trichloro-1,2,2-Trifluoroethane	9,000,000 (C)	1,700	5,100,000 (C)	180,000,000	5,100,000,000,000	1,000,000,000 (C,D)	NCL	20,000,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
1,2,4-Trichlorobenzene	4,200	5,900	9,600,000 (C)	28,000,000	25,000,000,000	990,000 (DD)	53 (M)	170,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
1,1,1-Trichloroethane	4,000	1,800	250,000	3,800,000	67,000,000,000	500,000,000 (C)	450	24,000,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
1,1,2-Trichloroethane	100	6,600	4,600	17,000	190,000,000	180,000	NCL	4,500	<61	<81	<65	<65	<36	<72	<63	<89	<62
Trichloroethene	100	4,000	1,000	11,000	130,000,000	110,000 (DD)	0.33 (M)	12,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
Trichlorofluoromethane	52,000	NA	2,800,000 (C)	92,000,000	3,800,000,000,000	79,000,000 (C)	NCL	70,000,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
Vinyl chloride	40	260	270	4,200	350,000,000	3,800	0.082 (M)	5,900	<61	<81	<65	<65	<36	<72	<63	<89	<62
m+p - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<61	<81	<65	<65	<36	<72	<63	<89	<62
o - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,900,000	<61	<81	<65	<65	<36	<72	<63	<89	<62
Xylenes (total)	5,600	980	6,300,000 (C)	46,000,000	290,000,000,000	410,000,000 (C)	280	1,700,000	<120	<160	<130	<130	<72	<140	<130	<180	<120
Trihalomethanes (Calculation: Bromodichloromentane + Bromoform + Chloroform + Dibromochloromethane)	1,600 (W)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1A
SUMMARY OF SOIL SAMPLE ANALYSIS - VOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4809	HS-SB-4809	HS-SB-4810	HS-SB-4810	HS-SB-4811	HS-SB-4811	HS-SB-4900	HS-SB-4900	HS-SB-4901
Sample Name									HS-SB-4809 (0-2)	HS-SB-4809 (6-8)	HS-SB-4810 (0-2)	HS-SB-4810 (6-8)	HS-SB-4811 (0-2)	HS-SB-4811 (12-14)	HS-SB-4900 (0-2)	HS-SB-4900 (17-19)	HS-SB-4901 (0-2)
Depth Interval (Feet below ground surface)									0 - 2	6 - 8	0 - 2	6 - 8	0 - 2	12 - 14	0 - 2	17 - 19	0 - 2
Boring Location									Off-Site	Off-Site	Off-Site	Off-Site	House St Site	House St Site	Off-Site	Off-Site	House St Site
Laboratory Sample ID(s)									UH17001-022	UH17001-023	UH17001-012	UH17001-013	UH23024-016	UH23024-017	UH17001-001	UH17001-002	UH17001-003
Sample Date									8/16/2019	8/16/2019	8/15/2019	8/15/2019	8/20/2019	8/20/2019	8/12/2019	8/12/2019	8/12/2019
Parameter (µg/kg)																	
Acetone	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000	23,000,000	260,000	180,000,000	160 [J]	<620	<810	<600	<720	<660	<520	<580	<620
Benzene	100	4,000	1,600	13,000	380,000,000	180,000	1.7 (M)	120,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
Bromodichloromethane	1,600 (W)	ID	1,200	9,100	84,000,000	110,000	NCL	29,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
Bromoform	1,600 (W)	ID	150,000	900,000	2,800,000,000	820,000	NCL	1,900,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
2-Butanone (MEK)	260,000	44,000	54,000,000 (C)	29,000,000	67,000,000,000	120,000,000 (C,DD)	NCL	81,000,000	<600	<620	<810	<600	<720	<660	<520	<580	<620
Bromomethane (Methyl bromide)	200	100	860	11,000	330,000,000	320,000	NCL	21,000	<120	<120	<160	<120	<140	<130	<100	<120	<120
Carbon disulfide	16,000	ID	76,000	1,300,000	47,000,000,000	7,200,000 (C,DD)	NCL	2,300,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
Carbon tetrachloride	100	760	190	3,500	130,000,000	96,000	NCL	65,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
Chlorobenzene	2,000	500	120,000	770,000	4,700,000,000	4,300,000 (C)	82	830,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
Chloroethane	8,600	22,000	2,900,000 (C)	30,000,000	670,000,000,000	2,600,000 (C)	330	41,000,000	<120	<120	<160	<120	<140	<130	<100	<120	<120
Chloroform	1,600 (W)	7,000	7,200	45,000	1,300,000,000	1,200,000	0.26 (M)	32,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
Chloromethane (Methyl chloride)	5,200	ID	2,300	40,000	4,900,000,000	1,600,000 (C)	6.9 (M)	330,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
Cyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	20,000,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
1,2-Dibromo-3-chloropropane (DBCP)	10 (M)	ID	220	260	560,000	4,400 (C)	NCL	530	<60	<62	<81	<60	<72	<66	<52	<58	<62
Dibromochloromethane	1,600 (W)	ID	3,900	24,000	130,000,000	110,000	NCL	830,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
1,2-Dibromoethane (EDB)	20 (M)	110	670	1,700	14,000,000	92	NCL	3,600	<60	<62	<81	<60	<72	<66	<52	<58	<62
1,2-Dichlorobenzene	14,000	280	11,000,000 (C)	39,000,000	100,000,000,000	19,000,000 (C)	NCL	5,400,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
1,3-Dichlorobenzene	170	680	26,000	79,000	200,000,000	200,000 (C)	10 (M)	NCL	<60	<62	<81	<60	<72	<66	<52	<58	<62
1,4-Dichlorobenzene	1,700	360	19,000	77,000	450,000,000	400,000	23 (M)	260,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
Dichlorodifluoromethane	95,000	ID	900,000	53,000,000	3,300,000,000,000	52,000,000 (C)	NCL	260,000	<120	<120	<160	<120	<140	<130	<100	<120	<120
1,1-Dichloroethane	18,000	15,000	230,000	2,100,000	33,000,000,000	27,000,000 (C)	2.6 (M)	360,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
1,2-Dichloroethane	100	7,200	2,100	6,200	120,000,000	91,000	NCL	46,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
1,1-Dichloroethene	140	2,600	62	1,100	62,000,000	200,000	12 (M)	680,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
cis-1,2-Dichloroethene	1,400	12,000	22,000	180,000	2,300,000,000	2,500,000 (C)	2.1 (M)	470,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
trans-1,2-Dichloroethene	2,000	30,000	23,000	280,000	4,700,000,000	3,800,000 (C)	39 (M)	4,700,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
1,2-Dichloropropane	100	4,600	4,000	25,000	270,000,000	140,000	NCL	47,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
cis-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<60	<62	<81	<60	<72	<66	<52	<58	<62
trans-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<60	<62	<81	<60	<72	<66	<52	<58	<62
1,3-Dichloropropene (Calculated: cis + trans)	170	180	1,000	18,000	780,000,000	10,000	NCL	180,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,500	360	87,000	720,000	10,000,000,000	22,000,000 (C)	12 (M)	580,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
2-Hexanone	20,000	ID	990,000	1,100,000	2,700,000,000	32,000,000 (C)	NCL	600,000	<600	<620	<810	<600	<720	<660	<520	<580	<620
Isopropylbenzene	91,000	3,200	400,000 (C)	1,700,000	5,800,000,000	25,000,000 (C)	NCL	5,800,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
Methyl acetate	NCL	NCL	NCL	NCL	NCL	NCL	NCL	230,000,000	59 [J]	<62	48 [J]	<60	<72	<66	350	<58	140
Methyl tertiary butyl ether (MTBE)	800	140,000	9,900,000 (C)	25,000,000	200,000,000,000	1,500,000	74 (M)	4,700,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
4-Methyl-2-pentanone	36,000	ID	37,000,000 (C)	45,000,000	140,000,000,000	56,000,000 (C)	NCL	99,000,000	<600	<620	<810	<600	<720	<660	<520	<580	<620
Methylcyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<300	<310	<410	<300	<360	<330	<260	<290	<310
Methylene chloride	100	30,000	45,000	210,000	6,600,000,000	1,300,000	130	1,000,000	<60	<62	<81	<60	45 [J]	33 [J]	23 [J]	<58	<62
Styrene	2,700	2,100	250,000	970,000	5,500,000,000	400,000	NCL	18,000,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
1,1,2,2-Tetrachloroethane	170	1,600	4,300	10,000	54,000,000	53,000	NCL	60,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
Tetrachloroethene	100	1,200	11,000	170,000	2,700,000,000	200,000 (C)	6.2 (M)	240,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
Toluene	16,000	5,400	330,000 (C)	2,800,000	27,000,000,000	50,000,000 (C)	3,700	15,000,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
1,1,2-Trichloro-1,2,2-Trifluoroethane	9,000,000 (C)	1,700	5,100,000 (C)	180,000,000	5,100,000,000,000	1,000,000,000 (C,D)	NCL	20,000,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
1,2,4-Trichlorobenzene	4,200	5,900	9,600,000 (C)	28,000,000	25,000,000,000	990,000 (DD)	53 (M)	170,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
1,1,1-Trichloroethane	4,000	1,800	250,000	3,800,000	67,000,000,000	500,000,000 (C)	450	24,000,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
1,1,2-Trichloroethane	100	6,600	4,600	17,000	190,000,000	180,000	NCL	4,500	<60	<62	<81	<60	<72	<66	<52	<58	<62
Trichloroethene	100	4,000	1,000	11,000	130,000,000	110,000 (DD)	0.33 (M)	12,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
Trichlorofluoromethane	52,000	NA	2,800,000 (C)	92,000,000	3,800,000,000,000	79,000,000 (C)	NCL	70,000,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
Vinyl chloride	40	260	270	4,200	350,000,000	3,800	0.082 (M)	5,900	<60	<62	<81	<60	<72	<66	<52	<58	<62
m+p - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<60	<62	<81	<60	<72	<66	<52	<58	<62
o - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,900,000	<60	<62	<81	<60	<72	<66	<52	<58	<62
Xylenes (total)	5,600	980	6,300,000 (C)	46,000,000	290,000,000,000	410,000,000 (C)	280	1,700,000	<120	<120	<160	<120	<140	<130	<100	<120	<120
Trihalomethanes (Calculation: Bromodichloromentane + Bromoform + Chloroform + Dibromochloromethane)	1,600 (W)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1A
SUMMARY OF SOIL SAMPLE ANALYSIS - VOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4901	HS-SB-4902	HS-SB-4902	HS-SB-4903	HS-SB-4903	HS-SB-4904	HS-SB-4904	HS-SB-4905	HS-SB-4905
Sample Name									HS-SB-4901 (18-20)	HS-SB-4902 (0-2)	HS-SB-4902 (6-8)	HS-SB-4903 (0-2)	HS-SB-4903 (11-13)	HS-SB-4904 (0-2)	HS-SB-4904 (15-17)	HS-SB-4905 (0-2)	HS-SB-4905 (15-17)
Depth Interval (Feet below ground surface)									18 - 20	0 - 2	6 - 8	0 - 2	11 - 13	0 - 2	15 - 17	0 - 2	15 - 17
Boring Location									House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)									UH17001-004	UH23024-008	UH23024-009	UH23024-004	UH23024-005	UH23024-014	UH23024-015	UH23030-003	UH23030-004
Sample Date									8/12/2019	8/20/2019	8/19/2019	8/19/2019	8/19/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019
Parameter (µg/kg)																	
Acetone	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000	23,000,000	260,000	180,000,000	<540	<680	<650	<740	<430	<680	<590	<650	<640
Benzene	100	4,000	1,600	13,000	380,000,000	180,000	1.7 (M)	120,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
Bromodichloromethane	1,600 (W)	ID	1,200	9,100	84,000,000	110,000	NCL	29,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
Bromoform	1,600 (W)	ID	150,000	900,000	2,800,000,000	820,000	NCL	1,900,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
2-Butanone (MEK)	260,000	44,000	54,000,000 (C)	29,000,000	67,000,000,000	120,000,000 (C,DD)	NCL	81,000,000	<540	<680	<650	<740	<430	<680	<590	<650	<640
Bromomethane (Methyl bromide)	200	100	860	11,000	330,000,000	320,000	NCL	21,000	<110	<140	<130	<150	<86	<140	<120	<130	<130
Carbon disulfide	16,000	ID	76,000	1,300,000	47,000,000,000	7,200,000 (C,DD)	NCL	2,300,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
Carbon tetrachloride	100	760	190	3,500	130,000,000	96,000	NCL	65,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
Chlorobenzene	2,000	500	120,000	770,000	4,700,000,000	4,300,000 (C)	82	830,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
Chloroethane	8,600	22,000	2,900,000 (C)	30,000,000	670,000,000,000	2,600,000 (C)	330	41,000,000	<110	<140	<130	<150	<86	<140	<120	<130	<130
Chloroform	1,600 (W)	7,000	7,200	45,000	1,300,000,000	1,200,000	0.26 (M)	32,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
Chloromethane (Methyl chloride)	5,200	ID	2,300	40,000	4,900,000,000	1,600,000 (C)	6.9 (M)	330,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
Cyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	20,000,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
1,2-Dibromo-3-chloropropane (DBCP)	10 (M)	ID	220	260	560,000	4,400 (C)	NCL	530	<54	<68	<65	<74	<43	<68	<59	<65	<64
Dibromochloromethane	1,600 (W)	ID	3,900	24,000	130,000,000	110,000	NCL	830,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
1,2-Dibromoethane (EDB)	20 (M)	110	670	1,700	14,000,000	92	NCL	3,600	<54	<68	<65	<74	<43	<68	<59	<65	<64
1,2-Dichlorobenzene	14,000	280	11,000,000 (C)	39,000,000	100,000,000,000	19,000,000 (C)	NCL	5,400,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
1,3-Dichlorobenzene	170	680	26,000	79,000	200,000,000	200,000 (C)	10 (M)	NCL	<54	<68	<65	<74	<43	<68	<59	<65	<64
1,4-Dichlorobenzene	1,700	360	19,000	77,000	450,000,000	400,000	23 (M)	260,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
Dichlorodifluoromethane	95,000	ID	900,000	53,000,000	3,300,000,000,000	52,000,000 (C)	NCL	260,000	<110	<140	<130	<150	<86	<140	<120	<130	<130
1,1-Dichloroethane	18,000	15,000	230,000	2,100,000	33,000,000,000	27,000,000 (C)	2.6 (M)	360,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
1,2-Dichloroethane	100	7,200	2,100	6,200	120,000,000	91,000	NCL	46,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
1,1-Dichloroethene	140	2,600	62	1,100	62,000,000	200,000	12 (M)	680,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
cis-1,2-Dichloroethene	1,400	12,000	22,000	180,000	2,300,000,000	2,500,000 (C)	2.1 (M)	470,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
trans-1,2-Dichloroethene	2,000	30,000	23,000	280,000	4,700,000,000	3,800,000 (C)	39 (M)	4,700,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
1,2-Dichloropropane	100	4,600	4,000	25,000	270,000,000	140,000	NCL	47,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
cis-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<54	<68	<65	<74	<43	<68	<59	<65	<64
trans-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<54	<68	<65	<74	<43	<68	<59	<65	<64
1,3-Dichloropropene (Calculated: cis + trans)	170	180	1,000	18,000	780,000,000	10,000	NCL	180,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,500	360	87,000	720,000	10,000,000,000	22,000,000 (C)	12 (M)	580,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
2-Hexanone	20,000	ID	990,000	1,100,000	2,700,000,000	32,000,000 (C)	NCL	600,000	<540	<680	<650	<740	<430	<680	<590	<650	<640
Isopropylbenzene	91,000	3,200	400,000 (C)	1,700,000	5,800,000,000	25,000,000 (C)	NCL	5,800,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
Methyl acetate	NCL	NCL	NCL	NCL	NCL	NCL	NCL	230,000,000	24 [J]	56 [J]	<65	53 [J]	<43	36 [J]	<59	37 [J]	<64
Methyl tertiary butyl ether (MTBE)	800	140,000	9,900,000 (C)	25,000,000	200,000,000,000	1,500,000	74 (M)	4,700,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
4-Methyl-2-pentanone	36,000	ID	37,000,000 (C)	45,000,000	140,000,000,000	56,000,000 (C)	NCL	99,000,000	<540	<680	<650	<740	<430	<680	<590	<650	<640
Methylcyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<270	<340	<330	<370	<220	<340	<290	<320	<320
Methylene chloride	100	30,000	45,000	210,000	6,600,000,000	1,300,000	130	1,000,000	<54	42 [J]	<65	32 [J]	<43	29 [J]	28 [J]	38 [J]	38 [J]
Styrene	2,700	2,100	250,000	970,000	5,500,000,000	400,000	NCL	18,000,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
1,1,2,2-Tetrachloroethane	170	1,600	4,300	10,000	54,000,000	53,000	NCL	60,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
Tetrachloroethene	100	1,200	11,000	170,000	2,700,000,000	200,000 (C)	6.2 (M)	240,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
Toluene	16,000	5,400	330,000 (C)	2,800,000	27,000,000,000	50,000,000 (C)	3,700	15,000,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
1,1,2-Trichloro-1,2,2-Trifluoroethane	9,000,000 (C)	1,700	5,100,000 (C)	180,000,000	5,100,000,000,000	1,000,000,000 (C,D)	NCL	20,000,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
1,2,4-Trichlorobenzene	4,200	5,900	9,600,000 (C)	28,000,000	25,000,000,000	990,000 (DD)	53 (M)	170,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
1,1,1-Trichloroethane	4,000	1,800	250,000	3,800,000	67,000,000,000	500,000,000 (C)	450	24,000,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
1,1,2-Trichloroethane	100	6,600	4,600	17,000	190,000,000	180,000	NCL	4,500	<54	<68	<65	<74	<43	<68	<59	<65	<64
Trichloroethene	100	4,000	1,000	11,000	130,000,000	110,000 (DD)	0.33 (M)	12,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
Trichlorofluoromethane	52,000	NA	2,800,000 (C)	92,000,000	3,800,000,000,000	79,000,000 (C)	NCL	70,000,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
Vinyl chloride	40	260	270	4,200	350,000,000	3,800	0.082 (M)	5,900	<54	<68	<65	<74	<43	<68	<59	<65	<64
m+p - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<54	<68	<65	<74	<43	<68	<59	<65	<64
o - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,900,000	<54	<68	<65	<74	<43	<68	<59	<65	<64
Xylenes (total)	5,600	980	6,300,000 (C)	46,000,000	290,000,000,000	410,000,000 (C)	280	1,700,000	<110	<140	<130	<150	<86	<140	<120	<130	<130
Trihalomethanes (Calculation: Bromodichloromentane + Bromoform + Chloroform + Dibromochloromethane)	1,600 (W)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1A
SUMMARY OF SOIL SAMPLE ANALYSIS - VOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4906	HS-SB-4906	HS-SB-4907	HS-SB-4907	HS-SB-4908	HS-SB-4908	HS-SB-4909	HS-SB-4909	HS-SB-4909
Sample Name									HS-SB-4906 (0-2)	HS-SB-4906 (16-18)	HS-SB-4907 (0-2)	HS-SB-4907 (12-14)	HS-SB-4908 (0-2)	HS-SB-4908 (7-9)	HS-SB-4909 (0-2)	HS-SB-4909 (0-2) DUP	HS-SB-4909 (11-13)
Depth Interval (Feet below ground surface)									0 - 2	16 - 18	0 - 2	12 - 14	0 - 2	7 - 9	0 - 2	0 - 2	11 - 13
Boring Location									Off-Site	Off-Site	House St Site	House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)									UH23030-007	UH23030-008	UH17001-015	UH17001-016	UH17001-024	UH17001-025	UH23030-009	UH23030-010	UH23030-011
Sample Date									8/20/2019	8/20/2019	8/15/2019	8/15/2019	8/16/2019	8/16/2019	8/21/2019	8/21/2019	8/21/2019
Parameter (µg/kg)																	
Acetone	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000	23,000,000	260,000	180,000,000	<600	<500	<810	<720	<620	<570	<690	<700	<580
Benzene	100	4,000	1,600	13,000	380,000,000	180,000	1.7 (M)	120,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
Bromodichloromethane	1,600 (W)	ID	1,200	9,100	84,000,000	110,000	NCL	29,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
Bromoform	1,600 (W)	ID	150,000	900,000	2,800,000,000	820,000	NCL	1,900,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
2-Butanone (MEK)	260,000	44,000	54,000,000 (C)	29,000,000	67,000,000,000	120,000,000 (C,DD)	NCL	81,000,000	<600	<500	<810	<720	<620	<570	<690	<700	<580
Bromomethane (Methyl bromide)	200	100	860	11,000	330,000,000	320,000	NCL	21,000	<120	<99	<160	<140	<120	<110	<140	<140	<120
Carbon disulfide	16,000	ID	76,000	1,300,000	47,000,000,000	7,200,000 (C,DD)	NCL	2,300,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
Carbon tetrachloride	100	760	190	3,500	130,000,000	96,000	NCL	65,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
Chlorobenzene	2,000	500	120,000	770,000	4,700,000,000	4,300,000 (C)	82	830,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
Chloroethane	8,600	22,000	2,900,000 (C)	30,000,000	670,000,000,000	2,600,000 (C)	330	41,000,000	<120	<99	<160	<140	<120	<110	<140	<140	<120
Chloroform	1,600 (W)	7,000	7,200	45,000	1,300,000,000	1,200,000	0.26 (M)	32,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
Chloromethane (Methyl chloride)	5,200	ID	2,300	40,000	4,900,000,000	1,600,000 (C)	6.9 (M)	330,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
Cyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	20,000,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
1,2-Dibromo-3-chloropropane (DBCP)	10 (M)	ID	220	260	560,000	4,400 (C)	NCL	530	<60	<50	<81	<72	<62	<57	<69	<70	<58
Dibromochloromethane	1,600 (W)	ID	3,900	24,000	130,000,000	110,000	NCL	830,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
1,2-Dibromoethane (EDB)	20 (M)	110	670	1,700	14,000,000	92	NCL	3,600	<60	<50	<81	<72	<62	<57	<69	<70	<58
1,2-Dichlorobenzene	14,000	280	11,000,000 (C)	39,000,000	100,000,000,000	19,000,000 (C)	NCL	5,400,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
1,3-Dichlorobenzene	170	680	26,000	79,000	200,000,000	200,000 (C)	10 (M)	NCL	<60	<50	<81	<72	<62	<57	<69	<70	<58
1,4-Dichlorobenzene	1,700	360	19,000	77,000	450,000,000	400,000	23 (M)	260,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
Dichlorodifluoromethane	95,000	ID	900,000	53,000,000	3,300,000,000,000	52,000,000 (C)	NCL	260,000	<120	<99	<160	<140	<120	<110	<140	<140	<120
1,1-Dichloroethane	18,000	15,000	230,000	2,100,000	33,000,000,000	27,000,000 (C)	2.6 (M)	360,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
1,2-Dichloroethane	100	7,200	2,100	6,200	120,000,000	91,000	NCL	46,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
1,1-Dichloroethene	140	2,600	62	1,100	62,000,000	200,000	12 (M)	680,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
cis-1,2-Dichloroethene	1,400	12,000	22,000	180,000	2,300,000,000	2,500,000 (C)	2.1 (M)	470,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
trans-1,2-Dichloroethene	2,000	30,000	23,000	280,000	4,700,000,000	3,800,000 (C)	39 (M)	4,700,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
1,2-Dichloropropane	100	4,600	4,000	25,000	270,000,000	140,000	NCL	47,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
cis-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<60	<50	<81	<72	<62	<57	<69	<70	<58
trans-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<60	<50	<81	<72	<62	<57	<69	<70	<58
1,3-Dichloropropene (Calculated: cis + trans)	170	180	1,000	18,000	780,000,000	10,000	NCL	180,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,500	360	87,000	720,000	10,000,000,000	22,000,000 (C)	12 (M)	580,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
2-Hexanone	20,000	ID	990,000	1,100,000	2,700,000,000	32,000,000 (C)	NCL	600,000	<600	<500	<810	<720	<620	<570	<690	<700	<580
Isopropylbenzene	91,000	3,200	400,000 (C)	1,700,000	5,800,000,000	25,000,000 (C)	NCL	5,800,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
Methyl acetate	NCL	NCL	NCL	NCL	NCL	NCL	NCL	230,000,000	57 [J]	<50	97	45 [J]	31 [J]	<57	85	67 [J]	<58
Methyl tertiary butyl ether (MTBE)	800	140,000	9,900,000 (C)	25,000,000	200,000,000,000	1,500,000	74 (M)	4,700,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
4-Methyl-2-pentanone	36,000	ID	37,000,000 (C)	45,000,000	140,000,000,000	56,000,000 (C)	NCL	99,000,000	<600	<500	<810	<720	<620	<570	<690	<700	<580
Methylcyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<300	<250	<410	<360	<310	<280	<340	<350	<290
Methylene chloride	100	30,000	45,000	210,000	6,600,000,000	1,300,000	130	1,000,000	39 [J]	33 [BJ]	<81	<72	<62	26 [J]	<69	41 [BJ]	<58
Styrene	2,700	2,100	250,000	970,000	5,500,000,000	400,000	NCL	18,000,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
1,1,2,2-Tetrachloroethane	170	1,600	4,300	10,000	54,000,000	53,000	NCL	60,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
Tetrachloroethene	100	1,200	11,000	170,000	2,700,000,000	200,000 (C)	6.2 (M)	240,000	<60	<50	<81	***46 [J]***	<62	<57	<69	<70	<58
Toluene	16,000	5,400	330,000 (C)	2,800,000	27,000,000,000	50,000,000 (C)	3,700	15,000,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
1,1,2-Trichloro-1,2,2-Trifluoroethane	9,000,000 (C)	1,700	5,100,000 (C)	180,000,000	5,100,000,000,000	1,000,000,000 (C,D)	NCL	20,000,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
1,2,4-Trichlorobenzene	4,200	5,900	9,600,000 (C)	28,000,000	25,000,000,000	990,000 (DD)	53 (M)	170,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
1,1,1-Trichloroethane	4,000	1,800	250,000	3,800,000	67,000,000,000	500,000,000 (C)	450	24,000,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
1,1,2-Trichloroethane	100	6,600	4,600	17,000	190,000,000	180,000	NCL	4,500	<60	<50	<81	<72	<62	<57	<69	<70	<58
Trichloroethene	100	4,000	1,000	11,000	130,000,000	110,000 (DD)	0.33 (M)	12,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
Trichlorofluoromethane	52,000	NA	2,800,000 (C)	92,000,000	3,800,000,000,000	79,000,000 (C)	NCL	70,000,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
Vinyl chloride	40	260	270	4,200	350,000,000	3,800	0.082 (M)	5,900	<60	<50	<81	<72	<62	<57	<69	<70	<58
m+p - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<60	<50	<81	<72	<62	<57	<69	<70	<58
o - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,900,000	<60	<50	<81	<72	<62	<57	<69	<70	<58
Xylenes (total)	5,600	980	6,300,000 (C)	46,000,000	290,000,000,000	410,000,000 (C)	280	1,700,000	<120	<99	<160	<140	<120	<110	<140	<140	<120
Trihalomethanes (Calculation: Bromodichloromentane + Bromoform + Chloroform + Dibromochloromethane)	1,600 (W)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1A
SUMMARY OF SOIL SAMPLE ANALYSIS - VOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4910	HS-SB-4910	HS-SB-4910	HS-SB-4911	HS-SB-4911	HS-SB-4912	HS-SB-4912	HS-SB-4912	HS-SB-4913
Sample Name									HS-SB-4910 (0-2)	HS-SB-4910 (0-2) DUP	HS-SB-4910 (10-12)	HS-SB-4911 (0-2)	HS-SB-4911 (11-13)	HS-SB-4912 (0-2)	HS-SB-4912 (0-2) DUP	HS-SB-4912 (5-7)	HS-SB-4913 (0-2)
Depth Interval (Feet below ground surface)									0 - 2	0 - 2	10 - 12	0 - 2	11 - 13	0 - 2	0 - 2	5 - 7	0 - 2
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UH17001-010	UH17001-011	UH17001-014	UH17001-008	UH17001-009	UH17001-005	UH17001-006	UH17001-007	UH23030-016
Sample Date									8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/22/2019
Parameter (µg/kg)																	
Acetone	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000	23,000,000	260,000	180,000,000	<680	<650	<380	<710	<510	<750	<670	<620	<810
Benzene	100	4,000	1,600	13,000	380,000,000	180,000	1.7 (M)	120,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
Bromodichloromethane	1,600 (W)	ID	1,200	9,100	84,000,000	110,000	NCL	29,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
Bromoform	1,600 (W)	ID	150,000	900,000	2,800,000,000	820,000	NCL	1,900,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
2-Butanone (MEK)	260,000	44,000	54,000,000 (C)	29,000,000	67,000,000,000	120,000,000 (C,DD)	NCL	81,000,000	<680	<650	<380	<710	<510	<750	<670	<620	<810
Bromomethane (Methyl bromide)	200	100	860	11,000	330,000,000	320,000	NCL	21,000	<140	<130	<75	<140	<100	<150	<130	<120	<160
Carbon disulfide	16,000	ID	76,000	1,300,000	47,000,000,000	7,200,000 (C,DD)	NCL	2,300,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
Carbon tetrachloride	100	760	190	3,500	130,000,000	96,000	NCL	65,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
Chlorobenzene	2,000	500	120,000	770,000	4,700,000,000	4,300,000 (C)	82	830,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
Chloroethane	8,600	22,000	2,900,000 (C)	30,000,000	670,000,000,000	2,600,000 (C)	330	41,000,000	<140	<130	<75	<140	<100	<150	<130	<120	<160
Chloroform	1,600 (W)	7,000	7,200	45,000	1,300,000,000	1,200,000	0.26 (M)	32,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
Chloromethane (Methyl chloride)	5,200	ID	2,300	40,000	4,900,000,000	1,600,000 (C)	6.9 (M)	330,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
Cyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	20,000,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
1,2-Dibromo-3-chloropropane (DBCP)	10 (M)	ID	220	260	560,000	4,400 (C)	NCL	530	<68	<65	<38	<71	<51	<75	<67	<62	<81
Dibromochloromethane	1,600 (W)	ID	3,900	24,000	130,000,000	110,000	NCL	830,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
1,2-Dibromoethane (EDB)	20 (M)	110	670	1,700	14,000,000	92	NCL	3,600	<68	<65	<38	<71	<51	<75	<67	<62	<81
1,2-Dichlorobenzene	14,000	280	11,000,000 (C)	39,000,000	100,000,000,000	19,000,000 (C)	NCL	5,400,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
1,3-Dichlorobenzene	170	680	26,000	79,000	200,000,000	200,000 (C)	10 (M)	NCL	<68	<65	<38	<71	<51	<75	<67	<62	<81
1,4-Dichlorobenzene	1,700	360	19,000	77,000	450,000,000	400,000	23 (M)	260,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
Dichlorodifluoromethane	95,000	ID	900,000	53,000,000	3,300,000,000,000	52,000,000 (C)	NCL	260,000	<140	<130	<75	<140	<100	<150	<130	<120	<160
1,1-Dichloroethane	18,000	15,000	230,000	2,100,000	33,000,000,000	27,000,000 (C)	2.6 (M)	360,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
1,2-Dichloroethane	100	7,200	2,100	6,200	120,000,000	91,000	NCL	46,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
1,1-Dichloroethene	140	2,600	62	1,100	62,000,000	200,000	12 (M)	680,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
cis-1,2-Dichloroethene	1,400	12,000	22,000	180,000	2,300,000,000	2,500,000 (C)	2.1 (M)	470,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
trans-1,2-Dichloroethene	2,000	30,000	23,000	280,000	4,700,000,000	3,800,000 (C)	39 (M)	4,700,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
1,2-Dichloropropane	100	4,600	4,000	25,000	270,000,000	140,000	NCL	47,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
cis-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<68	<65	<38	<71	<51	<75	<67	<62	<81
trans-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<68	<65	<38	<71	<51	<75	<67	<62	<81
1,3-Dichloropropene (Calculated: cis + trans)	170	180	1,000	18,000	780,000,000	10,000	NCL	180,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,500	360	87,000	720,000	10,000,000,000	22,000,000 (C)	12 (M)	580,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
2-Hexanone	20,000	ID	990,000	1,100,000	2,700,000,000	32,000,000 (C)	NCL	600,000	<680	<650	<380	<710	<510	<750	<670	<620	<810
Isopropylbenzene	91,000	3,200	400,000 (C)	1,700,000	5,800,000,000	25,000,000 (C)	NCL	5,800,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
Methyl acetate	NCL	NCL	NCL	NCL	NCL	NCL	NCL	230,000,000	44 [J]	64 [J]	18 [J]	39 [J]	<51	80	64 [J]	30 [J]	65 [J]
Methyl tertiary butyl ether (MTBE)	800	140,000	9,900,000 (C)	25,000,000	200,000,000,000	1,500,000	74 (M)	4,700,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
4-Methyl-2-pentanone	36,000	ID	37,000,000 (C)	45,000,000	140,000,000,000	56,000,000 (C)	NCL	99,000,000	<680	<650	<380	<710	<510	<750	<670	<620	<810
Methylcyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<340	<320	<190	<360	<250	<370	<340	<310	<410
Methylene chloride	100	30,000	45,000	210,000	6,600,000,000	1,300,000	130	1,000,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
Styrene	2,700	2,100	250,000	970,000	5,500,000,000	400,000	NCL	18,000,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
1,1,2,2-Tetrachloroethane	170	1,600	4,300	10,000	54,000,000	53,000	NCL	60,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
Tetrachloroethene	100	1,200	11,000	170,000	2,700,000,000	200,000 (C)	6.2 (M)	240,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
Toluene	16,000	5,400	330,000 (C)	2,800,000	27,000,000,000	50,000,000 (C)	3,700	15,000,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
1,1,2-Trichloro-1,2,2-Trifluoroethane	9,000,000 (C)	1,700	5,100,000 (C)	180,000,000	5,100,000,000,000	1,000,000,000 (C,D)	NCL	20,000,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
1,2,4-Trichlorobenzene	4,200	5,900	9,600,000 (C)	28,000,000	25,000,000,000	990,000 (DD)	53 (M)	170,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
1,1,1-Trichloroethane	4,000	1,800	250,000	3,800,000	67,000,000,000	500,000,000 (C)	450	24,000,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
1,1,2-Trichloroethane	100	6,600	4,600	17,000	190,000,000	180,000	NCL	4,500	<68	<65	<38	<71	<51	<75	<67	<62	<81
Trichloroethene	100	4,000	1,000	11,000	130,000,000	110,000 (DD)	0.33 (M)	12,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
Trichlorofluoromethane	52,000	NA	2,800,000 (C)	92,000,000	3,800,000,000,000	79,000,000 (C)	NCL	70,000,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
Vinyl chloride	40	260	270	4,200	350,000,000	3,800	0.082 (M)	5,900	<68	<65	<38	<71	<51	<75	<67	<62	<81
m+p - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<68	<65	<38	<71	<51	<75	<67	<62	<81
o - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,900,000	<68	<65	<38	<71	<51	<75	<67	<62	<81
Xylenes (total)	5,600	980	6,300,000 (C)	46,000,000	290,000,000,000	410,000,000 (C)	280	1,700,000	<140	<130	<75	<140	<100	<150	<130	<120	<160
Trihalomethanes (Calculation: Bromodichloromentane + Bromoform + Chloroform + Dibromochloromethane)	1,600 (W)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1A
SUMMARY OF SOIL SAMPLE ANALYSIS - VOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4913	HS-SB-4914	HS-SB-4914	HS-SB-4914	HS-SB-4915	HS-SB-4915
Sample Name									HS-SB-4913 (6-8)	HS-SB-4914 (0-2)	HS-SB-4914 (0-2) DUP	HS-SB-4914 (8-10)	HS-SB-4915 (0-2)	HS-SB-4915 (2-4)
Depth Interval (Feet below ground surface)									6 - 8	0 - 2	0 - 2	8 - 10	0 - 2	2 - 4
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UH23030-017	UH17001-017	UH17001-018	UH17001-019	UH23030-014	UH23030-015
Sample Date									8/22/2019	8/16/2019	8/16/2019	8/16/2019	8/21/2019	8/21/2019
Parameter (µg/kg)														
Acetone	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000	23,000,000	260,000	180,000,000	<670	<1,100	<600	<570	<750	<660
Benzene	100	4,000	1,600	13,000	380,000,000	180,000	1.7 (M)	120,000	<67	<110	<60	<57	<75	<66
Bromodichloromethane	1,600 (W)	ID	1,200	9,100	84,000,000	110,000	NCL	29,000	<67	<110	<60	<57	<75	<66
Bromoform	1,600 (W)	ID	150,000	900,000	2,800,000,000	820,000	NCL	1,900,000	<67	<110	<60	<57	<75	<66
2-Butanone (MEK)	260,000	44,000	54,000,000 (C)	29,000,000	67,000,000,000	120,000,000 (C,DD)	NCL	81,000,000	<670	<1,100	<600	<570	<750	<660
Bromomethane (Methyl bromide)	200	100	860	11,000	330,000,000	320,000	NCL	21,000	<130	<230	<120	<110	<150	<130
Carbon disulfide	16,000	ID	76,000	1,300,000	47,000,000,000	7,200,000 (C,DD)	NCL	2,300,000	<67	<110	<60	<57	<75	<66
Carbon tetrachloride	100	760	190	3,500	130,000,000	96,000	NCL	65,000	<67	<110	<60	<57	<75	<66
Chlorobenzene	2,000	500	120,000	770,000	4,700,000,000	4,300,000 (C)	82	830,000	<67	<110	<60	<57	<75	<66
Chloroethane	8,600	22,000	2,900,000 (C)	30,000,000	670,000,000,000	2,600,000 (C)	330	41,000,000	<130	<230	<120	<110	<150	<130
Chloroform	1,600 (W)	7,000	7,200	45,000	1,300,000,000	1,200,000	0.26 (M)	32,000	<67	<110	<60	<57	<75	<66
Chloromethane (Methyl chloride)	5,200	ID	2,300	40,000	4,900,000,000	1,600,000 (C)	6.9 (M)	330,000	<67	<110	<60	<57	<75	<66
Cyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	20,000,000	<67	<110	<60	<57	<75	<66
1,2-Dibromo-3-chloropropane (DBCP)	10 (M)	ID	220	260	560,000	4,400 (C)	NCL	530	<67	<110	<60	<57	<75	<66
Dibromochloromethane	1,600 (W)	ID	3,900	24,000	130,000,000	110,000	NCL	830,000	<67	<110	<60	<57	<75	<66
1,2-Dibromoethane (EDB)	20 (M)	110	670	1,700	14,000,000	92	NCL	3,600	<67	<110	<60	<57	<75	<66
1,2-Dichlorobenzene	14,000	280	11,000,000 (C)	39,000,000	100,000,000,000	19,000,000 (C)	NCL	5,400,000	<67	<110	<60	<57	<75	<66
1,3-Dichlorobenzene	170	680	26,000	79,000	200,000,000	200,000 (C)	10 (M)	NCL	<67	<110	<60	<57	<75	<66
1,4-Dichlorobenzene	1,700	360	19,000	77,000	450,000,000	400,000	23 (M)	260,000	<67	<110	<60	<57	<75	<66
Dichlorodifluoromethane	95,000	ID	900,000	53,000,000	3,300,000,000,000	52,000,000 (C)	NCL	260,000	<130	<230	<120	<110	<150	<130
1,1-Dichloroethane	18,000	15,000	230,000	2,100,000	33,000,000,000	27,000,000 (C)	2.6 (M)	360,000	<67	<110	<60	<57	<75	<66
1,2-Dichloroethane	100	7,200	2,100	6,200	120,000,000	91,000	NCL	46,000	<67	<110	<60	<57	<75	<66
1,1-Dichloroethene	140	2,600	62	1,100	62,000,000	200,000	12 (M)	680,000	<67	<110	<60	<57	<75	<66
cis-1,2-Dichloroethene	1,400	12,000	22,000	180,000	2,300,000,000	2,500,000 (C)	2.1 (M)	470,000	<67	<110	<60	<57	<75	<66
trans-1,2-Dichloroethene	2,000	30,000	23,000	280,000	4,700,000,000	3,800,000 (C)	39 (M)	4,700,000	<67	<110	<60	<57	<75	<66
1,2-Dichloropropane	100	4,600	4,000	25,000	270,000,000	140,000	NCL	47,000	<67	<110	<60	<57	<75	<66
cis-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<67	<110	<60	<57	<75	<66
trans-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<67	<110	<60	<57	<75	<66
1,3-Dichloropropene (Calculated: cis + trans)	170	180	1,000	18,000	780,000,000	10,000	NCL	180,000	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,500	360	87,000	720,000	10,000,000,000	22,000,000 (C)	12 (M)	580,000	<67	<110	<60	<57	<75	<66
2-Hexanone	20,000	ID	990,000	1,100,000	2,700,000,000	32,000,000 (C)	NCL	600,000	<670	<1,100	<600	<570	<750	<660
Isopropylbenzene	91,000	3,200	400,000 (C)	1,700,000	5,800,000,000	25,000,000 (C)	NCL	5,800,000	<67	<110	<60	<57	<75	<66
Methyl acetate	NCL	NCL	NCL	NCL	NCL	NCL	NCL	230,000,000	29 [J]	85 [J]	220	<57	130	85
Methyl tertiary butyl ether (MTBE)	800	140,000	9,900,000 (C)	25,000,000	200,000,000,000	1,500,000	74 (M)	4,700,000	<67	<110	<60	<57	<75	<66
4-Methyl-2-pentanone	36,000	ID	37,000,000 (C)	45,000,000	140,000,000,000	56,000,000 (C)	NCL	99,000,000	<670	<1,100	<600	<570	<750	<660
Methylcyclohexane	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<330	<570	<300	<290	<370	<330
Methylene chloride	100	30,000	45,000	210,000	6,600,000,000	1,300,000	130	1,000,000	<67	<110	<60	<57	<75	<66
Styrene	2,700	2,100	250,000	970,000	5,500,000,000	400,000	NCL	18,000,000	<67	<110	<60	<57	<75	<66
1,1,2,2-Tetrachloroethane	170	1,600	4,300	10,000	54,000,000	53,000	NCL	60,000	<67	<110	<60	<57	<75	<66
Tetrachloroethene	100	1,200	11,000	170,000	2,700,000,000	200,000 (C)	6.2 (M)	240,000	<67	<110	<60	<57	<75	<66
Toluene	16,000	5,400	330,000 (C)	2,800,000	27,000,000,000	50,000,000 (C)	3,700	15,000,000	<67	<110	<60	<57	<75	<66
1,1,2-Trichloro-1,2,2-Trifluoroethane	9,000,000 (C)	1,700	5,100,000 (C)	180,000,000	5,100,000,000,000	1,000,000,000 (C,D)	NCL	20,000,000	<67	<110	<60	<57	<75	<66
1,2,4-Trichlorobenzene	4,200	5,900	9,600,000 (C)	28,000,000	25,000,000,000	990,000 (DD)	53 (M)	170,000	<67	<110	<60	<57	<75	<66
1,1,1-Trichloroethane	4,000	1,800	250,000	3,800,000	67,000,000,000	500,000,000 (C)	450	24,000,000	<67	<110	<60	<57	<75	<66
1,1,2-Trichloroethane	100	6,600	4,600	17,000	190,000,000	180,000	NCL	4,500	<67	<110	<60	<57	<75	<66
Trichloroethene	100	4,000	1,000	11,000	130,000,000	110,000 (DD)	0.33 (M)	12,000	<67	<110	<60	<57	<75	<66
Trichlorofluoromethane	52,000	NA	2,800,000 (C)	92,000,000	3,800,000,000,000	79,000,000 (C)	NCL	70,000,000	<67	<110	<60	<57	<75	<66
Vinyl chloride	40	260	270	4,200	350,000,000	3,800	0.082 (M)	5,900	<67	<110	<60	<57	<75	<66
m+p - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<67	<110	<60	<57	<75	<66
o - Xylenes	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,900,000	<67	<110	<60	<57	<75	<66
Xylenes (total)	5,600	980	6,300,000 (C)	46,000,000	290,000,000,000	410,000,000 (C)	280	1,700,000	<130	<230	<120	<110	<150	<130
Trihalomethanes (Calculation: Bromodichloromentane + Bromoform + Chloroform + Dibromochloromethane)	1,600 (W)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND

TABLE 1B
SUMMARY OF SOIL SAMPLE ANALYSIS - SVOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2104	HS-SB-2104	HS-SB-2105	HS-SB-2105	HS-SB-2106	HS-SB-2106	HS-SB-2106	HS-SB-2107	HS-SB-2107
Sample Name									HS-SB-2104 (1-2)	HS-SB-2104 (3-4)	HS-SB-2105 (2-3)	HS-SB-2105 (3-4)	HS-SB-2106 (2-3)	HS-SB-2106 (2-3) DUP	HS-SB-2106 (5-6)	HS-SB-2107 (2-3)	HS-SB-2107 (6-7)
Depth Interval (Feet below ground surface)									1 - 2	3 - 4	2 - 3	3 - 4	2 - 3	2 - 3	5 - 6	2 - 3	6 - 7
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UG02019-019	UG02019-020	UG02019-022	UG02019-023	UG09018-001	UG09018-003	UG09018-002	UG09018-004	UG09018-005
Sample Date									6/28/2019	6/28/2019	6/28/2019	6/28/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019
Parameter (µg/kg)																	
Acenaphthene	300,000	8,700	190,000,000	81,000,000	14,000,000,000	41,000,000	NCL	11,000,000	<14	<15	<15	<15	<13	<14	<13	<15	<14
Acenaphthylene	5,900	ID	1,600,000	2,200,000	2,300,000,000	1,600,000	NCL	NCL	<14	<15	<15	<15	<13	<14	<13	<15	<14
Acetophenone	30,000	ID	120,000,000 (C)	44,000,000	33,000,000,000	47,000,000 (C)	NCL	23,000,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
Anthracene	41,000	ID	1,000,000,000 (D)	1,400,000,000	67,000,000,000	230,000,000	NCL	54,000,000	<14	<15	<15	<15	<13	<14	<13	<15	<14
Atrazine	60	150	NLV	NLV	ID	71,000 (DD)	NCL	240,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
Benzidine	1,000 (M)	1,000 (M)	NLV	NLV	46,000	1,000 (M)	NCL	53	<340	<380	<360	<360	<330	<340	<330	<370	<340
Benzo(a)anthracene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<14	<15	<15	<15	<13	<14	<13	<15	<14
Benzo(a)pyrene	NLL	NLL	NLV	NLV	1,500,000	2,000	NCL	11,000	<14	<15	<15	<15	<13	<14	<13	<15	<14
Benzo(b)fluoranthene	NLL	NLL	ID	ID	ID	20,000	NCL	110,000	<14	<15	<15	<15	<13	<14	<13	<15	<14
Benzo(g,h,i)perylene	NLL	NLL	NLV	NLV	800,000,000	2,500,000	NCL	NCL	<14	<15	<15	<15	<13	<14	<13	<15	<14
Benzo(k)fluoranthene	NLL	NLL	NLV	NLV	ID	200,000	NCL	1,100,000	<14	<15	<15	<15	<13	<14	<13	<15	<14
Butyl benzyl phthalate	2,200,000 (C)	120,000	NLV	NLV	47,000,000,000	36,000,000 (C)	NCL	29,000,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
Caprolactam	120,000	NA	NLV	NLV	670,000,000	53,000,000 (DD)	NCL	94,000,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
Carbazole	9,400	1,100	NLV	NLV	62,000,000	530,000	NCL	NCL	<69	<78	<74	<74	<67	<70	<67	<75	<68
4-Chloro-3-methyl phenol	5,800	280	NLV	NLV	ID	4,500,000	NCL	19,000,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
bis(2-Chloroethyl)ether	100	100 (M)	8,300	3,800	9,400,000	13,000	NCL	23,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
2-Chloronaphthalene	620,000	NA	ID	ID	ID	56,000,000	NCL	14,000,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
2-Chlorophenol	900	360	430,000	960,000	1,200,000,000	1,400,000	NCL	1,200,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
Chrysene	NLL	NLL	ID	ID	ID	2,000,000	NCL	11,000,000	<14	<15	<15	<15	<13	<14	<13	<15	<14
Dibenzo(a,h)anthracene	NLL	NLL	NLV	NLV	ID	2,000	NCL	11,000	<14	<15	<15	<15	<13	<14	<13	<15	<14
Dibenzofuran	ID	1,700	2,000,000	130,000	6,700,000	ID	NCL	220,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
3,3'-Dichlorobenzidine	2,000 (M)	2,000 (M)	NLV	NLV	6,500,000	6,600	NCL	120,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
2,4-Dichlorophenol	1,500	330 (M)	NLV	NLV	5,100,000,000	660,000 (DD)	NCL	570,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
Diethylphthalate	110,000	2,200	NLV	NLV	3,300,000,000	170,000,000 (C)	NCL	150,000,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
Dimethyl phthalate	1,500,000 (C)	NA	NLV	NLV	3,300,000,000	1,000,000,000 (C,D)	NCL	NCL	<69	<78	<74	<74	<67	<70	<67	<75	<68
2,4-Dimethylphenol	7,400	7,600	NLV	NLV	4,700,000,000	11,000,000	NCL	3,800,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
Di-n-butyl phthalate	960,000 (C)	11,000	NLV	NLV	3,300,000,000	27,000,000 (C)	NCL	19,000,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
4,6-Dinitro-2-methylphenol	830 (M)	NA	NLV	NLV	130,000,000	79,000	NCL	15,000	<340	<380	<360	<360	<330	<340	<330	<370	<340
2,4-Dinitrotoluene	430	NA	NLV	NLV	16,000,000	48,000	NCL	170,000	<130	<150	<140	<140	<130	<140	<130	<150	<130
Di-n-octylphthalate	100,000,000	ID	NLV	NLV	31,000,000,000	6,900,000	NCL	1,900,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
1,2-Diphenylhydrazine(as azobenzene)	4,200	ID	6,100,000	630,000	100,000,000	140,000	NCL	560,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
bis(2-Ethylhexyl)phthalate	NLL	NLL	NLV	NLV	700,000,000	2,800,000	NCL	3,800,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
Fluoranthene	730,000	5,500	1,000,000,000 (D)	740,000,000	9,300,000,000	46,000,000	NCL	7,200,000	<14	<15	<15	<15	<13	<14	<13	<15	<14
Fluorene	390,000	5,300	580,000,000	130,000,000	9,300,000,000	27,000,000	NCL	7,200,000	<14	<15	<15	<15	<13	<14	<13	<15	<14
Hexachlorobenzene	1,800	350	41,000	17,000	6,800,000	8,900	NCL	21,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
Hexachlorobutadiene	26,000	91	130,000	130,000	140,000,000	100,000	NCL	120,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
Hexachlorocyclopentadiene	320,000	ID	30,000	50,000	13,000,000	2,300,000 (C)	NCL	5,300	<340	<380	<360	<360	<330	<340	<330	<370	<340
Hexachloroethane	430	1,800	40,000	550,000	230,000,000	230,000	NCL	130,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
Indeno(1,2,3-c,d)pyrene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<14	<15	<15	<15	<13	<14	<13	<15	<14
Isophorone	15,000	26,000	NLV	NLV	12,000,000,000	4,800,000 (C)	NCL	38,000,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
2-Methylnaphthalene	57,000	4,200	2,700,000	1,500,000	670,000,000	8,100,000	NCL	720,000	<14	<15	<15	<15	<13	<14	<13	<15	<14
2-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	9,500,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
3+4-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	19,000,000	<130	<150	<140	<140	<130	<140	<130	<150	<130
Naphthalene	35,000	730	250,000	300,000	200,000,000	16,000,000	NCL	380,000	<14	<15	<15	<15	<13	<14	<13	<15	<14
Nitrobenzene	330 (M)	3,600	91,000	54,000	47,000,000	100,000	NCL	380,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
2-Nitrophenol	400	ID	NLV	NLV	ID	630,000	NCL	NCL	<130	<150	<140	<140	<130	<140	<130	<150	<130
N-Nitrosodi-n-propylamine	330 (M)	NA	NLV	NLV	1,600,000	1,200	NCL	7,800	<69	<78	<74	<74	<67	<70	<67	<75	<68
N-Nitrosodiphenylamine (Diphenylamine)	5,400	NA	NLV	NLV	2,200,000,000	1,700,000	NCL	11,000,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
Pentachlorophenol	22	17,000 (G)	NLV	NLV	100,000,000	90,000	NCL	100,000	<340	<380	<360	<360	<330	<340	<330	<370	<340
Phenanthrene	56,000	2,100	2,800,000	160,000	6,700,000	1,600,000	NCL	NCL	<14	<15	<15	<15	<13	<14	<13	<15	<14
Phenol	88,000	9,000	NLV	NLV	40,000,000,000	40,000,000 (C,DD)	NCL	57,000,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
Pyrene	480,000	ID	1,000,000,000 (D)	650,000,000	6,700,000,000	29,000,000	NCL	5,400,000	<14	<15	<15	<15	<13	<14	<13	<15	<14
2,4,5-Trichlorophenol	39,000	NA	NLV	NLV	23,000,000,000	23,000,000	NCL	19,000,000	<69	<78	<74	<74	<67	<70	<67	<75	<68
2,4,6-Trichlorophenol	2,400	330 (M)	NLV	NLV	1,000,000,000	710,000	NCL	190,000	<69	<78	<74	<74	<67	<70	<67	<75	<68

TABLE 1B
SUMMARY OF SOIL SAMPLE ANALYSIS - SVOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2108	HS-SB-2108	HS-SB-2109	HS-SB-2109	HS-SB-2110	HS-SB-2110	HS-SB-2111	HS-SB-2111	HS-SB-2112
Sample Name									HS-SB-2108 (1-2)	HS-SB-2108 (3-4)	HS-SB-2109 (0-1)	HS-SB-2109 (2-3)	HS-SB-2110 (1-2)	HS-SB-2110 (3-4)	HS-SB-2111 (0-1)	HS-SB-2111 (2-3)	HS-SB-2112 (2-3)
Depth Interval (Feet below ground surface)									1 - 2	3 - 4	0 - 1	2 - 3	1 - 2	3 - 4	0 - 1	2 - 3	2 - 3
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UG09018-006	UG09018-007	UG09018-008	UG09018-009	UG09018-010	UG09018-011	UG09018-012	UG09018-013	UG09018-014
Sample Date									7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/2/2019
Parameter (µg/kg)																	
Acenaphthene	300,000	8,700	190,000,000	81,000,000	14,000,000,000	41,000,000	NCL	11,000,000	<14	<14	<15	<14	<14	<15	<13	<14	<14
Acenaphthylene	5,900	ID	1,600,000	2,200,000	2,300,000,000	1,600,000	NCL	NCL	<14	<14	<15	<14	<14	<15	<13	<14	<14
Acetophenone	30,000	ID	120,000,000 (C)	44,000,000	33,000,000,000	47,000,000 (C)	NCL	23,000,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
Anthracene	41,000	ID	1,000,000,000 (D)	1,400,000,000	67,000,000,000	230,000,000	NCL	54,000,000	<14	<14	<15	<14	<14	<15	<13	<14	<14
Atrazine	60	150	NLV	NLV	ID	71,000 (DD)	NCL	240,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
Benzidine	1,000 (M)	1,000 (M)	NLV	NLV	46,000	1,000 (M)	NCL	53	<340	<340	<370	<350	<350	<370	<330	<340	<350
Benzo(a)anthracene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<14	<14	16	<14	<14	<15	<13	<14	<14
Benzo(a)pyrene	NLL	NLL	NLV	NLV	1,500,000	2,000	NCL	11,000	<14	<14	9.9 [J]	<14	<14	<15	<13	<14	<14
Benzo(b)fluoranthene	NLL	NLL	ID	ID	ID	20,000	NCL	110,000	<14	<14	26	<14	<14	<15	5.7 [J]	<14	<14
Benzo(g,h,i)perylene	NLL	NLL	NLV	NLV	800,000,000	2,500,000	NCL	NCL	<14	<14	<15	<14	<14	<15	<13	<14	<14
Benzo(k)fluoranthene	NLL	NLL	NLV	NLV	ID	200,000	NCL	1,100,000	<14	<14	<15	<14	<14	<15	<13	<14	<14
Butyl benzyl phthalate	2,200,000 (C)	120,000	NLV	NLV	47,000,000,000	36,000,000 (C)	NCL	29,000,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
Caprolactam	120,000	NA	NLV	NLV	670,000,000	53,000,000 (DD)	NCL	94,000,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
Carbazole	9,400	1,100	NLV	NLV	62,000,000	530,000	NCL	NCL	<69	<70	<76	<71	<72	<75	<67	<68	<71
4-Chloro-3-methyl phenol	5,800	280	NLV	NLV	ID	4,500,000	NCL	19,000,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
bis(2-Chloroethyl)ether	100	100 (M)	8,300	3,800	9,400,000	13,000	NCL	23,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
2-Chloronaphthalene	620,000	NA	ID	ID	ID	56,000,000	NCL	14,000,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
2-Chlorophenol	900	360	430,000	960,000	1,200,000,000	1,400,000	NCL	1,200,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
Chrysene	NLL	NLL	ID	ID	ID	2,000,000	NCL	11,000,000	<14	<14	10 [J]	<14	<14	<15	<13	<14	<14
Dibenzo(a,h)anthracene	NLL	NLL	NLV	NLV	ID	2,000	NCL	11,000	<14	<14	<15	<14	<14	<15	<13	<14	<14
Dibenzofuran	ID	1,700	2,000,000	130,000	6,700,000	ID	NCL	220,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
3,3'-Dichlorobenzidine	2,000 (M)	2,000 (M)	NLV	NLV	6,500,000	6,600	NCL	120,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
2,4-Dichlorophenol	1,500	330 (M)	NLV	NLV	5,100,000,000	660,000 (DD)	NCL	570,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
Diethylphthalate	110,000	2,200	NLV	NLV	3,300,000,000	170,000,000 (C)	NCL	150,000,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
Dimethyl phthalate	1,500,000 (C)	NA	NLV	NLV	3,300,000,000	1,000,000,000 (C,D)	NCL	NCL	<69	<70	<76	<71	<72	<75	<67	<68	<71
2,4-Dimethylphenol	7,400	7,600	NLV	NLV	4,700,000,000	11,000,000	NCL	3,800,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
Di-n-butyl phthalate	960,000 (C)	11,000	NLV	NLV	3,300,000,000	27,000,000 (C)	NCL	19,000,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
4,6-Dinitro-2-methylphenol	830 (M)	NA	NLV	NLV	130,000,000	79,000	NCL	15,000	<340	<340	<370	<350	<350	<370	<330	<340	<350
2,4-Dinitrotoluene	430	NA	NLV	NLV	16,000,000	48,000	NCL	170,000	<130	<140	<150	<140	<140	<140	<130	<130	<140
Di-n-octylphthalate	100,000,000	ID	NLV	NLV	31,000,000,000	6,900,000	NCL	1,900,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
1,2-Diphenylhydrazine(as azobenzene)	4,200	ID	6,100,000	630,000	100,000,000	140,000	NCL	560,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
bis(2-Ethylhexyl)phthalate	NLL	NLL	NLV	NLV	700,000,000	2,800,000	NCL	3,800,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
Fluoranthene	730,000	5,500	1,000,000,000 (D)	740,000,000	9,300,000,000	46,000,000	NCL	7,200,000	<14	<14	20	<14	3.9 [J]	<15	3.4 [J]	<14	<14
Fluorene	390,000	5,300	580,000,000	130,000,000	9,300,000,000	27,000,000	NCL	7,200,000	<14	<14	<15	<14	<14	<15	<13	<14	<14
Hexachlorobenzene	1,800	350	41,000	17,000	6,800,000	8,900	NCL	21,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
Hexachlorobutadiene	26,000	91	130,000	130,000	140,000,000	100,000	NCL	120,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
Hexachlorocyclopentadiene	320,000	ID	30,000	50,000	13,000,000	2,300,000 (C)	NCL	5,300	<340	<340	<370	<350	<350	<370	<330	<340	<350
Hexachloroethane	430	1,800	40,000	550,000	230,000,000	230,000	NCL	130,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
Indeno(1,2,3-c,d)pyrene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<14	<14	5.1 [J]	<14	<14	<15	<13	<14	<14
Isophorone	15,000	26,000	NLV	NLV	12,000,000,000	4,800,000 (C)	NCL	38,000,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
2-Methylnaphthalene	57,000	4,200	2,700,000	1,500,000	670,000,000	8,100,000	NCL	720,000	<14	<14	<15	<14	<14	<15	<13	<14	<14
2-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	9,500,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
3+4-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	19,000,000	<130	<140	<150	<140	<140	<140	<130	<130	<140
Naphthalene	35,000	730	250,000	300,000	200,000,000	16,000,000	NCL	380,000	<14	<14	<15	<14	<14	<15	<13	<14	<14
Nitrobenzene	330 (M)	3,600	91,000	54,000	47,000,000	100,000	NCL	380,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
2-Nitrophenol	400	ID	NLV	NLV	ID	630,000	NCL	NCL	<130	<140	<150	<140	<140	<140	<130	<130	<140
N-Nitrosodi-n-propylamine	330 (M)	NA	NLV	NLV	1,600,000	1,200	NCL	7,800	<69	<70	<76	<71	<72	<75	<67	<68	<71
N-Nitrosodiphenylamine (Diphenylamine)	5,400	NA	NLV	NLV	2,200,000,000	1,700,000	NCL	11,000,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
Pentachlorophenol	22	17,000 (G)	NLV	NLV	100,000,000	90,000	NCL	100,000	<340	<340	<370	<350	<350	<370	<330	<340	<350
Phenanthrene	56,000	2,100	2,800,000	160,000	6,700,000	1,600,000	NCL	NCL	<14	<14	9.5 [J]	<14	<14	<15	<13	<14	<14
Phenol	88,000	9,000	NLV	NLV	40,000,000,000	40,000,000 (C,DD)	NCL	57,000,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
Pyrene	480,000	ID	1,000,000,000 (D)	650,000,000	6,700,000,000	29,000,000	NCL	5,400,000	<14	<14	18	<14	<14	<15	<13	<14	<14
2,4,5-Trichlorophenol	39,000	NA	NLV	NLV	23,000,000,000	23,000,000	NCL	19,000,000	<69	<70	<76	<71	<72	<75	<67	<68	<71
2,4,6-Trichlorophenol	2,400	330 (M)	NLV	NLV	1,000,000,000	710,000	NCL	190,000	<69	<70	<76	<71	<72	<75	<67	<68	<71

TABLE 1B
SUMMARY OF SOIL SAMPLE ANALYSIS - SVOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2112	HS-SB-2113	HS-SB-2113	HS-SB-2114	HS-SB-2114	HS-SB-2115	HS-SB-2115	HS-SB-2116	HS-SB-2116
Sample Name									HS-SB-2112 (4-5)	HS-SB-2113 (1-2)	HS-SB-2113 (3-4)	HS-SB-2114 (0-1)	HS-SB-2114 (3-4)	HS-SB-2115 (0-1)	HS-SB-2115 (3-4)	HS-SB-2116 (0-1)	HS-SB-2116 (3-4)
Depth Interval (Feet below ground surface)									4 - 5	1 - 2	3 - 4	0 - 1	3 - 4	0 - 1	3 - 4	0 - 1	3 - 4
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UG09018-015	UG09018-016	UG09018-017	UG09018-018	UG09018-019	UG09013-001	UG09013-002	UG09013-003	UG09013-004
Sample Date									7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019
Parameter (µg/kg)																	
Acenaphthene	300,000	8,700	190,000,000	81,000,000	14,000,000,000	41,000,000	NCL	11,000,000	<13	<15	<17	<15	<14	<14	<14	<13	<14
Acenaphthylene	5,900	ID	1,600,000	2,200,000	2,300,000,000	1,600,000	NCL	NCL	<13	<15	<17	<15	<14	<14	<14	<13	<14
Acetophenone	30,000	ID	120,000,000 (C)	44,000,000	33,000,000,000	47,000,000 (C)	NCL	23,000,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
Anthracene	41,000	ID	1,000,000,000 (D)	1,400,000,000	67,000,000,000	230,000,000	NCL	54,000,000	<13	<15	<17	<15	<14	<14	<14	<13	<14
Atrazine	60	150	NLV	NLV	ID	71,000 (DD)	NCL	240,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
Benzidine	1,000 (M)	1,000 (M)	NLV	NLV	46,000	1,000 (M)	NCL	53	<330	<370	<430	<370	<350	<350	<340	<330	<350
Benzo(a)anthracene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<13	<15	<17	<15	<14	<14	<14	<13	<14
Benzo(a)pyrene	NLL	NLL	NLV	NLV	1,500,000	2,000	NCL	11,000	<13	<15	<17	<15	<14	<14	<14	<13	<14
Benzo(b)fluoranthene	NLL	NLL	ID	ID	ID	20,000	NCL	110,000	<13	<15	<17	<15	<14	<14	<14	<13	<14
Benzo(g,h,i)perylene	NLL	NLL	NLV	NLV	800,000,000	2,500,000	NCL	NCL	<13	<15	<17	<15	<14	<14	<14	<13	<14
Benzo(k)fluoranthene	NLL	NLL	NLV	NLV	ID	200,000	NCL	1,100,000	<13	<15	<17	<15	<14	<14	<14	<13	<14
Butyl benzyl phthalate	2,200,000 (C)	120,000	NLV	NLV	47,000,000,000	36,000,000 (C)	NCL	29,000,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
Caprolactam	120,000	NA	NLV	NLV	670,000,000	53,000,000 (DD)	NCL	94,000,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
Carbazole	9,400	1,100	NLV	NLV	62,000,000	530,000	NCL	NCL	<67	<74	<86	<74	<71	<70	<68	<68	<72
4-Chloro-3-methyl phenol	5,800	280	NLV	NLV	ID	4,500,000	NCL	19,000,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
bis(2-Chloroethyl)ether	100	100 (M)	8,300	3,800	9,400,000	13,000	NCL	23,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
2-Chloronaphthalene	620,000	NA	ID	ID	ID	56,000,000	NCL	14,000,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
2-Chlorophenol	900	360	430,000	960,000	1,200,000,000	1,400,000	NCL	1,200,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
Chrysene	NLL	NLL	ID	ID	ID	2,000,000	NCL	11,000,000	<13	<15	<17	<15	<14	<14	<14	<13	<14
Dibenzo(a,h)anthracene	NLL	NLL	NLV	NLV	ID	2,000	NCL	11,000	<13	<15	<17	<15	<14	<14	<14	<13	<14
Dibenzofuran	ID	1,700	2,000,000	130,000	6,700,000	ID	NCL	220,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
3,3'-Dichlorobenzidine	2,000 (M)	2,000 (M)	NLV	NLV	6,500,000	6,600	NCL	120,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
2,4-Dichlorophenol	1,500	330 (M)	NLV	NLV	5,100,000,000	660,000 (DD)	NCL	570,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
Diethylphthalate	110,000	2,200	NLV	NLV	3,300,000,000	170,000,000 (C)	NCL	150,000,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
Dimethyl phthalate	1,500,000 (C)	NA	NLV	NLV	3,300,000,000	1,000,000,000 (C,D)	NCL	NCL	<67	<74	<86	<74	<71	<70	<68	<68	<72
2,4-Dimethylphenol	7,400	7,600	NLV	NLV	4,700,000,000	11,000,000	NCL	3,800,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
Di-n-butyl phthalate	960,000 (C)	11,000	NLV	NLV	3,300,000,000	27,000,000 (C)	NCL	19,000,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
4,6-Dinitro-2-methylphenol	830 (M)	NA	NLV	NLV	130,000,000	79,000	NCL	15,000	<330	<370	<430	<370	<350	<350	<340	<330	<350
2,4-Dinitrotoluene	430	NA	NLV	NLV	16,000,000	48,000	NCL	170,000	<130	<140	<170	<140	<140	<140	<130	<130	<140
Di-n-octylphthalate	100,000,000	ID	NLV	NLV	31,000,000,000	6,900,000	NCL	1,900,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
1,2-Diphenylhydrazine(as azobenzene)	4,200	ID	6,100,000	630,000	100,000,000	140,000	NCL	560,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
bis(2-Ethylhexyl)phthalate	NLL	NLL	NLV	NLV	700,000,000	2,800,000	NCL	3,800,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
Fluoranthene	730,000	5,500	1,000,000,000 (D)	740,000,000	9,300,000,000	46,000,000	NCL	7,200,000	<13	<15	<17	<15	<14	<14	<14	<13	<14
Fluorene	390,000	5,300	580,000,000	130,000,000	9,300,000,000	27,000,000	NCL	7,200,000	<13	<15	<17	<15	<14	<14	<14	<13	<14
Hexachlorobenzene	1,800	350	41,000	17,000	6,800,000	8,900	NCL	21,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
Hexachlorobutadiene	26,000	91	130,000	130,000	140,000,000	100,000	NCL	120,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
Hexachlorocyclopentadiene	320,000	ID	30,000	50,000	13,000,000	2,300,000 (C)	NCL	5,300	<330	<370	<430	<370	<350	<350	<340	<330	<350
Hexachloroethane	430	1,800	40,000	550,000	230,000,000	230,000	NCL	130,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
Indeno(1,2,3-c,d)pyrene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<13	<15	<17	<15	<14	<14	<14	<13	<14
Isophorone	15,000	26,000	NLV	NLV	12,000,000,000	4,800,000 (C)	NCL	38,000,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
2-Methylnaphthalene	57,000	4,200	2,700,000	1,500,000	670,000,000	8,100,000	NCL	720,000	<13	<15	<17	<15	<14	<14	<14	<13	<14
2-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	9,500,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
3+4-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	19,000,000	<130	<140	<170	<140	<140	<140	<130	<130	<140
Naphthalene	35,000	730	250,000	300,000	200,000,000	16,000,000	NCL	380,000	<13	<15	<17	<15	<14	<14	<14	<13	<14
Nitrobenzene	330 (M)	3,600	91,000	54,000	47,000,000	100,000	NCL	380,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
2-Nitrophenol	400	ID	NLV	NLV	ID	630,000	NCL	NCL	<130	<140	<170	<140	<140	<140	<130	<130	<140
N-Nitrosodi-n-propylamine	330 (M)	NA	NLV	NLV	1,600,000	1,200	NCL	7,800	<67	<74	<86	<74	<71	<70	<68	<68	<72
N-Nitrosodiphenylamine (Diphenylamine)	5,400	NA	NLV	NLV	2,200,000,000	1,700,000	NCL	11,000,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
Pentachlorophenol	22	17,000 (G)	NLV	NLV	100,000,000	90,000	NCL	100,000	<330	<370	<430	<370	<350	<350	<340	<330	<350
Phenanthrene	56,000	2,100	2,800,000	160,000	6,700,000	1,600,000	NCL	NCL	<13	<15	<17	<15	<14	<14	<14	<13	<14
Phenol	88,000	9,000	NLV	NLV	40,000,000,000	40,000,000 (C,DD)	NCL	57,000,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
Pyrene	480,000	ID	1,000,000,000 (D)	650,000,000	6,700,000,000	29,000,000	NCL	5,400,000	<13	<15	<17	<15	<14	<14	<14	<13	<14
2,4,5-Trichlorophenol	39,000	NA	NLV	NLV	23,000,000,000	23,000,000	NCL	19,000,000	<67	<74	<86	<74	<71	<70	<68	<68	<72
2,4,6-Trichlorophenol	2,400	330 (M)	NLV	NLV	1,000,000,000	710,000	NCL	190,000	<67	<74	<86	<74	<71	<70	<68	<68	<72

TABLE 1B
SUMMARY OF SOIL SAMPLE ANALYSIS - SVOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2117	HS-SB-2117	HS-SB-2117	HS-SB-2118	HS-SB-2118	HS-SB-2119	HS-SB-2119	HS-SB-2120	HS-SB-2120
Sample Name									HS-SB-2117 (0-1)	HS-SB-2117 (2-3)	HS-SB-2117 (2-3) DUP	HS-SB-2118 (0-1)	HS-SB-2118 (3-4)	HS-SB-2119 (0-1)	HS-SB-2119 (3-4)	HS-SB-2120 (1-2)	HS-SB-2120 (1-2) DUP
Depth Interval (Feet below ground surface)									0 - 1	2 - 3	2 - 3	0 - 1	3 - 4	0 - 1	3 - 4	1 - 2	1 - 2
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UG09013-005	UG09013-006	UG09013-007	UG09013-008	UG09013-009	UG09013-010	UG09013-011	UG09013-012	UG09013-013
Sample Date									7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019
Parameter (µg/kg)																	
Acenaphthene	300,000	8,700	190,000,000	81,000,000	14,000,000,000	41,000,000	NCL	11,000,000	<13	<14	<16	<14	<13	<13	<15	<14	<14
Acenaphthylene	5,900	ID	1,600,000	2,200,000	2,300,000,000	1,600,000	NCL	NCL	<13	<14	<16	<14	<13	<13	<15	<14	<14
Acetophenone	30,000	ID	120,000,000 (C)	44,000,000	33,000,000,000	47,000,000 (C)	NCL	23,000,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
Anthracene	41,000	ID	1,000,000,000 (D)	1,400,000,000	67,000,000,000	230,000,000	NCL	54,000,000	<13	<14	<16	<14	<13	<13	<15	<14	<14
Atrazine	60	150	NLV	NLV	ID	71,000 (DD)	NCL	240,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
Benzidine	1,000 (M)	1,000 (M)	NLV	NLV	46,000	1,000 (M)	NCL	53	<330	<350	<400	<340	<330	<330	<380	<350	<340
Benzo(a)anthracene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<13	<14	<16	<14	<13	<13	<15	<14	<14
Benzo(a)pyrene	NLL	NLL	NLV	NLV	1,500,000	2,000	NCL	11,000	<13	<14	<16	<14	<13	<13	<15	<14	<14
Benzo(b)fluoranthene	NLL	NLL	ID	ID	ID	20,000	NCL	110,000	<13	<14	<16	<14	<13	<13	<15	<14	<14
Benzo(g,h,i)perylene	NLL	NLL	NLV	NLV	800,000,000	2,500,000	NCL	NCL	<13	<14	<16	<14	<13	<13	<15	<14	<14
Benzo(k)fluoranthene	NLL	NLL	NLV	NLV	ID	200,000	NCL	1,100,000	<13	<14	<16	<14	<13	<13	<15	<14	<14
Butyl benzyl phthalate	2,200,000 (C)	120,000	NLV	NLV	47,000,000,000	36,000,000 (C)	NCL	29,000,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
Caprolactam	120,000	NA	NLV	NLV	670,000,000	53,000,000 (DD)	NCL	94,000,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
Carbazole	9,400	1,100	NLV	NLV	62,000,000	530,000	NCL	NCL	<68	<70	<81	<68	<68	<68	<78	<70	<70
4-Chloro-3-methyl phenol	5,800	280	NLV	NLV	ID	4,500,000	NCL	19,000,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
bis(2-Chloroethyl)ether	100	100 (M)	8,300	3,800	9,400,000	13,000	NCL	23,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
2-Chloronaphthalene	620,000	NA	ID	ID	ID	56,000,000	NCL	14,000,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
2-Chlorophenol	900	360	430,000	960,000	1,200,000,000	1,400,000	NCL	1,200,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
Chrysene	NLL	NLL	ID	ID	ID	2,000,000	NCL	11,000,000	<13	<14	<16	<14	<13	<13	<15	<14	<14
Dibenzo(a,h)anthracene	NLL	NLL	NLV	NLV	ID	2,000	NCL	11,000	<13	<14	<16	<14	<13	<13	<15	<14	<14
Dibenzofuran	ID	1,700	2,000,000	130,000	6,700,000	ID	NCL	220,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
3,3'-Dichlorobenzidine	2,000 (M)	2,000 (M)	NLV	NLV	6,500,000	6,600	NCL	120,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
2,4-Dichlorophenol	1,500	330 (M)	NLV	NLV	5,100,000,000	660,000 (DD)	NCL	570,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
Diethylphthalate	110,000	2,200	NLV	NLV	3,300,000,000	170,000,000 (C)	NCL	150,000,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
Dimethyl phthalate	1,500,000 (C)	NA	NLV	NLV	3,300,000,000	1,000,000,000 (C,D)	NCL	NCL	<68	<70	<81	<68	<68	<68	<78	<70	<70
2,4-Dimethylphenol	7,400	7,600	NLV	NLV	4,700,000,000	11,000,000	NCL	3,800,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
Di-n-butyl phthalate	960,000 (C)	11,000	NLV	NLV	3,300,000,000	27,000,000 (C)	NCL	19,000,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
4,6-Dinitro-2-methylphenol	830 (M)	NA	NLV	NLV	130,000,000	79,000	NCL	15,000	<330	<350	<400	<340	<330	<330	<380	<350	<340
2,4-Dinitrotoluene	430	NA	NLV	NLV	16,000,000	48,000	NCL	170,000	<130	<140	<160	<130	<130	<130	<150	<140	<130
Di-n-octylphthalate	100,000,000	ID	NLV	NLV	31,000,000,000	6,900,000	NCL	1,900,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
1,2-Diphenylhydrazine(as azobenzene)	4,200	ID	6,100,000	630,000	100,000,000	140,000	NCL	560,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
bis(2-Ethylhexyl)phthalate	NLL	NLL	NLV	NLV	700,000,000	2,800,000	NCL	3,800,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
Fluoranthene	730,000	5,500	1,000,000,000 (D)	740,000,000	9,300,000,000	46,000,000	NCL	7,200,000	<13	<14	<16	<14	<13	<13	<15	<14	<14
Fluorene	390,000	5,300	580,000,000	130,000,000	9,300,000,000	27,000,000	NCL	7,200,000	<13	<14	<16	<14	<13	<13	<15	<14	<14
Hexachlorobenzene	1,800	350	41,000	17,000	6,800,000	8,900	NCL	21,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
Hexachlorobutadiene	26,000	91	130,000	130,000	140,000,000	100,000	NCL	120,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
Hexachlorocyclopentadiene	320,000	ID	30,000	50,000	13,000,000	2,300,000 (C)	NCL	5,300	<330	<350	<400	<340	<330	<330	<380	<350	<340
Hexachloroethane	430	1,800	40,000	550,000	230,000,000	230,000	NCL	130,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
Indeno(1,2,3-c,d)pyrene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<13	<14	<16	<14	<13	<13	<15	<14	<14
Isophorone	15,000	26,000	NLV	NLV	12,000,000,000	4,800,000 (C)	NCL	38,000,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
2-Methylnaphthalene	57,000	4,200	2,700,000	1,500,000	670,000,000	8,100,000	NCL	720,000	<13	<14	<16	<14	<13	<13	<15	<14	<14
2-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	9,500,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
3+4-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	19,000,000	<130	<140	<160	<130	<130	<130	<150	<140	<130
Naphthalene	35,000	730	250,000	300,000	200,000,000	16,000,000	NCL	380,000	<13	<14	<16	<14	<13	<13	<15	<14	<14
Nitrobenzene	330 (M)	3,600	91,000	54,000	47,000,000	100,000	NCL	380,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
2-Nitrophenol	400	ID	NLV	NLV	ID	630,000	NCL	NCL	<130	<140	<160	<130	<130	<130	<150	<140	<130
N-Nitrosodi-n-propylamine	330 (M)	NA	NLV	NLV	1,600,000	1,200	NCL	7,800	<68	<70	<81	<68	<68	<68	<78	<70	<70
N-Nitrosodiphenylamine (Diphenylamine)	5,400	NA	NLV	NLV	2,200,000,000	1,700,000	NCL	11,000,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
Pentachlorophenol	22	17,000 (G)	NLV	NLV	100,000,000	90,000	NCL	100,000	<330	<350	<400	<340	<330	<330	<380	<350	<340
Phenanthrene	56,000	2,100	2,800,000	160,000	6,700,000	1,600,000	NCL	NCL	<13	<14	<16	<14	<13	<13	<15	<14	<14
Phenol	88,000	9,000	NLV	NLV	40,000,000,000	40,000,000 (C,DD)	NCL	57,000,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
Pyrene	480,000	ID	1,000,000,000 (D)	650,000,000	6,700,000,000	29,000,000	NCL	5,400,000	<13	<14	<16	<14	<13	<13	<15	<14	<14
2,4,5-Trichlorophenol	39,000	NA	NLV	NLV	23,000,000,000	23,000,000	NCL	19,000,000	<68	<70	<81	<68	<68	<68	<78	<70	<70
2,4,6-Trichlorophenol	2,400	330 (M)	NLV	NLV	1,000,000,000	710,000	NCL	190,000	<68	<70	<81	<68	<68	<68	<78	<70	<70

TABLE 1B
SUMMARY OF SOIL SAMPLE ANALYSIS - SVOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2120	HS-SB-2125	HS-SB-2125	HS-SB-2125	HS-SB-2125	HS-SB-2125	HS-SB-2126	HS-SB-2126	HS-SB-2126
Sample Name									HS-SB-2120 (4-5)	HS-SB-2125 (1-2)	HS-SB-2125 (7-8)	HS-SB-2125 (25-27)	HS-SB-2125 (30-32)	HS-SB-2125 (35-37)	HS-SB-2126 (25-27)	HS-SB-2126 (31-33)	HS-SB-2126 (37-39)
Depth Interval (Feet below ground surface)									4 - 5	1 - 2	7 - 8	25 - 27	30 - 32	35 - 37	25 - 27	31 - 33	37 - 39
Boring Location									House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)									UG09013-014	UG02019-008	UG02019-009	UG02019-010	UG02019-013	UG02019-012	UG02019-003	UG02019-004	UG02019-005
Sample Date									7/2/2019	6/27/2019	6/27/2019	6/27/2019	6/28/2019	6/28/2019	6/27/2019	6/27/2019	6/27/2019
Parameter (µg/kg)																	
Acenaphthene	300,000	8,700	190,000,000	81,000,000	14,000,000,000	41,000,000	NCL	11,000,000	<15	<14	<13	<13	<14	<13	<13	<14	<15
Acenaphthylene	5,900	ID	1,600,000	2,200,000	2,300,000,000	1,600,000	NCL	NCL	<15	<14	<13	<13	<14	<13	<13	<14	<15
Acetophenone	30,000	ID	120,000,000 (C)	44,000,000	33,000,000,000	47,000,000 (C)	NCL	23,000,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
Anthracene	41,000	ID	1,000,000,000 (D)	1,400,000,000	67,000,000,000	230,000,000	NCL	54,000,000	<15	<14	<13	<13	<14	<13	<13	<14	<15
Atrazine	60	150	NLV	NLV	ID	71,000 (DD)	NCL	240,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
Benzidine	1,000 (M)	1,000 (M)	NLV	NLV	46,000	1,000 (M)	NCL	53	<370	<350	<330	<330	<340	<330	<320	<340	<360
Benzo(a)anthracene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<15	<14	<13	<13	<14	<13	<13	<14	<15
Benzo(a)pyrene	NLL	NLL	NLV	NLV	1,500,000	2,000	NCL	11,000	<15	<14	<13	<13	<14	3.4 [J]	<13	<14	<15
Benzo(b)fluoranthene	NLL	NLL	ID	ID	ID	20,000	NCL	110,000	<15	<14	<13	<13	<14	5.3 [J]	<13	<14	<15
Benzo(g,h,i)perylene	NLL	NLL	NLV	NLV	800,000,000	2,500,000	NCL	NCL	<15	<14	<13	<13	<14	3.9 [J]	<13	<14	<15
Benzo(k)fluoranthene	NLL	NLL	NLV	NLV	ID	200,000	NCL	1,100,000	<15	<14	<13	<13	<14	<13	<13	<14	<15
Butyl benzyl phthalate	2,200,000 (C)	120,000	NLV	NLV	47,000,000,000	36,000,000 (C)	NCL	29,000,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
Caprolactam	120,000	NA	NLV	NLV	670,000,000	53,000,000 (DD)	NCL	94,000,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
Carbazole	9,400	1,100	NLV	NLV	62,000,000	530,000	NCL	NCL	<76	<71	<67	<67	<69	<67	<65	<69	<74
4-Chloro-3-methyl phenol	5,800	280	NLV	NLV	ID	4,500,000	NCL	19,000,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
bis(2-Chloroethyl)ether	100	100 (M)	8,300	3,800	9,400,000	13,000	NCL	23,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
2-Chloronaphthalene	620,000	NA	ID	ID	ID	56,000,000	NCL	14,000,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
2-Chlorophenol	900	360	430,000	960,000	1,200,000,000	1,400,000	NCL	1,200,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
Chrysene	NLL	NLL	ID	ID	ID	2,000,000	NCL	11,000,000	<15	<14	<13	<13	<14	<13	<13	<14	<15
Dibenzo(a,h)anthracene	NLL	NLL	NLV	NLV	ID	2,000	NCL	11,000	<15	<14	<13	<13	<14	<13	<13	<14	<15
Dibenzofuran	ID	1,700	2,000,000	130,000	6,700,000	ID	NCL	220,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
3,3'-Dichlorobenzidine	2,000 (M)	2,000 (M)	NLV	NLV	6,500,000	6,600	NCL	120,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
2,4-Dichlorophenol	1,500	330 (M)	NLV	NLV	5,100,000,000	660,000 (DD)	NCL	570,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
Diethylphthalate	110,000	2,200	NLV	NLV	3,300,000,000	170,000,000 (C)	NCL	150,000,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
Dimethyl phthalate	1,500,000 (C)	NA	NLV	NLV	3,300,000,000	1,000,000,000 (C,D)	NCL	NCL	<76	<71	<67	<67	<69	<67	<65	<69	<74
2,4-Dimethylphenol	7,400	7,600	NLV	NLV	4,700,000,000	11,000,000	NCL	3,800,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
Di-n-butyl phthalate	960,000 (C)	11,000	NLV	NLV	3,300,000,000	27,000,000 (C)	NCL	19,000,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
4,6-Dinitro-2-methylphenol	830 (M)	NA	NLV	NLV	130,000,000	79,000	NCL	15,000	<370	<350	<330	<330	<340	<330	<320	<340	<360
2,4-Dinitrotoluene	430	NA	NLV	NLV	16,000,000	48,000	NCL	170,000	<150	<140	<130	<130	<130	<130	<130	<130	<140
Di-n-octylphthalate	100,000,000	ID	NLV	NLV	31,000,000,000	6,900,000	NCL	1,900,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
1,2-Diphenylhydrazine(as azobenzene)	4,200	ID	6,100,000	630,000	100,000,000	140,000	NCL	560,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
bis(2-Ethylhexyl)phthalate	NLL	NLL	NLV	NLV	700,000,000	2,800,000	NCL	3,800,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
Fluoranthene	730,000	5,500	1,000,000,000 (D)	740,000,000	9,300,000,000	46,000,000	NCL	7,200,000	<15	<14	<13	<13	<14	<13	<13	<14	<15
Fluorene	390,000	5,300	580,000,000	130,000,000	9,300,000,000	27,000,000	NCL	7,200,000	<15	<14	<13	<13	<14	<13	<13	<14	<15
Hexachlorobenzene	1,800	350	41,000	17,000	6,800,000	8,900	NCL	21,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
Hexachlorobutadiene	26,000	91	130,000	130,000	140,000,000	100,000	NCL	120,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
Hexachlorocyclopentadiene	320,000	ID	30,000	50,000	13,000,000	2,300,000 (C)	NCL	5,300	<370	<350	<330	<330	<340	<330	<320	<340	<360
Hexachloroethane	430	1,800	40,000	550,000	230,000,000	230,000	NCL	130,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
Indeno(1,2,3-c,d)pyrene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<15	<14	<13	<13	<14	<13	<13	<14	<15
Isophorone	15,000	26,000	NLV	NLV	12,000,000,000	4,800,000 (C)	NCL	38,000,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
2-Methylnaphthalene	57,000	4,200	2,700,000	1,500,000	670,000,000	8,100,000	NCL	720,000	<15	<14	<13	<13	<14	<13	<13	<14	<15
2-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	9,500,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
3+4-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	19,000,000	<150	<140	<130	<130	<130	<130	<130	<130	<140
Naphthalene	35,000	730	250,000	300,000	200,000,000	16,000,000	NCL	380,000	<15	<14	<13	<13	<14	<13	<13	<14	<15
Nitrobenzene	330 (M)	3,600	91,000	54,000	47,000,000	100,000	NCL	380,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
2-Nitrophenol	400	ID	NLV	NLV	ID	630,000	NCL	NCL	<150	<140	<130	<130	<130	<130	<130	<130	<140
N-Nitrosodi-n-propylamine	330 (M)	NA	NLV	NLV	1,600,000	1,200	NCL	7,800	<76	<71	<67	<67	<69	<67	<65	<69	<74
N-Nitrosodiphenylamine (Diphenylamine)	5,400	NA	NLV	NLV	2,200,000,000	1,700,000	NCL	11,000,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
Pentachlorophenol	22	17,000 (G)	NLV	NLV	100,000,000	90,000	NCL	100,000	<370	<350	<330	<330	<340	<330	<320	<340	<360
Phenanthrene	56,000	2,100	2,800,000	160,000	6,700,000	1,600,000	NCL	NCL	<15	<14	<13	<13	<14	<13	<13	<14	<15
Phenol	88,000	9,000	NLV	NLV	40,000,000,000	40,000,000 (C,DD)	NCL	57,000,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
Pyrene	480,000	ID	1,000,000,000 (D)	650,000,000	6,700,000,000	29,000,000	NCL	5,400,000	<15	<14	<13	<13	<14	<13	<13	<14	<15
2,4,5-Trichlorophenol	39,000	NA	NLV	NLV	23,000,000,000	23,000,000	NCL	19,000,000	<76	<71	<67	<67	<69	<67	<65	<69	<74
2,4,6-Trichlorophenol	2,400	330 (M)	NLV	NLV	1,000,000,000	710,000	NCL	190,000	<76	<71	<67	<67	<69	<67	<65	<69	<74

TABLE 1B
SUMMARY OF SOIL SAMPLE ANALYSIS - SVOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2220	HS-SB-2220	HS-SB-2221	HS-SB-2221	HS-SB-2224	HS-SB-2224	HS-SB-2224	HS-SB-2224	HS-SB-2224
Sample Name									HS-SB-2220 (3-4)	HS-SB-2220 (8-9)	HS-SB-2221 (0-1)	HS-SB-2221 (8-9)	HS-SB-2224 (1-2)	HS-SB-2224 (6-7)	HS-SB-2224 (20-22)	HS-SB-2224 (31-33)	HS-SB-2224 (37-39)
Depth Interval (Feet below ground surface)									3 - 4	8 - 9	0 - 1	8 - 9	1 - 2	6 - 7	20 - 22	31 - 33	37 - 39
Boring Location									Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)									UG02019-006	UG02019-007	UG02019-001	UG02019-002	UG02019-014	UG02019-015	UG02019-016	UG02019-017	UG02019-018
Sample Date									6/27/2019	6/27/2019	6/27/2019	6/27/2019	6/28/2019	6/28/2019	6/28/2019	6/28/2019	6/28/2019
Parameter (µg/kg)																	
Acenaphthene	300,000	8,700	190,000,000	81,000,000	14,000,000,000	41,000,000	NCL	11,000,000	<14	<14	<17	<14	<14	<15	<13	<14	<14
Acenaphthylene	5,900	ID	1,600,000	2,200,000	2,300,000,000	1,600,000	NCL	NCL	<14	<14	<17	<14	<14	<15	<13	<14	<14
Acetophenone	30,000	ID	120,000,000 (C)	44,000,000	33,000,000,000	47,000,000 (C)	NCL	23,000,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
Anthracene	41,000	ID	1,000,000,000 (D)	1,400,000,000	67,000,000,000	230,000,000	NCL	54,000,000	<14	<14	<17	<14	<14	<15	<13	<14	<14
Atrazine	60	150	NLV	NLV	ID	71,000 (DD)	NCL	240,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
Benzidine	1,000 (M)	1,000 (M)	NLV	NLV	46,000	1,000 (M)	NCL	53	<340	<360	<410	<340	<340	<380	<330	<340	<340
Benzo(a)anthracene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<14	<14	9.5 [J]	<14	<14	<15	<13	<14	<14
Benzo(a)pyrene	NLL	NLL	NLV	NLV	1,500,000	2,000	NCL	11,000	<14	<14	14 [J]	<14	<14	<15	<13	<14	<14
Benzo(b)fluoranthene	NLL	NLL	ID	ID	ID	20,000	NCL	110,000	<14	<14	21	<14	<14	<15	<13	<14	<14
Benzo(g,h,i)perylene	NLL	NLL	NLV	NLV	800,000,000	2,500,000	NCL	NCL	<14	<14	13 [J]	<14	<14	<15	<13	<14	<14
Benzo(k)fluoranthene	NLL	NLL	NLV	NLV	ID	200,000	NCL	1,100,000	<14	<14	<17	<14	<14	<15	<13	<14	<14
Butyl benzyl phthalate	2,200,000 (C)	120,000	NLV	NLV	47,000,000,000	36,000,000 (C)	NCL	29,000,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
Caprolactam	120,000	NA	NLV	NLV	670,000,000	53,000,000 (DD)	NCL	94,000,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
Carbazole	9,400	1,100	NLV	NLV	62,000,000	530,000	NCL	NCL	<70	<72	<84	<69	<69	<78	<67	<68	<68
4-Chloro-3-methyl phenol	5,800	280	NLV	NLV	ID	4,500,000	NCL	19,000,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
bis(2-Chloroethyl)ether	100	100 (M)	8,300	3,800	9,400,000	13,000	NCL	23,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
2-Chloronaphthalene	620,000	NA	ID	ID	ID	56,000,000	NCL	14,000,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
2-Chlorophenol	900	360	430,000	960,000	1,200,000,000	1,400,000	NCL	1,200,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
Chrysene	NLL	NLL	ID	ID	ID	2,000,000	NCL	11,000,000	<14	<14	9.9 [J]	<14	<14	<15	<13	<14	<14
Dibenzo(a,h)anthracene	NLL	NLL	NLV	NLV	ID	2,000	NCL	11,000	<14	<14	<17	<14	<14	<15	<13	<14	<14
Dibenzofuran	ID	1,700	2,000,000	130,000	6,700,000	ID	NCL	220,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
3,3'-Dichlorobenzidine	2,000 (M)	2,000 (M)	NLV	NLV	6,500,000	6,600	NCL	120,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
2,4-Dichlorophenol	1,500	330 (M)	NLV	NLV	5,100,000,000	660,000 (DD)	NCL	570,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
Diethylphthalate	110,000	2,200	NLV	NLV	3,300,000,000	170,000,000 (C)	NCL	150,000,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
Dimethyl phthalate	1,500,000 (C)	NA	NLV	NLV	3,300,000,000	1,000,000,000 (C,D)	NCL	NCL	<70	<72	<84	<69	<69	<78	<67	<68	<68
2,4-Dimethylphenol	7,400	7,600	NLV	NLV	4,700,000,000	11,000,000	NCL	3,800,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
Di-n-butyl phthalate	960,000 (C)	11,000	NLV	NLV	3,300,000,000	27,000,000 (C)	NCL	19,000,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
4,6-Dinitro-2-methylphenol	830 (M)	NA	NLV	NLV	130,000,000	79,000	NCL	15,000	<340	<360	<410	<340	<340	<380	<330	<340	<340
2,4-Dinitrotoluene	430	NA	NLV	NLV	16,000,000	48,000	NCL	170,000	<140	<140	<160	<130	<130	<150	<130	<130	<130
Di-n-octylphthalate	100,000,000	ID	NLV	NLV	31,000,000,000	6,900,000	NCL	1,900,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
1,2-Diphenylhydrazine(as azobenzene)	4,200	ID	6,100,000	630,000	100,000,000	140,000	NCL	560,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
bis(2-Ethylhexyl)phthalate	NLL	NLL	NLV	NLV	700,000,000	2,800,000	NCL	3,800,000	<70	<72	190	<69	<69	<78	<67	<68	<68
Fluoranthene	730,000	5,500	1,000,000,000 (D)	740,000,000	9,300,000,000	46,000,000	NCL	7,200,000	<14	<14	22	<14	<14	<15	<13	<14	<14
Fluorene	390,000	5,300	580,000,000	130,000,000	9,300,000,000	27,000,000	NCL	7,200,000	<14	<14	<17	<14	<14	<15	<13	<14	<14
Hexachlorobenzene	1,800	350	41,000	17,000	6,800,000	8,900	NCL	21,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
Hexachlorobutadiene	26,000	91	130,000	130,000	140,000,000	100,000	NCL	120,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
Hexachlorocyclopentadiene	320,000	ID	30,000	50,000	13,000,000	2,300,000 (C)	NCL	5,300	<340	<360	<410	<340	<340	<380	<330	<340	<340
Hexachloroethane	430	1,800	40,000	550,000	230,000,000	230,000	NCL	130,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
Indeno(1,2,3-c,d)pyrene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<14	<14	<17	<14	<14	<15	<13	<14	<14
Isophorone	15,000	26,000	NLV	NLV	12,000,000,000	4,800,000 (C)	NCL	38,000,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
2-Methylnaphthalene	57,000	4,200	2,700,000	1,500,000	670,000,000	8,100,000	NCL	720,000	<14	<14	<17	<14	<14	<15	<13	<14	<14
2-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	9,500,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
3+4-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	19,000,000	<140	<140	<160	<130	<130	<150	<130	<130	<130
Naphthalene	35,000	730	250,000	300,000	200,000,000	16,000,000	NCL	380,000	<14	<14	<17	<14	<14	<15	<13	<14	<14
Nitrobenzene	330 (M)	3,600	91,000	54,000	47,000,000	100,000	NCL	380,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
2-Nitrophenol	400	ID	NLV	NLV	ID	630,000	NCL	NCL	<140	<140	<160	<130	<130	<150	<130	<130	<130
N-Nitrosodi-n-propylamine	330 (M)	NA	NLV	NLV	1,600,000	1,200	NCL	7,800	<70	<72	<84	<69	<69	<78	<67	<68	<68
N-Nitrosodiphenylamine (Diphenylamine)	5,400	NA	NLV	NLV	2,200,000,000	1,700,000	NCL	11,000,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
Pentachlorophenol	22	17,000 (G)	NLV	NLV	100,000,000	90,000	NCL	100,000	<340	<360	<410	<340	<340	<380	<330	<340	<340
Phenanthrene	56,000	2,100	2,800,000	160,000	6,700,000	1,600,000	NCL	NCL	<14	<14	10 [J]	<14	<14	<15	<13	<14	<14
Phenol	88,000	9,000	NLV	NLV	40,000,000,000	40,000,000 (C,DD)	NCL	57,000,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
Pyrene	480,000	ID	1,000,000,000 (D)	650,000,000	6,700,000,000	29,000,000	NCL	5,400,000	<14	<14	18	<14	<14	<15	<13	<14	<14
2,4,5-Trichlorophenol	39,000	NA	NLV	NLV	23,000,000,000	23,000,000	NCL	19,000,000	<70	<72	<84	<69	<69	<78	<67	<68	<68
2,4,6-Trichlorophenol	2,400	330 (M)	NLV	NLV	1,000,000,000	710,000	NCL	190,000	<70	<72	<84	<69	<69	<78	<67	<68	<68

TABLE 1B
SUMMARY OF SOIL SAMPLE ANALYSIS - SVOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4800	HS-SB-4800	HS-SB-4801	HS-SB-4801	HS-SB-4802	HS-SB-4802	HS-SB-4803	HS-SB-4803	HS-SB-4804
Sample Name									HS-SB-4800 (0-2)	HS-SB-4800 (15-17)	HS-SB-4801 (0-2)	HS-SB-4801 (15-17)	HS-SB-4802 (0-2)	HS-SB-4802 (15-17)	HS-SB-4803 (0-2)	HS-SB-4803 (6-8)	HS-SB-4804 (0-2)
Depth Interval (Feet below ground surface)									0 - 2	15 - 17	0 - 2	15 - 17	0 - 2	15 - 17	0 - 2	6 - 8	0 - 2
Boring Location									Off-Site	Off-Site	House St Site	House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)									UH23024-002	UH23024-003	UH23030-001	UH23030-002	UH17001-020	UH17001-021	UH23024-010	UH23024-011	UH23024-012
Sample Date									8/19/2019	8/19/2019	8/20/2019	8/20/2019	8/16/2019	8/16/2019	8/20/2019	8/20/2019	8/20/2019
Parameter (µg/kg)																	
Acenaphthene	300,000	8,700	190,000,000	81,000,000	14,000,000,000	41,000,000	NCL	11,000,000	<15	<14	<14	<14	<15	<14	<14	<15	<14
Acenaphthylene	5,900	ID	1,600,000	2,200,000	2,300,000,000	1,600,000	NCL	NCL	<15	<14	<14	<14	<15	<14	<14	<15	<14
Acetophenone	30,000	ID	120,000,000 (C)	44,000,000	33,000,000,000	47,000,000 (C)	NCL	23,000,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
Anthracene	41,000	ID	1,000,000,000 (D)	1,400,000,000	67,000,000,000	230,000,000	NCL	54,000,000	<15	<14	<14	<14	<15	<14	<14	<15	<14
Atrazine	60	150	NLV	NLV	ID	71,000 (DD)	NCL	240,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
Benzidine	1,000 (M)	1,000 (M)	NLV	NLV	46,000	1,000 (M)	NCL	53	<370	<350	<350	<340	<370	<340	<350	<380	<360
Benzo(a)anthracene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<15	<14	8 [J]	<14	<15	<14	<14	<15	<14
Benzo(a)pyrene	NLL	NLL	NLV	NLV	1,500,000	2,000	NCL	11,000	3.9 [J]	<14	<14	<14	<15	<14	<14	<15	<14
Benzo(b)fluoranthene	NLL	NLL	ID	ID	ID	20,000	NCL	110,000	<15	<14	<14	<14	<15	<14	<14	<15	<14
Benzo(g,h,i)perylene	NLL	NLL	NLV	NLV	800,000,000	2,500,000	NCL	NCL	<15	<14	<14	<14	<15	<14	<14	<15	<14
Benzo(k)fluoranthene	NLL	NLL	NLV	NLV	ID	200,000	NCL	1,100,000	<15	<14	<14	<14	<15	<14	<14	<15	<14
Butyl benzyl phthalate	2,200,000 (C)	120,000	NLV	NLV	47,000,000,000	36,000,000 (C)	NCL	29,000,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
Caprolactam	120,000	NA	NLV	NLV	670,000,000	53,000,000 (DD)	NCL	94,000,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
Carbazole	9,400	1,100	NLV	NLV	62,000,000	530,000	NCL	NCL	<76	<71	<72	<68	<75	<70	<72	<77	<72
4-Chloro-3-methyl phenol	5,800	280	NLV	NLV	ID	4,500,000	NCL	19,000,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
bis(2-Chloroethyl)ether	100	100 (M)	8,300	3,800	9,400,000	13,000	NCL	23,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
2-Chloronaphthalene	620,000	NA	ID	ID	ID	56,000,000	NCL	14,000,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
2-Chlorophenol	900	360	430,000	960,000	1,200,000,000	1,400,000	NCL	1,200,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
Chrysene	NLL	NLL	ID	ID	ID	2,000,000	NCL	11,000,000	<15	<14	5.2 [J]	<14	<15	<14	<14	<15	<14
Dibenzo(a,h)anthracene	NLL	NLL	NLV	NLV	ID	2,000	NCL	11,000	<15	<14	<14	<14	<15	<14	<14	<15	<14
Dibenzofuran	ID	1,700	2,000,000	130,000	6,700,000	ID	NCL	220,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
3,3'-Dichlorobenzidine	2,000 (M)	2,000 (M)	NLV	NLV	6,500,000	6,600	NCL	120,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
2,4-Dichlorophenol	1,500	330 (M)	NLV	NLV	5,100,000,000	660,000 (DD)	NCL	570,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
Diethylphthalate	110,000	2,200	NLV	NLV	3,300,000,000	170,000,000 (C)	NCL	150,000,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
Dimethyl phthalate	1,500,000 (C)	NA	NLV	NLV	3,300,000,000	1,000,000,000 (C,D)	NCL	NCL	<76	<71	<72	<68	<75	<70	<72	<77	<72
2,4-Dimethylphenol	7,400	7,600	NLV	NLV	4,700,000,000	11,000,000	NCL	3,800,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
Di-n-butyl phthalate	960,000 (C)	11,000	NLV	NLV	3,300,000,000	27,000,000 (C)	NCL	19,000,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
4,6-Dinitro-2-methylphenol	830 (M)	NA	NLV	NLV	130,000,000	79,000	NCL	15,000	<370	<350	<350	<340	<370	<340	<350	<380	<360
2,4-Dinitrotoluene	430	NA	NLV	NLV	16,000,000	48,000	NCL	170,000	<150	<140	<140	<130	<140	<140	<140	<150	<140
Di-n-octylphthalate	100,000,000	ID	NLV	NLV	31,000,000,000	6,900,000	NCL	1,900,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
1,2-Diphenylhydrazine(as azobenzene)	4,200	ID	6,100,000	630,000	100,000,000	140,000	NCL	560,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
bis(2-Ethylhexyl)phthalate	NLL	NLL	NLV	NLV	700,000,000	2,800,000	NCL	3,800,000	54 [J]	<71	53 [J]	<68	<75	<70	<72	<77	50 [J]
Fluoranthene	730,000	5,500	1,000,000,000 (D)	740,000,000	9,300,000,000	46,000,000	NCL	7,200,000	6.4 [J]	<14	9.4 [J]	<14	<15	<14	<14	<15	6.8 [J]
Fluorene	390,000	5,300	580,000,000	130,000,000	9,300,000,000	27,000,000	NCL	7,200,000	<15	<14	<14	<14	<15	<14	<14	<15	<14
Hexachlorobenzene	1,800	350	41,000	17,000	6,800,000	8,900	NCL	21,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
Hexachlorobutadiene	26,000	91	130,000	130,000	140,000,000	100,000	NCL	120,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
Hexachlorocyclopentadiene	320,000	ID	30,000	50,000	13,000,000	2,300,000 (C)	NCL	5,300	<370	<350	<350	<340	<370	<340	<350	<380	<360
Hexachloroethane	430	1,800	40,000	550,000	230,000,000	230,000	NCL	130,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
Indeno(1,2,3-c,d)pyrene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<15	<14	<14	<14	<15	<14	<14	<15	<14
Isophorone	15,000	26,000	NLV	NLV	12,000,000,000	4,800,000 (C)	NCL	38,000,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
2-Methylnaphthalene	57,000	4,200	2,700,000	1,500,000	670,000,000	8,100,000	NCL	720,000	<15	<14	<14	<14	<15	<14	<14	<15	<14
2-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	9,500,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
3+4-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	19,000,000	<150	<140	<140	<130	<140	<140	<140	<150	<140
Naphthalene	35,000	730	250,000	300,000	200,000,000	16,000,000	NCL	380,000	<15	<14	<14	<14	<15	<14	<14	<15	<14
Nitrobenzene	330 (M)	3,600	91,000	54,000	47,000,000	100,000	NCL	380,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
2-Nitrophenol	400	ID	NLV	NLV	ID	630,000	NCL	NCL	<150	<140	<140	<130	<140	<140	<140	<150	<140
N-Nitrosodi-n-propylamine	330 (M)	NA	NLV	NLV	1,600,000	1,200	NCL	7,800	<76	<71	<72	<68	<75	<70	<72	<77	<72
N-Nitrosodiphenylamine (Diphenylamine)	5,400	NA	NLV	NLV	2,200,000,000	1,700,000	NCL	11,000,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
Pentachlorophenol	22	17,000 (G)	NLV	NLV	100,000,000	90,000	NCL	100,000	<370	<350	<350	<340	<370	<340	<350	<380	<360
Phenanthrene	56,000	2,100	2,800,000	160,000	6,700,000	1,600,000	NCL	NCL	<15	<14	4.3 [J]	<14	<15	<14	<14	<15	4.5 [J]
Phenol	88,000	9,000	NLV	NLV	40,000,000,000	40,000,000 (C,DD)	NCL	57,000,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
Pyrene	480,000	ID	1,000,000,000 (D)	650,000,000	6,700,000,000	29,000,000	NCL	5,400,000	4.3 [J]	<14	6.9 [J]	<14	<15	<14	<14	<15	5.9 [J]
2,4,5-Trichlorophenol	39,000	NA	NLV	NLV	23,000,000,000	23,000,000	NCL	19,000,000	<76	<71	<72	<68	<75	<70	<72	<77	<72
2,4,6-Trichlorophenol	2,400	330 (M)	NLV	NLV	1,000,000,000	710,000	NCL	190,000	<76	<71	<72	<68	<75	<70	<72	<77	<72

TABLE 1B
SUMMARY OF SOIL SAMPLE ANALYSIS - SVOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4804	HS-SB-4805	HS-SB-4805	HS-SB-4806	HS-SB-4806	HS-SB-4807	HS-SB-4807	HS-SB-4808	HS-SB-4808
Sample Name									HS-SB-4804 (10-12)	HS-SB-4805 (0-2)	HS-SB-4805 (7-9)	HS-SB-4806 (0-2)	HS-SB-4806 (7-9)	HS-SB-4807 (0-2)	HS-SB-4807 (10-12)	HS-SB-4808 (0-2)	HS-SB-4808 (6-8)
Depth Interval (Feet below ground surface)									10 - 12	0 - 2	7 - 9	0 - 2	7 - 9	0 - 2	10 - 12	0 - 2	6 - 8
Boring Location									Off-Site	House St Site	House St Site	Off-Site	Off-Site	Off-Site	Off-Site	House St Site	House St Site
Laboratory Sample ID(s)									UH23024-013	UH23030-012	UH23030-013	UH17001-026	UH17001-027	UH23024-006	UH23024-007	UH23030-005	UH23030-006
Sample Date									8/20/2019	8/21/2019	8/21/2019	8/16/2019	8/16/2019	8/19/2019	8/19/2019	8/20/2019	8/20/2019
Parameter (µg/kg)																	
Acenaphthene	300,000	8,700	190,000,000	81,000,000	14,000,000,000	41,000,000	NCL	11,000,000	<13	<15	<13	<15	<14	<15	<14	<15	<13
Acenaphthylene	5,900	ID	1,600,000	2,200,000	2,300,000,000	1,600,000	NCL	NCL	<13	<15	<13	<15	<14	<15	<14	<15	<13
Acetophenone	30,000	ID	120,000,000 (C)	44,000,000	33,000,000,000	47,000,000 (C)	NCL	23,000,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
Anthracene	41,000	ID	1,000,000,000 (D)	1,400,000,000	67,000,000,000	230,000,000	NCL	54,000,000	<13	<15	<13	<15	<14	<15	<14	<15	<13
Atrazine	60	150	NLV	NLV	ID	71,000 (DD)	NCL	240,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
Benzidine	1,000 (M)	1,000 (M)	NLV	NLV	46,000	1,000 (M)	NCL	53	<330	<360	<330	<360	<340	<370	<350	<360	<320
Benzo(a)anthracene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<13	<15	<13	<15	<14	<15	<14	7.6 [J]	<13
Benzo(a)pyrene	NLL	NLL	NLV	NLV	1,500,000	2,000	NCL	11,000	<13	<15	<13	<15	<14	<15	<14	5.8 [J]	<13
Benzo(b)fluoranthene	NLL	NLL	ID	ID	ID	20,000	NCL	110,000	<13	14 [J]	<13	<15	<14	<15	<14	<15	<13
Benzo(g,h,i)perylene	NLL	NLL	NLV	NLV	800,000,000	2,500,000	NCL	NCL	<13	<15	<13	<15	<14	<15	<14	<15	<13
Benzo(k)fluoranthene	NLL	NLL	NLV	NLV	ID	200,000	NCL	1,100,000	<13	11 [J]	<13	<15	<14	<15	<14	<15	<13
Butyl benzyl phthalate	2,200,000 (C)	120,000	NLV	NLV	47,000,000,000	36,000,000 (C)	NCL	29,000,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
Caprolactam	120,000	NA	NLV	NLV	670,000,000	53,000,000 (DD)	NCL	94,000,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
Carbazole	9,400	1,100	NLV	NLV	62,000,000	530,000	NCL	NCL	<67	<73	<68	<74	<68	<75	<72	<73	<66
4-Chloro-3-methyl phenol	5,800	280	NLV	NLV	ID	4,500,000	NCL	19,000,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
bis(2-Chloroethyl)ether	100	100 (M)	8,300	3,800	9,400,000	13,000	NCL	23,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
2-Chloronaphthalene	620,000	NA	ID	ID	ID	56,000,000	NCL	14,000,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
2-Chlorophenol	900	360	430,000	960,000	1,200,000,000	1,400,000	NCL	1,200,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
Chrysene	NLL	NLL	ID	ID	ID	2,000,000	NCL	11,000,000	<13	<15	<13	<15	<14	<15	<14	5.1 [J]	<13
Dibenzo(a,h)anthracene	NLL	NLL	NLV	NLV	ID	2,000	NCL	11,000	<13	<15	<13	<15	<14	<15	<14	<15	<13
Dibenzofuran	ID	1,700	2,000,000	130,000	6,700,000	ID	NCL	220,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
3,3'-Dichlorobenzidine	2,000 (M)	2,000 (M)	NLV	NLV	6,500,000	6,600	NCL	120,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
2,4-Dichlorophenol	1,500	330 (M)	NLV	NLV	5,100,000,000	660,000 (DD)	NCL	570,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
Diethylphthalate	110,000	2,200	NLV	NLV	3,300,000,000	170,000,000 (C)	NCL	150,000,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
Dimethyl phthalate	1,500,000 (C)	NA	NLV	NLV	3,300,000,000	1,000,000,000 (C,D)	NCL	NCL	<67	<73	<68	<74	<68	<75	<72	<73	<66
2,4-Dimethylphenol	7,400	7,600	NLV	NLV	4,700,000,000	11,000,000	NCL	3,800,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
Di-n-butyl phthalate	960,000 (C)	11,000	NLV	NLV	3,300,000,000	27,000,000 (C)	NCL	19,000,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
4,6-Dinitro-2-methylphenol	830 (M)	NA	NLV	NLV	130,000,000	79,000	NCL	15,000	<330	<360	<330	<360	<340	<370	<350	<360	<320
2,4-Dinitrotoluene	430	NA	NLV	NLV	16,000,000	48,000	NCL	170,000	<130	<140	<130	<140	<130	<150	<140	<140	<130
Di-n-octylphthalate	100,000,000	ID	NLV	NLV	31,000,000,000	6,900,000	NCL	1,900,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
1,2-Diphenylhydrazine(as azobenzene)	4,200	ID	6,100,000	630,000	100,000,000	140,000	NCL	560,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
bis(2-Ethylhexyl)phthalate	NLL	NLL	NLV	NLV	700,000,000	2,800,000	NCL	3,800,000	<67	<73	<68	<74	<68	<75	<72	54 [J]	<66
Fluoranthene	730,000	5,500	1,000,000,000 (D)	740,000,000	9,300,000,000	46,000,000	NCL	7,200,000	<13	13 [J]	<13	<15	<14	5.6 [J]	<14	11 [J]	<13
Fluorene	390,000	5,300	580,000,000	130,000,000	9,300,000,000	27,000,000	NCL	7,200,000	<13	<15	<13	<15	<14	<15	<14	<15	<13
Hexachlorobenzene	1,800	350	41,000	17,000	6,800,000	8,900	NCL	21,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
Hexachlorobutadiene	26,000	91	130,000	130,000	140,000,000	100,000	NCL	120,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
Hexachlorocyclopentadiene	320,000	ID	30,000	50,000	13,000,000	2,300,000 (C)	NCL	5,300	<330	<360	<330	<360	<340	<370	<350	<360	<320
Hexachloroethane	430	1,800	40,000	550,000	230,000,000	230,000	NCL	130,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
Indeno(1,2,3-c,d)pyrene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<13	<15	<13	<15	<14	<15	<14	<15	<13
Isophorone	15,000	26,000	NLV	NLV	12,000,000,000	4,800,000 (C)	NCL	38,000,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
2-Methylnaphthalene	57,000	4,200	2,700,000	1,500,000	670,000,000	8,100,000	NCL	720,000	<13	<15	<13	<15	<14	<15	<14	<15	<13
2-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	9,500,000	<67	<73	<68	160	<68	<75	<72	<73	<66
3+4-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	19,000,000	<130	<140	<130	<140	<130	<150	<140	<140	<130
Naphthalene	35,000	730	250,000	300,000	200,000,000	16,000,000	NCL	380,000	<13	<15	<13	<15	<14	<15	<14	<15	<13
Nitrobenzene	330 (M)	3,600	91,000	54,000	47,000,000	100,000	NCL	380,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
2-Nitrophenol	400	ID	NLV	NLV	ID	630,000	NCL	NCL	<130	<140	<130	<140	<130	<150	<140	<140	<130
N-Nitrosodi-n-propylamine	330 (M)	NA	NLV	NLV	1,600,000	1,200	NCL	7,800	<67	<73	<68	<74	<68	<75	<72	<73	<66
N-Nitrosodiphenylamine (Diphenylamine)	5,400	NA	NLV	NLV	2,200,000,000	1,700,000	NCL	11,000,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
Pentachlorophenol	22	17,000 (G)	NLV	NLV	100,000,000	90,000	NCL	100,000	<330	<360	<330	<360	<340	<370	<350	<360	<320
Phenanthrene	56,000	2,100	2,800,000	160,000	6,700,000	1,600,000	NCL	NCL	<13	<15	<13	<15	<14	<15	<14	5.5 [J]	<13
Phenol	88,000	9,000	NLV	NLV	40,000,000,000	40,000,000 (C,DD)	NCL	57,000,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
Pyrene	480,000	ID	1,000,000,000 (D)	650,000,000	6,700,000,000	29,000,000	NCL	5,400,000	<13	11 [J]	<13	<15	<14	3.9 [J]	<14	7.9 [J]	<13
2,4,5-Trichlorophenol	39,000	NA	NLV	NLV	23,000,000,000	23,000,000	NCL	19,000,000	<67	<73	<68	<74	<68	<75	<72	<73	<66
2,4,6-Trichlorophenol	2,400	330 (M)	NLV	NLV	1,000,000,000	710,000	NCL	190,000	<67	<73	<68	<74	<68	<75	<72	<73	<66

TABLE 1B
SUMMARY OF SOIL SAMPLE ANALYSIS - SVOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4809	HS-SB-4809	HS-SB-4810	HS-SB-4810	HS-SB-4811	HS-SB-4811	HS-SB-4900	HS-SB-4900	HS-SB-4901
Sample Name									HS-SB-4809 (0-2)	HS-SB-4809 (6-8)	HS-SB-4810 (0-2)	HS-SB-4810 (6-8)	HS-SB-4811 (0-2)	HS-SB-4811 (12-14)	HS-SB-4900 (0-2)	HS-SB-4900 (17-19)	HS-SB-4901 (0-2)
Depth Interval (Feet below ground surface)									0 - 2	6 - 8	0 - 2	6 - 8	0 - 2	12 - 14	0 - 2	17 - 19	0 - 2
Boring Location									Off-Site	Off-Site	Off-Site	Off-Site	House St Site	House St Site	Off-Site	Off-Site	House St Site
Laboratory Sample ID(s)									UH17001-022	UH17001-023	UH17001-012	UH17001-013	UH23024-016	UH23024-017	UH17001-001	UH17001-002	UH17001-003
Sample Date									8/16/2019	8/16/2019	8/15/2019	8/15/2019	8/20/2019	8/20/2019	8/12/2019	8/12/2019	8/12/2019
Parameter (µg/kg)																	
Acenaphthene	300,000	8,700	190,000,000	81,000,000	14,000,000,000	41,000,000	NCL	11,000,000	<15	<14	<15	<14	<14	<14	<14	<14	<14
Acenaphthylene	5,900	ID	1,600,000	2,200,000	2,300,000,000	1,600,000	NCL	NCL	<15	<14	<15	<14	<14	<14	<14	<14	<14
Acetophenone	30,000	ID	120,000,000 (C)	44,000,000	33,000,000,000	47,000,000 (C)	NCL	23,000,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
Anthracene	41,000	ID	1,000,000,000 (D)	1,400,000,000	67,000,000,000	230,000,000	NCL	54,000,000	<15	<14	<15	<14	<14	<14	<14	<14	<14
Atrazine	60	150	NLV	NLV	ID	71,000 (DD)	NCL	240,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
Benzidine	1,000 (M)	1,000 (M)	NLV	NLV	46,000	1,000 (M)	NCL	53	<370	<340	<360	<340	<350	<350	<340	<340	<350
Benzo(a)anthracene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<15	<14	<15	<14	<14	<14	7.3 [J]	<14	5.5 [J]
Benzo(a)pyrene	NLL	NLL	NLV	NLV	1,500,000	2,000	NCL	11,000	<15	<14	<15	<14	<14	<14	4.3 [J]	<14	4.3 [J]
Benzo(b)fluoranthene	NLL	NLL	ID	ID	ID	20,000	NCL	110,000	<15	<14	17	<14	<14	<14	17	<14	17
Benzo(g,h,i)perylene	NLL	NLL	NLV	NLV	800,000,000	2,500,000	NCL	NCL	<15	<14	<15	<14	<14	<14	<14	<14	<14
Benzo(k)fluoranthene	NLL	NLL	NLV	NLV	ID	200,000	NCL	1,100,000	<15	<14	4.7 [J]	<14	<14	<14	3.9 [J]	<14	4.2 [J]
Butyl benzyl phthalate	2,200,000 (C)	120,000	NLV	NLV	47,000,000,000	36,000,000 (C)	NCL	29,000,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
Caprolactam	120,000	NA	NLV	NLV	670,000,000	53,000,000 (DD)	NCL	94,000,000	49 [J]	<69	<74	<68	<71	<71	<70	<68	<70
Carbazole	9,400	1,100	NLV	NLV	62,000,000	530,000	NCL	NCL	<75	<69	<74	<68	<71	<71	<70	<68	<70
4-Chloro-3-methyl phenol	5,800	280	NLV	NLV	ID	4,500,000	NCL	19,000,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
bis(2-Chloroethyl)ether	100	100 (M)	8,300	3,800	9,400,000	13,000	NCL	23,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
2-Chloronaphthalene	620,000	NA	ID	ID	ID	56,000,000	NCL	14,000,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
2-Chlorophenol	900	360	430,000	960,000	1,200,000,000	1,400,000	NCL	1,200,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
Chrysene	NLL	NLL	ID	ID	ID	2,000,000	NCL	11,000,000	<15	<14	<15	<14	<14	<14	3.7 [J]	<14	3.6 [J]
Dibenzo(a,h)anthracene	NLL	NLL	NLV	NLV	ID	2,000	NCL	11,000	<15	<14	<15	<14	<14	<14	<14	<14	<14
Dibenzofuran	ID	1,700	2,000,000	130,000	6,700,000	ID	NCL	220,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
3,3'-Dichlorobenzidine	2,000 (M)	2,000 (M)	NLV	NLV	6,500,000	6,600	NCL	120,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
2,4-Dichlorophenol	1,500	330 (M)	NLV	NLV	5,100,000,000	660,000 (DD)	NCL	570,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
Diethylphthalate	110,000	2,200	NLV	NLV	3,300,000,000	170,000,000 (C)	NCL	150,000,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
Dimethyl phthalate	1,500,000 (C)	NA	NLV	NLV	3,300,000,000	1,000,000,000 (C,D)	NCL	NCL	<75	<69	<74	<68	<71	<71	<70	<68	<70
2,4-Dimethylphenol	7,400	7,600	NLV	NLV	4,700,000,000	11,000,000	NCL	3,800,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
Di-n-butyl phthalate	960,000 (C)	11,000	NLV	NLV	3,300,000,000	27,000,000 (C)	NCL	19,000,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
4,6-Dinitro-2-methylphenol	830 (M)	NA	NLV	NLV	130,000,000	79,000	NCL	15,000	<370	<340	<360	<340	<350	<350	<340	<340	<350
2,4-Dinitrotoluene	430	NA	NLV	NLV	16,000,000	48,000	NCL	170,000	<150	<130	<140	<130	<140	<140	<140	<130	<140
Di-n-octylphthalate	100,000,000	ID	NLV	NLV	31,000,000,000	6,900,000	NCL	1,900,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
1,2-Diphenylhydrazine(as azobenzene)	4,200	ID	6,100,000	630,000	100,000,000	140,000	NCL	560,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
bis(2-Ethylhexyl)phthalate	NLL	NLL	NLV	NLV	700,000,000	2,800,000	NCL	3,800,000	<75	<69	52 [BJ]	<68	52 [J]	<71	51 [BJ]	<68	50 [BJ]
Fluoranthene	730,000	5,500	1,000,000,000 (D)	740,000,000	9,300,000,000	46,000,000	NCL	7,200,000	<15	<14	5.3 [J]	<14	5.5 [J]	4.7 [J]	8.4 [J]	<14	6.7 [J]
Fluorene	390,000	5,300	580,000,000	130,000,000	9,300,000,000	27,000,000	NCL	7,200,000	<15	<14	<15	<14	<14	<14	<14	<14	<14
Hexachlorobenzene	1,800	350	41,000	17,000	6,800,000	8,900	NCL	21,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
Hexachlorobutadiene	26,000	91	130,000	130,000	140,000,000	100,000	NCL	120,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
Hexachlorocyclopentadiene	320,000	ID	30,000	50,000	13,000,000	2,300,000 (C)	NCL	5,300	<370	<340	<360	<340	<350	<350	<340	<340	<350
Hexachloroethane	430	1,800	40,000	550,000	230,000,000	230,000	NCL	130,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
Indeno(1,2,3-c,d)pyrene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<15	<14	<15	<14	<14	<14	3.7 [J]	<14	2.9 [J]
Isophorone	15,000	26,000	NLV	NLV	12,000,000,000	4,800,000 (C)	NCL	38,000,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
2-Methylnaphthalene	57,000	4,200	2,700,000	1,500,000	670,000,000	8,100,000	NCL	720,000	<15	<14	<15	<14	<14	<14	<14	<14	<14
2-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	9,500,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
3+4-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	19,000,000	<150	<130	<140	<130	<140	<140	<140	<130	<140
Naphthalene	35,000	730	250,000	300,000	200,000,000	16,000,000	NCL	380,000	<15	<14	<15	<14	<14	<14	<14	<14	<14
Nitrobenzene	330 (M)	3,600	91,000	54,000	47,000,000	100,000	NCL	380,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
2-Nitrophenol	400	ID	NLV	NLV	ID	630,000	NCL	NCL	<150	<130	<140	<130	<140	<140	<140	<130	<140
N-Nitrosodi-n-propylamine	330 (M)	NA	NLV	NLV	1,600,000	1,200	NCL	7,800	<75	<69	<74	<68	<71	<71	<70	<68	<70
N-Nitrosodiphenylamine (Diphenylamine)	5,400	NA	NLV	NLV	2,200,000,000	1,700,000	NCL	11,000,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
Pentachlorophenol	22	17,000 (G)	NLV	NLV	100,000,000	90,000	NCL	100,000	<370	<340	<360	<340	<350	<350	<340	<340	<350
Phenanthrene	56,000	2,100	2,800,000	160,000	6,700,000	1,600,000	NCL	NCL	<15	<14	<15	<14	<14	5.5 [J]	4.2 [J]	<14	<14
Phenol	88,000	9,000	NLV	NLV	40,000,000,000	40,000,000 (C,DD)	NCL	57,000,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
Pyrene	480,000	ID	1,000,000,000 (D)	650,000,000	6,700,000,000	29,000,000	NCL	5,400,000	4.3 [J]	<14	4.8 [J]	<14	4.7 [J]	3.6 [J]	6.8 [J]	<14	5.7 [J]
2,4,5-Trichlorophenol	39,000	NA	NLV	NLV	23,000,000,000	23,000,000	NCL	19,000,000	<75	<69	<74	<68	<71	<71	<70	<68	<70
2,4,6-Trichlorophenol	2,400	330 (M)	NLV	NLV	1,000,000,000	710,000	NCL	190,000	<75	<69	<74	<68	<71	<71	<70	<68	<70

TABLE 1B
SUMMARY OF SOIL SAMPLE ANALYSIS - SVOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4901	HS-SB-4902	HS-SB-4902	HS-SB-4903	HS-SB-4903	HS-SB-4904	HS-SB-4904	HS-SB-4905	HS-SB-4905
Sample Name									HS-SB-4901 (18-20)	HS-SB-4902 (0-2)	HS-SB-4902 (6-8)	HS-SB-4903 (0-2)	HS-SB-4903 (11-13)	HS-SB-4904 (0-2)	HS-SB-4904 (15-17)	HS-SB-4905 (0-2)	HS-SB-4905 (15-17)
Depth Interval (Feet below ground surface)									18 - 20	0 - 2	6 - 8	0 - 2	11 - 13	0 - 2	15 - 17	0 - 2	15 - 17
Boring Location									House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)									UH17001-004	UH23024-008	UH23024-009	UH23024-004	UH23024-005	UH23024-014	UH23024-015	UH23030-003	UH23030-004
Sample Date									8/12/2019	8/20/2019	8/19/2019	8/19/2019	8/19/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019
Parameter (µg/kg)																	
Acenaphthene	300,000	8,700	190,000,000	81,000,000	14,000,000,000	41,000,000	NCL	11,000,000	<13	<14	<14	<14	<15	<14	<14	<15	<13
Acenaphthylene	5,900	ID	1,600,000	2,200,000	2,300,000,000	1,600,000	NCL	NCL	<13	<14	<14	<14	<15	<14	<14	<15	<13
Acetophenone	30,000	ID	120,000,000 (C)	44,000,000	33,000,000,000	47,000,000 (C)	NCL	23,000,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
Anthracene	41,000	ID	1,000,000,000 (D)	1,400,000,000	67,000,000,000	230,000,000	NCL	54,000,000	<13	<14	<14	<14	<15	<14	<14	<15	<13
Atrazine	60	150	NLV	NLV	ID	71,000 (DD)	NCL	240,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
Benzidine	1,000 (M)	1,000 (M)	NLV	NLV	46,000	1,000 (M)	NCL	53	<330	<360	<340	<360	<370	<350	<360	<360	<330
Benzo(a)anthracene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<13	<14	<14	7.4 [J]	<15	<14	<14	<15	<13
Benzo(a)pyrene	NLL	NLL	NLV	NLV	1,500,000	2,000	NCL	11,000	<13	<14	<14	4.1 [J]	<15	5.3 [J]	<14	4 [J]	<13
Benzo(b)fluoranthene	NLL	NLL	ID	ID	ID	20,000	NCL	110,000	<13	<14	<14	<14	17	<14	<14	<15	<13
Benzo(g,h,i)perylene	NLL	NLL	NLV	NLV	800,000,000	2,500,000	NCL	NCL	<13	<14	<14	<14	<15	<14	<14	<15	<13
Benzo(k)fluoranthene	NLL	NLL	NLV	NLV	ID	200,000	NCL	1,100,000	<13	<14	<14	<14	<15	<14	<14	<15	<13
Butyl benzyl phthalate	2,200,000 (C)	120,000	NLV	NLV	47,000,000,000	36,000,000 (C)	NCL	29,000,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
Caprolactam	120,000	NA	NLV	NLV	670,000,000	53,000,000 (DD)	NCL	94,000,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
Carbazole	9,400	1,100	NLV	NLV	62,000,000	530,000	NCL	NCL	<67	<73	<69	<72	<75	<70	<73	<73	<67
4-Chloro-3-methyl phenol	5,800	280	NLV	NLV	ID	4,500,000	NCL	19,000,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
bis(2-Chloroethyl)ether	100	100 (M)	8,300	3,800	9,400,000	13,000	NCL	23,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
2-Chloronaphthalene	620,000	NA	ID	ID	ID	56,000,000	NCL	14,000,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
2-Chlorophenol	900	360	430,000	960,000	1,200,000,000	1,400,000	NCL	1,200,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
Chrysene	NLL	NLL	ID	ID	ID	2,000,000	NCL	11,000,000	<13	<14	<14	3.8 [J]	<15	<14	<14	<15	<13
Dibenzo(a,h)anthracene	NLL	NLL	NLV	NLV	ID	2,000	NCL	11,000	<13	<14	<14	<14	<15	<14	<14	<15	<13
Dibenzofuran	ID	1,700	2,000,000	130,000	6,700,000	ID	NCL	220,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
3,3'-Dichlorobenzidine	2,000 (M)	2,000 (M)	NLV	NLV	6,500,000	6,600	NCL	120,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
2,4-Dichlorophenol	1,500	330 (M)	NLV	NLV	5,100,000,000	660,000 (DD)	NCL	570,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
Diethylphthalate	110,000	2,200	NLV	NLV	3,300,000,000	170,000,000 (C)	NCL	150,000,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
Dimethyl phthalate	1,500,000 (C)	NA	NLV	NLV	3,300,000,000	1,000,000,000 (C,D)	NCL	NCL	<67	<73	<69	<72	<75	<70	<73	<73	<67
2,4-Dimethylphenol	7,400	7,600	NLV	NLV	4,700,000,000	11,000,000	NCL	3,800,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
Di-n-butyl phthalate	960,000 (C)	11,000	NLV	NLV	3,300,000,000	27,000,000 (C)	NCL	19,000,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
4,6-Dinitro-2-methylphenol	830 (M)	NA	NLV	NLV	130,000,000	79,000	NCL	15,000	<330	<360	<340	<360	<370	<350	<360	<360	<330
2,4-Dinitrotoluene	430	NA	NLV	NLV	16,000,000	48,000	NCL	170,000	<130	<140	<130	<140	<150	<140	<140	<140	<130
Di-n-octylphthalate	100,000,000	ID	NLV	NLV	31,000,000,000	6,900,000	NCL	1,900,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
1,2-Diphenylhydrazine(as azobenzene)	4,200	ID	6,100,000	630,000	100,000,000	140,000	NCL	560,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
bis(2-Ethylhexyl)phthalate	NLL	NLL	NLV	NLV	700,000,000	2,800,000	NCL	3,800,000	45 [BJ]	<73	<69	52 [J]	<75	50 [J]	<73	52 [J]	<67
Fluoranthene	730,000	5,500	1,000,000,000 (D)	740,000,000	9,300,000,000	46,000,000	NCL	7,200,000	<13	<14	<14	7.7 [J]	<15	5.4 [J]	<14	5.2 [J]	<13
Fluorene	390,000	5,300	580,000,000	130,000,000	9,300,000,000	27,000,000	NCL	7,200,000	<13	<14	<14	<14	<15	<14	<14	<15	<13
Hexachlorobenzene	1,800	350	41,000	17,000	6,800,000	8,900	NCL	21,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
Hexachlorobutadiene	26,000	91	130,000	130,000	140,000,000	100,000	NCL	120,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
Hexachlorocyclopentadiene	320,000	ID	30,000	50,000	13,000,000	2,300,000 (C)	NCL	5,300	<330	<360	<340	<360	<370	<350	<360	<360	<330
Hexachloroethane	430	1,800	40,000	550,000	230,000,000	230,000	NCL	130,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
Indeno(1,2,3-c,d)pyrene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<13	<14	<14	<14	<15	<14	<14	<15	<13
Isophorone	15,000	26,000	NLV	NLV	12,000,000,000	4,800,000 (C)	NCL	38,000,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
2-Methylnaphthalene	57,000	4,200	2,700,000	1,500,000	670,000,000	8,100,000	NCL	720,000	<13	<14	<14	<14	<15	<14	<14	<15	<13
2-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	9,500,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
3+4-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	19,000,000	<130	<140	<130	<140	<150	<140	<140	<140	<130
Naphthalene	35,000	730	250,000	300,000	200,000,000	16,000,000	NCL	380,000	<13	<14	<14	<14	<15	<14	<14	<15	<13
Nitrobenzene	330 (M)	3,600	91,000	54,000	47,000,000	100,000	NCL	380,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
2-Nitrophenol	400	ID	NLV	NLV	ID	630,000	NCL	NCL	<130	<140	<130	<140	<150	<140	<140	<140	<130
N-Nitrosodi-n-propylamine	330 (M)	NA	NLV	NLV	1,600,000	1,200	NCL	7,800	<67	<73	<69	<72	<75	<70	<73	<73	<67
N-Nitrosodiphenylamine (Diphenylamine)	5,400	NA	NLV	NLV	2,200,000,000	1,700,000	NCL	11,000,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
Pentachlorophenol	22	17,000 (G)	NLV	NLV	100,000,000	90,000	NCL	100,000	<330	<360	<340	<360	<370	<350	<360	<360	<330
Phenanthrene	56,000	2,100	2,800,000	160,000	6,700,000	1,600,000	NCL	NCL	<13	<14	<14	<14	<15	3.5 [J]	<14	<15	<13
Phenol	88,000	9,000	NLV	NLV	40,000,000,000	40,000,000 (C,DD)	NCL	57,000,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
Pyrene	480,000	ID	1,000,000,000 (D)	650,000,000	6,700,000,000	29,000,000	NCL	5,400,000	<13	<14	<14	5.9 [J]	<15	4.1 [J]	<14	4 [J]	<13
2,4,5-Trichlorophenol	39,000	NA	NLV	NLV	23,000,000,000	23,000,000	NCL	19,000,000	<67	<73	<69	<72	<75	<70	<73	<73	<67
2,4,6-Trichlorophenol	2,400	330 (M)	NLV	NLV	1,000,000,000	710,000	NCL	190,000	<67	<73	<69	<72	<75	<70	<73	<73	<67

TABLE 1B
SUMMARY OF SOIL SAMPLE ANALYSIS - SVOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4906	HS-SB-4906	HS-SB-4907	HS-SB-4907	HS-SB-4908	HS-SB-4908	HS-SB-4909	HS-SB-4909	HS-SB-4909
Sample Name									HS-SB-4906 (0-2)	HS-SB-4906 (16-18)	HS-SB-4907 (0-2)	HS-SB-4907 (12-14)	HS-SB-4908 (0-2)	HS-SB-4908 (7-9)	HS-SB-4909 (0-2)	HS-SB-4909 (0-2) DUP	HS-SB-4909 (11-13)
Depth Interval (Feet below ground surface)									0 - 2	16 - 18	0 - 2	12 - 14	0 - 2	7 - 9	0 - 2	0 - 2	11 - 13
Boring Location									Off-Site	Off-Site	House St Site	House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)									UH23030-007	UH23030-008	UH17001-015	UH17001-016	UH17001-024	UH17001-025	UH23030-009	UH23030-010	UH23030-011
Sample Date									8/20/2019	8/20/2019	8/15/2019	8/15/2019	8/16/2019	8/16/2019	8/21/2019	8/21/2019	8/21/2019
Parameter (µg/kg)																	
Acenaphthene	300,000	8,700	190,000,000	81,000,000	14,000,000,000	41,000,000	NCL	11,000,000	<14	<14	<15	<14	<14	<15	<14	<14	<14
Acenaphthylene	5,900	ID	1,600,000	2,200,000	2,300,000,000	1,600,000	NCL	NCL	<14	<14	<15	<14	<14	<15	<14	<14	<14
Acetophenone	30,000	ID	120,000,000 (C)	44,000,000	33,000,000,000	47,000,000 (C)	NCL	23,000,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
Anthracene	41,000	ID	1,000,000,000 (D)	1,400,000,000	67,000,000,000	230,000,000	NCL	54,000,000	<14	<14	<15	<14	<14	<15	<14	<14	<14
Atrazine	60	150	NLV	NLV	ID	71,000 (DD)	NCL	240,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
Benzidine	1,000 (M)	1,000 (M)	NLV	NLV	46,000	1,000 (M)	NCL	53	<340	<340	<360	<350	<360	<380	<360	<340	<340
Benzo(a)anthracene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<14	<14	7.2 [J]	<14	<14	<15	<14	<14	<14
Benzo(a)pyrene	NLL	NLL	NLV	NLV	1,500,000	2,000	NCL	11,000	<14	<14	5.5 [J]	<14	<14	<15	<14	<14	<14
Benzo(b)fluoranthene	NLL	NLL	ID	ID	ID	20,000	NCL	110,000	<14	<14	22	<14	<14	<15	11 [J]	<14	<14
Benzo(g,h,i)perylene	NLL	NLL	NLV	NLV	800,000,000	2,500,000	NCL	NCL	<14	<14	<15	<14	<14	<15	<14	<14	<14
Benzo(k)fluoranthene	NLL	NLL	NLV	NLV	ID	200,000	NCL	1,100,000	<14	<14	5.3 [J]	<14	<14	<15	<14	<14	<14
Butyl benzyl phthalate	2,200,000 (C)	120,000	NLV	NLV	47,000,000,000	36,000,000 (C)	NCL	29,000,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
Caprolactam	120,000	NA	NLV	NLV	670,000,000	53,000,000 (DD)	NCL	94,000,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
Carbazole	9,400	1,100	NLV	NLV	62,000,000	530,000	NCL	NCL	<69	<68	<74	<71	<72	<77	<73	<70	<69
4-Chloro-3-methyl phenol	5,800	280	NLV	NLV	ID	4,500,000	NCL	19,000,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
bis(2-Chloroethyl)ether	100	100 (M)	8,300	3,800	9,400,000	13,000	NCL	23,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
2-Chloronaphthalene	620,000	NA	ID	ID	ID	56,000,000	NCL	14,000,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
2-Chlorophenol	900	360	430,000	960,000	1,200,000,000	1,400,000	NCL	1,200,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
Chrysene	NLL	NLL	ID	ID	ID	2,000,000	NCL	11,000,000	<14	<14	4.7 [J]	<14	<14	<15	<14	<14	<14
Dibenzo(a,h)anthracene	NLL	NLL	NLV	NLV	ID	2,000	NCL	11,000	<14	<14	<15	<14	<14	<15	<14	<14	<14
Dibenzofuran	ID	1,700	2,000,000	130,000	6,700,000	ID	NCL	220,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
3,3'-Dichlorobenzidine	2,000 (M)	2,000 (M)	NLV	NLV	6,500,000	6,600	NCL	120,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
2,4-Dichlorophenol	1,500	330 (M)	NLV	NLV	5,100,000,000	660,000 (DD)	NCL	570,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
Diethylphthalate	110,000	2,200	NLV	NLV	3,300,000,000	170,000,000 (C)	NCL	150,000,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
Dimethyl phthalate	1,500,000 (C)	NA	NLV	NLV	3,300,000,000	1,000,000,000 (C,D)	NCL	NCL	<69	<68	<74	<71	<72	<77	<73	<70	<69
2,4-Dimethylphenol	7,400	7,600	NLV	NLV	4,700,000,000	11,000,000	NCL	3,800,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
Di-n-butyl phthalate	960,000 (C)	11,000	NLV	NLV	3,300,000,000	27,000,000 (C)	NCL	19,000,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
4,6-Dinitro-2-methylphenol	830 (M)	NA	NLV	NLV	130,000,000	79,000	NCL	15,000	<340	<340	<360	<350	<360	<380	<360	<340	<340
2,4-Dinitrotoluene	430	NA	NLV	NLV	16,000,000	48,000	NCL	170,000	<130	<130	<140	<140	<140	<150	<140	<140	<130
Di-n-octylphthalate	100,000,000	ID	NLV	NLV	31,000,000,000	6,900,000	NCL	1,900,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
1,2-Diphenylhydrazine(as azobenzene)	4,200	ID	6,100,000	630,000	100,000,000	140,000	NCL	560,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
bis(2-Ethylhexyl)phthalate	NLL	NLL	NLV	NLV	700,000,000	2,800,000	NCL	3,800,000	<69	<68	53 [BJ]	48 [BJ]	<72	<77	<73	<70	<69
Fluoranthene	730,000	5,500	1,000,000,000 (D)	740,000,000	9,300,000,000	46,000,000	NCL	7,200,000	<14	<14	9.4 [J]	<14	<14	<15	8 [J]	10 [J]	<14
Fluorene	390,000	5,300	580,000,000	130,000,000	9,300,000,000	27,000,000	NCL	7,200,000	<14	<14	<15	<14	<14	<15	<14	<14	<14
Hexachlorobenzene	1,800	350	41,000	17,000	6,800,000	8,900	NCL	21,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
Hexachlorobutadiene	26,000	91	130,000	130,000	140,000,000	100,000	NCL	120,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
Hexachlorocyclopentadiene	320,000	ID	30,000	50,000	13,000,000	2,300,000 (C)	NCL	5,300	<340	<340	<360	<350	<360	<380	<360	<340	<340
Hexachloroethane	430	1,800	40,000	550,000	230,000,000	230,000	NCL	130,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
Indeno(1,2,3-c,d)pyrene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<14	<14	<15	<14	<14	<15	<14	<14	<14
Isophorone	15,000	26,000	NLV	NLV	12,000,000,000	4,800,000 (C)	NCL	38,000,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
2-Methylnaphthalene	57,000	4,200	2,700,000	1,500,000	670,000,000	8,100,000	NCL	720,000	<14	<14	<15	<14	<14	<15	<14	<14	<14
2-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	9,500,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
3+4-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	19,000,000	<130	<130	<140	<140	<140	<150	<140	<140	<130
Naphthalene	35,000	730	250,000	300,000	200,000,000	16,000,000	NCL	380,000	<14	<14	<15	<14	<14	<15	<14	<14	<14
Nitrobenzene	330 (M)	3,600	91,000	54,000	47,000,000	100,000	NCL	380,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
2-Nitrophenol	400	ID	NLV	NLV	ID	630,000	NCL	NCL	<130	<130	<140	<140	<140	<150	<140	<140	<130
N-Nitrosodi-n-propylamine	330 (M)	NA	NLV	NLV	1,600,000	1,200	NCL	7,800	<69	<68	<74	<71	<72	<77	<73	<70	<69
N-Nitrosodiphenylamine (Diphenylamine)	5,400	NA	NLV	NLV	2,200,000,000	1,700,000	NCL	11,000,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
Pentachlorophenol	22	17,000 (G)	NLV	NLV	100,000,000	90,000	NCL	100,000	<340	<340	<360	<350	<360	<380	<360	<340	<340
Phenanthrene	56,000	2,100	2,800,000	160,000	6,700,000	1,600,000	NCL	NCL	<14	<14	4.2 [J]	<14	<14	<15	<14	<14	<14
Phenol	88,000	9,000	NLV	NLV	40,000,000,000	40,000,000 (C,DD)	NCL	57,000,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
Pyrene	480,000	ID	1,000,000,000 (D)	650,000,000	6,700,000,000	29,000,000	NCL	5,400,000	<14	<14	7.3 [J]	<14	<14	<15	8.4 [J]	9.8 [J]	<14
2,4,5-Trichlorophenol	39,000	NA	NLV	NLV	23,000,000,000	23,000,000	NCL	19,000,000	<69	<68	<74	<71	<72	<77	<73	<70	<69
2,4,6-Trichlorophenol	2,400	330 (M)	NLV	NLV	1,000,000,000	710,000	NCL	190,000	<69	<68	<74	<71	<72	<77	<73	<70	<69

TABLE 1B
SUMMARY OF SOIL SAMPLE ANALYSIS - SVOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4910	HS-SB-4910	HS-SB-4910	HS-SB-4911	HS-SB-4911	HS-SB-4912	HS-SB-4912	HS-SB-4912	HS-SB-4913
Sample Name									HS-SB-4910 (0-2)	HS-SB-4910 (0-2) DUP	HS-SB-4910 (10-12)	HS-SB-4911 (0-2)	HS-SB-4911 (11-13)	HS-SB-4912 (0-2)	HS-SB-4912 (0-2) DUP	HS-SB-4912 (5-7)	HS-SB-4913 (0-2)
Depth Interval (Feet below ground surface)									0 - 2	0 - 2	10 - 12	0 - 2	11 - 13	0 - 2	0 - 2	5 - 7	0 - 2
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UH17001-010	UH17001-011	UH17001-014	UH17001-008	UH17001-009	UH17001-005	UH17001-006	UH17001-007	UH23030-016
Sample Date									8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/22/2019
Parameter (µg/kg)																	
Acenaphthene	300,000	8,700	190,000,000	81,000,000	14,000,000,000	41,000,000	NCL	11,000,000	<14	<15	<15	<14	<14	<14	<15	<14	<14
Acenaphthylene	5,900	ID	1,600,000	2,200,000	2,300,000,000	1,600,000	NCL	NCL	<14	<15	<15	<14	<14	<14	<15	<14	<14
Acetophenone	30,000	ID	120,000,000 (C)	44,000,000	33,000,000,000	47,000,000 (C)	NCL	23,000,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
Anthracene	41,000	ID	1,000,000,000 (D)	1,400,000,000	67,000,000,000	230,000,000	NCL	54,000,000	<14	<15	<15	<14	<14	<14	<15	<14	<14
Atrazine	60	150	NLV	NLV	ID	71,000 (DD)	NCL	240,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
Benzidine	1,000 (M)	1,000 (M)	NLV	NLV	46,000	1,000 (M)	NCL	53	<350	<370	<370	<350	<350	<360	<370	<340	<350
Benzo(a)anthracene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	5.1 [J]	6.9 [J]	7.2 [J]	<14	<14	<14	<15	<14	<14
Benzo(a)pyrene	NLL	NLL	NLV	NLV	1,500,000	2,000	NCL	11,000	4.9 [J]	4.9 [J]	<15	<14	<14	<14	3.7 [J]	<14	<14
Benzo(b)fluoranthene	NLL	NLL	ID	ID	ID	20,000	NCL	110,000	18	19	20	17	<14	16	17	<14	<14
Benzo(g,h,i)perylene	NLL	NLL	NLV	NLV	800,000,000	2,500,000	NCL	NCL	<14	<15	6.7 [J]	<14	<14	<14	<15	<14	<14
Benzo(k)fluoranthene	NLL	NLL	NLV	NLV	ID	200,000	NCL	1,100,000	7.8 [J]	5 [J]	<15	4.3 [J]	<14	<14	3.7 [J]	<14	<14
Butyl benzyl phthalate	2,200,000 (C)	120,000	NLV	NLV	47,000,000,000	36,000,000 (C)	NCL	29,000,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
Caprolactam	120,000	NA	NLV	NLV	670,000,000	53,000,000 (DD)	NCL	94,000,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
Carbazole	9,400	1,100	NLV	NLV	62,000,000	530,000	NCL	NCL	<72	<75	<74	<71	<71	<73	<75	<69	<72
4-Chloro-3-methyl phenol	5,800	280	NLV	NLV	ID	4,500,000	NCL	19,000,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
bis(2-Chloroethyl)ether	100	100 (M)	8,300	3,800	9,400,000	13,000	NCL	23,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
2-Chloronaphthalene	620,000	NA	ID	ID	ID	56,000,000	NCL	14,000,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
2-Chlorophenol	900	360	430,000	960,000	1,200,000,000	1,400,000	NCL	1,200,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
Chrysene	NLL	NLL	ID	ID	ID	2,000,000	NCL	11,000,000	4.4 [J]	3.9 [J]	4.2 [J]	<14	<14	<14	<15	<14	<14
Dibenzo(a,h)anthracene	NLL	NLL	NLV	NLV	ID	2,000	NCL	11,000	<14	<15	<15	<14	<14	<14	<15	<14	<14
Dibenzofuran	ID	1,700	2,000,000	130,000	6,700,000	ID	NCL	220,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
3,3'-Dichlorobenzidine	2,000 (M)	2,000 (M)	NLV	NLV	6,500,000	6,600	NCL	120,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
2,4-Dichlorophenol	1,500	330 (M)	NLV	NLV	5,100,000,000	660,000 (DD)	NCL	570,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
Diethylphthalate	110,000	2,200	NLV	NLV	3,300,000,000	170,000,000 (C)	NCL	150,000,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
Dimethyl phthalate	1,500,000 (C)	NA	NLV	NLV	3,300,000,000	1,000,000,000 (C,D)	NCL	NCL	<72	<75	<74	<71	<71	<73	<75	<69	<72
2,4-Dimethylphenol	7,400	7,600	NLV	NLV	4,700,000,000	11,000,000	NCL	3,800,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
Di-n-butyl phthalate	960,000 (C)	11,000	NLV	NLV	3,300,000,000	27,000,000 (C)	NCL	19,000,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
4,6-Dinitro-2-methylphenol	830 (M)	NA	NLV	NLV	130,000,000	79,000	NCL	15,000	<350	<370	<370	<350	<350	<360	<370	<340	<350
2,4-Dinitrotoluene	430	NA	NLV	NLV	16,000,000	48,000	NCL	170,000	<140	<150	<140	<140	<140	<140	<150	<130	<140
Di-n-octylphthalate	100,000,000	ID	NLV	NLV	31,000,000,000	6,900,000	NCL	1,900,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
1,2-Diphenylhydrazine(as azobenzene)	4,200	ID	6,100,000	630,000	100,000,000	140,000	NCL	560,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
bis(2-Ethylhexyl)phthalate	NLL	NLL	NLV	NLV	700,000,000	2,800,000	NCL	3,800,000	51 [BJ]	54 [BJ]	<74	50 [BJ]	49 [BJ]	51 [BJ]	53 [BJ]	48 [BJ]	<72
Fluoranthene	730,000	5,500	1,000,000,000 (D)	740,000,000	9,300,000,000	46,000,000	NCL	7,200,000	8.2 [J]	7.8 [J]	6 [J]	5.2 [J]	<14	4.7 [J]	6.7 [J]	<14	<14
Fluorene	390,000	5,300	580,000,000	130,000,000	9,300,000,000	27,000,000	NCL	7,200,000	<14	<15	<15	<14	<14	<14	<15	<14	<14
Hexachlorobenzene	1,800	350	41,000	17,000	6,800,000	8,900	NCL	21,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
Hexachlorobutadiene	26,000	91	130,000	130,000	140,000,000	100,000	NCL	120,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
Hexachlorocyclopentadiene	320,000	ID	30,000	50,000	13,000,000	2,300,000 (C)	NCL	5,300	<350	<370	<370	<350	<350	<360	<370	<340	<350
Hexachloroethane	430	1,800	40,000	550,000	230,000,000	230,000	NCL	130,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
Indeno(1,2,3-c,d)pyrene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<14	<15	<15	<14	<14	<14	<15	<14	<14
Isophorone	15,000	26,000	NLV	NLV	12,000,000,000	4,800,000 (C)	NCL	38,000,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
2-Methylnaphthalene	57,000	4,200	2,700,000	1,500,000	670,000,000	8,100,000	NCL	720,000	<14	<15	<15	<14	<14	<14	<15	<14	<14
2-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	9,500,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
3+4-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	19,000,000	<140	<150	<140	<140	<140	<140	<150	<130	<140
Naphthalene	35,000	730	250,000	300,000	200,000,000	16,000,000	NCL	380,000	<14	<15	<15	<14	<14	<14	<15	<14	<14
Nitrobenzene	330 (M)	3,600	91,000	54,000	47,000,000	100,000	NCL	380,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
2-Nitrophenol	400	ID	NLV	NLV	ID	630,000	NCL	NCL	<140	<150	<140	<140	<140	<140	<150	<130	<140
N-Nitrosodi-n-propylamine	330 (M)	NA	NLV	NLV	1,600,000	1,200	NCL	7,800	<72	<75	<74	<71	<71	<73	<75	<69	<72
N-Nitrosodiphenylamine (Diphenylamine)	5,400	NA	NLV	NLV	2,200,000,000	1,700,000	NCL	11,000,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
Pentachlorophenol	22	17,000 (G)	NLV	NLV	100,000,000	90,000	NCL	100,000	<350	<370	<370	<350	<350	<360	<370	<340	<350
Phenanthrene	56,000	2,100	2,800,000	160,000	6,700,000	1,600,000	NCL	NCL	5.1 [J]	4.3 [J]	<15	<14	<14	<14	4.1 [J]	<14	<14
Phenol	88,000	9,000	NLV	NLV	40,000,000,000	40,000,000 (C,DD)	NCL	57,000,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
Pyrene	480,000	ID	1,000,000,000 (D)	650,000,000	6,700,000,000	29,000,000	NCL	5,400,000	7.9 [J]	6.6 [J]	5.5 [J]	4.6 [J]	<14	4.3 [J]	5.8 [J]	<14	<14
2,4,5-Trichlorophenol	39,000	NA	NLV	NLV	23,000,000,000	23,000,000	NCL	19,000,000	<72	<75	<74	<71	<71	<73	<75	<69	<72
2,4,6-Trichlorophenol	2,400	330 (M)	NLV	NLV	1,000,000,000	710,000	NCL	190,000	<72	<75	<74	<71	<71	<73	<75	<69	<72

TABLE 1B
SUMMARY OF SOIL SAMPLE ANALYSIS - SVOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4913	HS-SB-4914	HS-SB-4914	HS-SB-4914	HS-SB-4915	HS-SB-4915
Sample Name									HS-SB-4913 (6-8)	HS-SB-4914 (0-2)	HS-SB-4914 (0-2) DUP	HS-SB-4914 (8-10)	HS-SB-4915 (0-2)	HS-SB-4915 (2-4)
Depth Interval (Feet below ground surface)									6 - 8	0 - 2	0 - 2	8 - 10	0 - 2	2 - 4
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UH23030-017	UH17001-017	UH17001-018	UH17001-019	UH23030-014	UH23030-015
Sample Date									8/22/2019	8/16/2019	8/16/2019	8/16/2019	8/21/2019	8/21/2019
Parameter (µg/kg)														
Acenaphthene	300,000	8,700	190,000,000	81,000,000	14,000,000,000	41,000,000	NCL	11,000,000	<14	<14	<14	<14	<16	<17
Acenaphthylene	5,900	ID	1,600,000	2,200,000	2,300,000,000	1,600,000	NCL	NCL	<14	<14	<14	<14	<16	<17
Acetophenone	30,000	ID	120,000,000 (C)	44,000,000	33,000,000,000	47,000,000 (C)	NCL	23,000,000	<70	<72	<70	<72	<81	<84
Anthracene	41,000	ID	1,000,000,000 (D)	1,400,000,000	67,000,000,000	230,000,000	NCL	54,000,000	<14	<14	<14	<14	<16	<17
Atrazine	60	150	NLV	NLV	ID	71,000 (DD)	NCL	240,000	<70	<72	<70	<72	<81	<84
Benzidine	1,000 (M)	1,000 (M)	NLV	NLV	46,000	1,000 (M)	NCL	53	<340	<350	<350	<350	<400	<410
Benzo(a)anthracene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<14	<14	<14	<14	15 [J]	<17
Benzo(a)pyrene	NLL	NLL	NLV	NLV	1,500,000	2,000	NCL	11,000	<14	<14	<14	<14	16	<17
Benzo(b)fluoranthene	NLL	NLL	ID	ID	ID	20,000	NCL	110,000	<14	15	16	<14	33	<17
Benzo(g,h,i)perylene	NLL	NLL	NLV	NLV	800,000,000	2,500,000	NCL	NCL	<14	<14	<14	<14	<16	<17
Benzo(k)fluoranthene	NLL	NLL	NLV	NLV	ID	200,000	NCL	1,100,000	<14	<14	<14	<14	10 [J]	<17
Butyl benzyl phthalate	2,200,000 (C)	120,000	NLV	NLV	47,000,000,000	36,000,000 (C)	NCL	29,000,000	<70	<72	<70	<72	<81	<84
Caprolactam	120,000	NA	NLV	NLV	670,000,000	53,000,000 (DD)	NCL	94,000,000	<70	<72	<70	<72	<81	<84
Carbazole	9,400	1,100	NLV	NLV	62,000,000	530,000	NCL	NCL	<70	<72	<70	<72	<81	<84
4-Chloro-3-methyl phenol	5,800	280	NLV	NLV	ID	4,500,000	NCL	19,000,000	<70	<72	<70	<72	<81	<84
bis(2-Chloroethyl)ether	100	100 (M)	8,300	3,800	9,400,000	13,000	NCL	23,000	<70	<72	<70	<72	<81	<84
2-Chloronaphthalene	620,000	NA	ID	ID	ID	56,000,000	NCL	14,000,000	<70	<72	<70	<72	<81	<84
2-Chlorophenol	900	360	430,000	960,000	1,200,000,000	1,400,000	NCL	1,200,000	<70	<72	<70	<72	<81	<84
Chrysene	NLL	NLL	ID	ID	ID	2,000,000	NCL	11,000,000	<14	<14	<14	<14	15 [J]	<17
Dibenzo(a,h)anthracene	NLL	NLL	NLV	NLV	ID	2,000	NCL	11,000	<14	<14	<14	<14	<16	<17
Dibenzofuran	ID	1,700	2,000,000	130,000	6,700,000	ID	NCL	220,000	<70	<72	<70	<72	<81	<84
3,3'-Dichlorobenzidine	2,000 (M)	2,000 (M)	NLV	NLV	6,500,000	6,600	NCL	120,000	<70	<72	<70	<72	<81	<84
2,4-Dichlorophenol	1,500	330 (M)	NLV	NLV	5,100,000,000	660,000 (DD)	NCL	570,000	<70	<72	<70	<72	<81	<84
Diethylphthalate	110,000	2,200	NLV	NLV	3,300,000,000	170,000,000 (C)	NCL	150,000,000	<70	<72	<70	<72	<81	<84
Dimethyl phthalate	1,500,000 (C)	NA	NLV	NLV	3,300,000,000	1,000,000,000 (C,D)	NCL	NCL	<70	<72	<70	<72	<81	<84
2,4-Dimethylphenol	7,400	7,600	NLV	NLV	4,700,000,000	11,000,000	NCL	3,800,000	<70	<72	<70	<72	<81	<84
Di-n-butyl phthalate	960,000 (C)	11,000	NLV	NLV	3,300,000,000	27,000,000 (C)	NCL	19,000,000	<70	<72	<70	<72	<81	<84
4,6-Dinitro-2-methylphenol	830 (M)	NA	NLV	NLV	130,000,000	79,000	NCL	15,000	<340	<350	<350	<350	<400	<410
2,4-Dinitrotoluene	430	NA	NLV	NLV	16,000,000	48,000	NCL	170,000	<140	<140	<140	<140	<160	<160
Di-n-octylphthalate	100,000,000	ID	NLV	NLV	31,000,000,000	6,900,000	NCL	1,900,000	<70	<72	<70	<72	<81	<84
1,2-Diphenylhydrazine(as azobenzene)	4,200	ID	6,100,000	630,000	100,000,000	140,000	NCL	560,000	<70	<72	<70	<72	<81	<84
bis(2-Ethylhexyl)phthalate	NLL	NLL	NLV	NLV	700,000,000	2,800,000	NCL	3,800,000	<70	<72	48 [BJ]	<72	<81	<84
Fluoranthene	730,000	5,500	1,000,000,000 (D)	740,000,000	9,300,000,000	46,000,000	NCL	7,200,000	<14	<14	4 [J]	<14	22	<17
Fluorene	390,000	5,300	580,000,000	130,000,000	9,300,000,000	27,000,000	NCL	7,200,000	<14	<14	<14	<14	<16	<17
Hexachlorobenzene	1,800	350	41,000	17,000	6,800,000	8,900	NCL	21,000	<70	<72	<70	<72	<81	<84
Hexachlorobutadiene	26,000	91	130,000	130,000	140,000,000	100,000	NCL	120,000	<70	<72	<70	<72	<81	<84
Hexachlorocyclopentadiene	320,000	ID	30,000	50,000	13,000,000	2,300,000 (C)	NCL	5,300	<340	<350	<350	<350	<400	<410
Hexachloroethane	430	1,800	40,000	550,000	230,000,000	230,000	NCL	130,000	<70	<72	<70	<72	<81	<84
Indeno(1,2,3-c,d)pyrene	NLL	NLL	NLV	NLV	ID	20,000	NCL	110,000	<14	<14	<14	<14	<16	<17
Isophorone	15,000	26,000	NLV	NLV	12,000,000,000	4,800,000 (C)	NCL	38,000,000	<70	<72	<70	<72	<81	<84
2-Methylnaphthalene	57,000	4,200	2,700,000	1,500,000	670,000,000	8,100,000	NCL	720,000	<14	<14	<14	<14	<16	<17
2-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	9,500,000	<70	<72	<70	<72	<81	<84
3+4-Methylphenol	NCL	NCL	NCL	NCL	NCL	NCL	NCL	19,000,000	<140	<140	<140	<140	<160	<160
Naphthalene	35,000	730	250,000	300,000	200,000,000	16,000,000	NCL	380,000	<14	<14	<14	<14	<16	<17
Nitrobenzene	330 (M)	3,600	91,000	54,000	47,000,000	100,000	NCL	380,000	<70	<72	<70	<72	<81	<84
2-Nitrophenol	400	ID	NLV	NLV	ID	630,000	NCL	NCL	<140	<140	<140	<140	<160	<160
N-Nitrosodi-n-propylamine	330 (M)	NA	NLV	NLV	1,600,000	1,200	NCL	7,800	<70	<72	<70	<72	<81	<84
N-Nitrosodiphenylamine (Diphenylamine)	5,400	NA	NLV	NLV	2,200,000,000	1,700,000	NCL	11,000,000	<70	<72	<70	<72	<81	<84
Pentachlorophenol	22	17,000 (G)	NLV	NLV	100,000,000	90,000	NCL	100,000	<340	<350	<350	<350	<400	<410
Phenanthrene	56,000	2,100	2,800,000	160,000	6,700,000	1,600,000	NCL	NCL	<14	<14	<14	<14	13 [J]	<17
Phenol	88,000	9,000	NLV	NLV	40,000,000,000	40,000,000 (C,DD)	NCL	57,000,000	<70	<72	<70	<72	<81	<84
Pyrene	480,000	ID	1,000,000,000 (D)	650,000,000	6,700,000,000	29,000,000	NCL	5,400,000	<14	<14	3.9 [J]	<14	20	<17
2,4,5-Trichlorophenol	39,000	NA	NLV	NLV	23,000,000,000	23,000,000	NCL	19,000,000	<70	<72	<70	<72	<81	<84
2,4,6-Trichlorophenol	2,400	330 (M)	NLV	NLV	1,000,000,000	710,000	NCL	190,000	<70	<72	<70	<72	<81	<84

TABLE 1C
SUMMARY OF SOIL SAMPLE ANALYSIS - METALS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2104	HS-SB-2104	HS-SB-2105	HS-SB-2105	HS-SB-2106	HS-SB-2106	HS-SB-2106	HS-SB-2107	HS-SB-2107
Sample Name										HS-SB-2104 (1-2)	HS-SB-2104 (3-4)	HS-SB-2105 (2-3)	HS-SB-2105 (3-4)	HS-SB-2106 (2-3)	HS-SB-2106 (2-3) DUP	HS-SB-2106 (5-6)	HS-SB-2107 (2-3)	HS-SB-2107 (6-7)
Depth Interval (Feet below ground surface)										1 - 2	3 - 4	2 - 3	3 - 4	2 - 3	2 - 3	5 - 6	2 - 3	6 - 7
Boring Location										House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)										UG02019-019	UG02019-020	UG02019-022	UG02019-023	UG09018-001	UG09018-003	UG09018-002	UG09018-004	UG09018-005
Sample Date										6/28/2019	6/28/2019	6/28/2019	6/28/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019
Parameter (µg/kg)																		
Aluminum	6,900,000	1,000	NA	NLV	NLV	ID	50,000,000 (DD)	NCL	230,000,000	2,200,000	***11,000,000***	6,500,000	2,100,000	2,600,000	2,600,000	1,900,000	***11,000,000***	3,600,000
Antimony	NA	4,300	94,000	NLV	NLV	13,000,000	180,000	NCL	94,000	<460	<500	<520	<510	<440	<470	<460	<460	<410
Arsenic	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NCL	68,000	810	3,600	2,400	1,100	520	610	1,000	3,200	1,700
Barium	75,000	1,300,000	660,000 (G)	NLV	NLV	330,000,000	37,000,000	NCL	46,000,000	12,000	100,000	49,000	14,000	24,000	24,000	10,000	54,000	20,000
Beryllium	NA	51,000	320,000 (G)	NLV	NLV	1,300,000	410,000	NCL	470,000	65 [J]	110	110	63 [J]	130	140	140	610	250
Boron	NA	10,000	140,000	NLV	NLV	ID	48,000,000 (DD)	NCL	47,000,000	<12,000	***25,000***	9,200 [J]	2,700 [J]	<11,000	<12,000	<12,000	***13,000***	5,200 [J]
Cadmium	1,200	6,000	3,000 (G)	NLV	NLV	1,700,000	550,000	NCL	NCL	<120	120 [J]	49 [J]	<130	<110	<120	<120	40 [J]	<110
Chromium (Total)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	3,600	27,000	15,000	3,700	3,800	4,000	4,400	21,000	6,700
Trivalent Chromium (Calculated: Total - Hexavalent)	18,000	1,000,000,000	1,000,000,000 (G,D)	NLV	NLV	330,000,000	790,000,000	NCL	350,000,000	3,600	27,000	15,000	3,700	3,500	3,800	4,200	21,000	6,400
Hexavalent Chromium	NA	30,000	3,300	NLV	NLV	260,000	2,500,000	NCL	30,000	<1,100	<1,200	270 [J]	<1,100	310 [J]	250 [J]	220 [J]	400 [J]	290 [J]
Cobalt	6,800	800	2,000	NLV	NLV	13,000,000	2,600,000	NCL	70,000	1,100 [J]	***8,600***	4,800	1,100 [J]	1,100	1,400	1,200	5,700	1,900
Copper	32,000	5,800,000	100,000 (G)	NLV	NLV	130,000,000	20,000,000	NCL	9,400,000	1,500	17,000	11,000	2,100	1,300	1,400	2,200	11,000	3,600
Iron	12,000,000	6,000	NA	NLV	NLV	ID	160,000,000	NCL	160,000,000	3,300,000	***20,000,000***	11,000,000	3,600,000	3,400,000	3,400,000	3,300,000	***16,000,000***	5,700,000
Lead	21,000	700,000	2,500,000 (G)	NLV	NLV	100,000,000	400,000	NCL	400,000	1,600	8,800	5,000	1,600	1,500	1,700	1,600	7,300	2,500
Magnesium	NA	8,000,000	NA	NLV	NLV	6,700,000,000	1,000,000,000 (D)	NCL	NCL	360,000	***20,000,000***	1,600,000	490,000	370,000	390,000	470,000	1,900,000	730,000
Mercury	130	1,700	50 (M)	48,000	52,000	20,000,000	160,000	0.027	33,000	<88	26 [J]	<87	<87	<82	<76	<86	<82	<83
Molybdenum	NA	1,500	64,000	NLV	NLV	ID	2,600,000	NCL	1,200,000	<2,300	<2,500	<2,600	<2,500	<2,200	<2,300	<2,300	<2,300	<2,100
Nickel	20,000	100,000	100,000 (G)	NLV	NLV	13,000,000	40,000,000	NCL	4,600,000	2,600	23,000	11,000	3,000	2,400	2,500	2,700	16,000	4,900
Selenium	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NCL	1,200,000	<1,200	<1,300	<1,400	<1,300	<1,100	<1,200	<1,200	<1,200	<1,100
Silver	1,000	4,500	100 (M)	NLV	NLV	6,700,000	2,500,000	NCL	1,200,000	<230	<250	<260	<250	<220	<230	<230	<230	<210
Sodium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<93,000	79,000 [J]	<100,000	<100,000	<88,000	<93,000	<92,000	<92,000	<82,000
Thallium	NA	2,300	4,200	NLV	NLV	13,000,000	35,000	NCL	2,300	<120	180	91 [J]	<130	43 [J]	37 [J]	<120	150	45 [J]
Titanium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	110,000	410,000	260,000	100,000	110,000	110,000	99,000	330,000	130,000
Vanadium	NA	72,000	430,000	NLV	NLV	ID	750,000 (DD)	NCL	1,200,000	6,800	38,000	21,000	6,600	6,400	6,300	6,500	29,000	11,000
Zinc	47,000	2,400,000	230,000 (G)	NLV	NLV	ID	170,000,000	NCL	70,000,000	7,000 [B]	34,000 [B]	18,000 [B]	6,100 [B]	9,500	9,900	6,600	28,000	11,000

TABLE 1C
SUMMARY OF SOIL SAMPLE ANALYSIS - METALS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2108	HS-SB-2108	HS-SB-2109	HS-SB-2109	HS-SB-2110	HS-SB-2110	HS-SB-2111	HS-SB-2111	HS-SB-2112
Sample Name										HS-SB-2108 (1-2)	HS-SB-2108 (3-4)	HS-SB-2109 (0-1)	HS-SB-2109 (2-3)	HS-SB-2110 (1-2)	HS-SB-2110 (3-4)	HS-SB-2111 (0-1)	HS-SB-2111 (2-3)	HS-SB-2112 (2-3)
Depth Interval (Feet below ground surface)										1 - 2	3 - 4	0 - 1	2 - 3	1 - 2	3 - 4	0 - 1	2 - 3	2 - 3
Boring Location										House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)										UG09018-006	UG09018-007	UG09018-008	UG09018-009	UG09018-010	UG09018-011	UG09018-012	UG09018-013	UG09018-014
Sample Date										7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/2/2019
Parameter (µg/kg)																		
Aluminum	6,900,000	1,000	NA	NLV	NLV	ID	50,000,000 (DD)	NCL	230,000,000	3,700,000	3,600,000	6,700,000	4,200,000	4,200,000	6,300,000	2,800,000	3,000,000	***8,500,000***
Antimony	NA	4,300	94,000	NLV	NLV	13,000,000	180,000	NCL	94,000	<430	<510	<580	<510	<400	<520	<410	<520	<490
Arsenic	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NCL	68,000	800	1,300	2,500	920	1,200	1,500	850	640	4,100
Barium	75,000	1,300,000	660,000 (G)	NLV	NLV	330,000,000	37,000,000	NCL	46,000,000	41,000	14,000	76,000	33,000	45,000	32,000	27,000	17,000	65,000
Beryllium	NA	51,000	320,000 (G)	NLV	NLV	1,300,000	410,000	NCL	470,000	170	180	370	180	220	350	150	150	650
Boron	NA	10,000	140,000	NLV	NLV	ID	48,000,000 (DD)	NCL	47,000,000	<11,000	3,200 [J]	4,500 [J]	<13,000	2,700 [J]	6,800 [J]	<11,000	<13,000	***18,000***
Cadmium	1,200	6,000	3,000 (G)	NLV	NLV	1,700,000	550,000	NCL	NCL	58 [J]	26 [J]	190	<130	69 [J]	<140	78 [J]	<130	71 [J]
Chromium (Total)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	5,700	6,300	27,000	6,300	12,000	11,000	29,000	5,000	18,000
Trivalent Chromium (Calculated: Total - Hexavalent)	18,000	1,000,000,000	1,000,000,000 (G,D)	NLV	NLV	330,000,000	790,000,000	NCL	350,000,000	5,500	6,100	26,000	6,100	12,000	11,000	28,000	4,700	18,000
Hexavalent Chromium	NA	30,000	3,300	NLV	NLV	260,000	2,500,000	NCL	30,000	220 [J]	220 [J]	590 [J]	230 [J]	270 [J]	350 [J]	950 [J]	270 [J]	270 [J]
Cobalt	6,800	800	2,000	NLV	NLV	13,000,000	2,600,000	NCL	70,000	1,500	2,200	3,200	2,000	1,800	3,700	980 [J]	1,400	6,000
Copper	32,000	5,800,000	100,000 (G)	NLV	NLV	130,000,000	20,000,000	NCL	9,400,000	1,800	2,700	5,100	2,200	2,700	5,400	1,900	1,600	12,000
Iron	12,000,000	6,000	NA	NLV	NLV	ID	160,000,000	NCL	160,000,000	4,800,000	5,700,000	8,500,000	5,300,000	5,400,000	8,600,000	3,900,000	4,200,000	***15,000,000***
Lead	21,000	700,000	2,500,000 (G)	NLV	NLV	100,000,000	400,000	NCL	400,000	3,100	2,400	12,000	2,800	4,900	4,200	4,500	1,800	6,800
Magnesium	NA	8,000,000	NA	NLV	NLV	6,700,000,000	1,000,000,000 (D)	NCL	NCL	480,000	750,000	890,000	620,000	600,000	1,100,000	400,000	530,000	4,200,000
Mercury	130	1,700	50 (M)	48,000	52,000	20,000,000	160,000	0.027	33,000	<82	<81	<90	<79	<86	<86	<77	<83	<83
Molybdenum	NA	1,500	64,000	NLV	NLV	ID	2,600,000	NCL	1,200,000	<2,200	<2,500	<2,900	<2,600	<2,000	<2,600	<2,000	<2,600	<2,400
Nickel	20,000	100,000	100,000 (G)	NLV	NLV	13,000,000	40,000,000	NCL	4,600,000	3,200	4,500	6,800	4,200	4,100	8,100	2,600	3,300	16,000
Selenium	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NCL	1,200,000	<1,100	<1,300	<1,500	<1,300	<1,000	<1,400	<1,100	<1,300	<1,300
Silver	1,000	4,500	100 (M)	NLV	NLV	6,700,000	2,500,000	NCL	1,200,000	<220	<250	<290	<260	<200	<260	<200	<260	<240
Sodium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<87,000	<100,000	<120,000	<100,000	<79,000	<100,000	<82,000	<100,000	39,000 [J]
Thallium	NA	2,300	4,200	NLV	NLV	13,000,000	35,000	NCL	2,300	52 [J]	36 [J]	130 [J]	51 [J]	66 [J]	78 [J]	37 [J]	<130	150
Titanium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	140,000	150,000	170,000	160,000	130,000	190,000	110,000	140,000	290,000
Vanadium	NA	72,000	430,000	NLV	NLV	ID	750,000 (DD)	NCL	1,200,000	8,800	10,000	15,000	10,000	9,700	16,000	6,400	7,800	26,000
Zinc	47,000	2,400,000	230,000 (G)	NLV	NLV	ID	170,000,000	NCL	70,000,000	18,000	11,000	48,000	15,000	23,000	17,000	18,000	10,000	29,000

TABLE 1C
SUMMARY OF SOIL SAMPLE ANALYSIS - METALS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2112	HS-SB-2113	HS-SB-2113	HS-SB-2114	HS-SB-2114	HS-SB-2115	HS-SB-2115	HS-SB-2116	HS-SB-2116
Sample Name										HS-SB-2112 (4-5)	HS-SB-2113 (1-2)	HS-SB-2113 (3-4)	HS-SB-2114 (0-1)	HS-SB-2114 (3-4)	HS-SB-2115 (0-1)	HS-SB-2115 (3-4)	HS-SB-2116 (0-1)	HS-SB-2116 (3-4)
Depth Interval (Feet below ground surface)										4 - 5	1 - 2	3 - 4	0 - 1	3 - 4	0 - 1	3 - 4	0 - 1	3 - 4
Boring Location										House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)										UG09018-015	UG09018-016	UG09018-017	UG09018-018	UG09018-019	UG09013-001	UG09013-002	UG09013-003	UG09013-004
Sample Date										7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019
Parameter (µg/kg)																		
Aluminum	6,900,000	1,000	NA	NLV	NLV	ID	50,000,000 (DD)	NCL	230,000,000	6,600,000	2,500,000	***9,800,000***	2,900,000	6,700,000	2,400,000	1,500,000	2,300,000	3,700,000
Antimony	NA	4,300	94,000	NLV	NLV	13,000,000	180,000	NCL	94,000	<480	<570	<630	<510	<510	<450	<440	<430	<550
Arsenic	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NCL	68,000	1,900	750	3,400	780	3,300	1,200	1,200	820	1,500
Barium	75,000	1,300,000	660,000 (G)	NLV	NLV	330,000,000	37,000,000	NCL	46,000,000	48,000	11,000	73,000	12,000	49,000	11,000	12,000	12,000	28,000
Beryllium	NA	51,000	320,000 (G)	NLV	NLV	1,300,000	410,000	NCL	470,000	500	130	760	130	530	130	130	110	310
Boron	NA	10,000	140,000	NLV	NLV	ID	48,000,000 (DD)	NCL	47,000,000	***18,000***	<15,000	***21,000***	<13,000	***15,000***	<12,000	3,900 [J]	<11,000	8,600 [J]
Cadmium	1,200	6,000	3,000 (G)	NLV	NLV	1,700,000	550,000	NCL	NCL	90 [J]	<150	93 [J]	<130	52 [J]	24 [J]	<120	<110	34 [J]
Chromium (Total)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	16,000	40,000	24,000	54,000	15,000	150,000	4,200	6,200	9,100
Trivalent Chromium (Calculated: Total - Hexavalent)	18,000	1,000,000,000	1,000,000,000 (G,D)	NLV	NLV	330,000,000	790,000,000	NCL	350,000,000	16,000	38,000	24,000	52,000	15,000	150,000	4,200	5,900	9,100
Hexavalent Chromium	NA	30,000	3,300	NLV	NLV	260,000	2,500,000	NCL	30,000	<1,000	2,200	340 [J]	1,600	220 [J]	1,100	<1,000	340 [J]	<1,100
Cobalt	6,800	800	2,000	NLV	NLV	13,000,000	2,600,000	NCL	70,000	4,700	1,100 [J]	6,600	1,000 [J]	4,800	1,100 [J]	1,400	910 [J]	2,700
Copper	32,000	5,800,000	100,000 (G)	NLV	NLV	130,000,000	20,000,000	NCL	9,400,000	11,000	1,700	14,000	1,800	9,500	2,300	3,200	1,500	5,700
Iron	12,000,000	6,000	NA	NLV	NLV	ID	160,000,000	NCL	160,000,000	12,000,000	3,500,000	***17,000,000***	3,700,000	***13,000,000***	3,800,000	4,300,000	3,300,000	7,400,000
Lead	21,000	700,000	2,500,000 (G)	NLV	NLV	100,000,000	400,000	NCL	400,000	5,500	2,200	7,400	2,300	5,200	3,700	1,700	2,100	3,200
Magnesium	NA	8,000,000	NA	NLV	NLV	6,700,000,000	1,000,000,000 (D)	NCL	NCL	***13,000,000***	450,000	7,300,000	430,000	5,900,000	400,000	7,300,000	330,000	6,000,000
Mercury	130	1,700	50 (M)	48,000	52,000	20,000,000	160,000	0.027	33,000	<83	<91	<99	<93	<79	<81	<81	<76	<84
Molybdenum	NA	1,500	64,000	NLV	NLV	ID	2,600,000	NCL	1,200,000	<2,400	<2,900	<3,200	<2,600	<2,600	<2,300	<2,200	<2,100	<2,700
Nickel	20,000	100,000	100,000 (G)	NLV	NLV	13,000,000	40,000,000	NCL	4,600,000	13,000	2,600	19,000	2,400	13,000	3,000	3,700	2,600	7,400
Selenium	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NCL	1,200,000	<1,200	<1,500	<1,700	<1,300	<1,300	<1,200	<1,200	<1,100	<1,400
Silver	1,000	4,500	100 (M)	NLV	NLV	6,700,000	2,500,000	NCL	1,200,000	<240	<290	<320	<260	<260	<230	<220	<210	<270
Sodium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	54,000 [J]	<110,000	<130,000	<100,000	40,000 [J]	<90,000	33,000 [J]	<86,000	<110,000
Thallium	NA	2,300	4,200	NLV	NLV	13,000,000	35,000	NCL	2,300	110 [J]	<150	160 [J]	<130	120 [J]	35 [J]	32 [J]	<110	63 [J]
Titanium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	240,000	130,000	340,000	120,000	240,000	110,000	91,000	94,000	190,000
Vanadium	NA	72,000	430,000	NLV	NLV	ID	750,000 (DD)	NCL	1,200,000	22,000	5,900	30,000	6,200	22,000	5,400	6,400	5,800	14,000
Zinc	47,000	2,400,000	230,000 (G)	NLV	NLV	ID	170,000,000	NCL	70,000,000	24,000	19,000	33,000	16,000	23,000	28,000	7,900	8,600	13,000

TABLE 1C
SUMMARY OF SOIL SAMPLE ANALYSIS - METALS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2117	HS-SB-2117	HS-SB-2117	HS-SB-2118	HS-SB-2118	HS-SB-2119	HS-SB-2119	HS-SB-2120	HS-SB-2120
Sample Name										HS-SB-2117 (0-1)	HS-SB-2117 (2-3)	HS-SB-2117 (2-3) DUP	HS-SB-2118 (0-1)	HS-SB-2118 (3-4)	HS-SB-2119 (0-1)	HS-SB-2119 (3-4)	HS-SB-2120 (1-2)	HS-SB-2120 (1-2) DUP
Depth Interval (Feet below ground surface)										0 - 1	2 - 3	2 - 3	0 - 1	3 - 4	0 - 1	3 - 4	1 - 2	1 - 2
Boring Location										House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)										UG09013-005	UG09013-006	UG09013-007	UG09013-008	UG09013-009	UG09013-010	UG09013-011	UG09013-012	UG09013-013
Sample Date										7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019
Parameter (µg/kg)																		
Aluminum	6,900,000	1,000	NA	NLV	NLV	ID	50,000,000 (DD)	NCL	230,000,000	3,700,000	2,900,000	3,300,000	2,300,000	930,000	2,300,000	2,000,000	1,700,000	1,800,000
Antimony	NA	4,300	94,000	NLV	NLV	13,000,000	180,000	NCL	94,000	<460	<450	<460	<420	<440	<400	<450	<490	<440
Arsenic	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NCL	68,000	2,000	3,700	5,400	1,500	580	1,300	2,100	1,300	1,200
Barium	75,000	1,300,000	660,000 (G)	NLV	NLV	330,000,000	37,000,000	NCL	46,000,000	26,000	17,000	23,000	9,800	3,800	12,000	13,000	13,000	13,000
Beryllium	NA	51,000	320,000 (G)	NLV	NLV	1,300,000	410,000	NCL	470,000	250	200	240	140	62 [J]	130	170	88 [J]	100
Boron	NA	10,000	140,000	NLV	NLV	ID	48,000,000 (DD)	NCL	47,000,000	<12,000	6,000 [J]	6,000 [J]	<11,000	<11,000	<10,000	3,800 [J]	<13,000	<11,000
Cadmium	1,200	6,000	3,000 (G)	NLV	NLV	1,700,000	550,000	NCL	NCL	42 [J]	34 [J]	42 [J]	<110	<110	27 [J]	<120	<130	25 [J]
Chromium (Total)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	14,000	7,600	7,300	7,700	2,000	7,000	4,600	5,100	5,500
Trivalent Chromium (Calculated: Total - Hexavalent)	18,000	1,000,000,000	1,000,000,000 (G,D)	NLV	NLV	330,000,000	790,000,000	NCL	350,000,000	14,000	7,300	7,000	7,300	1,800	6,600	4,300	4,800	5,100
Hexavalent Chromium	NA	30,000	3,300	NLV	NLV	260,000	2,500,000	NCL	30,000	270 [J]	310 [J]	310 [J]	360 [J]	210 [J]	410 [J]	310 [J]	330 [J]	370 [J]
Cobalt	6,800	800	2,000	NLV	NLV	13,000,000	2,600,000	NCL	70,000	2,500	2,300	2,400	1,100	630 [J]	1,300	1,600	1,100 [J]	1,100
Copper	32,000	5,800,000	100,000 (G)	NLV	NLV	130,000,000	20,000,000	NCL	9,400,000	3,300	5,200	6,300	2,100	1,200	2,600	3,000	1,800	1,900
Iron	12,000,000	6,000	NA	NLV	NLV	ID	160,000,000	NCL	160,000,000	7,500,000	7,800,000	8,700,000	4,700,000	2,100,000	4,700,000	4,700,000	3,800,000	3,900,000
Lead	21,000	700,000	2,500,000 (G)	NLV	NLV	100,000,000	400,000	NCL	400,000	5,500	6,200	7,100	3,000	1,100	2,700	2,900	2,900	2,900
Magnesium	NA	8,000,000	NA	NLV	NLV	6,700,000,000	1,000,000,000 (D)	NCL	NCL	650,000	1,400,000	1,100,000	520,000	250,000	490,000	570,000	350,000	390,000
Mercury	130	1,700	50 (M)	48,000	52,000	20,000,000	160,000	0.027	33,000	<80	<83	<90	<82	<83	<81	<86	<80	<82
Molybdenum	NA	1,500	64,000	NLV	NLV	ID	2,600,000	NCL	1,200,000	<2,300	<2,200	<2,300	<2,100	<2,200	<2,000	<2,300	<2,400	<2,200
Nickel	20,000	100,000	100,000 (G)	NLV	NLV	13,000,000	40,000,000	NCL	4,600,000	6,100	6,900	6,400	2,500	1,300	3,400	3,900	2,400	2,600
Selenium	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NCL	1,200,000	<1,200	<1,200	<1,200	<1,100	<1,100	<1,000	<1,200	<1,300	<1,100
Silver	1,000	4,500	100 (M)	NLV	NLV	6,700,000	2,500,000	NCL	1,200,000	<230	<220	<230	<210	<220	<200	<230	<240	<220
Sodium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<93,000	<89,000	<91,000	<84,000	<87,000	<80,000	<91,000	<98,000	<87,000
Thallium	NA	2,300	4,200	NLV	NLV	13,000,000	35,000	NCL	2,300	46 [J]	50 [J]	62 [J]	26 [J]	<110	27 [J]	36 [J]	<130	<110
Titanium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	140,000	160,000	160,000	140,000	67,000	150,000	98,000	110,000	110,000
Vanadium	NA	72,000	430,000	NLV	NLV	ID	750,000 (DD)	NCL	1,200,000	12,000	11,000	14,000	8,300	3,700	7,500	6,800	6,900	6,700
Zinc	47,000	2,400,000	230,000 (G)	NLV	NLV	ID	170,000,000	NCL	70,000,000	20,000	17,000	17,000	7,900	4,300	10,000	8,500	7,500	8,200

TABLE 1C
SUMMARY OF SOIL SAMPLE ANALYSIS - METALS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2120	HS-SB-2125	HS-SB-2125	HS-SB-2125	HS-SB-2125	HS-SB-2125	HS-SB-2126	HS-SB-2126	HS-SB-2126
Sample Name										HS-SB-2120 (4-5)	HS-SB-2125 (1-2)	HS-SB-2125 (7-8)	HS-SB-2125 (25-27)	HS-SB-2125 (30-32)	HS-SB-2125 (35-37)	HS-SB-2126 (25-27)	HS-SB-2126 (31-33)	HS-SB-2126 (37-39)
Depth Interval (Feet below ground surface)										4 - 5	1 - 2	7 - 8	25 - 27	30 - 32	35 - 37	25 - 27	31 - 33	37 - 39
Boring Location										House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)										UG09013-014	UG02019-008	UG02019-009	UG02019-010	UG02019-013	UG02019-012	UG02019-003	UG02019-004	UG02019-005
Sample Date										7/2/2019	6/27/2019	6/27/2019	6/27/2019	6/28/2019	6/28/2019	6/27/2019	6/27/2019	6/27/2019
Parameter (µg/kg)																		
Aluminum	6,900,000	1,000	NA	NLV	NLV	ID	50,000,000 (DD)	NCL	230,000,000	***7,000,000***	3,500,000	1,700,000	530,000	580,000	1,400,000	560,000	720,000	1,100,000
Antimony	NA	4,300	94,000	NLV	NLV	13,000,000	180,000	NCL	94,000	<480	<500	<510	<450	<480	<500	<440	<490	<470
Arsenic	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NCL	68,000	2,900	1,400	2,000	500	530	1,100	550	650	760
Barium	75,000	1,300,000	660,000 (G)	NLV	NLV	330,000,000	37,000,000	NCL	46,000,000	52,000	30,000	8,900	3,400	4,100	9,500	3,900	4,300	8,000
Beryllium	NA	51,000	320,000 (G)	NLV	NLV	1,300,000	410,000	NCL	470,000	520	66 [J]	64 [J]	<90	33 [J]	41 [J]	35 [J]	<98	49 [J]
Boron	NA	10,000	140,000	NLV	NLV	ID	48,000,000 (DD)	NCL	47,000,000	***14,000***	2,600 [J]	<13,000	<12,000	<12,000	<13,000	<11,000	<13,000	2,800 [J]
Cadmium	1,200	6,000	3,000 (G)	NLV	NLV	1,700,000	550,000	NCL	NCL	64 [J]	51 [J]	<130	<120	<120	<130	<110	<130	<120
Chromium (Total)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	17,000	6,800	4,500	1,600	2,000	14,000	3,300	3,000	3,400
Trivalent Chromium (Calculated: Total - Hexavalent)	18,000	1,000,000,000	1,000,000,000 (G,D)	NLV	NLV	330,000,000	790,000,000	NCL	350,000,000	17,000	6,800	4,500	1,600	2,000	14,000	3,000	3,000	3,400
Hexavalent Chromium	NA	30,000	3,300	NLV	NLV	260,000	2,500,000	NCL	30,000	260 [J]	<1,100	<1,100	<1,000	<1,000	360 [J]	260 [J]	<1,100	<1,100
Cobalt	6,800	800	2,000	NLV	NLV	13,000,000	2,600,000	NCL	70,000	5,600	1,700	1,500	500 [J]	570 [J]	1,300	550 [J]	930 [J]	1,100 [J]
Copper	32,000	5,800,000	100,000 (G)	NLV	NLV	130,000,000	20,000,000	NCL	9,400,000	12,000	3,200	3,200	930 [J]	1,200	4,500	930 [J]	1,600	1,900
Iron	12,000,000	6,000	NA	NLV	NLV	ID	160,000,000	NCL	160,000,000	***13,000,000***	5,300,000	4,600,000	1,500,000	1,700,000	3,800,000	1,700,000	2,500,000	3,400,000
Lead	21,000	700,000	2,500,000 (G)	NLV	NLV	100,000,000	400,000	NCL	400,000	6,200	3,700	2,800	680	790	2,500	720	920	1,300
Magnesium	NA	8,000,000	NA	NLV	NLV	6,700,000,000	1,000,000,000 (D)	NCL	NCL	2,100,000	910,000	1,200,000	2,800,000	4,200,000	5,900,000	3,300,000	6,400,000	7,100,000
Mercury	130	1,700	50 (M)	48,000	52,000	20,000,000	160,000	0.027	33,000	<91	<82	<87	<84	<76	<79	<83	<77	<83
Molybdenum	NA	1,500	64,000	NLV	NLV	ID	2,600,000	NCL	1,200,000	<2,400	<2,500	<2,500	<2,300	<2,400	1,000 [J]	<2,200	<2,400	<2,400
Nickel	20,000	100,000	100,000 (G)	NLV	NLV	13,000,000	40,000,000	NCL	4,600,000	15,000	4,400	3,400	1,300	1,400	4,800	1,500	2,400	2,500
Selenium	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NCL	1,200,000	<1,200	<1,300	<1,300	<1,200	<1,200	<1,300	<1,100	<1,300	<1,200
Silver	1,000	4,500	100 (M)	NLV	NLV	6,700,000	2,500,000	NCL	1,200,000	<240	<250	<250	<230	<240	<250	<220	<240	<240
Sodium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<96,000	37,000 [J]	<100,000	<90,000	<95,000	48,000 [J]	<88,000	<98,000	48,000 [J]
Thallium	NA	2,300	4,200	NLV	NLV	13,000,000	35,000	NCL	2,300	130	42 [J]	<130	<120	<120	<130	<110	<130	<120
Titanium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	250,000	140,000	150,000	54,000	56,000	100,000	53,000	94,000	130,000
Vanadium	NA	72,000	430,000	NLV	NLV	ID	750,000 (DD)	NCL	1,200,000	22,000	9,200	9,400	2,600	2,900	5,800	2,600	4,600	6,100
Zinc	47,000	2,400,000	230,000 (G)	NLV	NLV	ID	170,000,000	NCL	70,000,000	27,000	21,000 [B]	10,000 [B]	3,100 [B]	3,500 [B]	13,000 [B]	3,800 [B]	4,400 [B]	6,600 [B]

TABLE 1C
SUMMARY OF SOIL SAMPLE ANALYSIS - METALS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2220	HS-SB-2220	HS-SB-2221	HS-SB-2221	HS-SB-2224	HS-SB-2224	HS-SB-2224	HS-SB-2224	HS-SB-2224
Sample Name										HS-SB-2220 (3-4)	HS-SB-2220 (8-9)	HS-SB-2221 (0-1)	HS-SB-2221 (8-9)	HS-SB-2224 (1-2)	HS-SB-2224 (6-7)	HS-SB-2224 (20-22)	HS-SB-2224 (31-33)	HS-SB-2224 (37-39)
Depth Interval (Feet below ground surface)										3 - 4	8 - 9	0 - 1	8 - 9	1 - 2	6 - 7	20 - 22	31 - 33	37 - 39
Boring Location										Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)										UG02019-006	UG02019-007	UG02019-001	UG02019-002	UG02019-014	UG02019-015	UG02019-016	UG02019-017	UG02019-018
Sample Date										6/27/2019	6/27/2019	6/27/2019	6/27/2019	6/28/2019	6/28/2019	6/28/2019	6/28/2019	6/28/2019
Parameter (µg/kg)																		
Aluminum	6,900,000	1,000	NA	NLV	NLV	ID	50,000,000 (DD)	NCL	230,000,000	1,300,000	1,100,000	4,300,000	670,000	2,800,000	***10,000,000***	640,000	580,000	790,000
Antimony	NA	4,300	94,000	NLV	NLV	13,000,000	180,000	NCL	94,000	<370	<450	<550	<380	<510	<570	<480	<490	<450
Arsenic	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NCL	68,000	700	1,700	2,100	520	1,900	4,300	490	550	640
Barium	75,000	1,300,000	660,000 (G)	NLV	NLV	330,000,000	37,000,000	NCL	46,000,000	5,600	8,900	40,000	2,700	21,000	84,000	6,200	3,900	5,200
Beryllium	NA	51,000	320,000 (G)	NLV	NLV	1,300,000	410,000	NCL	470,000	41 [J]	41 [J]	230	<76	61 [J]	120	42 [J]	<98	32 [J]
Boron	NA	10,000	140,000	NLV	NLV	ID	48,000,000 (DD)	NCL	47,000,000	<9,600	<12,000	3,600 [J]	<9,800	<13,000	***27,000***	<12,000	<13,000	<12,000
Cadmium	1,200	6,000	3,000 (G)	NLV	NLV	1,700,000	550,000	NCL	NCL	<96	<120	150	<98	62 [J]	86 [J]	<120	<130	<120
Chromium (Total)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	3,500	3,700	240,000	2,800	8,200	26,000	1,700	2,000	2,600
Trivalent Chromium (Calculated: Total - Hexavalent)	18,000	1,000,000,000	1,000,000,000 (G,D)	NLV	NLV	330,000,000	790,000,000	NCL	350,000,000	3,500	3,700	240,000	2,800	7,800	26,000	1,700	2,000	2,600
Hexavalent Chromium	NA	30,000	3,300	NLV	NLV	260,000	2,500,000	NCL	30,000	<1,100	<1,100	840 [J]	<1,000	410 [J]	270 [J]	<1,000	<1,000	<1,000
Cobalt	6,800	800	2,000	NLV	NLV	13,000,000	2,600,000	NCL	70,000	810 [J]	1,000 [J]	2,000	730 [J]	2,200	***8,200***	550 [J]	580 [J]	830 [J]
Copper	32,000	5,800,000	100,000 (G)	NLV	NLV	130,000,000	20,000,000	NCL	9,400,000	1,300	2,200	4,900	1,200	6,100	15,000	910 [J]	980 [J]	1,900
Iron	12,000,000	6,000	NA	NLV	NLV	ID	160,000,000	NCL	160,000,000	2,700,000	3,200,000	6,800,000	2,000,000	6,200,000	***20,000,000***	1,800,000	1,700,000	2,400,000
Lead	21,000	700,000	2,500,000 (G)	NLV	NLV	100,000,000	400,000	NCL	400,000	1,600	1,300	15,000	800	4,000	8,300	730	690	920
Magnesium	NA	8,000,000	NA	NLV	NLV	6,700,000,000	1,000,000,000 (D)	NCL	NCL	300,000	790,000	1,400,000	4,100,000	1,000,000	***22,000,000***	3,500,000	3,200,000	6,400,000
Mercury	130	1,700	50 (M)	48,000	52,000	20,000,000	160,000	0.027	33,000	<80	<83	<100	<83	<86	<95	<79	<78	<76
Molybdenum	NA	1,500	64,000	NLV	NLV	ID	2,600,000	NCL	1,200,000	<1,900	<2,200	<2,800	<1,900	<2,600	<2,900	<2,400	<2,400	<2,200
Nickel	20,000	100,000	100,000 (G)	NLV	NLV	13,000,000	40,000,000	NCL	4,600,000	1,800	2,800	5,500	2,000	5,300	21,000	1,400	1,500	2,200
Selenium	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NCL	1,200,000	<960	<1,200	<1,400	<980	<1,300	<1,500	<1,200	<1,300	<1,200
Silver	1,000	4,500	100 (M)	NLV	NLV	6,700,000	2,500,000	NCL	1,200,000	<190	<220	<280	<190	<260	<290	<240	<240	<220
Sodium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<74,000	<89,000	44,000 [J]	<76,000	<100,000	260,000	<96,000	<98,000	<89,000
Thallium	NA	2,300	4,200	NLV	NLV	13,000,000	35,000	NCL	2,300	<96	<120	52 [J]	<98	37 [J]	170	<120	<130	<120
Titanium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	81,000	95,000	180,000	68,000	160,000	450,000	63,000	55,000	77,000
Vanadium	NA	72,000	430,000	NLV	NLV	ID	750,000 (DD)	NCL	1,200,000	4,900	4,800	6,100	2,900	10,000	36,000	3,300	2,800	4,100
Zinc	47,000	2,400,000	230,000 (G)	NLV	NLV	ID	170,000,000	NCL	70,000,000	5,000 [B]	5,600 [B]	64,000	4,300 [B]	22,000 [B]	35,000 [B]	3,700 [B]	3,500 [B]	4,600 [B]

TABLE 1C
SUMMARY OF SOIL SAMPLE ANALYSIS - METALS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4800	HS-SB-4800	HS-SB-4801	HS-SB-4801	HS-SB-4802	HS-SB-4802	HS-SB-4803	HS-SB-4803	HS-SB-4804
Sample Name										HS-SB-4800 (0-2)	HS-SB-4800 (15-17)	HS-SB-4801 (0-2)	HS-SB-4801 (15-17)	HS-SB-4802 (0-2)	HS-SB-4802 (15-17)	HS-SB-4803 (0-2)	HS-SB-4803 (6-8)	HS-SB-4804 (0-2)
Depth Interval (Feet below ground surface)										0 - 2	15 - 17	0 - 2	15 - 17	0 - 2	15 - 17	0 - 2	6 - 8	0 - 2
Boring Location										Off-Site	Off-Site	House St Site	House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)										UH23024-002	UH23024-003	UH23030-001	UH23030-002	UH17001-020	UH17001-021	UH23024-010	UH23024-011	UH23024-012
Sample Date										8/19/2019	8/19/2019	8/20/2019	8/20/2019	8/16/2019	8/16/2019	8/20/2019	8/20/2019	8/20/2019
Parameter (µg/kg)																		
Aluminum	6,900,000	1,000	NA	NLV	NLV	ID	50,000,000 (DD)	NCL	230,000,000	***17,000,000***	770,000	***13,000,000***	1,800,000	***17,000,000***	1,300,000	***8,700,000***	***12,000,000***	***8,000,000***
Antimony	NA	4,300	94,000	NLV	NLV	13,000,000	180,000	NCL	94,000	<440	<510	<470	<460	<540	<510	<480	<540	<500
Arsenic	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NCL	68,000	***7,900***	800	4,300	770	***5,900***	920	2,500	4,700	2,400
Barium	75,000	1,300,000	660,000 (G)	NLV	NLV	330,000,000	37,000,000	NCL	46,000,000	73,000	3,600	55,000	7,700	58,000	5,700	40,000	55,000	34,000
Beryllium	NA	51,000	320,000 (G)	NLV	NLV	1,300,000	410,000	NCL	470,000	81 [J]	42 [J]	93 [J]	56 [J]	100 [J]	50 [J]	71 [J]	110	62 [J]
Boron	NA	10,000	140,000	NLV	NLV	ID	48,000,000 (DD)	NCL	47,000,000	2,500 [J]	<13,000	<12,000	<12,000	3,100 [J]	<13,000	<13,000	3,600 [J]	<13,000
Cadmium	1,200	6,000	3,000 (G)	NLV	NLV	1,700,000	550,000	NCL	NCL	100 [J]	<130	79 [J]	<120	62 [J]	<130	43 [J]	68 [J]	67 [J]
Chromium (Total)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	23,000	2,300	18,000	4,000	23,000	2,800	12,000	19,000	10,000
Trivalent Chromium (Calculated: Total - Hexavalent)	18,000	1,000,000,000	1,000,000,000 (G,D)	NLV	NLV	330,000,000	790,000,000	NCL	350,000,000	23,000	2,100	18,000	4,000	23,000	2,600	12,000	19,000	9,800
Hexavalent Chromium	NA	30,000	3,300	NLV	NLV	260,000	2,500,000	NCL	30,000	300 [BJ]	210 [BJ]	<1,100	<1,100	240 [J]	210 [J]	330 [BJ]	<1,200	250 [BJ]
Cobalt	6,800	800	2,000	NLV	NLV	13,000,000	2,600,000	NCL	70,000	***7,700***	660 [J]	***8,900***	950 [J]	***7,800***	890 [J]	4,300	***7,500***	4,200
Copper	32,000	5,800,000	100,000 (G)	NLV	NLV	130,000,000	20,000,000	NCL	9,400,000	15,000	1,900	11,000	2,500	12,000	2,500	4,300	13,000	4,600
Iron	12,000,000	6,000	NA	NLV	NLV	ID	160,000,000	NCL	160,000,000	***22,000,000***	2,200,000	***15,000,000***	3,100,000	***19,000,000***	2,600,000	11,000,000	***17,000,000***	9,000,000
Lead	21,000	700,000	2,500,000 (G)	NLV	NLV	100,000,000	400,000	NCL	400,000	12,000	960	10,000	1,300	10,000	1,100	5,900	7,700	24,000
Magnesium	NA	8,000,000	NA	NLV	NLV	6,700,000,000	1,000,000,000 (D)	NCL	NCL	2,000,000	1,500,000	1,600,000	700,000	3,800,000	860,000	1,100,000	***11,000,000***	920,000
Mercury	130	1,700	50 (M)	48,000	52,000	20,000,000	160,000	0.027	33,000	<89	<82	<90	<77	<90	<80	<83	<88	<88
Molybdenum	NA	1,500	64,000	NLV	NLV	ID	2,600,000	NCL	1,200,000	<2,200	<2,500	<2,400	<2,300	<2,700	<2,500	<2,400	<2,700	<2,500
Nickel	20,000	100,000	100,000 (G)	NLV	NLV	13,000,000	40,000,000	NCL	4,600,000	19,000	1,700	15,000	2,600	18,000	2,600	8,600	19,000	7,200
Selenium	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NCL	1,200,000	<1,200	<1,300	<1,200	<1,200	<1,400	<1,300	<1,300	<1,400	<1,300
Silver	1,000	4,500	100 (M)	NLV	NLV	6,700,000	2,500,000	NCL	1,200,000	<220	<250	<240	<230	<270	<250	<240	<270	<250
Sodium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	69,000 [J]	<100,000	54,000 [J]	<92,000	59,000 [J]	<100,000	38,000 [J]	130,000	<100,000
Thallium	NA	2,300	4,200	NLV	NLV	13,000,000	35,000	NCL	2,300	180	<130	160	<120	170	<130	89 [J]	130 [J]	92 [J]
Titanium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	180,000	77,000	240,000	93,000	310,000	72,000	210,000	280,000	140,000
Vanadium	NA	72,000	430,000	NLV	NLV	ID	750,000 (DD)	NCL	1,200,000	34,000	3,900	25,000	5,000	34,000	3,900	20,000	28,000	16,000
Zinc	47,000	2,400,000	230,000 (G)	NLV	NLV	ID	170,000,000	NCL	70,000,000	55,000	4,800	34,000	6,000	47,000	5,700	27,000	31,000	27,000

TABLE 1C
SUMMARY OF SOIL SAMPLE ANALYSIS - METALS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4804	HS-SB-4805	HS-SB-4805	HS-SB-4806	HS-SB-4806	HS-SB-4807	HS-SB-4807	HS-SB-4808	HS-SB-4808
Sample Name										HS-SB-4804 (10-12)	HS-SB-4805 (0-2)	HS-SB-4805 (7-9)	HS-SB-4806 (0-2)	HS-SB-4806 (7-9)	HS-SB-4807 (0-2)	HS-SB-4807 (10-12)	HS-SB-4808 (0-2)	HS-SB-4808 (6-8)
Depth Interval (Feet below ground surface)										10 - 12	0 - 2	7 - 9	0 - 2	7 - 9	0 - 2	10 - 12	0 - 2	6 - 8
Boring Location										Off-Site	House St Site	House St Site	Off-Site	Off-Site	Off-Site	Off-Site	House St Site	House St Site
Laboratory Sample ID(s)										UH23024-013	UH23030-012	UH23030-013	UH17001-026	UH17001-027	UH23024-006	UH23024-007	UH23030-005	UH23030-006
Sample Date										8/20/2019	8/21/2019	8/21/2019	8/16/2019	8/16/2019	8/19/2019	8/19/2019	8/20/2019	8/20/2019
Parameter (µg/kg)																		
Aluminum	6,900,000	1,000	NA	NLV	NLV	ID	50,000,000 (DD)	NCL	230,000,000	2,300,000	***11,000,000***	2,900,000	***10,000,000***	770,000	***8,800,000***	***7,900,000***	***8,700,000***	1,600,000
Antimony	NA	4,300	94,000	NLV	NLV	13,000,000	180,000	NCL	94,000	<450	<470	<420	<550	<480	<500	<470	<540	<500
Arsenic	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NCL	68,000	2,600	3,500	2,600	3,100	480	2,900	4,100	2,800	2,500
Barium	75,000	1,300,000	660,000 (G)	NLV	NLV	330,000,000	37,000,000	NCL	46,000,000	15,000	48,000	15,000	60,000	3,400	38,000	39,000	45,000	6,300
Beryllium	NA	51,000	320,000 (G)	NLV	NLV	1,300,000	410,000	NCL	470,000	37 [J]	72 [J]	46 [J]	89 [J]	38 [J]	67 [J]	89 [J]	73 [J]	52 [J]
Boron	NA	10,000	140,000	NLV	NLV	ID	48,000,000 (DD)	NCL	47,000,000	2,300 [J]	<12,000	<11,000	<14,000	<13,000	<13,000	2,500 [J]	<14,000	<13,000
Cadmium	1,200	6,000	3,000 (G)	NLV	NLV	1,700,000	550,000	NCL	NCL	<120	79 [J]	32 [J]	84 [J]	<130	66 [J]	<120	110 [J]	<130
Chromium (Total)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	9,600	14,000	6,600	14,000	1,600	13,000	14,000	12,000	4,900
Trivalent Chromium (Calculated: Total - Hexavalent)	18,000	1,000,000,000	1,000,000,000 (G,D)	NLV	NLV	330,000,000	790,000,000	NCL	350,000,000	9,400	14,000	6,600	14,000	1,600	13,000	14,000	12,000	4,700
Hexavalent Chromium	NA	30,000	3,300	NLV	NLV	260,000	2,500,000	NCL	30,000	210 [BJ]	<1,100	<1,100	340 [BJ]	<1,000	240 [BJ]	360 [BJ]	240 [J]	210 [J]
Cobalt	6,800	800	2,000	NLV	NLV	13,000,000	2,600,000	NCL	70,000	2,700	6,200	2,200	5,900	620 [J]	4,400	4,300	4,500	1,700
Copper	32,000	5,800,000	100,000 (G)	NLV	NLV	130,000,000	20,000,000	NCL	9,400,000	5,500	5,300	5,800	6,100	1,200 [J]	5,300	11,000	5,400	4,600
Iron	12,000,000	6,000	NA	NLV	NLV	ID	160,000,000	NCL	160,000,000	9,200,000	9,800,000	6,500,000	12,000,000	1,900,000	11,000,000	***13,000,000***	9,900,000	5,500,000
Lead	21,000	700,000	2,500,000 (G)	NLV	NLV	100,000,000	400,000	NCL	400,000	3,800	9,000	3,300	6,900	770	6,400	7,500	37,000	3,100
Magnesium	NA	8,000,000	NA	NLV	NLV	6,700,000,000	1,000,000,000 (D)	NCL	NCL	***17,000,000***	1,200,000	***21,000,000***	2,300,000	4,600,000	1,300,000	1,800,000	1,000,000	***15,000,000***
Mercury	130	1,700	50 (M)	48,000	52,000	20,000,000	160,000	0.027	33,000	<82	<88	<86	<88	<77	<92	<90	<82	<82
Molybdenum	NA	1,500	64,000	NLV	NLV	ID	2,600,000	NCL	1,200,000	***1,600 [J]***	<2,300	<2,100	<2,700	<2,400	<2,500	<2,400	<2,700	<2,500
Nickel	20,000	100,000	100,000 (G)	NLV	NLV	13,000,000	40,000,000	NCL	4,600,000	7,300	7,400	5,800	11,000	1,400	9,200	11,000	8,500	4,200
Selenium	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NCL	1,200,000	<1,200	<1,200	<1,100	<1,400	<1,300	<1,300	<1,200	<1,400	<1,300
Silver	1,000	4,500	100 (M)	NLV	NLV	6,700,000	2,500,000	NCL	1,200,000	<230	<230	<210	<270	<240	<250	<240	<270	<250
Sodium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	120,000	40,000 [J]	110,000	43,000 [J]	<97,000	42,000 [J]	70,000 [J]	<110,000	86,000 [J]
Thallium	NA	2,300	4,200	NLV	NLV	13,000,000	35,000	NCL	2,300	33 [J]	120	51 [J]	100 [J]	<130	95 [J]	93 [J]	100 [J]	<130
Titanium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	140,000	190,000	140,000	200,000	63,000	190,000	240,000	150,000	100,000
Vanadium	NA	72,000	430,000	NLV	NLV	ID	750,000 (DD)	NCL	1,200,000	8,500	22,000	9,600	21,000	2,600	19,000	21,000	17,000	7,300
Zinc	47,000	2,400,000	230,000 (G)	NLV	NLV	ID	170,000,000	NCL	70,000,000	14,000	39,000	16,000	35,000	4,000	28,000	27,000	32,000	11,000

TABLE 1C
SUMMARY OF SOIL SAMPLE ANALYSIS - METALS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4809	HS-SB-4809	HS-SB-4810	HS-SB-4810	HS-SB-4811	HS-SB-4811	HS-SB-4900	HS-SB-4900	HS-SB-4901
Sample Name										HS-SB-4809 (0-2)	HS-SB-4809 (6-8)	HS-SB-4810 (0-2)	HS-SB-4810 (6-8)	HS-SB-4811 (0-2)	HS-SB-4811 (12-14)	HS-SB-4900 (0-2)	HS-SB-4900 (17-19)	HS-SB-4901 (0-2)
Depth Interval (Feet below ground surface)										0 - 2	6 - 8	0 - 2	6 - 8	0 - 2	12 - 14	0 - 2	17 - 19	0 - 2
Boring Location										Off-Site	Off-Site	Off-Site	Off-Site	House St Site	House St Site	Off-Site	Off-Site	House St Site
Laboratory Sample ID(s)										UH17001-022	UH17001-023	UH17001-012	UH17001-013	UH23024-016	UH23024-017	UH17001-001	UH17001-002	UH17001-003
Sample Date										8/16/2019	8/16/2019	8/15/2019	8/15/2019	8/20/2019	8/20/2019	8/12/2019	8/12/2019	8/12/2019
Parameter (µg/kg)																		
Aluminum	6,900,000	1,000	NA	NLV	NLV	ID	50,000,000 (DD)	NCL	230,000,000	***16,000,000***	1,200,000	***7,900,000***	1,500,000	4,400,000	***8,700,000***	***8,400,000***	1,100,000	***12,000,000***
Antimony	NA	4,300	94,000	NLV	NLV	13,000,000	180,000	NCL	94,000	<520	<490	<490	<490	<410	<490	<530	<510	<510
Arsenic	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NCL	68,000	5,800	640	2,100	910	990	2,600	***5,900***	870	5,500
Barium	75,000	1,300,000	660,000 (G)	NLV	NLV	330,000,000	37,000,000	NCL	46,000,000	80,000	4,900	34,000	5,700	25,000	34,000	42,000	5,400	47,000
Beryllium	NA	51,000	320,000 (G)	NLV	NLV	1,300,000	410,000	NCL	470,000	110	48 [J]	73 [J]	48 [J]	61 [J]	96 [J]	88 [J]	39 [J]	89 [J]
Boron	NA	10,000	140,000	NLV	NLV	ID	48,000,000 (DD)	NCL	47,000,000	3,300 [J]	<13,000	<13,000	<13,000	<11,000	2,600 [J]	2,700 [BJ]	<13,000	<13,000
Cadmium	1,200	6,000	3,000 (G)	NLV	NLV	1,700,000	550,000	NCL	NCL	81 [J]	<130	75 [J]	<130	48 [J]	36 [J]	100 [J]	<130	74 [J]
Chromium (Total)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	23,000	2,400	11,000	2,600	6,200	13,000	13,000	3,800	17,000
Trivalent Chromium (Calculated: Total - Hexavalent)	18,000	1,000,000,000	1,000,000,000 (G,D)	NLV	NLV	330,000,000	790,000,000	NCL	350,000,000	23,000	2,400	11,000	2,400	6,200	13,000	13,000	3,800	17,000
Hexavalent Chromium	NA	30,000	3,300	NLV	NLV	260,000	2,500,000	NCL	30,000	240 [J]	<1,000	230 [J]	250 [J]	<1,100	270 [J]	230 [J]	<1,000	230 [J]
Cobalt	6,800	800	2,000	NLV	NLV	13,000,000	2,600,000	NCL	70,000	***9,500***	780 [J]	4,100	780 [J]	2,600	3,900	6,100	1,100 [J]	6,600
Copper	32,000	5,800,000	100,000 (G)	NLV	NLV	130,000,000	20,000,000	NCL	9,400,000	13,000	1,400	3,000 [B]	1,600 [B]	2,300	9,400	6,100 [B]	2,500 [B]	8,600 [B]
Iron	12,000,000	6,000	NA	NLV	NLV	ID	160,000,000	NCL	160,000,000	***20,000,000***	2,300,000	8,900,000	2,700,000	5,500,000	10,000,000	***14,000,000***	3,000,000	***16,000,000***
Lead	21,000	700,000	2,500,000 (G)	NLV	NLV	100,000,000	400,000	NCL	400,000	11,000	1,000	6,400	950	3,500	4,700	9,000	990	9,900
Magnesium	NA	8,000,000	NA	NLV	NLV	6,700,000,000	1,000,000,000 (D)	NCL	NCL	4,100,000	450,000	1,600,000	480,000	550,000	1,500,000	2,700,000	6,600,000	2,800,000
Mercury	130	1,700	50 (M)	48,000	52,000	20,000,000	160,000	0.027	33,000	<88	<85	<84	<86	<83	<79	<86	<83	<86
Molybdenum	NA	1,500	64,000	NLV	NLV	ID	2,600,000	NCL	1,200,000	<2,600	<2,400	<2,500	<2,500	<2,000	<2,500	<2,600	<2,500	<2,500
Nickel	20,000	100,000	100,000 (G)	NLV	NLV	13,000,000	40,000,000	NCL	4,600,000	20,000	1,800	8,100	2,300	4,700	9,700	11,000	2,800	15,000
Selenium	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NCL	1,200,000	<1,400	<1,300	<1,300	<1,300	<1,100	<1,300	<1,400	<1,300	<1,300
Silver	1,000	4,500	100 (M)	NLV	NLV	6,700,000	2,500,000	NCL	1,200,000	<260	<240	<250	<250	<200	<250	<260	<250	<250
Sodium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	74,000 [J]	<98,000	<99,000	<98,000	<82,000	61,000 [J]	43,000 [J]	43,000 [J]	51,000 [J]
Thallium	NA	2,300	4,200	NLV	NLV	13,000,000	35,000	NCL	2,300	150	<130	76 [J]	<130	46 [J]	99 [J]	110 [J]	<130	120 [J]
Titanium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	270,000	90,000	200,000	58,000	170,000	210,000	190,000	78,000	210,000
Vanadium	NA	72,000	430,000	NLV	NLV	ID	750,000 (DD)	NCL	1,200,000	33,000	4,300	16,000	3,800	9,900	17,000	21,000	4,200	25,000
Zinc	47,000	2,400,000	230,000 (G)	NLV	NLV	ID	170,000,000	NCL	70,000,000	50,000	4,700	31,000	5,600	17,000	20,000	36,000	5,400	46,000

TABLE 1C
SUMMARY OF SOIL SAMPLE ANALYSIS - METALS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4901	HS-SB-4902	HS-SB-4902	HS-SB-4903	HS-SB-4903	HS-SB-4904	HS-SB-4904	HS-SB-4905	HS-SB-4905
Sample Name										HS-SB-4901 (18-20)	HS-SB-4902 (0-2)	HS-SB-4902 (6-8)	HS-SB-4903 (0-2)	HS-SB-4903 (11-13)	HS-SB-4904 (0-2)	HS-SB-4904 (15-17)	HS-SB-4905 (0-2)	HS-SB-4905 (15-17)
Depth Interval (Feet below ground surface)										18 - 20	0 - 2	6 - 8	0 - 2	11 - 13	0 - 2	15 - 17	0 - 2	15 - 17
Boring Location										House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)										UH17001-004	UH23024-008	UH23024-009	UH23024-004	UH23024-005	UH23024-014	UH23024-015	UH23030-003	UH23030-004
Sample Date										8/12/2019	8/20/2019	8/19/2019	8/19/2019	8/19/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019
Parameter (µg/kg)																		
Aluminum	6,900,000	1,000	NA	NLV	NLV	ID	50,000,000 (DD)	NCL	230,000,000	2,100,000	***12,000,000***	2,600,000	6,800,000	***10,000,000***	***12,000,000***	5,800,000	***12,000,000***	940,000
Antimony	NA	4,300	94,000	NLV	NLV	13,000,000	180,000	NCL	94,000	<480	<550	<410	<440	<500	<460	<500	<520	<460
Arsenic	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NCL	68,000	5,100	4,800	2,200	2,900	2,800	***7,700***	2,700	5,100	***8,800***
Barium	75,000	1,300,000	660,000 (G)	NLV	NLV	330,000,000	37,000,000	NCL	46,000,000	10,000	45,000	13,000	36,000	55,000	55,000	21,000	38,000	11,000
Beryllium	NA	51,000	320,000 (G)	NLV	NLV	1,300,000	410,000	NCL	470,000	40 [J]	94 [J]	36 [J]	70 [J]	96 [J]	110	80 [J]	89 [J]	50 [J]
Boron	NA	10,000	140,000	NLV	NLV	ID	48,000,000 (DD)	NCL	47,000,000	2,800 [BJ]	<14,000	<11,000	<11,000	3,900 [J]	<12,000	<13,000	<14,000	<12,000
Cadmium	1,200	6,000	3,000 (G)	NLV	NLV	1,700,000	550,000	NCL	NCL	33 [J]	59 [J]	35 [J]	86 [J]	66 [J]	220	37 [J]	48 [J]	<120
Chromium (Total)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	6,500	17,000	8,900	10,000	18,000	17,000	14,000	17,000	2,600
Trivalent Chromium (Calculated: Total - Hexavalent)	18,000	1,000,000,000	1,000,000,000 (G,D)	NLV	NLV	330,000,000	790,000,000	NCL	350,000,000	6,300	17,000	8,900	9,700	18,000	17,000	14,000	17,000	2,600
Hexavalent Chromium	NA	30,000	3,300	NLV	NLV	260,000	2,500,000	NCL	30,000	210 [J]	280 [BJ]	<1,000	260 [BJ]	330 [BJ]	210 [BJ]	360 [BJ]	230 [J]	<1,100
Cobalt	6,800	800	2,000	NLV	NLV	13,000,000	2,600,000	NCL	70,000	2,400	***7,000***	3,100	4,500	6,500	***7,100***	3,600	5,600	1,400
Copper	32,000	5,800,000	100,000 (G)	NLV	NLV	130,000,000	20,000,000	NCL	9,400,000	5,800 [B]	9,800	6,900	4,900	12,000	13,000	7,200	10,000	2,100
Iron	12,000,000	6,000	NA	NLV	NLV	ID	160,000,000	NCL	160,000,000	7,300,000	***15,000,000***	8,100,000	9,200,000	***16,000,000***	***19,000,000***	10,000,000	***16,000,000***	12,000,000
Lead	21,000	700,000	2,500,000 (G)	NLV	NLV	100,000,000	400,000	NCL	400,000	3,400	8,700	3,200	9,200	6,500	8,500	3,600	8,500	12,000
Magnesium	NA	8,000,000	NA	NLV	NLV	6,700,000,000	1,000,000,000 (D)	NCL	NCL	***24,000,000***	1,600,000	***21,000,000***	930,000	***14,000,000***	1,600,000	1,400,000	1,400,000	4,500,000
Mercury	130	1,700	50 (M)	48,000	52,000	20,000,000	160,000	0.027	33,000	<74	<93	<83	<92	<92	<84	<85	<83	<81
Molybdenum	NA	1,500	64,000	NLV	NLV	ID	2,600,000	NCL	1,200,000	<2,400	<2,700	<2,100	<2,200	<2,500	<2,300	670 [J]	<2,600	<2,300
Nickel	20,000	100,000	100,000 (G)	NLV	NLV	13,000,000	40,000,000	NCL	4,600,000	5,900	13,000	7,800	7,700	16,000	18,000	9,800	12,000	2,900
Selenium	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NCL	1,200,000	<1,200	<1,400	<1,100	<1,100	<1,300	<1,200	<1,300	<1,400	<1,200
Silver	1,000	4,500	100 (M)	NLV	NLV	6,700,000	2,500,000	NCL	1,200,000	<240	<270	<210	<220	<250	<230	<250	<260	<230
Sodium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	110,000	56,000 [J]	110,000	36,000 [J]	160,000	51,000 [J]	96,000 [J]	45,000 [J]	35,000 [J]
Thallium	NA	2,300	4,200	NLV	NLV	13,000,000	35,000	NCL	2,300	52 [J]	130 [J]	41 [J]	88 [J]	130	130	58 [J]	110 [J]	<120
Titanium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	180,000	230,000	220,000	150,000	270,000	180,000	340,000	210,000	69,000
Vanadium	NA	72,000	430,000	NLV	NLV	ID	750,000 (DD)	NCL	1,200,000	9,700	26,000	12,000	16,000	26,000	30,000	17,000	25,000	6,000
Zinc	47,000	2,400,000	230,000 (G)	NLV	NLV	ID	170,000,000	NCL	70,000,000	19,000	36,000	15,000	30,000	46,000	43,000	20,000	35,000	5,900

TABLE 1C
SUMMARY OF SOIL SAMPLE ANALYSIS - METALS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4906	HS-SB-4906	HS-SB-4907	HS-SB-4907	HS-SB-4908	HS-SB-4908	HS-SB-4909	HS-SB-4909	HS-SB-4909
Sample Name										HS-SB-4906 (0-2)	HS-SB-4906 (16-18)	HS-SB-4907 (0-2)	HS-SB-4907 (12-14)	HS-SB-4908 (0-2)	HS-SB-4908 (7-9)	HS-SB-4909 (0-2)	HS-SB-4909 (0-2) DUP	HS-SB-4909 (11-13)
Depth Interval (Feet below ground surface)										0 - 2	16 - 18	0 - 2	12 - 14	0 - 2	7 - 9	0 - 2	0 - 2	11 - 13
Boring Location										Off-Site	Off-Site	House St Site	House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)										UH23030-007	UH23030-008	UH17001-015	UH17001-016	UH17001-024	UH17001-025	UH23030-009	UH23030-010	UH23030-011
Sample Date										8/20/2019	8/20/2019	8/15/2019	8/15/2019	8/16/2019	8/16/2019	8/21/2019	8/21/2019	8/21/2019
Parameter (µg/kg)																		
Aluminum	6,900,000	1,000	NA	NLV	NLV	ID	50,000,000 (DD)	NCL	230,000,000	***9,700,000***	730,000	***8,100,000***	1,000,000	***12,000,000***	***22,000,000***	***10,000,000***	***11,000,000***	2,300,000
Antimony	NA	4,300	94,000	NLV	NLV	13,000,000	180,000	NCL	94,000	<490	620	<550	<510	<530	<590	<500	<440	<510
Arsenic	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NCL	68,000	3,200	620	3,500	***5,900***	3,900	***8,600***	3,700	3,900	980
Barium	75,000	1,300,000	660,000 (G)	NLV	NLV	330,000,000	37,000,000	NCL	46,000,000	37,000	4,800	49,000	34,000	54,000	97,000	34,000	37,000	8,100
Beryllium	NA	51,000	320,000 (G)	NLV	NLV	1,300,000	410,000	NCL	470,000	73 [J]	39 [J]	81 [J]	63 [J]	73 [J]	140	70 [J]	68 [J]	<100
Boron	NA	10,000	140,000	NLV	NLV	ID	48,000,000 (DD)	NCL	47,000,000	<13,000	<13,000	<14,000	<13,000	<14,000	5,900 [J]	<13,000	<11,000	<13,000
Cadmium	1,200	6,000	3,000 (G)	NLV	NLV	1,700,000	550,000	NCL	NCL	65 [J]	<130	150	<130	83 [J]	110 [J]	84 [J]	100 [J]	<130
Chromium (Total)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	12,000	3,100	12,000	2,700	15,000	34,000	13,000	14,000	6,600
Trivalent Chromium (Calculated: Total - Hexavalent)	18,000	1,000,000,000	1,000,000,000 (G,D)	NLV	NLV	330,000,000	790,000,000	NCL	350,000,000	12,000	3,100	12,000	2,500	15,000	34,000	13,000	14,000	6,600
Hexavalent Chromium	NA	30,000	3,300	NLV	NLV	260,000	2,500,000	NCL	30,000	260 [J]	<1,000	320 [J]	250 [J]	310 [BJ]	330 [BJ]	<1,100	<1,100	<1,000
Cobalt	6,800	800	2,000	NLV	NLV	13,000,000	2,600,000	NCL	70,000	5,000	590 [J]	5,900	4,000	6,700	***12,000***	4,300	4,600	2,200
Copper	32,000	5,800,000	100,000 (G)	NLV	NLV	130,000,000	20,000,000	NCL	9,400,000	6,500	1,100 [J]	5,700 [B]	1,700 [B]	5,900	20,000	6,200	7,000	2,900
Iron	12,000,000	6,000	NA	NLV	NLV	ID	160,000,000	NCL	160,000,000	10,000,000	1,700,000	10,000,000	7,700,000	***13,000,000***	***28,000,000***	12,000,000	9,700,000	4,800,000
Lead	21,000	700,000	2,500,000 (G)	NLV	NLV	100,000,000	400,000	NCL	400,000	8,000	830	10,000	1,200	8,100	14,000	8,800	9,700	1,500
Magnesium	NA	8,000,000	NA	NLV	NLV	6,700,000,000	1,000,000,000 (D)	NCL	NCL	1,000,000	2,800,000	1,700,000	510,000	2,400,000	***24,000,000***	1,200,000	1,200,000	***11,000,000***
Mercury	130	1,700	50 (M)	48,000	52,000	20,000,000	160,000	0.027	33,000	<78	<81	<90	<89	<90	<92	<87	<88	<80
Molybdenum	NA	1,500	64,000	NLV	NLV	ID	2,600,000	NCL	1,200,000	<2,500	660 [J]	<2,800	<2,500	<2,600	<2,900	<2,500	<2,200	<2,600
Nickel	20,000	100,000	100,000 (G)	NLV	NLV	13,000,000	40,000,000	NCL	4,600,000	8,700	1,300	8,800	7,600	11,000	30,000	10,000	8,300	6,500
Selenium	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NCL	1,200,000	<1,300	<1,300	<1,400	<1,300	<1,400	<1,500	<1,300	<1,100	<1,300
Silver	1,000	4,500	100 (M)	NLV	NLV	6,700,000	2,500,000	NCL	1,200,000	<250	<250	<280	<250	<260	72 [J]	<250	<220	<260
Sodium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	39,000 [J]	<100,000	<110,000	<100,000	42,000 [J]	190,000	39,000 [J]	41,000 [J]	74,000 [J]
Thallium	NA	2,300	4,200	NLV	NLV	13,000,000	35,000	NCL	2,300	93 [J]	<130	86 [J]	32 [J]	120 [J]	220	95 [J]	110	<130
Titanium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	170,000	52,000	160,000	57,000	210,000	430,000	180,000	190,000	370,000
Vanadium	NA	72,000	430,000	NLV	NLV	ID	750,000 (DD)	NCL	1,200,000	19,000	2,500	17,000	4,500	24,000	47,000	21,000	21,000	9,000
Zinc	47,000	2,400,000	230,000 (G)	NLV	NLV	ID	170,000,000	NCL	70,000,000	31,000	3,200	40,000	5,200	45,000	53,000	33,000	36,000	15,000

TABLE 1C
SUMMARY OF SOIL SAMPLE ANALYSIS - METALS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4910	HS-SB-4910	HS-SB-4910	HS-SB-4911	HS-SB-4911	HS-SB-4912	HS-SB-4912	HS-SB-4912	HS-SB-4913
Sample Name										HS-SB-4910 (0-2)	HS-SB-4910 (0-2) DUP	HS-SB-4910 (10-12)	HS-SB-4911 (0-2)	HS-SB-4911 (11-13)	HS-SB-4912 (0-2)	HS-SB-4912 (0-2) DUP	HS-SB-4912 (5-7)	HS-SB-4913 (0-2)
Depth Interval (Feet below ground surface)										0 - 2	0 - 2	10 - 12	0 - 2	11 - 13	0 - 2	0 - 2	5 - 7	0 - 2
Boring Location										House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)										UH17001-010	UH17001-011	UH17001-014	UH17001-008	UH17001-009	UH17001-005	UH17001-006	UH17001-007	UH23030-016
Sample Date										8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/22/2019
Parameter (µg/kg)																		
Aluminum	6,900,000	1,000	NA	NLV	NLV	ID	50,000,000 (DD)	NCL	230,000,000	***7,400,000***	6,500,000	***8,500,000***	***12,000,000***	6,500,000	***12,000,000***	***16,000,000***	5,700,000	***17,000,000***
Antimony	NA	4,300	94,000	NLV	NLV	13,000,000	180,000	NCL	94,000	<540	<530	<540	<540	<460	<530	<570	<500	<550
Arsenic	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NCL	68,000	3,100	2,700	1,500	***5,900***	3,900	4,700	***6,100***	4,500	***6,100***
Barium	75,000	1,300,000	660,000 (G)	NLV	NLV	330,000,000	37,000,000	NCL	46,000,000	33,000	30,000	38,000	47,000	36,000	43,000	56,000	26,000	58,000
Beryllium	NA	51,000	320,000 (G)	NLV	NLV	1,300,000	410,000	NCL	470,000	71 [J]	69 [J]	78 [J]	76 [J]	70 [J]	90 [J]	110	77 [J]	110
Boron	NA	10,000	140,000	NLV	NLV	ID	48,000,000 (DD)	NCL	47,000,000	<14,000	<14,000	3,700 [BJ]	<14,000	3,100 [BJ]	<14,000	2,800 [BJ]	3,000 [BJ]	<14,000
Cadmium	1,200	6,000	3,000 (G)	NLV	NLV	1,700,000	550,000	NCL	NCL	93 [J]	77 [J]	51 [J]	87 [J]	77 [J]	69 [J]	75 [J]	54 [J]	68 [J]
Chromium (Total)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	11,000	9,500	14,000	24,000	12,000	21,000	26,000	13,000	22,000
Trivalent Chromium (Calculated: Total - Hexavalent)	18,000	1,000,000,000	1,000,000,000 (G,D)	NLV	NLV	330,000,000	790,000,000	NCL	350,000,000	11,000	9,500	14,000	24,000	12,000	21,000	26,000	13,000	22,000
Hexavalent Chromium	NA	30,000	3,300	NLV	NLV	260,000	2,500,000	NCL	30,000	<1,100	<1,100	240 [J]	280 [J]	230 [J]	320 [J]	260 [J]	290 [J]	<1,100
Cobalt	6,800	800	2,000	NLV	NLV	13,000,000	2,600,000	NCL	70,000	5,600	4,500	4,700	***9,800***	4,100	***7,400***	***8,500***	3,700	***8,200***
Copper	32,000	5,800,000	100,000 (G)	NLV	NLV	130,000,000	20,000,000	NCL	9,400,000	3,800 [B]	4,000 [B]	8,300 [B]	5,200 [B]	6,500 [B]	9,900 [B]	9,800 [B]	7,200 [B]	13,000
Iron	12,000,000	6,000	NA	NLV	NLV	ID	160,000,000	NCL	160,000,000	9,600,000	8,600,000	11,000,000	***16,000,000***	11,000,000	***15,000,000***	***20,000,000***	11,000,000	***20,000,000***
Lead	21,000	700,000	2,500,000 (G)	NLV	NLV	100,000,000	400,000	NCL	400,000	8,600	7,600	4,900	12,000	6,600	12,000	13,000	4,600	10,000
Magnesium	NA	8,000,000	NA	NLV	NLV	6,700,000,000	1,000,000,000 (D)	NCL	NCL	1,700,000	1,500,000	***24,000,000***	2,600,000	***21,000,000***	3,000,000	4,000,000	***28,000,000***	1,900,000
Mercury	130	1,700	50 (M)	48,000	52,000	20,000,000	160,000	0.027	33,000	<86	<88	<84	<88	<78	<88	<85	<87	<83
Molybdenum	NA	1,500	64,000	NLV	NLV	ID	2,600,000	NCL	1,200,000	<2,700	<2,700	<2,700	<2,700	<2,300	<2,600	<2,800	<2,500	<2,800
Nickel	20,000	100,000	100,000 (G)	NLV	NLV	13,000,000	40,000,000	NCL	4,600,000	8,100	7,200	12,000	13,000	11,000	15,000	20,000	9,700	18,000
Selenium	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NCL	1,200,000	<1,400	<1,400	<1,400	<1,400	<1,200	<1,400	<1,500	<1,300	<1,400
Silver	1,000	4,500	100 (M)	NLV	NLV	6,700,000	2,500,000	NCL	1,200,000	<270	<270	<270	<270	<230	<260	<280	<250	<280
Sodium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<110,000	<110,000	120,000	48,000 [J]	110,000	48,000 [J]	60,000 [J]	130,000	62,000 [J]
Thallium	NA	2,300	4,200	NLV	NLV	13,000,000	35,000	NCL	2,300	79 [J]	66 [J]	99 [J]	130 [J]	86 [J]	120 [J]	150	60 [J]	170
Titanium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	160,000	140,000	220,000	180,000	200,000	210,000	280,000	150,000	270,000
Vanadium	NA	72,000	430,000	NLV	NLV	ID	750,000 (DD)	NCL	1,200,000	17,000	15,000	20,000	26,000	17,000	25,000	33,000	17,000	31,000
Zinc	47,000	2,400,000	230,000 (G)	NLV	NLV	ID	170,000,000	NCL	70,000,000	32,000	28,000	31,000	49,000	28,000	39,000	50,000	23,000	40,000

TABLE 1C
SUMMARY OF SOIL SAMPLE ANALYSIS - METALS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4913	HS-SB-4914	HS-SB-4914	HS-SB-4914	HS-SB-4915	HS-SB-4915
Sample Name										HS-SB-4913 (6-8)	HS-SB-4914 (0-2)	HS-SB-4914 (0-2) DUP	HS-SB-4914 (8-10)	HS-SB-4915 (0-2)	HS-SB-4915 (2-4)
Depth Interval (Feet below ground surface)										6 - 8	0 - 2	0 - 2	8 - 10	0 - 2	2 - 4
Boring Location										House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)										UH23030-017	UH17001-017	UH17001-018	UH17001-019	UH23030-014	UH23030-015
Sample Date										8/22/2019	8/16/2019	8/16/2019	8/16/2019	8/21/2019	8/21/2019
Parameter (µg/kg)															
Aluminum	6,900,000	1,000	NA	NLV	NLV	ID	50,000,000 (DD)	NCL	230,000,000	2,600,000	***8,500,000***	***7,400,000***	***9,300,000***	***23,000,000***	***15,000,000***
Antimony	NA	4,300	94,000	NLV	NLV	13,000,000	180,000	NCL	94,000	<440	<530	<540	<510	<540	<580
Arsenic	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NCL	68,000	1,500	3,500	3,100	4,700	***7,200***	5,100
Barium	75,000	1,300,000	660,000 (G)	NLV	NLV	330,000,000	37,000,000	NCL	46,000,000	10,000	37,000	34,000	48,000	110,000	76,000
Beryllium	NA	51,000	320,000 (G)	NLV	NLV	1,300,000	410,000	NCL	470,000	32 [J]	64 [J]	63 [J]	96 [J]	97 [J]	94 [J]
Boron	NA	10,000	140,000	NLV	NLV	ID	48,000,000 (DD)	NCL	47,000,000	<11,000	<14,000	<14,000	3,600 [BJ]	<14,000	<15,000
Cadmium	1,200	6,000	3,000 (G)	NLV	NLV	1,700,000	550,000	NCL	NCL	<110	70 [J]	67 [J]	69 [J]	250	130 [J]
Chromium (Total)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	5,600	15,000	13,000	17,000	33,000	19,000
Trivalent Chromium (Calculated: Total - Hexavalent)	18,000	1,000,000,000	1,000,000,000 (G,D)	NLV	NLV	330,000,000	790,000,000	NCL	350,000,000	5,400	15,000	13,000	17,000	33,000	19,000
Hexavalent Chromium	NA	30,000	3,300	NLV	NLV	260,000	2,500,000	NCL	30,000	220 [J]	310 [J]	370 [J]	250 [J]	310 [J]	<1,300
Cobalt	6,800	800	2,000	NLV	NLV	13,000,000	2,600,000	NCL	70,000	2,700	5,700	4,700	5,600	***9,100***	6,100
Copper	32,000	5,800,000	100,000 (G)	NLV	NLV	130,000,000	20,000,000	NCL	9,400,000	7,200	5,500 [B]	4,600 [B]	9,400 [B]	15,000	10,000
Iron	12,000,000	6,000	NA	NLV	NLV	ID	160,000,000	NCL	160,000,000	6,200,000	12,000,000	9,500,000	***17,000,000***	***24,000,000***	***18,000,000***
Lead	21,000	700,000	2,500,000 (G)	NLV	NLV	100,000,000	400,000	NCL	400,000	2,100	7,700	6,400	5,900	20,000	14,000
Magnesium	NA	8,000,000	NA	NLV	NLV	6,700,000,000	1,000,000,000 (D)	NCL	NCL	***14,000,000***	2,100,000	1,700,000	***22,000,000***	2,400,000	1,600,000
Mercury	130	1,700	50 (M)	48,000	52,000	20,000,000	160,000	0.027	33,000	<78	<88	<87	<89	24 [J]	<93
Molybdenum	NA	1,500	64,000	NLV	NLV	ID	2,600,000	NCL	1,200,000	<2,200	<2,600	<2,700	<2,600	<2,700	<2,900
Nickel	20,000	100,000	100,000 (G)	NLV	NLV	13,000,000	40,000,000	NCL	4,600,000	5,500	10,000	8,500	16,000	22,000	16,000
Selenium	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NCL	1,200,000	<1,100	<1,400	<1,400	<1,300	<1,400	<1,500
Silver	1,000	4,500	100 (M)	NLV	NLV	6,700,000	2,500,000	NCL	1,200,000	<220	<260	<270	<260	<270	<290
Sodium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	100,000	38,000 [J]	<110,000	110,000	83,000 [J]	63,000 [J]
Thallium	NA	2,300	4,200	NLV	NLV	13,000,000	35,000	NCL	2,300	37 [J]	72 [J]	67 [J]	110 [J]	250	170
Titanium	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	160,000	180,000	150,000	240,000	240,000	220,000
Vanadium	NA	72,000	430,000	NLV	NLV	ID	750,000 (DD)	NCL	1,200,000	11,000	19,000	16,000	23,000	40,000	29,000
Zinc	47,000	2,400,000	230,000 (G)	NLV	NLV	ID	170,000,000	NCL	70,000,000	11,000	35,000	31,000	34,000	86,000	56,000

TABLE 1D
SUMMARY OF SOIL SAMPLE ANALYSIS - INORGANICS/GENERAL CHEMISTRY
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2104	HS-SB-2104	HS-SB-2105	HS-SB-2105	HS-SB-2106	HS-SB-2106	HS-SB-2106	HS-SB-2107	HS-SB-2107
Sample Name										HS-SB-2104 (1-2)	HS-SB-2104 (3-4)	HS-SB-2105 (2-3)	HS-SB-2105 (3-4)	HS-SB-2106 (2-3)	HS-SB-2106 (2-3) DUP	HS-SB-2106 (5-6)	HS-SB-2107 (2-3)	HS-SB-2107 (6-7)
Depth Interval (Feet below ground surface)										1 - 2	3 - 4	2 - 3	3 - 4	2 - 3	2 - 3	5 - 6	2 - 3	6 - 7
Boring Location										House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)										UG02019-019 & 19062077-17A	UG02019-020 & 19062077-18A	UG02019-022 & 19070158-01A	UG02019-023 & 19070158-02A	UG09018-001 & 19070158-04A	UG09018-003 & 19070158-05A	UG09018-002 & 19070158-06A	UG09018-004 & 19070158-07A	UG09018-005 & 19070158-08A
Sample Date										6/28/2019	6/28/2019	6/28/2019	6/28/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019
Parameter (µg/kg)																		
Acetic Acid	NA	84,000	180,000 (G)	NLV	NLV	17,000,000,000	130,000,000	NCL	NCL	350	<20,000	<19,000	<20,000	<19,000	<19,000	<19,000	<19,000	<20,000
Formic Acid	NA	200,000	ID	1,500,000	210,000	130,000,000	320,000,000 (C)	NCL	87,000	<190	<20,000	<19,000	<20,000	<19,000	<19,000	<19,000	<19,000	<20,000
Cyanide - Total	390	4,000	100	NLV	NLV	250,000	12,000	NCL	69,000	88 [J]	<140	<130	54 [J]	65 [J]	<130	<130	73 [J]	53 [J]
Cyanide, Available	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<40	<40	<40	<40	<40	<40	<40	<40	<39
Ammonia - N (gas diffusion)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<1,100	<1,200	<1,100	<1,100	<1,100	<1,100	<1,100	<1,100	<1,100
Nitrate-Nitrite - N (soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	490	1,600	710	520	530	570	220	940	920
Nitrate-Nitrite - N + Ammonia - N (Calculated)	NA	200,000 (N)	NCL	NCL	NCL	NCL	NCL	NCL	380,000,000	490	1,600	710	520	530	570	220	940	920
Unionized Ammonia (Calculated based on pH 8.0, 20°C)	NA	NCL	580 (CC)	NCL	NCL	NCL	NCL	NA	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloride (soluble)	NA	5,000,000	NCL	NLV	NLV	ID	500,000 (F)	NCL	NCL	<11,000	3,400 [J]	<11,000	<11,000	<11,000	<11,000	<11,000	<11,000	<11,000
Phosphorus	NA	1,300,000	20,000 (EE)	NLV	NLV	67,000,000	1,000,000,000 (D)	NCL	NCL	***76,000***	***370,000***	***210,000***	***53,000***	***58,000***	***67,000***	***56,000***	***100,000***	***52,000***
Sulfate (soluble)	NA	5,000,000	NA	NLV	NLV	ID	ID	NCL	NCL	<11,000	<12,000	<11,000	<11,000	<11,000	<11,000	<11,000	<11,000	<11,000
Sulfide (Acid Soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000

TABLE 1D
SUMMARY OF SOIL SAMPLE ANALYSIS - INORGANICS/GENERAL CHEMISTRY
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2108	HS-SB-2108	HS-SB-2109	HS-SB-2109	HS-SB-2110	HS-SB-2110	HS-SB-2111	HS-SB-2111	HS-SB-2112
Sample Name										HS-SB-2108 (1-2)	HS-SB-2108 (3-4)	HS-SB-2109 (0-1)	HS-SB-2109 (2-3)	HS-SB-2110 (1-2)	HS-SB-2110 (3-4)	HS-SB-2111 (0-1)	HS-SB-2111 (2-3)	HS-SB-2112 (2-3)
Depth Interval (Feet below ground surface)										1 - 2	3 - 4	0 - 1	2 - 3	1 - 2	3 - 4	0 - 1	2 - 3	2 - 3
Boring Location										House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)										UG09018-006 & 19070158-09A	UG09018-007 & 19070158-10A	UG09018-008 & 19070158-11A	UG09018-009 & 19070158-12A	UG09018-010 & 19070158-13A	UG09018-011 & 19070158-14A	UG09018-012 & 19070158-15A	UG09018-013 & 19070158-16A	UG09018-014 & 19070158-17A
Sample Date										7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/2/2019
Parameter (µg/kg)																		
Acetic Acid	NA	84,000	180,000 (G)	NLV	NLV	17,000,000,000	130,000,000	NCL	NCL	<19,000	<19,000	<20,000	<19,000	<19,000	<19,000	<19,000	<19,000	<19,000
Formic Acid	NA	200,000	ID	1,500,000	210,000	130,000,000	320,000,000 (C)	NCL	87,000	<19,000	<19,000	<20,000	<19,000	<19,000	<19,000	<19,000	<19,000	<19,000
Cyanide - Total	390	4,000	100	NLV	NLV	250,000	12,000	NCL	69,000	69 [J]	<130	220	46 [J]	94 [J]	61 [J]	89 [J]	49 [J]	<130
Cyanide, Available	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<40	<40	<40	41	<40	<40	<40	<40	<40
Ammonia - N (gas diffusion)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<1,100	<1,100	<1,200	<1,100	<1,100	<1,100	<1,100	<1,100	<1,100
Nitrate-Nitrite - N (soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	610	720	260	370	400	670	330	510	710
Nitrate-Nitrite - N + Ammonia - N (Calculated)	NA	200,000 (N)	NCL	NCL	NCL	NCL	NCL	NCL	380,000,000	610	720	260	370	400	670	330	510	710
Unionized Ammonia (Calculated based on pH 8.0, 20°C)	NA	NCL	580 (CC)	NCL	NCL	NCL	NCL	NA	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloride (soluble)	NA	5,000,000	NCL	NLV	NLV	ID	500,000 (F)	NCL	NCL	<11,000	<11,000	<12,000	<11,000	<11,000	<11,000	<11,000	<11,000	<11,000
Phosphorus	NA	1,300,000	20,000 (EE)	NLV	NLV	67,000,000	1,000,000,000 (D)	NCL	NCL	***130,000***	***52,000***	***510,000***	***120,000***	***180,000***	***60,000***	***210,000***	***110,000***	***170,000***
Sulfate (soluble)	NA	5,000,000	NA	NLV	NLV	ID	ID	NCL	NCL	<11,000	<11,000	<12,000	<11,000	<11,000	8,100 [J]	<11,000	<11,000	<11,000
Sulfide (Acid Soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000

TABLE 1D
SUMMARY OF SOIL SAMPLE ANALYSIS - INORGANICS/GENERAL CHEMISTRY
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2112	HS-SB-2113	HS-SB-2113	HS-SB-2114	HS-SB-2114	HS-SB-2115	HS-SB-2115	HS-SB-2116	HS-SB-2116
Sample Name										HS-SB-2112 (4-5)	HS-SB-2113 (1-2)	HS-SB-2113 (3-4)	HS-SB-2114 (0-1)	HS-SB-2114 (3-4)	HS-SB-2115 (0-1)	HS-SB-2115 (3-4)	HS-SB-2116 (0-1)	HS-SB-2116 (3-4)
Depth Interval (Feet below ground surface)										4 - 5	1 - 2	3 - 4	0 - 1	3 - 4	0 - 1	3 - 4	0 - 1	3 - 4
Boring Location										House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)										UG09018-015 & 19070158-18A	UG09018-016 & 19070158-19A	UG09018-017 & 19070158-20A	UG09018-018 & 19070158-21A	UG09018-019 & 19070158-22A	UG09013-001 & 19070158-23A	UG09013-002 & 19070158-24A	UG09013-003 & 19070158-25A	UG09013-004 & 19070158-26A
Sample Date										7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019
Parameter (µg/kg)																		
Acetic Acid	NA	84,000	180,000 (G)	NLV	NLV	17,000,000,000	130,000,000	NCL	NCL	<19,000	<19,000	<19,000	<19,000	<20,000	<19,000	<19,000	<19,000	<20,000
Formic Acid	NA	200,000	ID	1,500,000	210,000	130,000,000	320,000,000 (C)	NCL	87,000	<19,000	<19,000	<19,000	<19,000	<20,000	<19,000	<19,000	<19,000	<20,000
Cyanide - Total	390	4,000	100	NLV	NLV	250,000	12,000	NCL	69,000	83 [J]	47 [J]	<160	<140	<130	74 [J]	<250	53 [J]	<130
Cyanide, Available	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<40	42	<40	50	<40	79	<40	52	<40
Ammonia - N (gas diffusion)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<1,000	<1,200	<1,300	<1,100	<1,100	1,200	<1,000	<1,000	<1,100
Nitrate-Nitrite - N (soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	610	330	1,000	380	590	540	740	420	820
Nitrate-Nitrite - N + Ammonia - N (Calculated)	NA	200,000 (N)	NCL	NCL	NCL	NCL	NCL	NCL	380,000,000	610	330	1,000	380	590	1,700	740	420	820
Unionized Ammonia (Calculated based on pH 8.0, 20°C)	NA	NCL	580 (CC)	NCL	NCL	NCL	NCL	NA	NCL	ND	ND	ND	ND	ND	46	ND	ND	ND
Chloride (soluble)	NA	5,000,000	NCL	NLV	NLV	ID	500,000 (F)	NCL	NCL	<10,000	<12,000	2,700 [J]	<11,000	<11,000	<11,000	<10,000	<10,000	<11,000
Phosphorus	NA	1,300,000	20,000 (EE)	NLV	NLV	67,000,000	1,000,000,000 (D)	NCL	NCL	***170,000***	***220,000***	***320,000***	***140,000***	***120,000***	***160,000***	***62,000***	***140,000***	***240,000***
Sulfate (soluble)	NA	5,000,000	NA	NLV	NLV	ID	ID	NCL	NCL	<10,000	<12,000	<13,000	<11,000	<11,000	<11,000	<10,000	<10,000	<11,000
Sulfide (Acid Soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000

TABLE 1D
SUMMARY OF SOIL SAMPLE ANALYSIS - INORGANICS/GENERAL CHEMISTRY
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2117	HS-SB-2117	HS-SB-2117	HS-SB-2118	HS-SB-2118	HS-SB-2119	HS-SB-2119	HS-SB-2120	HS-SB-2120
Sample Name										HS-SB-2117 (0-1)	HS-SB-2117 (2-3)	HS-SB-2117 (2-3) DUP	HS-SB-2118 (0-1)	HS-SB-2118 (3-4)	HS-SB-2119 (0-1)	HS-SB-2119 (3-4)	HS-SB-2120 (1-2)	HS-SB-2120 (1-2) DUP
Depth Interval (Feet below ground surface)										0 - 1	2 - 3	2 - 3	0 - 1	3 - 4	0 - 1	3 - 4	1 - 2	1 - 2
Boring Location										House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)										UG09013-005 & 19070158-27A	UG09013-006 & 19070158-28A	UG09013-007 & 19070158-29A	UG09013-008 & 19070640-01A	UG09013-009 & 19070640-02A	UG09013-010 & 19070640-03A	UG09013-011 & 19070640-04A	UG09013-012 & 19070640-05A	UG09013-013 & 19070640-06A
Sample Date										7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019
Parameter (µg/kg)																		
Acetic Acid	NA	84,000	180,000 (G)	NLV	NLV	17,000,000,000	130,000,000	NCL	NCL	<19,000	<20,000	<20,000	<19,000	<19,000	<19,000	<18,000	<19,000	<19,000
Formic Acid	NA	200,000	ID	1,500,000	210,000	130,000,000	320,000,000 (C)	NCL	87,000	<19,000	<20,000	<20,000	<19,000	<19,000	<19,000	<18,000	<19,000	<19,000
Cyanide - Total	390	4,000	100	NLV	NLV	250,000	12,000	NCL	69,000	<130	62 [J]	50 [J]	<120	<130	60 [J]	47 [J]	<130	42 [J]
Cyanide, Available	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	60	<40	<40	42	<40	<39	<40	<40	<40
Ammonia - N (gas diffusion)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<1,000	<1,100	<1,200	<1,000	<1,100	<1,000	<1,200	<1,000	<1,000
Nitrate-Nitrite - N (soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	580	760	840	340	320	470	820	430	450
Nitrate-Nitrite - N + Ammonia - N (Calculated)	NA	200,000 (N)	NCL	NCL	NCL	NCL	NCL	NCL	380,000,000	580	760	840	340	320	470	820	430	450
Unionized Ammonia (Calculated based on pH 8.0, 20°C)	NA	NCL	580 (CC)	NCL	NCL	NCL	NCL	NA	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloride (soluble)	NA	5,000,000	NCL	NLV	NLV	ID	500,000 (F)	NCL	NCL	<10,000	<11,000	<12,000	<10,000	<11,000	<10,000	<12,000	<10,000	<10,000
Phosphorus	NA	1,300,000	20,000 (EE)	NLV	NLV	67,000,000	1,000,000,000 (D)	NCL	NCL	***190,000***	***150,000***	***180,000***	***87,000***	***44,000***	***150,000***	***160,000***	***150,000***	***120,000***
Sulfate (soluble)	NA	5,000,000	NA	NLV	NLV	ID	ID	NCL	NCL	<10,000	<11,000	<12,000	<10,000	<11,000	<10,000	<12,000	<10,000	<10,000
Sulfide (Acid Soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000

TABLE 1D
SUMMARY OF SOIL SAMPLE ANALYSIS - INORGANICS/GENERAL CHEMISTRY
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2120	HS-SB-2125	HS-SB-2125	HS-SB-2125	HS-SB-2125	HS-SB-2125	HS-SB-2126	HS-SB-2126	HS-SB-2126
Sample Name										HS-SB-2120 (4-5)	HS-SB-2125 (1-2)	HS-SB-2125 (7-8)	HS-SB-2125 (25-27)	HS-SB-2125 (30-32)	HS-SB-2125 (35-37)	HS-SB-2126 (25-27)	HS-SB-2126 (31-33)	HS-SB-2126 (37-39)
Depth Interval (Feet below ground surface)										4 - 5	1 - 2	7 - 8	25 - 27	30 - 32	35 - 37	25 - 27	31 - 33	37 - 39
Boring Location										House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)										UG09013-014 & 19070640-07A	UG02019-008 & 19062077-08A	UG02019-009 & 19062077-09A	UG02019-010 & 19062077-10A	UG02019-013 & 19070158-03A	UG02019-012 & 19062077-11A	UG02019-003 & 19062077-03A	UG02019-004 & 19062077-04A	UG02019-005 & 19062077-05A
Sample Date										7/2/2019	6/27/2019	6/27/2019	6/27/2019	6/28/2019	6/28/2019	6/27/2019	6/27/2019	6/27/2019
Parameter (µg/kg)																		
Acetic Acid	NA	84,000	180,000 (G)	NLV	NLV	17,000,000,000	130,000,000	NCL	NCL	<19,000	<20,000	<19,000	<19,000	<19,000	<19,000	<20,000	<19,000	<19,000
Formic Acid	NA	200,000	ID	1,500,000	210,000	130,000,000	320,000,000 (C)	NCL	87,000	<19,000	<20,000	<19,000	<19,000	<19,000	<19,000	<20,000	<19,000	<19,000
Cyanide - Total	390	4,000	100	NLV	NLV	250,000	12,000	NCL	69,000	50 [J]	71 [J]	42 [J]	<120	<120	<130	<120	<130	<130
Cyanide, Available	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<39	45	<40	<40	<39	59	<40	<40	<40
Ammonia - N (gas diffusion)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<1,100	<1,100	<1,100	<1,000	<1,000	2,200	600 [J]	880 [J]	<1,100
Nitrate-Nitrite - N (soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	840	1,900	2,200	410	350	1,600	310	360	400
Nitrate-Nitrite - N + Ammonia - N (Calculated)	NA	200,000 (N)	NCL	NCL	NCL	NCL	NCL	NCL	380,000,000	840	1,900	2,200	410	350	3,800	910	1,200	400
Unionized Ammonia (Calculated based on pH 8.0, 20°C)	NA	NCL	580 (CC)	NCL	NCL	NCL	NCL	NA	NCL	ND	ND	ND	ND	ND	84	23	34	ND
Chloride (soluble)	NA	5,000,000	NCL	NLV	NLV	ID	500,000 (F)	NCL	NCL	<11,000	7,000 [BJ]	5,700 [BJ]	23,000 [B]	10,000 [B]	36,000 [B]	9,400 [J]	4,000 [J]	23,000
Phosphorus	NA	1,300,000	20,000 (EE)	NLV	NLV	67,000,000	1,000,000,000 (D)	NCL	NCL	***250,000***	***230,000***	***71,000***	***28,000***	***42,000***	***100,000***	***28,000***	***46,000***	***85,000***
Sulfate (soluble)	NA	5,000,000	NA	NLV	NLV	ID	ID	NCL	NCL	<11,000	<11,000	<11,000	<10,000	<10,000	<10,000	<10,000	<11,000	<11,000
Sulfide (Acid Soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000

TABLE 1D
SUMMARY OF SOIL SAMPLE ANALYSIS - INORGANICS/GENERAL CHEMISTRY
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2220	HS-SB-2220	HS-SB-2221	HS-SB-2221	HS-SB-2224	HS-SB-2224	HS-SB-2224	HS-SB-2224	HS-SB-2224
Sample Name										HS-SB-2220 (3-4)	HS-SB-2220 (8-9)	HS-SB-2221 (0-1)	HS-SB-2221 (8-9)	HS-SB-2224 (1-2)	HS-SB-2224 (6-7)	HS-SB-2224 (20-22)	HS-SB-2224 (31-33)	HS-SB-2224 (37-39)
Depth Interval (Feet below ground surface)										3 - 4	8 - 9	0 - 1	8 - 9	1 - 2	6 - 7	20 - 22	31 - 33	37 - 39
Boring Location										Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)										UG02019-006 & 19062077-06A	UG02019-007 & 19062077-07A	UG02019-001 & 19062077-01A	UG02019-002 & 19062077-02A	UG02019-014 & 19062077-12A	UG02019-015 & 19062077-13A	UG02019-016 & 19062077-14A	UG02019-017 & 19062077-15A	UG02019-018 & 19062077-16A
Sample Date										6/27/2019	6/27/2019	6/27/2019	6/27/2019	6/28/2019	6/28/2019	6/28/2019	6/28/2019	6/28/2019
Parameter (µg/kg)																		
Acetic Acid	NA	84,000	180,000 (G)	NLV	NLV	17,000,000,000	130,000,000	NCL	NCL	<19,000	<20,000	<19,000	<19,000	<19,000	<19,000	<20,000	<19,000	<19,000
Formic Acid	NA	200,000	ID	1,500,000	210,000	130,000,000	320,000,000 (C)	NCL	87,000	<19,000	<20,000	<19,000	<19,000	<19,000	<19,000	<20,000	<19,000	<19,000
Cyanide - Total	390	4,000	100	NLV	NLV	250,000	12,000	NCL	69,000	<130	48 [J]	75 [J]	<130	54 [J]	110 [J]	<120	<120	54 [J]
Cyanide, Available	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<40	<40	<40	<40	<40	<40	<40	<40	<40
Ammonia - N (gas diffusion)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<1,100	<1,100	<1,300	590 [J]	<1,100	<1,200	<1,000	<1,000	<1,000
Nitrate-Nitrite - N (soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	360	530	790	420	1,000	1,800	440	390	430
Nitrate-Nitrite - N + Ammonia - N (Calculated)	NA	200,000 (N)	NCL	NCL	NCL	NCL	NCL	NCL	380,000,000	360	530	790	1,000	1,000	1,800	440	390	430
Unionized Ammonia (Calculated based on pH 8.0, 20°C)	NA	NCL	580 (CC)	NCL	NCL	NCL	NCL	NA	NCL	ND	ND	ND	23	ND	ND	ND	ND	ND
Chloride (soluble)	NA	5,000,000	NCL	NLV	NLV	ID	500,000 (F)	NCL	NCL	<11,000	<11,000	<13,000	<10,000	2,600 [BJ]	83,000 [B]	14,000 [B]	21,000 [B]	14,000
Phosphorus	NA	1,300,000	20,000 (EE)	NLV	NLV	67,000,000	1,000,000,000 (D)	NCL	NCL	***100,000***	***58,000***	***290,000***	***39,000***	***210,000***	***370,000***	***48,000***	***27,000***	***52,000***
Sulfate (soluble)	NA	5,000,000	NA	NLV	NLV	ID	ID	NCL	NCL	<11,000	<11,000	<13,000	<10,000	<11,000	<12,000	<10,000	<10,000	<10,000
Sulfide (Acid Soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000

TABLE 1D
SUMMARY OF SOIL SAMPLE ANALYSIS - INORGANICS/GENERAL CHEMISTRY
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4800	HS-SB-4800	HS-SB-4801	HS-SB-4801	HS-SB-4802	HS-SB-4802	HS-SB-4803	HS-SB-4803	HS-SB-4804
Sample Name										HS-SB-4800 (0-2)	HS-SB-4800 (15-17)	HS-SB-4801 (0-2)	HS-SB-4801 (15-17)	HS-SB-4802 (0-2)	HS-SB-4802 (15-17)	HS-SB-4803 (0-2)	HS-SB-4803 (6-8)	HS-SB-4804 (0-2)
Depth Interval (Feet below ground surface)										0 - 2	15 - 17	0 - 2	15 - 17	0 - 2	15 - 17	0 - 2	6 - 8	0 - 2
Boring Location										Off-Site	Off-Site	House St Site	House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)										UH23024-002 & 19081359-05A	UH23024-003 & 19081359-06A	UH23030-001 & 19081359-23A	UH23030-002 & 19081359-24A	UH17001-020 & 19081231-19A	UH17001-021 & 19081231-20A	UH23024-010 & 19081359-13A	UH23024-011 & 19081359-14A	UH23024-012 & 19081359-15A
Sample Date										8/19/2019	8/19/2019	8/20/2019	8/20/2019	8/16/2019	8/16/2019	8/20/2019	8/20/2019	8/20/2019
Parameter (µg/kg)																		
Acetic Acid	NA	84,000	180,000 (G)	NLV	NLV	17,000,000,000	130,000,000	NCL	NCL	<18,000	<19,000	<19,000	<19,000	<19,000	<20,000	<19,000	<19,000	<19,000
Formic Acid	NA	200,000	ID	1,500,000	210,000	130,000,000	320,000,000 (C)	NCL	87,000	<18,000	<19,000	<19,000	<19,000	<19,000	<20,000	<19,000	<19,000	<19,000
Cyanide - Total	390	4,000	100	NLV	NLV	250,000	12,000	NCL	69,000	150	46 [J]	120 [J]	<130	140	<130	120 [J]	190 [HJ]	150
Cyanide, Available	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<40	<40	91	<40	<40	<40	56	<40	86
Ammonia - N (gas diffusion)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,700	<1,100	1,700	<1,100	640 [J]	<1,100	590 [J]	<1,200	2,200
Nitrate-Nitrite - N (soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	260 [B]	<210	320	270	410	440	600	640	620
Nitrate-Nitrite - N + Ammonia - N (Calculated)	NA	200,000 (N)	NCL	NCL	NCL	NCL	NCL	NCL	380,000,000	2,000	ND	2,000	270	1,100	440	1,200	640	2,800
Unionized Ammonia (Calculated based on pH 8.0, 20°C)	NA	NCL	580 (CC)	NCL	NCL	NCL	NCL	NA	NCL	65	ND	65	ND	24	ND	23	ND	84
Chloride (soluble)	NA	5,000,000	NCL	NLV	NLV	ID	500,000 (F)	NCL	NCL	<11,000	<11,000	<11,000	<11,000	<11,000	<11,000	<11,000	<12,000	<11,000
Phosphorus	NA	1,300,000	20,000 (EE)	NLV	NLV	67,000,000	1,000,000,000 (D)	NCL	NCL	***230,000***	***45,000***	***180,000***	***70,000***	***180,000***	***74,000***	***180,000***	***290,000***	***430,000***
Sulfate (soluble)	NA	5,000,000	NA	NLV	NLV	ID	ID	NCL	NCL	<11,000	<11,000	11,000	<11,000	8,800 [J]	<11,000	<11,000	<12,000	<11,000
Sulfide (Acid Soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000

TABLE 1D
SUMMARY OF SOIL SAMPLE ANALYSIS - INORGANICS/GENERAL CHEMISTRY
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4804	HS-SB-4805	HS-SB-4805	HS-SB-4806	HS-SB-4806	HS-SB-4807	HS-SB-4807	HS-SB-4808	HS-SB-4808
Sample Name										HS-SB-4804 (10-12)	HS-SB-4805 (0-2)	HS-SB-4805 (7-9)	HS-SB-4806 (0-2)	HS-SB-4806 (7-9)	HS-SB-4807 (0-2)	HS-SB-4807 (10-12)	HS-SB-4808 (0-2)	HS-SB-4808 (6-8)
Depth Interval (Feet below ground surface)										10 - 12	0 - 2	7 - 9	0 - 2	7 - 9	0 - 2	10 - 12	0 - 2	6 - 8
Boring Location										Off-Site	House St Site	House St Site	Off-Site	Off-Site	Off-Site	Off-Site	House St Site	House St Site
Laboratory Sample ID(s)										UH23024-013 & 19081359-16A	UH23030-012 & 19081359-34A	UH23030-013 & 19081359-37A	UH17001-026 & 19081359-03A	UH17001-027 & 19081359-04A	UH23024-006 & 19081359-09A	UH23024-007 & 19081359-10A	UH23030-005 & 19081359-27A	UH23030-006 & 19081359-28A
Sample Date										8/20/2019	8/21/2019	8/21/2019	8/16/2019	8/16/2019	8/19/2019	8/19/2019	8/20/2019	8/20/2019
Parameter (µg/kg)																		
Acetic Acid	NA	84,000	180,000 (G)	NLV	NLV	17,000,000,000	130,000,000	NCL	NCL	<20,000	<19,000	<19,000	<19,000	<19,000	<19,000	<18,000	<19,000	<19,000
Formic Acid	NA	200,000	ID	1,500,000	210,000	130,000,000	320,000,000 (C)	NCL	87,000	<20,000	<19,000	<19,000	<19,000	<19,000	<19,000	<18,000	<19,000	<19,000
Cyanide - Total	390	4,000	100	NLV	NLV	250,000	12,000	NCL	69,000	<250	120 [J]	88 [J]	***910***	<120	190	79 [HJ]	100 [J]	<120
Cyanide, Available	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<40	<40	<40	420	<40	78	<40	<40	<40
Ammonia - N (gas diffusion)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<1,000	1,600	<1,100	850 [J]	<1,000	2,200	590 [J]	7,700	<1,000
Nitrate-Nitrite - N (soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	390	210 [J]	510	1,100	350	980 [B]	980 [B]	390	260
Nitrate-Nitrite - N + Ammonia - N (Calculated)	NA	200,000 (N)	NCL	NCL	NCL	NCL	NCL	NCL	380,000,000	390	1,800	510	2,000	350	3,200	1,600	8,100	260
Unionized Ammonia (Calculated based on pH 8.0, 20°C)	NA	NCL	580 (CC)	NCL	NCL	NCL	NCL	NA	NCL	ND	61	ND	32	ND	84	23	290	ND
Chloride (soluble)	NA	5,000,000	NCL	NLV	NLV	ID	500,000 (F)	NCL	NCL	3,300 [BJ]	<11,000	<11,000	<11,000	<10,000	<11,000	<11,000	<11,000	<10,000
Phosphorus	NA	1,300,000	20,000 (EE)	NLV	NLV	67,000,000	1,000,000,000 (D)	NCL	NCL	***280,000***	***260,000***	***110,000***	***150,000***	***38,000***	***250,000***	***1,300,000***	***200,000***	***80,000***
Sulfate (soluble)	NA	5,000,000	NA	NLV	NLV	ID	ID	NCL	NCL	<10,000	<11,000	<11,000	<11,000	<10,000	<11,000	<11,000	<11,000	<10,000
Sulfide (Acid Soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000

TABLE 1D
SUMMARY OF SOIL SAMPLE ANALYSIS - INORGANICS/GENERAL CHEMISTRY
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4809	HS-SB-4809	HS-SB-4810	HS-SB-4810	HS-SB-4811	HS-SB-4811	HS-SB-4900	HS-SB-4900	HS-SB-4901
Sample Name										HS-SB-4809 (0-2)	HS-SB-4809 (6-8)	HS-SB-4810 (0-2)	HS-SB-4810 (6-8)	HS-SB-4811 (0-2)	HS-SB-4811 (12-14)	HS-SB-4900 (0-2)	HS-SB-4900 (17-19)	HS-SB-4901 (0-2)
Depth Interval (Feet below ground surface)										0 - 2	6 - 8	0 - 2	6 - 8	0 - 2	12 - 14	0 - 2	17 - 19	0 - 2
Boring Location										Off-Site	Off-Site	Off-Site	Off-Site	House St Site	House St Site	Off-Site	Off-Site	House St Site
Laboratory Sample ID(s)										UH17001-022 & 19081231-21A	UH17001-023 & 19081231-22A	UH17001-012 & 19081231-23A	UH17001-013 & 19081231-12A	UH23024-016 & 19081359-21A	UH23024-017 & 19081359-22A	UH17001-001 & 19081231-01A	UH17001-002 & 19081231-02A	UH17001-003 & 19081231-03A
Sample Date										8/16/2019	8/16/2019	8/15/2019	8/15/2019	8/20/2019	8/20/2019	8/12/2019	8/12/2019	8/12/2019
Parameter (µg/kg)																		
Acetic Acid	NA	84,000	180,000 (G)	NLV	NLV	17,000,000,000	130,000,000	NCL	NCL	<19,000	<19,000	<24,000	<19,000	<19,000	<19,000	<19,000	<20,000	<19,000
Formic Acid	NA	200,000	ID	1,500,000	210,000	130,000,000	320,000,000 (C)	NCL	87,000	<19,000	<19,000	<24,000	<19,000	<19,000	<19,000	<19,000	<20,000	<19,000
Cyanide - Total	390	4,000	100	NLV	NLV	250,000	12,000	NCL	69,000	150	50 [J]	110 [J]	70 [J]	76 [J]	46 [J]	160	85 [J]	150
Cyanide, Available	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<40	<39	<40	<40	<40	<40	<40	<40	<40
Ammonia - N (gas diffusion)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,900	<1,000	1,400	<1,000	2,600	<1,100	1,400	<1,000	1,500
Nitrate-Nitrite - N (soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	870	360	380	810	880	420	1,900	220	1,500
Nitrate-Nitrite - N + Ammonia - N (Calculated)	NA	200,000 (N)	NCL	NCL	NCL	NCL	NCL	NCL	380,000,000	2,800	360	1,800	810	3,500	420	3,300	220	3,000
Unionized Ammonia (Calculated based on pH 8.0, 20°C)	NA	NCL	580 (CC)	NCL	NCL	NCL	NCL	NA	NCL	73	ND	53	ND	99	ND	53	ND	57
Chloride (soluble)	NA	5,000,000	NCL	NLV	NLV	ID	500,000 (F)	NCL	NCL	<11,000	<10,000	<11,000	<10,000	<11,000	<11,000	<11,000	<10,000	<11,000
Phosphorus	NA	1,300,000	20,000 (EE)	NLV	NLV	67,000,000	1,000,000,000 (D)	NCL	NCL	***250,000***	***53,000***	***340,000***	***54,000***	***260,000***	***170,000***	***190,000***	***76,000***	***160,000***
Sulfate (soluble)	NA	5,000,000	NA	NLV	NLV	ID	ID	NCL	NCL	<11,000	<10,000	<11,000	<10,000	<11,000	<11,000	<11,000	<10,000	<11,000
Sulfide (Acid Soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000

TABLE 1D
SUMMARY OF SOIL SAMPLE ANALYSIS - INORGANICS/GENERAL CHEMISTRY
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4901	HS-SB-4902	HS-SB-4902	HS-SB-4903	HS-SB-4903	HS-SB-4904	HS-SB-4904	HS-SB-4905	HS-SB-4905
Sample Name										HS-SB-4901 (18-20)	HS-SB-4902 (0-2)	HS-SB-4902 (6-8)	HS-SB-4903 (0-2)	HS-SB-4903 (11-13)	HS-SB-4904 (0-2)	HS-SB-4904 (15-17)	HS-SB-4905 (0-2)	HS-SB-4905 (15-17)
Depth Interval (Feet below ground surface)										18 - 20	0 - 2	6 - 8	0 - 2	11 - 13	0 - 2	15 - 17	0 - 2	15 - 17
Boring Location										House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)										UH17001-004 & 19081231-04A	UH23024-008 & 19081359-11A	UH23024-009 & 19081359-12A	UH23024-004 & 19081359-07A	UH23024-005 & 19081359-08A	UH23024-014 & 19081359-17A	UH23024-015 & 19081359-20A	UH23030-003 & 19081359-25A	UH23030-004 & 19081359-26A
Sample Date										8/12/2019	8/20/2019	8/19/2019	8/19/2019	8/19/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019
Parameter (µg/kg)																		
Acetic Acid	NA	84,000	180,000 (G)	NLV	NLV	17,000,000,000	130,000,000	NCL	NCL	<19,000	<20,000	<19,000	<19,000	<19,000	<19,000	<19,000	<19,000	<20,000
Formic Acid	NA	200,000	ID	1,500,000	210,000	130,000,000	320,000,000 (C)	NCL	87,000	<19,000	<20,000	<19,000	<19,000	<19,000	<19,000	<19,000	<19,000	<20,000
Cyanide - Total	390	4,000	100	NLV	NLV	250,000	12,000	NCL	69,000	93 [J]	110 [J]	<250	140	250	170	110 [J]	260	<130
Cyanide, Available	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<40	<40	<40	<40	<39	<40	<40	<40	<40
Ammonia - N (gas diffusion)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<1,000	3,500	<1,000	1,800	<1,100	3,000	<1,100	2,700	<1,100
Nitrate-Nitrite - N (soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	240	4,500 [B]	600	1,700 [B]	620 [B]	460	470	590	250
Nitrate-Nitrite - N + Ammonia - N (Calculated)	NA	200,000 (N)	NCL	NCL	NCL	NCL	NCL	NCL	380,000,000	240	8,000	600	3,500	620	3,500	470	3,300	250
Unionized Ammonia (Calculated based on pH 8.0, 20°C)	NA	NCL	580 (CC)	NCL	NCL	NCL	NCL	NA	NCL	ND	130	ND	69	ND	110	ND	100	ND
Chloride (soluble)	NA	5,000,000	NCL	NLV	NLV	ID	500,000 (F)	NCL	NCL	2,400 [BJ]	<11,000	2,400 [BJ]	<11,000	<11,000	<11,000	<11,000	<11,000	<11,000
Phosphorus	NA	1,300,000	20,000 (EE)	NLV	NLV	67,000,000	1,000,000,000 (D)	NCL	NCL	***110,000***	***170,000***	***96,000***	***140,000***	***290,000***	***140,000***	***270,000***	***150,000***	***370,000***
Sulfate (soluble)	NA	5,000,000	NA	NLV	NLV	ID	ID	NCL	NCL	<10,000	<11,000	<10,000	<11,000	<11,000	<11,000	<11,000	<11,000	<11,000
Sulfide (Acid Soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000

TABLE 1D
SUMMARY OF SOIL SAMPLE ANALYSIS - INORGANICS/GENERAL CHEMISTRY
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4906	HS-SB-4906	HS-SB-4907	HS-SB-4907	HS-SB-4908	HS-SB-4908	HS-SB-4909	HS-SB-4909	HS-SB-4909
Sample Name										HS-SB-4906 (0-2)	HS-SB-4906 (16-18)	HS-SB-4907 (0-2)	HS-SB-4907 (12-14)	HS-SB-4908 (0-2)	HS-SB-4908 (7-9)	HS-SB-4909 (0-2)	HS-SB-4909 (0-2) DUP	HS-SB-4909 (11-13)
Depth Interval (Feet below ground surface)										0 - 2	16 - 18	0 - 2	12 - 14	0 - 2	7 - 9	0 - 2	0 - 2	11 - 13
Boring Location										Off-Site	Off-Site	House St Site	House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)										UH23030-007 & 19081359-29A	UH23030-008 & 19081359-30A	UH17001-015 & 19081231-14A	UH17001-016 & 19081231-15A	UH17001-024 & 19081359-01A	UH17001-025 & 19081359-02A	UH23030-009 & 19081359-31A	UH23030-010 & 19081359-32A	UH23030-011 & 19081359-33A
Sample Date										8/20/2019	8/20/2019	8/15/2019	8/15/2019	8/16/2019	8/16/2019	8/21/2019	8/21/2019	8/21/2019
Parameter (µg/kg)																		
Acetic Acid	NA	84,000	180,000 (G)	NLV	NLV	17,000,000,000	130,000,000	NCL	NCL	<19,000	<20,000	<19,000	<19,000	<20,000	<20,000	<18,000	<19,000	<19,000
Formic Acid	NA	200,000	ID	1,500,000	210,000	130,000,000	320,000,000 (C)	NCL	87,000	<19,000	<20,000	<19,000	<19,000	<20,000	<20,000	<18,000	<19,000	<19,000
Cyanide - Total	390	4,000	100	NLV	NLV	250,000	12,000	NCL	69,000	170	<120	260	280	170	<290	180	130	<250
Cyanide, Available	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<40	<40	<40	<40	<40	<40	<40	<40	<40
Ammonia - N (gas diffusion)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	2,200	<1,000	1,400	<1,100	930 [J]	<1,200	3,400	2,700	<1,000
Nitrate-Nitrite - N (soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,100	420	1,800	450	420	930	1,800	1,500	310
Nitrate-Nitrite - N + Ammonia - N (Calculated)	NA	200,000 (N)	NCL	NCL	NCL	NCL	NCL	NCL	380,000,000	3,300	420	3,200	450	1,400	930	5,200	4,200	310
Unionized Ammonia (Calculated based on pH 8.0, 20°C)	NA	NCL	580 (CC)	NCL	NCL	NCL	NCL	NA	NCL	84	ND	53	ND	36	ND	130	100	ND
Chloride (soluble)	NA	5,000,000	NCL	NLV	NLV	ID	500,000 (F)	NCL	NCL	<11,000	<10,000	<11,000	<11,000	<11,000	<12,000	<11,000	<11,000	<10,000
Phosphorus	NA	1,300,000	20,000 (EE)	NLV	NLV	67,000,000	1,000,000,000 (D)	NCL	NCL	***140,000***	***32,000***	***230,000***	***140,000***	***420,000***	***320,000***	***120,000***	***160,000***	***73,000***
Sulfate (soluble)	NA	5,000,000	NA	NLV	NLV	ID	ID	NCL	NCL	<11,000	<10,000	<11,000	<11,000	6,500 [J]	<12,000	<11,000	<11,000	<10,000
Sulfide (Acid Soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000

TABLE 1D
SUMMARY OF SOIL SAMPLE ANALYSIS - INORGANICS/GENERAL CHEMISTRY
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4910	HS-SB-4910	HS-SB-4910	HS-SB-4911	HS-SB-4911	HS-SB-4912	HS-SB-4912	HS-SB-4912	HS-SB-4913
Sample Name										HS-SB-4910 (0-2)	HS-SB-4910 (0-2) DUP	HS-SB-4910 (10-12)	HS-SB-4911 (0-2)	HS-SB-4911 (11-13)	HS-SB-4912 (0-2)	HS-SB-4912 (0-2) DUP	HS-SB-4912 (5-7)	HS-SB-4913 (0-2)
Depth Interval (Feet below ground surface)										0 - 2	0 - 2	10 - 12	0 - 2	11 - 13	0 - 2	0 - 2	5 - 7	0 - 2
Boring Location										House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)										UH17001-010 & 19081231-10A	UH17001-011 & 19081231-11A	UH17001-014 & 19081231-13A	UH17001-008 & 19081231-08A	UH17001-009 & 19081231-09A	UH17001-005 & 19081231-05A	UH17001-006 & 19081231-06A	UH17001-007 & 19081231-07A	UH23030-016 & 19081359-40A
Sample Date										8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/22/2019
Parameter (µg/kg)																		
Acetic Acid	NA	84,000	180,000 (G)	NLV	NLV	17,000,000,000	130,000,000	NCL	NCL	<20,000	<19,000	<20,000	<20,000	<19,000	<19,000	<20,000	<19,000	<19,000
Formic Acid	NA	200,000	ID	1,500,000	210,000	130,000,000	320,000,000 (C)	NCL	87,000	<20,000	<19,000	<20,000	<20,000	<19,000	<19,000	<20,000	<19,000	<19,000
Cyanide - Total	390	4,000	100	NLV	NLV	250,000	12,000	NCL	69,000	180	160	<270	360	<260	170	140	110 [J]	170
Cyanide, Available	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<40	<40	<40	<40	<40	98	<40	<40	<40
Ammonia - N (gas diffusion)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,400	1,600	610 [J]	2,300	<1,100	2,400	1,500	910 [J]	1,200
Nitrate-Nitrite - N (soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	1,700	1,400	470	1,200	420	1,500	1,300	990	1,000
Nitrate-Nitrite - N + Ammonia - N (Calculated)	NA	200,000 (N)	NCL	NCL	NCL	NCL	NCL	NCL	380,000,000	3,100	3,000	1,100	3,500	420	3,900	2,800	1,900	2,200
Unionized Ammonia (Calculated based on pH 8.0, 20°C)	NA	NCL	580 (CC)	NCL	NCL	NCL	NCL	NA	NCL	53	61	23	88	ND	92	57	35	46
Chloride (soluble)	NA	5,000,000	NCL	NLV	NLV	ID	500,000 (F)	NCL	NCL	<11,000	<11,000	<11,000	<11,000	2,400 [BJ]	<11,000	<11,000	<11,000	<11,000
Phosphorus	NA	1,300,000	20,000 (EE)	NLV	NLV	67,000,000	1,000,000,000 (D)	NCL	NCL	***140,000***	***130,000***	***210,000***	***140,000***	***130,000***	***200,000***	***190,000***	***150,000***	***200,000***
Sulfate (soluble)	NA	5,000,000	NA	NLV	NLV	ID	ID	NCL	NCL	<11,000	<11,000	<11,000	<11,000	<11,000	<11,000	<11,000	<11,000	<11,000
Sulfide (Acid Soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000

TABLE 1D
SUMMARY OF SOIL SAMPLE ANALYSIS - INORGANICS/GENERAL CHEMISTRY
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Statewide Default Background[2]	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4913	HS-SB-4914	HS-SB-4914	HS-SB-4914	HS-SB-4915	HS-SB-4915
Sample Name										HS-SB-4913 (6-8)	HS-SB-4914 (0-2)	HS-SB-4914 (0-2) DUP	HS-SB-4914 (8-10)	HS-SB-4915 (0-2)	HS-SB-4915 (2-4)
Depth Interval (Feet below ground surface)										6 - 8	0 - 2	0 - 2	8 - 10	0 - 2	2 - 4
Boring Location										House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)										UH23030-017 & 19081359-41A	UH17001-017 & 19081231-16A	UH17001-018 & 19081231-17A	UH17001-019 & 19081231-18A	UH23030-014 & 19081359-38A	UH23030-015 & 19081359-39A
Sample Date										8/22/2019	8/16/2019	8/16/2019	8/16/2019	8/21/2019	8/21/2019
Parameter (µg/kg)															
Acetic Acid	NA	84,000	180,000 (G)	NLV	NLV	17,000,000,000	130,000,000	NCL	NCL	<18,000	<19,000	<19,000	<19,000	<19,000	<19,000
Formic Acid	NA	200,000	ID	1,500,000	210,000	130,000,000	320,000,000 (C)	NCL	87,000	<18,000	<19,000	<19,000	<19,000	<19,000	<19,000
Cyanide - Total	390	4,000	100	NLV	NLV	250,000	12,000	NCL	69,000	<250	130	120 [J]	<270	340	210
Cyanide, Available	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<40	<40	84	<40	490	<40
Ammonia - N (gas diffusion)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<1,000	1,300	900 [J]	<1,100	2,200	1,600
Nitrate-Nitrite - N (soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	370	590	660	950	8,300 [B]	2,500
Nitrate-Nitrite - N + Ammonia - N (Calculated)	NA	200,000 (N)	NCL	NCL	NCL	NCL	NCL	NCL	380,000,000	370	1,900	1,600	950	11,000	4,100
Unionized Ammonia (Calculated based on pH 8.0, 20°C)	NA	NCL	580 (CC)	NCL	NCL	NCL	NCL	NA	NCL	ND	50	34	ND	84	61
Chloride (soluble)	NA	5,000,000	NCL	NLV	NLV	ID	500,000 (F)	NCL	NCL	3,900 [BJ]	<11,000	<11,000	<11,000	<13,000	<13,000
Phosphorus	NA	1,300,000	20,000 (EE)	NLV	NLV	67,000,000	1,000,000,000 (D)	NCL	NCL	***150,000***	***150,000***	***160,000***	***210,000***	***530,000***	***410,000***
Sulfate (soluble)	NA	5,000,000	NA	NLV	NLV	ID	ID	NCL	NCL	<10,000	<11,000	<11,000	<11,000	<13,000	<13,000
Sulfide (Acid Soluble)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<100,000	<100,000	<100,000	<100,000	<100,000	<100,000

TABLE 1E
SUMMARY OF SOIL SAMPLE ANALYSIS - PFAS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2104	HS-SB-2104	HS-SB-2105	HS-SB-2105	HS-SB-2106	HS-SB-2106	HS-SB-2106	HS-SB-2107	HS-SB-2107
Sample Name									HS-SB-2104 (1-2)	HS-SB-2104 (3-4)	HS-SB-2105 (2-3)	HS-SB-2105 (3-4)	HS-SB-2106 (2-3)	HS-SB-2106 (2-3) DUP	HS-SB-2106 (5-6)	HS-SB-2107 (2-3)	HS-SB-2107 (6-7)
Depth Interval (Feet below ground surface)									1 - 2	3 - 4	2 - 3	3 - 4	2 - 3	2 - 3	5 - 6	2 - 3	6 - 7
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UG02019-019	UG02019-020	UG02019-022	UG02019-023	UG09018-001	UG09018-003	UG09018-002	UG09018-004	UG09018-005
Sample Date									6/28/2019	6/28/2019	6/28/2019	6/28/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019
Parameter (µg/kg)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<11	<11	<9.7	<11	<10	<10	<12	<11	<10
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<11	<11	<9.7	<11	<10	<10	<12	<11	<10
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.3	<2.1	<1.9	<2.2	<2.1	<2	<2.3	<2.2	<2
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.3	<2.1	<1.9	<2.2	<2.1	<2	<2.3	<2.2	<2
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	3,800,000	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluorooctanoic acid (PFOA)	NCL	10,000	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluorooctane sulfonic acid (PFOS)	NCL	0.24	NCL	NCL	NCL	NCL	NCL	NCL	***14***	<5.3	<4.9	<5.5	***5.6***	***5.1***	***9.7***	***13***	<5.1
PFOA + PFOS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	14	ND	ND	ND	5.6	5.1	9.7	13	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.7	<5.3	<4.9	<5.5	<5.1	<5.1	<5.8	<5.4	<5.1
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	14	ND	ND	ND	5.6	5.1	9.7	13	ND

TABLE 1E
SUMMARY OF SOIL SAMPLE ANALYSIS - PFAS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2108	HS-SB-2108	HS-SB-2109	HS-SB-2109	HS-SB-2110	HS-SB-2110	HS-SB-2111	HS-SB-2111	HS-SB-2112
Sample Name									HS-SB-2108 (1-2)	HS-SB-2108 (3-4)	HS-SB-2109 (0-1)	HS-SB-2109 (2-3)	HS-SB-2110 (1-2)	HS-SB-2110 (3-4)	HS-SB-2111 (0-1)	HS-SB-2111 (2-3)	HS-SB-2112 (2-3)
Depth Interval (Feet below ground surface)									1 - 2	3 - 4	0 - 1	2 - 3	1 - 2	3 - 4	0 - 1	2 - 3	2 - 3
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UG09018-006	UG09018-007	UG09018-008	UG09018-009	UG09018-010	UG09018-011	UG09018-012	UG09018-013	UG09018-014
Sample Date									7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/1/2019	7/2/2019
Parameter (µg/kg)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<11	<9.9	<11	<10	<10	<11	<10	<9.6	<11
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<11	<9.9	<11	<10	<10	<11	<10	<9.6	<11
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.1	<2	<2.3	<2.1	<2.1	<2.1	<2.1	<1.9	<2.2
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.1	<2	<2.3	<2.1	<2.1	<2.1	<2.1	<1.9	<2.2
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	3,800,000	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluorooctanoic acid (PFOA)	NCL	10,000	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluorooctane sulfonic acid (PFOS)	NCL	0.24	NCL	NCL	NCL	NCL	NCL	NCL	***31***	***23***	***76***	***9.7***	***36***	***45***	***14***	***35***	***110***
PFOA + PFOS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	31	23	76	9.7	36	45	14	35	110
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<5	<5.7	<5.2	<5.2	<5.4	<5.1	<4.8	<5.6
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	31	23	76	9.7	36	45	14	35	110

TABLE 1E
SUMMARY OF SOIL SAMPLE ANALYSIS - PFAS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2112	HS-SB-2113	HS-SB-2113	HS-SB-2114	HS-SB-2114	HS-SB-2115	HS-SB-2115	HS-SB-2116	HS-SB-2116
Sample Name									HS-SB-2112 (4-5)	HS-SB-2113 (1-2)	HS-SB-2113 (3-4)	HS-SB-2114 (0-1)	HS-SB-2114 (3-4)	HS-SB-2115 (0-1)	HS-SB-2115 (3-4)	HS-SB-2116 (0-1)	HS-SB-2116 (3-4)
Depth Interval (Feet below ground surface)									4 - 5	1 - 2	3 - 4	0 - 1	3 - 4	0 - 1	3 - 4	0 - 1	3 - 4
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UG09018-015	UG09018-016	UG09018-017	UG09018-018	UG09018-019	UG09013-001	UG09013-002	UG09013-003	UG09013-004
Sample Date									7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019
Parameter (µg/kg)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<11	<11	<13	<12	<9.9	<11	<11	<11	<12
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<11	<11	<13	<12	<9.9	<11	<11	<11	<12
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.2	4	<2.7	<2.3	<2	<2.2	<2.1	<2.3	<2.4
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.2	<2.2	<2.7	<2.3	<2	<2.2	<2.1	<2.3	<2.4
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	3,800,000	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	6.3	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	150	13	31	<5	36	<5.3	<5.7	<6.1
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluorooctanoic acid (PFOA)	NCL	10,000	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluorooctane sulfonic acid (PFOS)	NCL	0.24	NCL	NCL	NCL	NCL	NCL	NCL	***15***	***71***	***41***	***72***	***47***	***47***	***8.1***	***12***	***15***
PFOA + PFOS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	15	71	41	72	47	47	8.1	12	15
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.5	<5.5	<6.6	<5.8	<5	<5.6	<5.3	<5.7	<6.1
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	15	230	54	100	47	83	8.1	12	15

TABLE 1E
SUMMARY OF SOIL SAMPLE ANALYSIS - PFAS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2117	HS-SB-2117	HS-SB-2117	HS-SB-2118	HS-SB-2118	HS-SB-2119	HS-SB-2119	HS-SB-2120	HS-SB-2120
Sample Name									HS-SB-2117 (0-1)	HS-SB-2117 (2-3)	HS-SB-2117 (2-3) DUP	HS-SB-2118 (0-1)	HS-SB-2118 (3-4)	HS-SB-2119 (0-1)	HS-SB-2119 (3-4)	HS-SB-2120 (1-2)	HS-SB-2120 (1-2) DUP
Depth Interval (Feet below ground surface)									0 - 1	2 - 3	2 - 3	0 - 1	3 - 4	0 - 1	3 - 4	1 - 2	1 - 2
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UG09013-005	UG09013-006	UG09013-007	UG09013-008	UG09013-009	UG09013-010	UG09013-011	UG09013-012	UG09013-013
Sample Date									7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019	7/2/2019
Parameter (µg/kg)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<10	<9.9	<12	<11	<9.9	<10	<10	<9.9	<9.6
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<10	<9.9	<12	<11	<9.9	<10	<10	<9.9	<9.6
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2	<2	<2.3	11	19	12	9.7	21	10
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2	<2	<2.3	<2.1	3.1	4.4	5.9	2.4	<1.9
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	3,800,000	<5	<4.9	<5.8	<5.3	<4.9	<5	<5	<4.9	<4.8
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	5.7	<5	20	15	15
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	<4.9	<5	<5	<4.9	<4.8
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	<4.9	<5	<5	<4.9	<4.8
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	190	<4.9	<5.8	87	110	76	130	270	220
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	<4.9	<5	<5	<4.9	<4.8
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	<4.9	<5	<5	<4.9	<4.8
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	<4.9	<5	<5	<4.9	<4.8
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	<4.9	<5	<5	<4.9	<4.8
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	<4.9	<5	<5	<4.9	<4.8
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	<4.9	<5	<5	<4.9	<4.8
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	<4.9	<5	<5	<4.9	<4.8
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	<4.9	<5	<5	<4.9	<4.8
Perfluorooctanoic acid (PFOA)	NCL	10,000	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	<4.9	<5	5.2	<4.9	<4.8
Perfluorooctane sulfonic acid (PFOS)	NCL	0.24	NCL	NCL	NCL	NCL	NCL	NCL	***100***	***24***	***61***	<5.3	<4.9	***26***	***180***	***110***	***120***
PFOA + PFOS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	100	24	61	ND	ND	26	190	110	120
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	<4.9	<5	<5	<4.9	<4.8
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	<4.9	<5	<5	<4.9	<4.8
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	<4.9	<5	<5	<4.9	<4.8
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<4.9	<5.8	<5.3	<4.9	<5	<5	<4.9	<4.8
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	290	24	61	98	140	120	350	420	370

TABLE 1E
SUMMARY OF SOIL SAMPLE ANALYSIS - PFAS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2120	HS-SB-2125	HS-SB-2125	HS-SB-2125	HS-SB-2125	HS-SB-2125	HS-SB-2126	HS-SB-2126	HS-SB-2126
Sample Name									HS-SB-2120 (4-5)	HS-SB-2125 (1-2)	HS-SB-2125 (7-8)	HS-SB-2125 (25-27)	HS-SB-2125 (30-32)	HS-SB-2125 (35-37)	HS-SB-2126 (25-27)	HS-SB-2126 (31-33)	HS-SB-2126 (37-39)
Depth Interval (Feet below ground surface)									4 - 5	1 - 2	7 - 8	25 - 27	30 - 32	35 - 37	25 - 27	31 - 33	37 - 39
Boring Location									House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)									UG09013-014	UG02019-008	UG02019-009	UG02019-010	UG02019-013	UG02019-012	UG02019-003	UG02019-004	UG02019-005
Sample Date									7/2/2019	6/27/2019	6/27/2019	6/27/2019	6/28/2019	6/28/2019	6/27/2019	6/27/2019	6/27/2019
Parameter (µg/kg)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<12	<10	<10	<9.5	<9.1	<10	<11	<10	<10
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<12	<10	<10	84	<9.1	<10	<11	<10	<10
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.3	<2	<2.1	<1.9	<1.8	<2	<2.1	<2.1	<2
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.3	<2	<2.1	<1.9	<1.8	<2	<2.1	<2.1	<2
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	3,800,000	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	6.2	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluorooctanoic acid (PFOA)	NCL	10,000	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluorooctane sulfonic acid (PFOS)	NCL	0.24	NCL	NCL	NCL	NCL	NCL	NCL	***250***	***28***	***19***	<4.7	<4.5	<5	<5.3	<5.2	<5
PFOA + PFOS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	250	28	19	ND	ND	ND	ND	ND	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.8	<5.1	<5.2	<4.7	<4.5	<5	<5.3	<5.2	<5
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	250	34	19	84	ND	ND	ND	ND	ND

TABLE 1E
SUMMARY OF SOIL SAMPLE ANALYSIS - PFAS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-2220	HS-SB-2220	HS-SB-2221	HS-SB-2221	HS-SB-2224	HS-SB-2224	HS-SB-2224	HS-SB-2224	HS-SB-2224
Sample Name									HS-SB-2220 (3-4)	HS-SB-2220 (8-9)	HS-SB-2221 (0-1)	HS-SB-2221 (8-9)	HS-SB-2224 (1-2)	HS-SB-2224 (6-7)	HS-SB-2224 (20-22)	HS-SB-2224 (31-33)	HS-SB-2224 (37-39)
Depth Interval (Feet below ground surface)									3 - 4	8 - 9	0 - 1	8 - 9	1 - 2	6 - 7	20 - 22	31 - 33	37 - 39
Boring Location									Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)									UG02019-006	UG02019-007	UG02019-001	UG02019-002	UG02019-014	UG02019-015	UG02019-016	UG02019-017	UG02019-018
Sample Date									6/27/2019	6/27/2019	6/27/2019	6/27/2019	6/28/2019	6/28/2019	6/28/2019	6/28/2019	6/28/2019
Parameter (µg/kg)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<9.7	<10	<14	<9.5	<11	<11	<8.8	<10	<9.5
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<9.7	<10	110	<9.5	<11	<11	<8.8	<10	<9.5
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<1.9	<2.1	9.4	<1.9	<2.2	<2.3	<1.8	<2	<1.9
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<1.9	<2.1	2.8	<1.9	<2.2	<2.3	<1.8	<2	<1.9
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	3,800,000	<4.9	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.9	<5.2	13	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.9	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	7.1	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	18	<5.2	220	<4.8	34	<5.7	<4.4	<5.1	<4.8
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.9	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.9	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.9	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.9	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.9	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.9	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.9	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.9	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluorooctanoic acid (PFOA)	NCL	10,000	NCL	NCL	NCL	NCL	NCL	NCL	<4.9	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluorooctane sulfonic acid (PFOS)	NCL	0.24	NCL	NCL	NCL	NCL	NCL	NCL	***200***	***260***	***150***	***960***	***8.6***	***200***	<4.4	<5.1	<4.8
PFOA + PFOS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	200	260	150	960	8.6	200	ND	ND	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.9	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.9	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.9	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.9	<5.2	<6.9	<4.8	<5.5	<5.7	<4.4	<5.1	<4.8
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	230	260	510	960	43	200	ND	ND	ND

TABLE 1E
SUMMARY OF SOIL SAMPLE ANALYSIS - PFAS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4800	HS-SB-4800	HS-SB-4801	HS-SB-4801	HS-SB-4802	HS-SB-4802	HS-SB-4803	HS-SB-4803	HS-SB-4804
Sample Name									HS-SB-4800 (0-2)	HS-SB-4800 (15-17)	HS-SB-4801 (0-2)	HS-SB-4801 (15-17)	HS-SB-4802 (0-2)	HS-SB-4802 (15-17)	HS-SB-4803 (0-2)	HS-SB-4803 (6-8)	HS-SB-4804 (0-2)
Depth Interval (Feet below ground surface)									0 - 2	15 - 17	0 - 2	15 - 17	0 - 2	15 - 17	0 - 2	6 - 8	0 - 2
Boring Location									Off-Site	Off-Site	House St Site	House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)									UH23024-002	UH23024-003	UH23030-001	UH23030-002	UH17001-020	UH17001-021	UH23024-010	UH23024-011	UH23024-012
Sample Date									8/19/2019	8/19/2019	8/20/2019	8/20/2019	8/16/2019	8/16/2019	8/20/2019	8/20/2019	8/20/2019
Parameter (µg/kg)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<12	<11	<11	<9	<9.6	<11	<9.4	<12	<10
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<12	<11	<11	<9	<9.6	<11	<9.4	<12	<10
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.4	<2.2	<2.2	<1.8	<1.9	<2.2	<1.9	<2.5	<2.1
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.4	<2.2	<2.2	<1.8	<1.9	<2.2	<1.9	<2.5	<2.1
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	3,800,000	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluorooctanoic acid (PFOA)	NCL	10,000	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluorooctane sulfonic acid (PFOS)	NCL	0.24	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
PFOA + PFOS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.5	<5.5	<4.5	<4.8	<5.4	<4.7	<6.2	<5.2
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1E
SUMMARY OF SOIL SAMPLE ANALYSIS - PFAS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4804	HS-SB-4805	HS-SB-4805	HS-SB-4806	HS-SB-4806	HS-SB-4807	HS-SB-4807	HS-SB-4808	HS-SB-4808
Sample Name									HS-SB-4804 (10-12)	HS-SB-4805 (0-2)	HS-SB-4805 (7-9)	HS-SB-4806 (0-2)	HS-SB-4806 (7-9)	HS-SB-4807 (0-2)	HS-SB-4807 (10-12)	HS-SB-4808 (0-2)	HS-SB-4808 (6-8)
Depth Interval (Feet below ground surface)									10 - 12	0 - 2	7 - 9	0 - 2	7 - 9	0 - 2	10 - 12	0 - 2	6 - 8
Boring Location									Off-Site	House St Site	House St Site	Off-Site	Off-Site	Off-Site	Off-Site	House St Site	House St Site
Laboratory Sample ID(s)									UH23024-013	UH23030-012	UH23030-013	UH17001-026	UH17001-027	UH23024-006	UH23024-007	UH23030-005	UH23030-006
Sample Date									8/20/2019	8/21/2019	8/21/2019	8/16/2019	8/16/2019	8/19/2019	8/19/2019	8/20/2019	8/20/2019
Parameter (µg/kg)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<11	<11	<8.7	<11	<10	<13	<11	<9.7	<11
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<11	<11	<8.7	<11	<10	<13	<11	<9.7	<11
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.1	<2.2	<1.7	<2.2	<2	<2.5	<2.3	<1.9	<2.2
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.1	<2.2	<1.7	<2.2	<2	<2.5	<2.3	<1.9	<2.2
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	3,800,000	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluorooctanoic acid (PFOA)	NCL	10,000	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluorooctane sulfonic acid (PFOS)	NCL	0.24	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
PFOA + PFOS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.3	<5.4	<4.4	<5.4	<5.1	<6.3	<5.7	<4.9	<5.6
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1E
SUMMARY OF SOIL SAMPLE ANALYSIS - PFAS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4809	HS-SB-4809	HS-SB-4810	HS-SB-4810	HS-SB-4811	HS-SB-4811	HS-SB-4900	HS-SB-4900	HS-SB-4901
Sample Name									HS-SB-4809 (0-2)	HS-SB-4809 (6-8)	HS-SB-4810 (0-2)	HS-SB-4810 (6-8)	HS-SB-4811 (0-2)	HS-SB-4811 (12-14)	HS-SB-4900 (0-2)	HS-SB-4900 (17-19)	HS-SB-4901 (0-2)
Depth Interval (Feet below ground surface)									0 - 2	6 - 8	0 - 2	6 - 8	0 - 2	12 - 14	0 - 2	17 - 19	0 - 2
Boring Location									Off-Site	Off-Site	Off-Site	Off-Site	House St Site	House St Site	Off-Site	Off-Site	House St Site
Laboratory Sample ID(s)									UH17001-022	UH17001-023	UH17001-012	UH17001-013	UH23024-016	UH23024-017	UH17001-001	UH17001-002	UH17001-003
Sample Date									8/16/2019	8/16/2019	8/15/2019	8/15/2019	8/20/2019	8/20/2019	8/12/2019	8/12/2019	8/12/2019
Parameter (µg/kg)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<12	<11	<11	<11	<10	<11	<9.4	<10	<11
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<12	<11	<11	<11	<10	<11	<9.4	<10	<11
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.4	<2.3	<2.2	<2.2	<2.1	<2.3	<1.9	<2.1	<2.2
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.4	<2.3	<2.2	<2.2	<2.1	<2.3	<1.9	<2.1	<2.2
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	3,800,000	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluorooctanoic acid (PFOA)	NCL	10,000	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluorooctane sulfonic acid (PFOS)	NCL	0.24	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
PFOA + PFOS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.9	<5.7	<5.6	<5.4	<5.2	<5.6	<4.7	<5.2	<5.6
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1E
SUMMARY OF SOIL SAMPLE ANALYSIS - PFAS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4901	HS-SB-4902	HS-SB-4902	HS-SB-4903	HS-SB-4903	HS-SB-4904	HS-SB-4904	HS-SB-4905	HS-SB-4905
Sample Name									HS-SB-4901 (18-20)	HS-SB-4902 (0-2)	HS-SB-4902 (6-8)	HS-SB-4903 (0-2)	HS-SB-4903 (11-13)	HS-SB-4904 (0-2)	HS-SB-4904 (15-17)	HS-SB-4905 (0-2)	HS-SB-4905 (15-17)
Depth Interval (Feet below ground surface)									18 - 20	0 - 2	6 - 8	0 - 2	11 - 13	0 - 2	15 - 17	0 - 2	15 - 17
Boring Location									House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)									UH17001-004	UH23024-008	UH23024-009	UH23024-004	UH23024-005	UH23024-014	UH23024-015	UH23030-003	UH23030-004
Sample Date									8/12/2019	8/20/2019	8/19/2019	8/19/2019	8/19/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019
Parameter (µg/kg)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<11	<11	<11	<12	<13	<11	<10	<11	<9.2
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<11	<11	<11	<12	<13	<11	<10	<11	<9.2
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.2	<2.3	<2.2	<2.4	<2.6	<2.3	<2	<2.2	<1.8
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.2	<2.3	<2.2	<2.4	<2.6	<2.3	<2	<2.2	<1.8
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	3,800,000	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluorooctanoic acid (PFOA)	NCL	10,000	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluorooctane sulfonic acid (PFOS)	NCL	0.24	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
PFOA + PFOS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.6	<5.7	<5.5	<5.9	<6.4	<5.7	<5.1	<5.5	<4.6
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1E
SUMMARY OF SOIL SAMPLE ANALYSIS - PFAS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4906	HS-SB-4906	HS-SB-4907	HS-SB-4907	HS-SB-4908	HS-SB-4908	HS-SB-4909	HS-SB-4909	HS-SB-4909
Sample Name									HS-SB-4906 (0-2)	HS-SB-4906 (16-18)	HS-SB-4907 (0-2)	HS-SB-4907 (12-14)	HS-SB-4908 (0-2)	HS-SB-4908 (7-9)	HS-SB-4909 (0-2)	HS-SB-4909 (0-2) DUP	HS-SB-4909 (11-13)
Depth Interval (Feet below ground surface)									0 - 2	16 - 18	0 - 2	12 - 14	0 - 2	7 - 9	0 - 2	0 - 2	11 - 13
Boring Location									Off-Site	Off-Site	House St Site	House St Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Laboratory Sample ID(s)									UH23030-007	UH23030-008	UH17001-015	UH17001-016	UH17001-024	UH17001-025	UH23030-009	UH23030-010	UH23030-011
Sample Date									8/20/2019	8/20/2019	8/15/2019	8/15/2019	8/16/2019	8/16/2019	8/21/2019	8/21/2019	8/21/2019
Parameter (µg/kg)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<9.6	<9.9	<11	<10	<11	<11	<11	<9.8	<11
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<9.6	<9.9	<11	<10	<11	<11	<11	<9.8	<11
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<1.9	<2	<2.1	<2.1	<2.2	<2.2	<2.1	<2	<2.2
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<1.9	<2	<2.1	<2.1	<2.2	<2.2	<2.1	<2	<2.2
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	3,800,000	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluorooctanoic acid (PFOA)	NCL	10,000	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluorooctane sulfonic acid (PFOS)	NCL	0.24	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	***8.6***	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
PFOA + PFOS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	8.6	ND	ND	ND	ND	ND	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<4.8	<5	<5.4	<5.1	<5.5	<5.4	<5.3	<4.9	<5.5
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	8.6	ND	ND	ND	ND	ND	ND

TABLE 1E
SUMMARY OF SOIL SAMPLE ANALYSIS - PFAS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4910	HS-SB-4910	HS-SB-4910	HS-SB-4911	HS-SB-4911	HS-SB-4912	HS-SB-4912	HS-SB-4912	HS-SB-4913
Sample Name									HS-SB-4910 (0-2)	HS-SB-4910 (0-2) DUP	HS-SB-4910 (10-12)	HS-SB-4911 (0-2)	HS-SB-4911 (11-13)	HS-SB-4912 (0-2)	HS-SB-4912 (0-2) DUP	HS-SB-4912 (5-7)	HS-SB-4913 (0-2)
Depth Interval (Feet below ground surface)									0 - 2	0 - 2	10 - 12	0 - 2	11 - 13	0 - 2	0 - 2	5 - 7	0 - 2
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UH17001-010	UH17001-011	UH17001-014	UH17001-008	UH17001-009	UH17001-005	UH17001-006	UH17001-007	UH23030-016
Sample Date									8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/22/2019
Parameter (µg/kg)																	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<11	<12	<10	<13	<12	<11	<11	<11	<10
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<11	<12	<10	<13	<12	<11	<11	<11	<10
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.1	<2.4	<2.1	<2.6	<2.4	<2.2	<2.3	<2.3	<2
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2.1	<2.4	<2.1	<2.6	<2.4	<2.2	<2.3	<2.3	<2
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	3,800,000	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluorooctanoic acid (PFOA)	NCL	10,000	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluorooctane sulfonic acid (PFOS)	NCL	0.24	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	***6.3***
PFOA + PFOS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	6.3
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5.4	<6	<5.2	<6.4	<6.1	<5.4	<5.7	<5.7	<5
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND	6.3

TABLE 1E
SUMMARY OF SOIL SAMPLE ANALYSIS - PFAS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Soil Cleanup Criteria – Drinking Water Protection[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Soil Cleanup Criteria – Soil Volatilization to Indoor Air Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Infinite Source Volatile Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Particulate Soil Inhalation[2]	Part 201 Generic Residential Soil Cleanup Criteria – Direct Contact[2]	EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Level[3]	U.S. EPA Residential Soil Regional Removal Management Levels[4]	HS-SB-4913	HS-SB-4914	HS-SB-4914	HS-SB-4914	HS-SB-4915	HS-SB-4915
Sample Name									HS-SB-4913 (6-8)	HS-SB-4914 (0-2)	HS-SB-4914 (0-2) DUP	HS-SB-4914 (8-10)	HS-SB-4915 (0-2)	HS-SB-4915 (2-4)
Depth Interval (Feet below ground surface)									6 - 8	0 - 2	0 - 2	8 - 10	0 - 2	2 - 4
Boring Location									House St Site	House St Site	House St Site	House St Site	House St Site	House St Site
Laboratory Sample ID(s)									UH23030-017	UH17001-017	UH17001-018	UH17001-019	UH23030-014	UH23030-015
Sample Date									8/22/2019	8/16/2019	8/16/2019	8/16/2019	8/21/2019	8/21/2019
Parameter (µg/kg)														
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<9.9	<11	<9.5	<13	<13	<12
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<9.9	<11	<9.5	<13	<13	<12
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2	<2.2	<1.9	<2.7	<2.6	<2.4
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<2	<2.2	<1.9	<2.7	<2.6	<2.4
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	3,800,000	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluorooctanoic acid (PFOA)	NCL	10,000	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluorooctane sulfonic acid (PFOS)	NCL	0.24	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	***8.7***	<6.1
PFOA + PFOS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	8.7	ND
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	<5	<5.5	<4.8	<6.6	<6.5	<6.1
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	NCL	NCL	NCL	NCL	ND	ND	ND	ND	8.7	ND

TABLES 1A TO 1E NOTES
1855 House St NE
Plainfield Twp, Kent Co, MI

NOTES:

1. Concentration and criteria units are micrograms per kilogram (µg/kg) or parts per billion (ppb). Calculated criteria and concentrations are rounded to two significant digits. "ND" indicates the parameters used in the calculation were not detected. "NC" indicates not calculated.
2. Michigan Part 201 Soil Cleanup Criteria are based on "Table 2, Soil: Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Tier I Risk Based Screening Levels," Michigan Administrative Code, Cleanup Criteria Requirements for Response Activity, Rules 299.46 and 299.49, effective December 30, 2013; updated June 25, 2018.

   Abbreviations Include:
   "ID" indicates insufficient data to develop criterion.
   "NA" indicates a criterion or value is not available or, in the case of background, not applicable.
   "NCL" indicates no criterion listed in EGLE Table 2.
   "NLL" indicates the substance is not likely to leach under most soil conditions.
   "NLV" indicates the substance is not likely to volatilize under most conditions.

   Footnotes Include:
   (B) - Background, as defined in R 299.1(b), may be substituted if higher than the calculated cleanup criterion. Background levels may be less than criteria for some inorganic compounds.
   (C) - The criterion developed under R 299.20 to R 299.26 exceeds the chemical-specific soil saturation screening level (C_{sat}).
   (D) - The calculated criterion exceeds 100 percent, hence it is reduced to 100 percent or 1.0E+9 ppb.
   (F) - Criterion is based on adverse impacts to plant life and phytotoxicity.
   (G) - Groundwater surface water interface protection (GSIP) criterion depends on the pH or water hardness, or both, of the receiving surface water.
   EGLE's Footnote (G) GSI/GSIPC Calculation spreadsheet was utilized to calculate GSI criterion presented. The Rogue River is the receiving surface water for the Site. Hardness (220 mg $CaCO_3$/L) and pH (7.5 standard units) used in the calculations were the lowest (most-conservative) of the calculated mean and median of the Rogue River surface water samples collected in Rockford, MI at the former tannery (TA-SW-01, TA-SW-02, TA-SW-03, TA-SW-05, and TA-SW-07) rounded to two significant digits and water hardness or pH for the Rogue River near Rockford published in United States Geological Survey Circular 323, "Water Resources of the Grand Rapids Area, Michigan," Table 1, 1954.
   (M) - Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
   (N) - Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) shall not, when added together, exceed the nitrate drinking water protection criterion of 2.0E+5 µg/kg.
   (P) - Total cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with soil criteria.
   (W) - Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the drinking water protection criterion of 1,600 µg/kg.
   (CC) - The generic soil GSI protection criteria for unionized ammonia are 580 µg/kg and 1,100 µg/kg for cold water and warm water surface water, respectively. The percent conversion factor in the table for cold water (20°C or 68°F) and pH (8.0 standard units) is 3.82%.
   (DD) - Residential direct contact criteria are protective of both prenatal and postnatal exposure.
   (EE) - The applicable GSI criteria for phosphorus is 1,000 µg/L. The footnote does not specify a GSIP criterion, however, the GSIP for phosphorus refers to Footnote EE. Conservatively, a value of 20 times the GSI criterion (20,000 µg/kg) was used.
3. EGLE Residential Soil Recommended Volatilization to Indoor Air Interim Action Screening Levels (RIASLs) for were based on EGLE's Toxics Steering Group's "Media-Specific Interim Action Screening Levels," published in August 2017. The EGLE published the RIASLs in August 2017, and recently removed the RIASLs from the EGLE website. The EGLE is reportedly evaluating the RIASLs for appropriate use and applicability. These are included for reference.

   Abbreviations Include:
   "NCL" indicates no value listed in the Media-Specific Interim Action Screening Levels table.

   Footnotes Include:
   (M) - Site-specific criterion may be below target detection limits (TDL).
4. U.S. EPA Residential Soil Regional Removal Management Levels (RMLs) were based on "Generic RML Tables," updated November 2018.
5. To the extent that samples listed in these tables contain or consist of waste material, in whole or in part, the comparison to the EGLE Part 201 generic cleanup criteria does not imply applicability of the criteria because the physical and chemical properties of the waste material are expected to be different from the default values or assumptions used to derive the Generic Soil Cleanup Criteria in the Cleanup Criteria Requirements for Response Activity Rules (R299.1-299.50).
6. Bold, italic number with thick line border or italic parameter name indicates that parameter was detected above the Michigan Part 201 Soil Cleanup Criteria or Media-Specific Interim Action Screening Levels. Per MCL 324.20101(e)(i), if state-wide default background levels are available and greater than a risk-based generic cleanup criterion, then the state-wide default background levels are used as a substitute for that generic cleanup criterion.
7. Abbreviations include:
   "< RL" indicates the parameter was analyzed for but not detected above the method detection limit; RL = Reporting Limit.
   "DUP" indicates a duplicate sample.
   "B" indicates the parameter was also detected in the method blank.
   "J" indicates the parameter was detected at a concentration greater than the limit of quantitation (LOQ) but less than the detection limit (DL) and the result is estimated.
   "H" indicates the sample was analyzed out of holding time.
8. Sample names presented are from Shealy Environmental Services, Inc. laboratory reports. Sample names presented in ALS Environmental lab reports may have minor differences based on laboratory interpretation of the chains of custody.

TABLE 1F
SUMMARY OF SOIL SAMPLE ANALYSIS - TCLP METALS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	RCRA Maximum Concentration	HS-SB-2115	HS-SB-2221
Sample Name		HS-SB-2115 (0-1)	HS-SB-2221 (0-1)
Depth Interval (Feet below ground surface)		0 - 1	0 - 1
Boring Location		House St Site	Off-Site
Laboratory Sample ID		UG09013-001	UG02019-001
Sample Date		07/02/2019	06/27/2019
Parameter (µg/L)			
Chromium	5,000	320	35 [J]

TABLE 1F NOTES
1855 House St NE
Plainfield Twp, Kent Co, MI

NOTES:

1. Concentration and criteria units are micrograms per Liter (µg/L) or parts per billion (ppb).
2. RCRA Maximum Concentration criteria are based on "Table 1, Maximum Concentration of Contaminants for the Toxicity Characteristic," 40 CFR 261.24, last amended March 13, 2002.
3. Bold, italic number with thick line border or italic parameter name indicates that parameter was detected above the RCRA Maximum Concentration.
4. Abbreviations include:
   "< RL" indicates the parameter was analyzed for but not detected above the method detection limit; RL = Reporting Limit.
   "DUP" indicates a duplicate sample.
   "J" indicates the parameter was detected at a concentration greater than the limit of quantitation (LOQ) but less than the detection limit (DL) and the result is estimated.

TABLE 2A
SUMMARY OF PERCHED GROUNDWATER SAMPLE ANALYSIS - VOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air	EGLE Residential Recommended Volatilization to Indoor Air Interim Action Screening Level - Groundwater[3]	U.S. EPA Residential Tap Water Regional Removal Management Levels[4]	HS-SB-4800	HS-SB-4803	HS-SB-4803	HS-SB-4804	HS-SB-4805	HS-SB-4807	HS-SB-4904	HS-SB-4915
Sample Name						HS-SB-4800	HS-SB-4803	HS-SB-4803 DUP	HS-SB-4804	HS-SB-4805	HS-SB-4807	HS-SB-4904	HS-SB-4915
Depth Interval (feet below ground surface)						14 - 20	7.9 - 15	7.9 - 15	8 - 20	5 - 11.5	10 - 20	10 - 20	1 - 10
Laboratory Sample ID(s)						UH21055-002	UH21055-003	UH21055-004	UH21055-001	UH21055-007	UH21055-005	UH21055-006	UH21055-008
Sample Date						08/19/2019	08/20/2019	08/20/2019	08/19/2019	08/21/2019	08/20/2019	08/20/2019	08/21/2019
Parameter (µg/L)													
Acetone	730	1,700	1,000,000,000 (D,S)	12,000,000	42,000	7.2 [J]	<20	<20	<20	<20	<20	<20	<20
Benzene	5.0 (A)	200	5,600	14	46	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	80 (A,W)	ID	4,800	NCL	13	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	80 (A,W)	ID	470,000	NCL	330	<1	<1	<1	<1	<1	<1	<1	<1
Methyl ethyl ketone (2-Butanone)	13,000	2,200	240,000,000 (S)	NCL	17,000	<10	<10	<10	<10	<10	<10	<10	<10
Bromomethane (Methyl bromide)	10	5.0 (M)	4,000	NCL	23	<2	<2	<2	<2	<2	<2	<2	<2
Carbon disulfide	800	ID	250,000	NCL	2,400	<1	<1	<1	0.48 [J]	<1	<1	<1	<1
Carbon tetrachloride	5.0 (A)	38	370	NCL	46	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	100 (A)	25	210,000	540	230	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	430	1,100	5,700,000 (S)	6,700	63,000	<2	<2	<2	<2	<2	<2	<2	<2
Chloroform	80 (A,W)	350	28,000	7.6	22	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	260	ID	8,600	160	560	<1	<1	<1	<1	0.73 [J]	<1	<1	<1
Cyclohexane	NCL	NCL	NCL	NCL	38,000	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane (DBCP)	0.20 (A)	ID	220	NCL	0.033	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	80 (A,W)	ID	14,000	NCL	87	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	0.05 (A)	5.7	2,400	NCL	0.75	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	600 (A)	13	160,000 (S)	NCL	910	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	6.6	28	18,000	52	NCL	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	75 (A)	17	16,000	120	48	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	1,700	ID	220,000	NCL	590	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethane	880	740	1,000,000	67	280	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	5.0 (A)	360	9,600	NCL	17	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethylene	7.0 (A)	130	200	170	850	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethylene	70 (A)	620	93,000	48	110	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethylene	100 (A)	1,500	85,000	650	1,100	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5.0 (A)	230	16,000	NCL	25	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	NCL	NCL	NCL	NCL	NCL	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorpropene (Calculated: cis + trans)	8.5	9.0	3,900	NCL	47	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	74 (E)	18	110,000	45	150	<1	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	1,000	ID	4,200,000	NCL	110	<10	<10	<10	<10	<10	<10	<10	<10
Isopropyl benzene	800	28	56,000 (S)	NCL	1,400	<1	<1	<1	<1	<1	<1	<1	<1
Methyl acetate	NCL	NCL	NCL	NCL	60,000	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tertiary butyl ether (MTBE)	40 (E)	7,100	47,000,000 (S)	4,000	1,400	<1	<1	<1	<1	<1	<1	<1	<1
Methyl isobutyl ketone	1,800	ID	20,000,000 (S)	NCL	19,000	<10	<10	<10	<10	<10	<10	<10	<10
Methylcyclohexane	NCL	NCL	NCL	NCL	NCL	<5	<5	<5	<5	<5	<5	<5	<5
Methylene Chloride	5.0 (A)	1,500	220,000	3,900	320	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	100 (A)	80	170,000	NCL	3,600	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	8.5	78	12,000	NCL	7.6	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethylene	5.0 (A)	60	25,000	96	120	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	790 (E)	270	530,000 (S)	23,000	3,300	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloro-1,2,2-trifluoroethane	170,000 (S)	32	170,000 (S)	NCL	31,000	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70 (A)	99	300,000 (S)	95	12	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200 (A)	89	660,000	8,600	24,000	<1	<1	<1	<1	<1	0.64 [J]	<1	<1
1,1,2-Trichloroethane	5.0 (A)	330	17,000	NCL	1.2	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethylene	5.0 (A)	200	2,200	6.1	8.5	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	2,600	NA	1,100,000 (S)	NCL	15,000	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	2.0 (A)	13	1,100	0.96 (M)	1.9	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes (Total)	280 (E)	49	190,000 (S)	1,200	580	<1	<1	<1	<1	<1	<1	<1	<1
m+p - Xylenes	NCL	NCL	NCL	NCL	NCL	<1	<1	<1	<1	<1	<1	<1	<1
o-Xylene	NCL	NCL	NCL	NCL	580	<1	<1	<1	<1	<1	<1	<1	<1
Trihalomethanes (Calculation: Bromodichloromethane + Bromoform + Chloroform + Dibromochloromethane)	80 (W)	NCL	NCL	NCL	NCL	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 2B
SUMMARY OF PERCHED GROUNDWATER SAMPLE ANALYSIS - SVOCS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air	EGLE Residential Recommended Volatilization to Indoor Air Interim Action Screening Level - Groundwater[3]	U.S. EPA Residential Tap Water Regional Removal Management Levels[4]	HS-SB-4803	HS-SB-4803	HS-SB-4804	HS-SB-4805	HS-SB-4807	HS-SB-4904	HS-SB-4915
Sample Name						HS-SB-4803	HS-SB-4803 DUP	HS-SB-4804	HS-SB-4805	HS-SB-4807	HS-SB-4904	HS-SB-4915
Depth Interval (feet below ground surface)						7.9 - 15	7.9 - 15	8 - 20	5 - 11.5	10 - 20	10 - 20	1 - 10
Laboratory Sample ID(s)						UH21055-003	UH21055-004	UH21055-001	UH21055-007	UH21055-005	UH21055-006	UH21055-008
Sample Date						08/20/2019	08/20/2019	08/19/2019	08/21/2019	08/20/2019	08/20/2019	08/21/2019
Parameter (µg/L)												
Acenaphthene	1,300	38	4,200 (S)	NCL	1,600	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Acenaphthylene	52	ID	3,900 (S)	NCL	NCL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Acetophenone	1,500	ID	6,100,000 (S)	NCL	5,800	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Anthracene	43 (S)	ID	43 (S)	NCL	5,300	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Atrazine	3.0 (A)	7.3	NLV	NCL	30	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Benzidine	0.30 (M)	0.30 (M)	NLV	NCL	0.011	<20	<20	<20	<20	<20	<20	<20
Benzo[a]anthracene	2.1	ID	NLV	NCL	3.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo[a]pyrene	5.0 (A)	ID	NLV	NCL	2.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo[b]fluoranthene (3,4-Benzofluoranthene)	1.5 (S,AA)	ID	ID	NCL	25	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo[g,h,i]perylene	1.0 (M)	ID	NLV	NCL	NCL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo[k]fluoranthene	1.0 (M)	NA	NLV	NCL	250	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Butyl benzyl phthalate	1,200	67	NLV	NCL	1,600	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Caprolactam	5,800	NA	NLV	NCL	30,000	3.5 [B]	<1.6	2.6 [B]	<1.6	<1.6	6.2 [B]	<1.6
Carbazole	85	10 (M)	NLV	NCL	NCL	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
p-Chloro-m-cresol	150	7.4	NLV	NCL	4,300	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
bis(2-chloroethyl)ether	2.0	1.0 (M)	38,000	NCL	1.4	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
2-Chloronaphthalene	1,800	NA	ID	NCL	2,200	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
2-Chlorophenol	45	18	490,000	NCL	270	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Chrysene	1.6 (S)	ID	ID	NCL	2,500	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dibenzo[a,h]anthracene	2.0 (M)	ID	NLV	NCL	2.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dibenzofuran	ID	4.0	10,000 (S)	NCL	24	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
3,3'-Dichlorobenzidine	1.1	0.30 (M)	NLV	NCL	13	<4	<4	<4	<4	<4	<4	<4
2,4-Dichlorophenol	73	11	NLV	NCL	140	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
Diethyl phthalate	5,500	110	NLV	NCL	45,000	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.71 [J]
Dimethyl phthalate	73,000	NA	NLV	NCL	NCL	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
2,4-Dimethylphenol	370	380	NLV	NCL	1,100	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Di-n-butyl phthalate	880	9.7	NLV	NCL	2,700	<0.8	<0.8	<0.8	<0.8	<0.8	0.67 [BJ]	<0.8
4,6-Dinitro-o-cresol	20 (M)	NA	NLV	NCL	4.5	<4	<4	<4	<4	<4	<4	<4
2,4-Dinitrotoluene	7.7	NA	NLV	NCL	24	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
Di-n-octyl phthalate	130	ID	NLV	NCL	600	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Azobenzene	23	ID	6,400 (S)	NCL	12	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
bis(2-Ethylhexyl)phthalate	6.0 (A)	14	NLV	NCL	560	0.78 [BJ]	0.81 [BJ]	0.93 [BJ]	0.93 [BJ]	0.77 [BJ]	0.96 [BJ]	0.58 [BJ]
Fluoranthene	210 (S)	1.6	210 (S)	NCL	2,400	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Fluorene	880	12	2,000 (S)	NCL	880	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Hexachlorobenzene	1.0 (A)	0.2 (M)	440	NCL	0.98	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Hexachlorobutadiene	15	0.053	1,600	NCL	14	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Hexachlorocyclopentadiene	50 (A)	ID	130	NCL	1.2	<4	<4	<4	<4	<4	<4	<4
Hexachloroethane	7.3	6.7	27,000	NCL	19	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Indeno[1,2,3-cd]pyrene	2.0 (M)	ID	NLV	NCL	25	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Isophorone	770	1,300	NLV	NCL	7,800	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
2-Methylnaphthalene	260	19	25,000 (S)	NCL	110	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2-Methylphenol	NCL	NCL	NCL	NCL	2,800	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
4-Methylphenol	NCL	NCL	NCL	NCL	5,600	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
Naphthalene	520	11	31,000 (S)	NCL	17	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nitrobenzene	3.4	180	280,000	NCL	14	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
2-Nitrophenol	20	ID	NLV	NCL	NCL	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
n-Nitroso-di-n-propylamine	5.0 (M)	NA	NLV	NCL	1.1	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
n-Nitrosodiphenylamine	270	NA	NLV	NCL	1,200	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Pentachlorophenol	1.0 (A)	1.8 (G)	NLV	NCL	4.1	<4	<4	<4	<4	<4	<4	<4
Phenanthrene	52	2.0 (M)	1,000 (S)	NCL	NCL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Phenol	4,400	450	NLV	NCL	17,000	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Pyrene	140 (S)	ID	140 (S)	NCL	360	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2,4,5-Trichlorophenol	730	NA	NLV	NCL	3,500	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
2,4,6-Trichlorophenol	120	5.0	NLV	NCL	36	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8

TABLE 2C
SUMMARY OF PERCHED GROUNDWATER SAMPLE ANALYSIS - METALS
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air Inhalation[2]	EGLE Residential Recommended Volatilization to Indoor Air Interim Action Screening Level - Groundwater[3]	U.S. EPA Residential Tap Water Regional Removal Management Levels[4]	HS-SB-4803	HS-SB-4803	HS-SB-4804	HS-SB-4805	HS-SB-4807	HS-SB-4904	HS-SB-4915
Sample Name						HS-SB-4803	HS-SB-4803 DUP	HS-SB-4804	HS-SB-4805	HS-SB-4807	HS-SB-4904	HS-SB-4915
Depth Interval (feet below ground surface)						7.9 - 15	7.9 - 15	8 - 20	5 - 11.5	10 - 20	10 - 20	1 - 10
Laboratory Sample ID(s)						UH21055-003 & 19081352-02B	UH21055-004 & 19081352-03B	UH21055-001 & 19081352-01B	UH21055-007 & 19081352-06B	UH21055-005 & 19081352-04B	UH21055-006 & 19081352-05B	UH21055-008 & 19081352-07B
Sample Date						08/20/2019	08/20/2019	08/19/2019	08/21/2019	08/20/2019	08/20/2019	08/21/2019
Parameter (µg/L)												
Aluminum	50 (V)	NA	NLV	NCL	60,000	<40	***6,700***	***3,200***	***5,300***	***12,000***	***40,000***	***81,000***
Antimony	6.0 (A)	130	NLV	NCL	23	<2	<2	<2	<2	<2	<2	<10
Arsenic	10 (A)	10	NLV	NCL	5.2	2.8	3.5	2.3	7.5	8.6	8	***20***
Barium	2,000 (A)	1,000 (G)	NLV	NCL	11,000	110	51	56	46	120	350	890
Beryllium	4.0 (A)	25 (G)	NLV	NCL	74	<0.4	0.15 [J]	0.15 [J]	0.16 [J]	0.23 [J]	0.54	1.4 [J]
Boron (Boron and Borates only)	500 (F)	7,200	NLV	NCL	12,000	***770***	18 [J]	36 [J]	36 [J]	32 [J]	38 [J]	73 [J]
Cadmium	5.0 (A)	2.5 (G)	NLV	NCL	NCL	<0.5	<0.5	<0.5	<0.5	0.15 [J]	0.31 [J]	2.1 [J]
Chromium (Total)	NCL	NCL	NCL	NCL	NCL	<5	15	13	9.6	41	130	120
Trivalent Chromium (Calculated: Total - Hexavalent)	100 (A)	120 (G)	NLV	NCL	67,000	NC	5.6	NC	9.6	16	92	***120***
Hexavalent Chromium	100 (A)	11	NLV	NCL	3.5	***13***	9.4	***20***	<5	***25***	***38***	<5
Cobalt	40	100	NLV	NCL	18	1.3 [J]	2.6 [J]	2.1 [J]	4.6 [J]	11	22	40
Copper	1,000 (E)	18 (G)	NLV	NCL	2,400	<5	8	17	16	***24***	***72***	***120***
Iron	300 (E)	NA	NLV	NCL	42,000	***11,000***	***7,800***	***10,000***	***12,000***	***17,000***	***66,000***	***74,000***
Lead	4.0 (L)	14 (G)	NLV	NCL	15	<1	***4.7***	***6.6***	***8.9***	***15***	***43***	***62***
Magnesium	400,000	NA	NLV	NCL	NCL	28,000	14,000	15,000	44,000	37,000	36,000	28,000
Mercury	2.0 (A)	0.0013	56 (S)	1.4	1.9	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	***0.19 [J]***
Molybdenum	73	3,200	NLV	NCL	300	5.9 [J]	<10	4.1 [J]	<10	6.4 [J]	<10	<50
Nickel	100 (A)	100 (G)	NLV	NCL	1,200	2.4 [J]	9.4	6.7	13	26	76	***120***
Selenium	50 (A)	5.0	NLV	NCL	300	<5	<5	<5	<5	<5	1.9 [J]	<25
Silver	34	0.2 (M)	NLV	NCL	280	<1	<1	<1	<1	<1	<1	<5
Sodium	NCL	NCL	NCL	NCL	NCL	640,000	2,000	1,500	2,300	2,700	1,900	2,800
Thallium	2.0 (A)	3.7	NLV	NCL	0.60	<0.5	<0.5	<0.5	<0.5	<0.5	0.33 [J]	<2.5
Titanium	NCL	NCL	NCL	NCL	NCL	1.9 [J]	160	100	130	260	1,200	460
Vanadium	4.5	27	NLV	NCL	260	<5	***13***	***17***	***14***	***26***	***110***	***150***
Zinc	2,400	230 (G)	NLV	NCL	18,000	6 [BJ]	22 [B]	23 [B]	48 [B]	49 [B]	***280 [B]***	***450 [B]***

TABLE 2D
SUMMARY OF PERCHED GROUNDWATER SAMPLE ANALYSIS - INORGANICS/GENERAL CHEMISTRY
1855 House St NE
Plainfield Twp, Kent Co, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air Inhalation[2]	EGLE Residential Recommended Volatilization to Indoor Air Interim Action Screening Level - Groundwater[3]	U.S. EPA Residential Tap Water Regional Removal Management Levels[4]	HS-SB-4803	HS-SB-4803	HS-SB-4804	HS-SB-4805	HS-SB-4807	HS-SB-4904	HS-SB-4915
Sample Name						HS-SB-4803	HS-SB-4803 DUP	HS-SB-4804	HS-SB-4805	HS-SB-4807	HS-SB-4904	HS-SB-4915
Depth Interval (feet below ground surface)						7.9 - 15	7.9 - 15	8 - 20	5 - 11.5	10 - 20	10 - 20	1 - 10
Laboratory Sample ID(s)						UH21055-003 & 19081352-02A/C	UH21055-004 & 19081352-03A/C	UH21055-001 & 19081352-01A/C	UH21055-007 & 19081352-06A/C	UH21055-005 & 19081352-04A/C	UH21055-006 & 19081352-05A/C	UH21055-008 & 19081352-07A/C
Sample Date						08/20/2019	08/20/2019	08/19/2019	08/21/2019	08/20/2019	08/20/2019	08/21/2019
Parameter (µg/L)												
Acetic Acid	4,200	8,800 (G)	NLV	NCL	NCL	<25,000	<25,000	<25,000	<25,000	<25,000	<25,000	<25,000
Formic acid	10,000	ID	7,700,000	NCL	1.9	<25,000	<25,000	<25,000	<25,000	<25,000	<25,000	<25,000
Cyanide - Total	200	5.2	NLV	NCL	4.4	<10	<10	<10	<10	<10	<10	<10
Cyanide, Available	200 (A)	5.2	NLV	NCL	NCL	<2	<2	<2	<2	<2	<2	<2
Hardness (total)	NCL	NCL	NCL	NCL	NCL	140,000	130,000	200,000	530,000	300,000	340,000	200,000
Ammonia - N (gas diffusion)	NCL	NCL	NCL	NCL	NCL	<100	<100	890	<100	<100	<100	5,600
Nitrate-Nitrite - N	NCL	NCL	NCL	NCL	NCL	19 [J]	12 [J]	46	42	62	250	73
Nitrate-Nitrite - N + Ammonia - N (Calculated)	10,000 (N)	NCL	NCL	NCL	NCL	19	12	940	42	62	250	5,700
Unionized Ammonia (Calculated based on pH 8.0, 20°C)	NCL	29 (CC)	NCL	250,000	NCL	ND	ND	***34***	ND	ND	ND	***210***
Chloride	250,000 (E)	NCL (FF)	NLV	NCL	NCL	1,100	1,100	1,300	1,400	1,800	950 [J]	1,000
Phosphorus (Total)	63,000	1,000 (EE)	NLV	NCL	NCL	77	46 [J]	420	160	90	260	***1,800***
Sulfate	250,000 (E)	NA	NLV	NCL	NCL	4,200	4,100	4,800	1,100	9,100	4,800	<1,000
Sulfide	NCL	NCL	NCL	NCL	NCL	<1,000	<1,000	<1,000	<1,000	<1,000	1,400	1,100

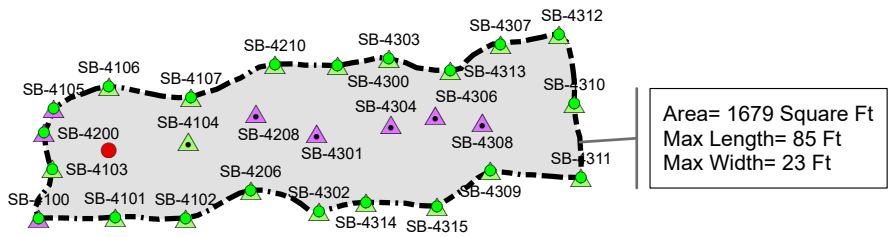
TABLE 2E
SUMMARY OF PERCHED GROUNDWATER SAMPLE ANALYSIS - PFAS
1855 House St NE
Plainfield Twp, Kent Co, MI

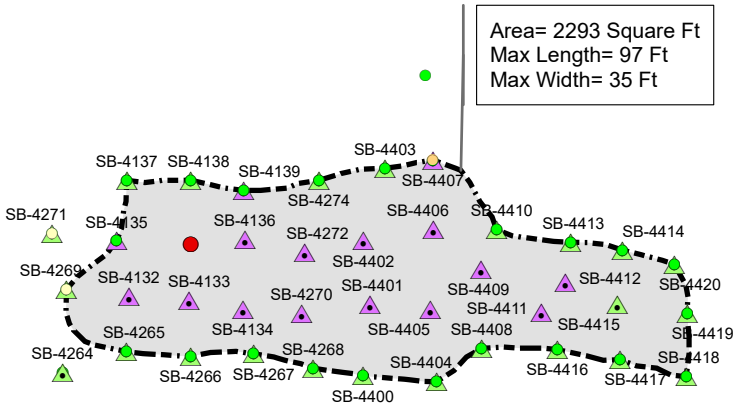
Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water[2]	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface[2]	Part 201 Generic Residential Groundwater Cleanup Criteria – Groundwater Volatilization to Indoor Air Inhalation[2]	EGLE Residential Recommended Volatilization to Indoor Air Interim Action Screening Level - Groundwater[3]	U.S. EPA Residential Tap Water Regional Removal Management Levels[4]	HS-SB-4803	HS-SB-4803	HS-SB-4804	HS-SB-4805	HS-SB-4807	HS-SB-4904	HS-SB-4915
Sample Name						HS-SB-4803	HS-SB-4803 DUP	HS-SB-4804	HS-SB-4805	HS-SB-4807	HS-SB-4904	HS-SB-4915
Depth Interval (feet below ground surface)						7.9 - 15	7.9 - 15	8 - 20	5 - 11.5	10 - 20	10 - 20	1 - 10
Laboratory Sample ID(s)						UH21055-003	UH21055-004	UH21055-001	UH21055-007	UH21055-005	UH21055-006	UH21055-008
Sample Date						08/20/2019	08/20/2019	08/19/2019	08/21/2019	08/20/2019	08/20/2019	08/21/2019
Parameter (µg/L)												
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	NCL	NCL	<0.0082	<0.0083	<0.0074	<0.0071	<0.0082	<0.0075	<0.0078
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	NCL	NCL	1,200	0.0058	0.0069	<0.0037	0.0059	<0.0041	0.0047	<0.0039
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluoro-1-nonanesulfonate (PFNS)	NCL	NCL	NCL	NCL	NCL	<0.0082	<0.0083	<0.0074	<0.0071	<0.0082	<0.0075	<0.0078
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluoro-1-pentanesulfonate (PFPeS)	NCL	NCL	NCL	NCL	NCL	0.0046	0.0044	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	NCL	NCL	0.029	0.029	<0.0037	0.0094	<0.0041	0.015	0.004
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorooctanoic acid (PFOA)	0.07 (JJ)	12	NCL	NCL	NCL	0.003 [B]	0.0031 [B]	0.0041 [B]	0.011	0.004 [B]	0.003 [B]	0.0088
Perfluorooctane sulfonic acid (PFOS)	0.07 (JJ)	0.012	NCL	NCL	NCL	***0.015 [B]***	0.01 [B]	***0.014 [B]***	0.011	0.012 [B]	***0.019 [B]***	***0.013***
PFOA + PFOS (Calculated)	0.07	NCL	NCL	NCL	NCL	0.018	0.013	0.018	0.022	0.016	0.022	0.022
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	NCL	NCL	<0.0041	<0.0041	<0.0037	<0.0036	<0.0041	<0.0038	<0.0039
Total PFAS (Calculated)	NCL	NCL	NCL	NCL	NCL	0.057	0.053	0.018	0.037	0.016	0.042	0.026

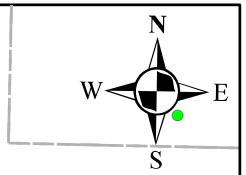
TABLES 2A TO 2E NOTES
1855 House Street NE
Plainfield Twp, Kent Co, MI

NOTES:

1. Concentration and criteria units are micrograms per Liter (µg/L) or parts per billion (ppb). Calculated criteria and concentrations are rounded to two significant digits. "ND" indicates the parameters used in the calculation were not detected.
   "NC" indicates not calculated. Blank indicates the parameter was not analyzed.
2. Michigan Part 201 Groundwater Cleanup Criteria are based on "Table 1, Groundwater: Residential and Nonresidential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Tier I Risk Based Screening Levels,"
   Michigan Administrative Code, Cleanup Criteria Requirements for Response Activity, Rules 299.44 and 299.49, effective December 30, 2013; updated June 25, 2018.
   Abbreviations Include:
   "ID" indicates insufficient data to develop criterion.
   "NA" indicates a criterion or value is not available or, in the case of background, not applicable.
   "NCL" indicates no criterion listed in EGLE Table 1.
   "NLV" indicates the substance is not likely to volatilize under most conditions.
   Footnotes Include:
   (A) - The criterion is the State of Michigan drinking water standard.
   (D) - The calculated criterion exceeds 100 percent, hence it is reduced to 100 percent or 1.0E+9 ppb.
   (E) - Criterion is the aesthetic drinking water value.
   (F) - Criterion is based on adverse impacts to plant life and phytotoxicity.
   (G) - Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water.
   EGLE's Footnote (G) GSI/GSIPC Calculation spreadsheet was utilized to calculate GSI criterion presented. The Rogue River is the receiving surface water for the Site. Hardness (220 mg $CaCO_3$/L) and pH (7.5 standard units) used in the calculations were the lowest (most-conservative) of the calculated mean and median of the Rogue River surface water samples collected in Rockford, MI at the former tannery (TA-SW-01, TA-SW-02, TA-SW-03, TA-SW-05, and TA-SW-07) rounded to two significant digits and water hardness or pH for the Rogue River near Rockford published in United States Geological Survey Circular 323, "Water Resources of the Grand Rapids Area, Michigan," Table 1, 1954.
   (L) - Criteria for lead are derived using a biologically based model. The generic residential drinking water criterion of 4µg/L is linked to the generic residential soil direct contact criterion of 400 mg/kg.
   (M) - Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
   (N) - The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater that is used as a source of drinking water shall not, when added together, exceed the nitrate drinking water criterion of 10,000 ug/L.
   (P) - Amenable cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with all groundwater criteria.
   (S) - Criterion defaults to the hazardous substance-specific water solubility limit.
   (V) - Criterion is the aesthetic drinking water value.
   (W) - Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80µg/L.
   (AA) - Use 10,000 µg/L where groundwater enters a structure through the use of a water well, sump or other device. Use 28,000 µg/L for all other uses.
   (CC) - The generic GSI criteria are based on the toxicity of unionized ammonia (NH_3); the criteria are 29 µg/L and 53 µg/L for cold water and warm water surface water, respectively. As a result, the GSI criterion shall be compared to the percent of the total ammonia concentration in the groundwater that will become NH_3 in the surface water. This percent NH_3 is a function of the pH and temperature of the receiving surface water and was estimated using the table of this footnote titled "Percent NH_3 in Aqueous Ammonia Solutions This approach uses a default temperature of 68°F and 85°F for cold water and warm water surface water, respectively. The percent conversion factor in the table for cold water (20°C or 68°F) and pH (8.0 standard units) is 3.82%.
   (EE) - The applicable GSI criteria for phosphorus is 1,000 µg/L.
   (FF) 0-302(2) and (4) GSI criteria shall not apply for surface waters of the state that are not designated as a public water supply source.
   (JJ) - Compliance with the drinking water criteria shall require comparing the sum of the PFOA and PFOS groundwater concentrations to the drinking water criterion of 0.07 µg/L.
3. EGLE Residential Recommended Volatilization to Indoor Air Interim Action Screening Levels (RIASLs) for shallow groundwater were based on EGLE's Toxics Steering Group's "Media-Specific Interim Action Screening Levels," published in August 2017. The EGLE published the RIASLs in August 2017, and recently removed the RIASLs from the EGLEwebsite. The EGLE is reportedly evaluating the RIASLs for appropriate use and applicability. These are included for reference.
   Abbreviations Include:
   "NCL" indicates no value listed in the Media-Specific Interim Action Screening Levels table.
   Footnotes Include:
   (M) - Site-specific criterion may be below target detection limits (TDL).
4. U.S. EPA Residential Tap Water Regional Removal Management Levels (RMLs) were based on "Generic RML Tables," updated November 2018.
5. To the extent that samples listed in these tables contain or consist of perched water, the comparison to the EGLE Part 201 generic cleanup criteria does not imply applicability of the criteria because the physical and chemical properties of the perched water are expected to be different from the default values or assumptions (aquifer or groundwater) used to derive the Generic Groundwater Cleanup Criteria in the Cleanup Criteria Requirements for Response Activity Rules (R299.1-299.50).
6. Bold, italic number with thick line border or italic parameter name indicates that parameter was detected above the Michigan Part 201 Groundwater Cleanup Criteria or Media-Specific Interim Action Screening Levels. U.S. EPA RMLs are provided for reference only and results detected above the EPA RMLs are not bolded or italicized. The perched groundwater is not likely representative of aquifer conditions at the Site and the RMLs are based on tap water. The results were compared to Michigan Part 201 Groundwater Cleanup Criteria or Media-Specific Interim Action Screening Levels or Media-Specific Interim Action Screening Levels for screening purposes only.
7. Abbreviations include:
   "< RL" indicates the parameter was analyzed for but not detected above the method detection limit; RL = Reporting Limit.
   "DUP" indicates a duplicate sample.
   "B" indicates the parameter was also detected in the method blank.
   "J" indicates the parameter was detected at a concentration greater than the limit of quantitation (LOQ) but less than the detection limit (DL) and the result is estimated.
   "H" indicates the sample was analyzed out of holding time.
8. Sample names presented are from Shealy Environmental Services, Inc. laboratory reports unless the only laboratory analyzing samples was ALS Environmental. Sample names presented in ALS Environmental lab reports may have minor differences based on laboratory interpretation of the chains of custody.
9. Depth interval presented is the top of the filter pack to the bottom of well screen in feet below ground surface.







LEGEND

2019 TCLP INVESTIGATION

- NO WASTE MATERIAL OBSERVED
- WASTE MATERIAL OBSERVED
- 1966 PROPOSED SITE PLAN
- APPROXIMATE HOUSE ST SITE BOUNDARY

TCLP Chromium Concentration (ug/L)

- 0 - 310
- 310.00001 - 950
- 950.00001 - 1,600
- 5,000.00001 - 18,000

Extent of Cr TCLP Exceeding RCRA Max Concentration

- Extent of Cr TCLP Exceeding RCRA Max Concentration

NOTES

1. BORING LOCATIONS ARE PRECEDED BY THE SITE CODE "HS-" ON BORING LOGS AND SAMPLE NAMES.

WORKING DRAFT

0 15 30 60

Scale in Feet

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

Rose & Westra, a Division of GZA
601 Fifth Street NW, Suite 102
Grand Rapids, Michigan 49504

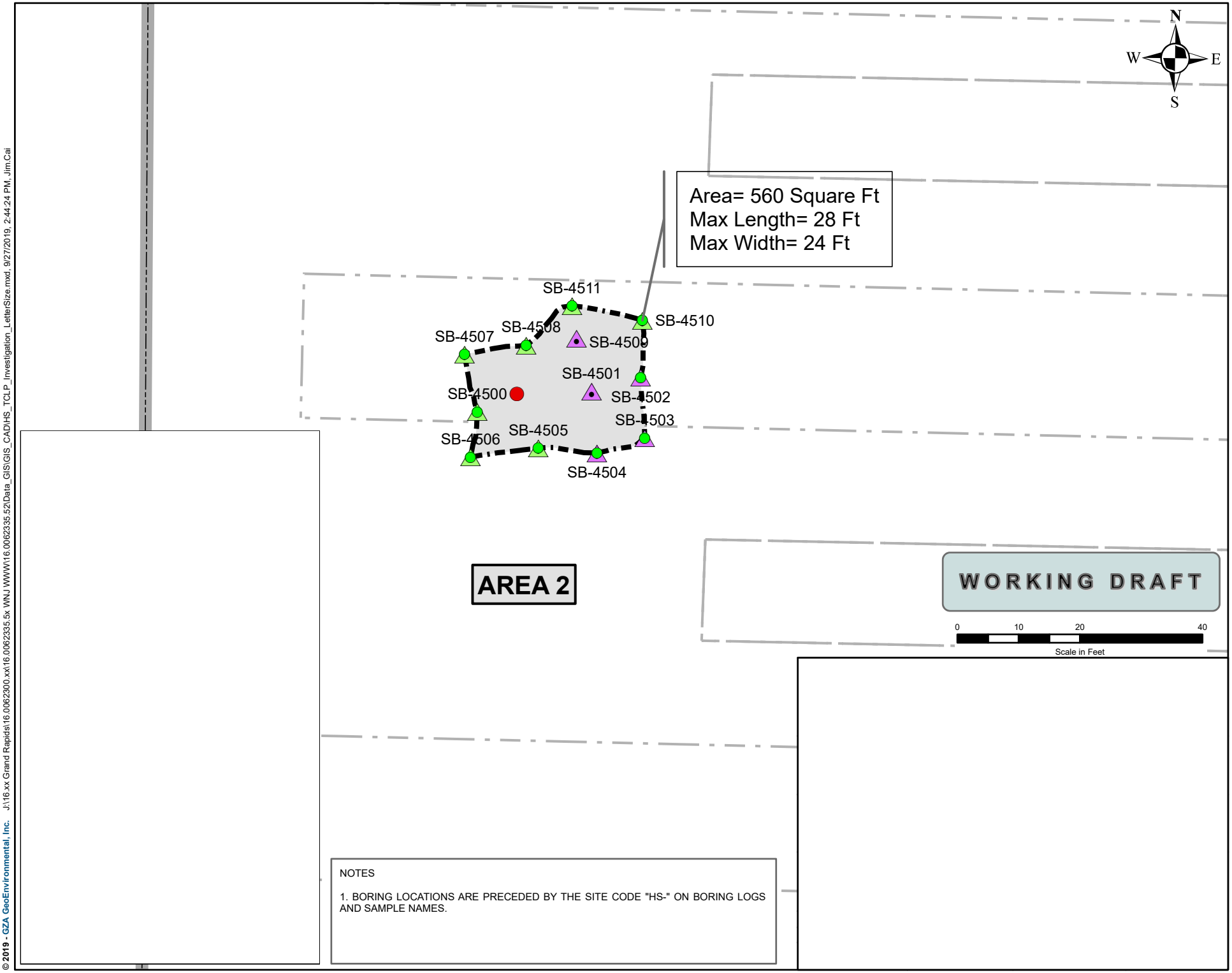
EXTENT OF TCLP CHROMIUM EXCEEDING RCRA MAX CONCENTRATION
HOUSE STREET 2019 TCLP INVESTIGATION -
AREA 1 AND AREA 5

GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR: WN&J/WWW

PROJ MGR: LJP	REVIEWED BY: LJP	CHECKED BY: LJP	FIGURE
DESIGNED BY: JC	DRAWN BY: JC/JMG	SCALE: 1 " = 30 '	1
DATE: 9/27/2019	PROJECT NO. 16.0062335.52	REVISION NO.	

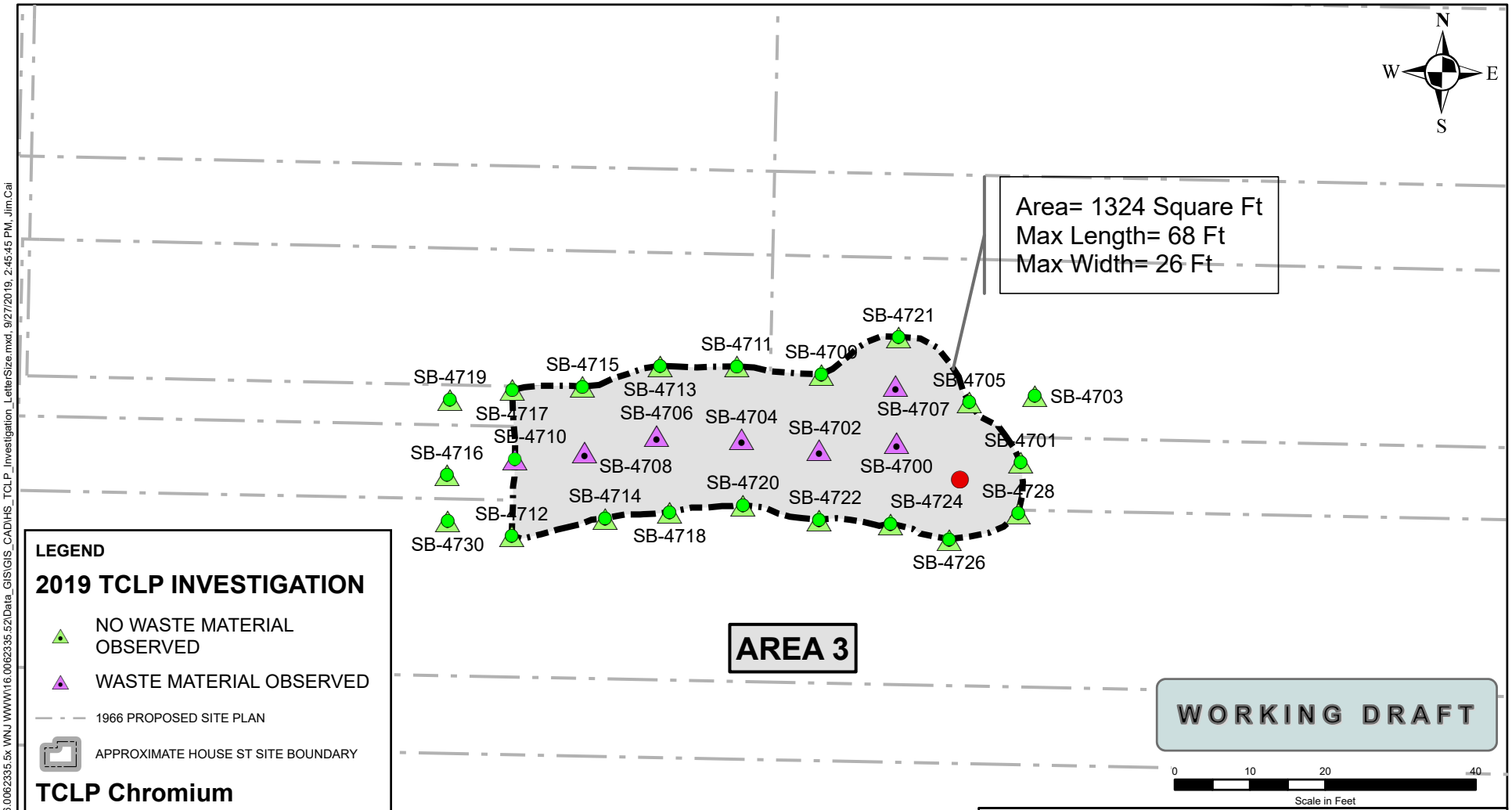
© 2019 - GZA GeoEnvironmental, Inc. J:\16.xx Grand Rapids\16.0062300.xx\16.0062335.5x WNJ WWW\16.0062335.52\Data_GIS\GIS_CAD\HS_TCLP_Investigation_LetterSize.mxd, 9/27/2019, 2:38:59 PM, Jim.Cai



NOTES

1. BORING LOCATIONS ARE PRECEDED BY THE SITE CODE "HS-" ON BORING LOGS AND SAMPLE NAMES.

© 2019 - GZA GeoEnvironmental, Inc. J:\16.xx Grand Rapids\16.0062300.xx\16.0062335.5x WNJ WWW\16.0062335.52\Data_GIS\GIS_CAD\HS_TCLP_Investigation_LetterSize.mxd, 9/27/2019, 2:44:24 PM, Jim.Cai



LEGEND

2019 TCLP INVESTIGATION

- NO WASTE MATERIAL OBSERVED
- WASTE MATERIAL OBSERVED
- 1966 PROPOSED SITE PLAN
- APPROXIMATE HOUSE ST SITE BOUNDARY

TCLP Chromium Concentration (ug/L)

- 0 - 310
- 310.00001 - 950
- 950.00001 - 1,600
- 1,600.00001 - 5,000
- 5,000.00001 - 18,000

Extent of Cr TCLP Exceeding RCRA Max Concentration

- Extent of Cr TCLP Exceeding RCRA Max Concentration

NOTES

1. BORING LOCATIONS ARE PRECEDED BY THE SITE CODE "HS-" ON BORING LOGS AND SAMPLE NAMES.

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

Rose & Westra, a Division of GZA
601 Fifth Street NW, Suite 102
Grand Rapids, Michigan 49504

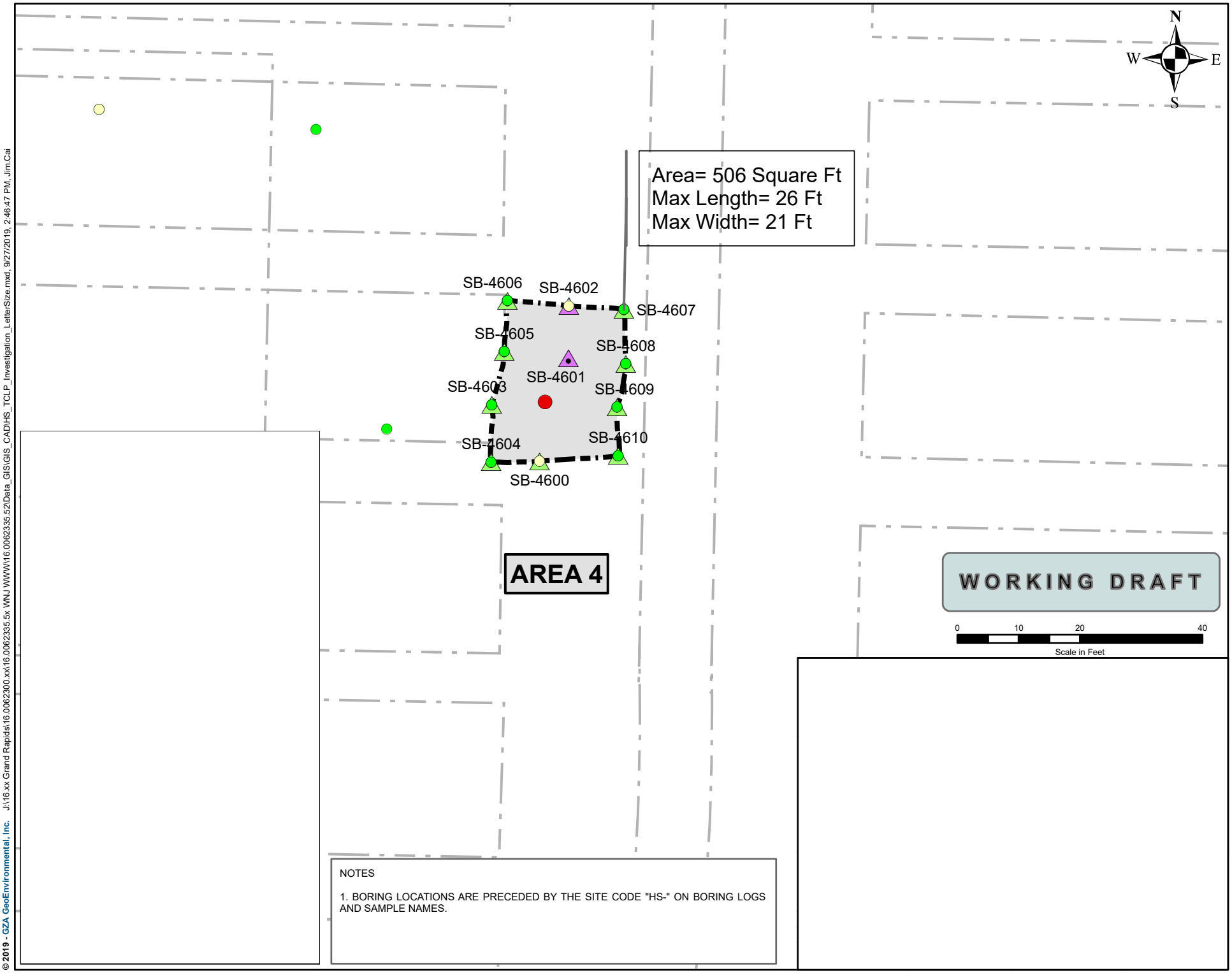
EXTENT OF TCLP CHROMIUM EXCEEDING RCRA MAX CONCENTRATION
HOUSE STREET 2019 TCLP INVESTIGATION -
AREA 3

GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR: WN&J/WWW

PROJ MGR: LJP	REVIEWED BY: LJP	CHECKED BY: LJP	FIGURE
DESIGNED BY: JC	DRAWN BY: JC/JMG	SCALE: 1 " = 20 '	3
DATE: 9/27/2019	PROJECT NO. 16.0062335.52	REVISION NO.	

© 2019 - GZA GeoEnvironmental, Inc. J:\16.xx Grand Rapids\16.0062300.xx\16.0062335.5x WNJ WWW\16.0062335.52\Data_GIS\GIS_CAD\HS_TCLP_Investigation_LetterSize.mxd, 9/27/2019, 2:45:45 PM, Jim.Cai



NOTES

1. BORING LOCATIONS ARE PRECEDED BY THE SITE CODE "HS-" ON BORING LOGS AND SAMPLE NAMES.

© 2019 - GZA GeoEnvironmental, Inc. J:\16.xx Grand Rapids\16.0062300.xx\16.0062335.5x WNJ WWW\16.0062335.52\Data_GIS\GIS_CAD\HS_TCLP_Investigation_LetterSize.mxd, 9/27/2019, 2:46:47 PM, Jim.Cai

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4274 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Stratum Description	Elev. (ft.) / Depth (ft.)	Equipment Installed
	C-1	0-5	60	51		NR	C-1:	1	TOPSOIL	0.5	No Equipment Installed
	S-1	0-1				1.1	S-1: 0-0.5': Dark brown, TOPSOIL, moist.				
1							0.5-1': Brown, SILT & CLAY, some fine Sand, moist.				
	S-2	1-2				0.0	S-2: Brown, SILT & CLAY, some fine Sand, moist.	2			
2											
	S-3	2-3				0.5	S-3: Brown, SILT & CLAY, some fine Sand, moist.	3	SILT & CLAY		
3											
	S-4	3-4				0.1	S-4: 3-3.5': Brown, SILT & CLAY, some fine Sand, moist.				
							3.5-4': Brown, Silty CLAY, moist.			3.5	
4											
	S-5	4-5				N/A	S-5: 4-4.8': Brown, Silty CLAY, moist.				
							4.8-5': No recovery.				
5											
	C-2	5-10	60	56		NR	C-2:		SILTY CLAY		
	S-6	5-6				0.0	S-6: Brown, Silty CLAY, moist, little Sand.				
6					6-7						
	S-7	6-7				0.2	S-7: 6-6.8': Brown, Silty CLAY, little Sand, moist.				
							6.8-7': Brown, fine SAND, some Silt & CLAY, moist.			6.8	
7											
	S-8	7-8				0.7	S-8: 7-7.3': Brown, fine SAND, some Silt & CLAY, moist.				
							7.3-8': Light brown, fine to medium SAND, lenses of Silt &				
8					8-9		Clay, moist.		SAND		
	S-9	8-9				0.7	S-9: 8-8.8': Light brown, fine to medium SAND, lenses of Silt				
							& Clay, moist.			8.8	
9							8.8-9': Brown, Silty CLAY, moist.				
	S-10	9-10				0.7	S-10: 9-9.3': Brown, Silty CLAY, moist.		SILTY CLAY		
							9.3-10': No recovery.				
10										10	
	C-3	10-15	60	34		NR	C-3:				
	S-11	10-11				0.0	S-11: Light brown, medium to coarse SAND, Clay lenses,				
11							rock fragments, moist.				
	S-12	11-12				0.0	S-12: Light brown-black, fine to medium SAND, moist.				
12											
	S-13	12-13				0.0	S-13: Black, fine to medium SAND, moist.		SAND		
13											
	S-14	13-14				N/A	S-14: No recovery.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-4274

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4274 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	35		NR	C-4:				
	S-16	15-16				0.0	S-16: Black-light brown, fine to medium SAND, some Silt, moist.				
16											
	S-17	16-17				0.0	S-17: Black-light brown, fine to medium SAND, some Silt, moist.				
17											
	S-18	17-18				0.0	S-18: Black-light brown, fine to medium SAND, some Silt, Silty Clay lenses, moist.			SAND	
18											
	S-19	18-19				N/A	S-19: No recovery.				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4274

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4307 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/15/2019 **Finish Date:** 7/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	58		NR	C-1:	1	TOPSOIL	0.2	
	S-1	0-1				2.6	S-1: 0-0.2': Dark brown, TOPSOIL, dry.				
1							0.2-1': Brown, CLAY & SILT, dry.				
	S-2	1-2				3.5	S-2: Brown, CLAY & SILT, dry.	2			No Equipment Installed
2	S-3	2-3				3.5	S-3: Brown, CLAY & SILT, dry.				
3	S-4	3-4				3.5	S-4: Brown, CLAY & SILT, moist.	3			
4	S-5	4-5				3.0	S-5: Brown, CLAY & SILT, moist.				
5	C-2	5-10	60	56	5-6	NR	C-2:				
	S-6	5-6				3.5	S-6: Brown, CLAY & SILT, moist.		CLAY & SILT		
6	S-7	6-7				4.1	S-7: Brown, CLAY & SILT, moist.				
7	S-8	7-8				2.6	S-8: Brown, CLAY & SILT, moist.				
8	S-9	8-9			8-9	2.5	S-9: Dark brown, Silty CLAY, moist				
9	S-10	9-10				2.4	S-10: Dark brown, CLAY, moist				
10	C-3	10-15	60	40		NR	C-3:				
	S-11	10-11				3.8	S-11: Dark brown, CLAY, moist			10.8	
11	S-12	11-12				3.6	S-12: Light brown, fine to medium SAND, moist.				
12	S-13	12-13				3.9	S-13: Light brown, fine to medium SAND, moist.		SAND		
13	S-14	13-14				3.9	S-14: 13-13.3': Light brown, fine to medium SAND, moist. 13.3-14': No recovery.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 1.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Waste odor noted in sample.

Logger:

Laurel Klein

Boring No.:

HS-SB-4307

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4307 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/15/2019 **Finish Date:** 7/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	48		NR	C-4:				
	S-16	15-16				3.9	S-16: Light brown, fine SAND, moist.				
16											
	S-17	16-17				4.8	S-17: Light brown, fine SAND, moist.			SAND	
17											
	S-18	17-18				4.2	S-18: Light brown, fine to medium SAND, moist.				
18											
	S-19	18-19				4.0	S-19: 18-18.2': Light brown, fine to medium SAND, moist.				18.2
							18.2-18.8': Brown, CLAY, moist.			CLAY	18.8
19							18.8-19': Brown, coarse SAND, moist.				
	S-20	19-20				N/A	S-20: No recovery.			SAND	
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4307

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4308 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/15/2019 **Finish Date:** 7/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Stratum Description	Elev. (ft.) / Depth (ft.)	Equipment Installed
	C-1	0-5	60	52		NR	C-1:	1	TOPSOIL	0.2	No Equipment Installed
	S-1	0-1				2.8	S-1: 0-0.2': Dark brown, TOPSOIL, dry.				
1							0.2-1': Brown, CLAY and SILT, dry.				
	S-2	1-2				2.5	S-2: Brown, CLAY and SILT, dry.	2			
2									CLAY & SILT		
	S-3	2-3				2.0	S-3: 2-2.2': Brown, CLAY and SILT, dry.				
							2.2-3': Brown, CLAY and SILT, trace fine Sand, moist.				
3											
	S-4	3-4				1.9	S-4: 3-3.5': Brown, CLAY and SILT, trace fine Sand, moist.	3			
							3.5-4': Gray, WASTE, moist.			3.5	
4											
	S-5	4-5				76.1	S-5: 4-4.3': Gray, WASTE, moist.				
							4.3-5': No recovery.				
5									WASTE		
	C-2	5-10	60	56		NR	C-2:				
	S-6	5-6				20.5	S-6: Gray, WASTE, moist.				
6											
	S-7	6-7				6.8	S-7: 6-6.2': Gray, WASTE, moist.			6.2	
							6.2-7': Brown, CLAY, trace silt, moist.				
7											
	S-8	7-8				5.1	S-8: Brown, CLAY, trace silt, moist.				
8									CLAY		
	S-9	8-9				3.2	S-9: Brown, CLAY, trace silt, moist.				
9											
	S-10	9-10				4.3	S-10: 9-9.3': Brown, CLAY, trace silt, moist.			9.3	
							9.3-9.7': Light brown, fine to medium SAND, moist.				
10							9.7-10': No recovery.				
	C-3	10-15	60	51		NR	C-3:				
	S-11	10-11				3.8	S-11: Light brown, fine to medium SAND, moist.				
11											
	S-12	11-12				2.8	S-12: Light brown, fine to medium SAND, moist.				
12									SAND		
	S-13	12-13				4.2	S-13: Light brown, fine to medium SAND, moist.				
13											
	S-14	13-14				3.6	S-14: Light brown, fine to medium SAND, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 1.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Waste odor noted in sample.

Logger:

Laurel Klein

Boring No.:

HS-SB-4308

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4308 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/15/2019 **Finish Date:** 7/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				3.4	S-15: Light brown, fine to medium SAND, moist.				
15											
	C-4	15-20	60	38		2.9	C-4:				
	S-16	15-16				3.0	S-16: Light brown, fine SAND, moist.			SAND	
16											
	S-17	16-17				2.9	S-17: 16-16.3': Light brown, fine SAND, moist. 16.3-17': Light brown, medium SAND, moist.				
17											
	S-18	17-18				2.8	S-18: 17.-17.2': Light brown, medium SAND, moist. 17.2-18': Brown, CLAY, trace Silt, moist.				17.2
18											
	S-19	18-19				2.5	S-19: No recovery.			CLAY	
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4308

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4309 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/15/2019 **Finish Date:** 7/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	60		NR	C-1:	1	TOPSOIL	0.3	No Equipment Installed
	S-1	0-1				4.1	S-1: 0-0.3': Dark brown, TOPSOIL, dry.				
1							0.3-1': Dark brown, Silty CLAY, dry.				
	S-2	1-2				3.9	S-2: 1-1.2': Dark brown, Silty CLAY, dry.	2			
							1.2-2': Dark brown, Silty CLAY, moist.				
2	S-3	2-3				4.1	S-3: Dark brown, Silty CLAY, moist.				
3	S-4	3-4				4.3	S-4: Dark brown, Silty CLAY, moist.	3			
4	S-5	4-5				3.7	S-5: Dark brown, Silty CLAY, moist.				
5	C-2	5-10	60	60	5-6	NR	C-2:		SILTY CLAY		
	S-6	5-6				3.8	S-6: Dark brown, Silty CLAY, moist.				
6	S-7	6-7				3.8	S-7: Dark brown, Silty CLAY, moist.				
7	S-8	7-8				3.4	S-8: Dark brown, Silty CLAY, moist.				
8	S-9	8-9			8-9	3.3	S-9: Dark brown, Silty CLAY, moist.				
9	S-10	9-10				3.1	S-10: Dark brown, Silty CLAY, moist.				
10	C-3	10-15	60	41		NR	C-3:			10	
	S-11	10-11				3.3	S-11: Light brown, fine to medium SAND, moist.		SAND		
11	S-12	11-12				2.7	S-12: Light brown, fine to medium SAND, moist.				
12	S-13	12-13				3.6	S-13: Light brown, fine to medium SAND, moist.				
13	S-14	13-14				3.1	S-14: 13-13.5': Light brown, fine to medium SAND, moist.				
							13.5-14': No recovery.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 1.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Waste odor noted in sample.

Logger:

Laurel Klein

Boring No.:

HS-SB-4309

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4309
SHEET: 2 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Laurel Klein
Drilling Co.: Stearns Drilling
Foreman: Gary Geerligs

Start Date: 7/15/2019
Finish Date: 7/15/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	43		NR	C-4:				
	S-16	15-16				2.4	S-16: Light brown, SAND, moist.				
16										SAND	
	S-17	16-17				2.8	S-17: Light brown, SAND, moist.				
17											
	S-18	17-18				3.8	S-18: 17-17.5': Light brown, SAND, moist.				
							17.5-18': Brown, Silty CLAY, moist.				17.5
18											
	S-19	18-19				2.3	S-19: Brown, Silty CLAY, moist.				
19										CLAY	
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
Laurel Klein

Boring No.:
HS-SB-4309

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4310 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	54		NR	C-1:	1		TOPSOIL	0.2	
	S-1	0-1				0.0	S-1: 0-0.2': TOPSOIL					
1							0.2-1': Dark brown, Silty CLAY, dry.					
	S-2	1-2				1.2	S-2: 1-1.2': Dark brown, Silty CLAY, dry.	2				No Equipment Installed
							1.2-2': Light brown, Silty CLAY, moist.					
2	S-3	2-3				0.8	S-3: Brown, Silty CLAY, trace Sand, moist.	3				
3	S-4	3-4				0.7	S-4: Brown, CLAY, moist.					
4	S-5	4-5				0.0	S-5: 4-4.4': Brown, CLAY, moist.					
							4.4-5': No recovery.					
5	C-2	5-10	60	56	5-6	NR	C-2:					
	S-6	5-6				0.5	S-6: 5-5.6': Brown, Silty CLAY, moist.					
6							5.6-6': Brown, CLAY, moist.			CLAY		
	S-7	6-7				0.2	S-7: 6-6.8': Brown, CLAY, moist.					
							6.8-7': Light brown, Gravelly CLAY, wet.					
7	S-8	7-8				0.3	S-8: Light brown, Gravelly CLAY, wet.					
8	S-9	8-9			8-9	0.1	S-9: 8-8.8': Light brown, Gravelly CLAY, wet.					
							8.8-9': Brown, CLAY, wet.					
9	S-10	9-10				0.0	S-10: 9-9.7': Brown, CLAY, wet.					
							9.7-10': No recovery.					
10	C-3	10-15	60	32		NR	C-3:					
	S-11	10-11				0.0	S-11: Brown, CLAY, wet.					
11	S-12	11-12				0.1	S-12: 11-11.2': Brown, CLAY, wet.				11.2	
							11.2-12': Brown, SAND, trace Silt, moist.					
12	S-13	12-13				0.0	S-13: 12-12.8': Brown, SAND, moist.					
							12.8-13': No recovery.			SAND		
13	S-14	13-14				N/A	S-14: No recovery.					
14												

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4310

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4310 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.			
15									SAND	
	C-4	15-20	60	53		NR	C-4:			
	S-16	15-16				0.3	S-16: 15-15.7': Brown, SAND, moist.			15.7
16							15.7-16': Brown, CLAY, trace Silt & Sand, moist.			
	S-17	16-17				0.0	S-17: Brown, CLAY, trace Silt & Sand, moist.			
17										
	S-18	17-18				0.3	S-18: 17-17.2': Brown, CLAY, trace Silt & Sand, moist.			
							17.2-18': Brown, CLAY, moist.			
18									CLAY	
	S-19	18-19				0.2	S-19: Brown, CLAY, moist.			
19										
	S-20	19-20				0.2	S-20: 19-19.1': Brown, CLAY, moist.			
							19.1-19.4': Brown, gravelly CLAY, trace Sand & Silt, moist.			
20							19.4-20': No recovery.			20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4310

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4311 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	60		NR	C-1:	1	TOPSOIL 0.3	No Equipment Installed
	S-1	0-1				0.0	S-1: 0-0.3': TOPSOIL.			
1							0.3-1': Brown, Silty CLAY, dry.			
	S-2	1-2				0.1	S-2: 1-1.7': Brown, Silty CLAY, dry.	2		
							1.7-2': Brown, Silty CLAY, moist.			
2										
	S-3	2-3				0.0	S-3: Brown, Silty CLAY, moist.	3		
3										
	S-4	3-4				0.0	S-4: 3-3.7': Brown, Silty CLAY, moist.			
							3.7-4': Brown, CLAY, moist.		CLAY	
4										
	S-5	4-5				0.2	S-5: Brown, CLAY, moist.			
5										
	C-2	5-10	60	51	5-6	NR	C-2:			
	S-6	5-6				0.0	S-6: Brown, CLAY, moist.			
6										
	S-7	6-7				0.5	S-7: 6-6.9': Brown, CLAY, moist.			
							6.9-7': Brown, SAND, trace Silt, moist.			
7									6.9	
	S-8	7-8				0.0	S-8: Brown, SAND, trace Silt, moist.		SAND	
8									8	
	S-9	8-9			8-9	0.3	S-9: Brown, CLAY, moist.		CLAY	
9										
	S-10	9-10				0.2	S-10: 9-9.3': Brown, CLAY, moist.		9.2	
							9.3-10': No recovery.			
10										
	C-3	10-15	60	39		NR	C-3:			
	S-11	10-11				0.1	S-11: Light brown, Gravelly SAND.			
11										
	S-12	11-12				0.0	S-12: Light brown, Gravelly SAND.			
									SAND	
12										
	S-13	12-13				0.0	S-13: Light brown, Gravelly SAND.			
13										
	S-14	13-14				0.0	S-14: 13-13.3': Light brown, Gravelly SAND.			
							13.3-14': No recovery.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4311

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4311 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		
15									
	C-4	15-20	60	45		NR	C-4:		
	S-16	15-16				0.0	S-16: Light brown, SAND, moist.		
16									SAND
	S-17	16-17				0.0	S-17: Light brown, SAND, moist.		
17									
	S-18	17-18				0.0	S-18: 17-17.7': Light brown, SAND, moist. 17.7-18': Brown, CLAY, moist.		17.7
18									
	S-19	18-19				0.0	S-19: 18-18.8': Brown, CLAY, moist. 18.8-19': No recovery.		
19									CLAY
	S-20	19-20				N/A	S-20: No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4311

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4312 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	60		NR	C-1:	1		
	S-1	0-1				5.8	S-1: 0-0.6': Brown, TOPSOIL.		TOPSOIL 0.6	
1							0.6-1': Brown, Silty CLAY, dry.			
	S-2	1-2				0.3	S-2: Brown, Silty CLAY, dry.	2		No Equipment Installed
2					2-3					
	S-3	2-3				0.0	S-3: 2-2.6': Brown, Silty CLAY, dry.	3		
							2.6-3': Brown, CLAY, moist.			
3										
	S-4	3-4				0.0	S-4: Brown, CLAY, moist.			
4										
	S-5	4-5				0.0	S-5: Brown, CLAY, moist.			
5					5-6					
	C-2	5-10	60	60		NR	C-2:		CLAY	
	S-6	5-6				0.0	S-6: Brown, CLAY, moist.			
6										
	S-7	6-7				0.0	S-7: Brown, CLAY, moist.			
7										
	S-8	7-8				0.0	S-8: Brown, CLAY, moist.			
8										
	S-9	8-9				0.0	S-9: Brown, CLAY, moist.			
9										
	S-10	9-10				0.0	S-10: Brown, CLAY, moist.			
10									10	
	C-3	10-15	60	41		NR	C-3:			
	S-11	10-11				0.0	S-11: Light brown, fine to medium SAND, moist.			
11										
	S-12	11-12				0.0	S-12: Light brown, fine to medium SAND, moist.			
12										
	S-13	12-13				0.0	S-13: Light brown, fine to medium SAND, moist.		SAND	
13										
	S-14	13-14				N/A	S-14: Light brown, fine to medium SAND, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4312

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4312 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		
15									
	C-4	15-20	60	47		NR	C-4:		
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, moist.		
16									
	S-17	16-17				0.0	S-17: Light brown, fine to medium SAND, moist.		SAND
17									
	S-18	17-18				0.0	S-18: Light brown, fine to medium SAND, moist.		
18									18
	S-19	18-19				0.0	S-19: 18-18.9': Light brown, fine to medium SAND, moist. 18.9-19': Brown, CLAY, moist.		
19									
	S-20	19-20				N/A	S-20: No recovery.		CLAY
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4312

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4313 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	55		NR	C-1:	1		
	S-1	0-1				0.0	S-1: 0-0.6': TOPSOIL.		TOPSOIL 0.6	
1							0.6-1': Brown, Silty CLAY, dry.			
	S-2	1-2				0.0	S-2: Brown, Silty CLAY, dry.	2		No Equipment Installed
2	S-3	2-3				0.2	S-3: Brown, Silty CLAY, moist.	3		
3	S-4	3-4				0.0	S-4: Brown, Silty CLAY, moist.			
4	S-5	4-5				0.0	S-5: Brown, Silty CLAY, moist.			
5	C-2	5-10	60	60		NR	C-2:		CLAY	
	S-6	5-6				0.0	S-6: Brown, CLAY, moist			
6	S-7	6-7				0.0	S-7: Brown, CLAY, moist			
7	S-8	7-8			7-8	0.0	S-8: Brown, CLAY, moist			
8	S-9	8-9				0.0	S-9: Brown, CLAY, moist			
9	S-10	9-10				0.0	S-10: Brown, CLAY, moist			
10	C-3	10-15	60	46	10-11	NR	C-3:		10 WASTE 10.3	
	S-11	10-11				0.3	S-11: 10-10.3': WASTE			
11							10.3-11': Light brown, fine to medium SAND, moist.			
	S-12	11-12				0.0	S-12: Light brown, fine to medium SAND, moist.			
12	S-13	12-13				0.0	S-13: Light brown, fine to medium SAND, moist.		SAND	
13	S-14	13-14				0.0	S-14: 13-13.8': Light brown, fine to medium SAND, moist.			
							13.8-14': No recovery.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4313

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4313 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.			
15										
	C-4	15-20	60	??		NR	C-4:			
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, moist.			
16										
	S-17	16-17				0.5	S-17: Light brown, fine to medium SAND, moist.		SAND	
17										
	S-18	17-18				0.0	S-18: Light brown, fine to medium SAND, moist.			
18										
	S-19	18-19				0.0	S-19: 18-18.2': Light brown, fine to medium SAND, moist.			18.2
							18.2-18.8': CLAY, moist.			
19							18.8-19': No recovery.			
	S-20	19-20				N/A	S-20: No recovery.		CLAY	
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4313

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4314 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/17/2019 **Finish Date:** 7/17/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	57		NR	C-1:	1	TOPSOIL 0.5	No Equipment Installed
	S-1	0-1				0.0	S-1: 0-0.5': Dark brown, TOPSOIL, moist.			
1							0.5-1': Brown, CLAY & SILT, moist.		CLAY & SILT 1	
	S-2	1-2				0.0	S-2: Brown, SILT, some Silt, little Clay, moist.	2	SILT 2	
2	S-3	2-3				0.9	S-3: Brown, SILT & CLAY, moist.	3		
3	S-4	3-4				0.4	S-4: Brown, SILT & CLAY, Sand lenses, moist.		SILT & CLAY	
4	S-5	4-5				0.4	S-5: 4-4.5': Brown, SILT & CLAY, moist.			
							4.5-5': Light brown, fine to medium SAND, moist.		4.5	
5	C-2	5-10	60	54	5-6	NR	C-2:		SAND	
	S-6	5-6				0.6	S-6: Light brown, fine to medium SAND, little Silt, moist.		6	
6	S-7	6-7				0.3	S-7: Brown, Silty CLAY, moist.			
7	S-8	7-8				0.4	S-8: Brown, Silty CLAY, moist.			
8	S-9	8-9			8-9	0.6	S-9: Brown, Silty CLAY, moist.		SILTY CLAY	
9	S-10	9-10				0.3	S-10: 9-9.5': Brown, Silty CLAY, moist.			
							9.5-10': No recovery.		10	
10	C-3	10-15	60	54		NR	C-3:			
	S-11	10-11				0.0	S-11: Brown to dark brown, fine to medium SAND, little Silt, moist.			
11	S-12	11-12				0.0	S-12: Light brown, fine to medium SAND, little Silt, moist.			
12	S-13	12-13				1.2	S-13: Light brown, fine to medium SAND, little Silt, moist.		SAND	
13	S-14	13-14				1.3	S-14: 13-13.5': Light brown, fine to medium SAND, little Silt, moist.			
14							13.5-14': No recovery.			

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-4314

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4314 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/17/2019 **Finish Date:** 7/17/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	45		NR	C-4:				
	S-16	15-16				0.2	S-16: Light brown, fine to medium SAND, little Silt, moist.				
16											
	S-17	16-17				0.3	S-17: Light brown, fine to medium SAND, little Silt, moist.				
17											
	S-18	17-18				0.6	S-18: Light brown, fine to medium SAND, little Silt, moist.			SAND	
18											
	S-19	18-19				0.6	S-19: 18-18.2': Light brown, fine to medium SAND, little Silt, wet.				
19							18.2-19': No recovery.				
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4314

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4315 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/18/2019 **Finish Date:** 7/18/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Stratum Description (Elev. (ft.) / Depth (ft.))	Equipment Installed
	C-1	0-5	60	60		NR	C-1:	1		No Equipment Installed
	S-1	0-1				0.0	S-1: Brown, SILT & CLAY, little Sand, moist.			
1	S-2	1-2				0.0	S-2: Brown, Silty CLAY, rock fragments, moist.	2		
2	S-3	2-3				0.0	S-3: Brown, Silty CLAY, rock fragments, moist.	3		
3	S-4	3-4				0.0	S-4: Brown, Silty CLAY, rock fragments, moist.		SILT & CLAY	
4	S-5	4-5				0.0	S-5: Brown, Silty CLAY, rock fragments, moist.			
5	C-2	5-10	60	60		NR	C-2:			
	S-6	5-6				0.0	S-6: Brown, Silty CLAY, rock fragments, moist.			
6	S-7	6-7				0.0	S-7: 6-6.5': Brown, Silty CLAY, rock fragments, moist. 6.5-7': Brown, CLAY, some Silt, little fine Sand, moist.		6.5	
7	S-8	7-8			7-8	0.0	S-8: Brown, CLAY, some Silt, little fine Sand, moist.			
8	S-9	8-9				0.0	S-9: Brown, CLAY, some Silt, little fine Sand, moist.		CLAY	
9	S-10	9-10				0.2	S-10: Brown, CLAY, some Silt, little fine Sand, moist.			
10	C-3	10-15	60	42	10-11	NR	C-3:		10	
	S-11	10-11				0.0	S-11: 10-10.6': Brown, fine to medium SAND & CLAY, some Silt, moist.		SAND & CLAY 10.6	
11	S-12	11-12				0.3	10.6-11': Light brown, fine to medium SAND, some Silt, little Clay, moist			
12	S-13	12-13				0.4	S-12: Light brown, fine to medium SAND, some Silt, little Clay, moist S-13: Light brown, fine to medium SAND, some Silt, little Clay, moist		SAND	
13	S-14	13-14				0.5	S-14: Light brown, fine to medium SAND, some Silt, little Clay, moist			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-4315

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4315 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/18/2019 **Finish Date:** 7/18/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.			
15										
	C-4	15-20	60	40		NR	C-4:			
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, little Silt, moist.		SAND	
16										
	S-17	16-17				0.2	S-17: Light brown, fine to medium SAND, little Silt, moist.			
17										
	S-18	17-18				0.1	S-18: 17-17.2': Light brown, fine to medium SAND, little Silt, moist.			17.2
18							17.2-18': Gray, medium to coarse SAND & CLAY, moist.			
	S-19	18-19				0.1	S-19: Gray, medium to coarse SAND & CLAY, moist.		SAND & CLAY	
19										
	S-20	19-20				N/A	S-20: No recovery.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4315

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4403 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/15/2019 **Finish Date:** 7/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	54		NR	C-1:	1		
	S-1	0-1				1.4	S-1: 0-0.8': Dark brown, TOPSOIL, moist.		TOPSOIL 0.8	
1							0.8-1': Brown, SILT & CLAY, some fine Sand, moist.			
	S-2	1-2				1.8	S-2: Brown, SILT & CLAY, some fine Sand, rock fragments, moist.	2		No Equipment Installed
2										
	S-3	2-3				2.0	S-3: Brown, SILT & CLAY, some fine Sand, moist.	3		
3									SILT & CLAY	
	S-4	3-4				2.3	S-4: Brown, SILT & CLAY, some fine Sand, moist.			
4										
	S-5	4-5				1.7	S-5: Brown, SILT & CLAY, some fine Sand, moist.			
5									5	
	C-2	5-10	60	57	5-6	NR	C-2:			
	S-6	5-6				2.5	S-6: Brown, CLAY, some Silt, moist.			
6										
	S-7	6-7				1.9	S-7: Brown, CLAY, some Silt, moist.		CLAY	
7					7-8					
	S-8	7-8				2.7	S-8: 7-7.5': Brown, CLAY, some Silt, moist.			
							7.5-8': Brown, fine SAND & SILT, some Clay.		7.5	
8									SAND & SILT	
	S-9	8-9				2.3	S-9: 8-8.3': Brown, fine SAND & SILT, some Clay.		8.3	
							8.3-9': Brown, Silty CLAY, some fine Sand, rock fragments, moist.			
9										
	S-10	9-10				2.3	S-10: Brown, Silty CLAY, some fine Sand, rock fragments, moist.		SILTY CLAY	
10										
	C-3	10-15	60	42		NR	C-3:		10.3	
	S-11	10-11				2.2	S-11: 10-10.3': Brown, Silty CLAY, some fine Sand, moist.			
11							10.3-11': Brown-gray, fine to medium SAND, some Silt, rock fragments, moist.			
	S-12	11-12				2.1	S-12: Brown-gray, fine to medium SAND, some Silt, rock fragments, moist.			
12										
	S-13	12-13				2.1	S-13: Brown-gray, fine to medium SAND, some Silt, rock fragments, moist.		SAND	
13										
	S-14	13-14				1.9	S-14: Brown-gray, fine to medium SAND, some Silt, rock fragments, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 1.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-4403

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4403 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/15/2019 **Finish Date:** 7/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	45		NR	C-4:				
	S-16	15-16				2.1	S-16: Brown, medium to fine SAND, some Silt, moist.				
16											
	S-17	16-17				NR	S-17: Brown, medium to fine SAND, some Silt, moist.				
17											
	S-18	17-18				NR	S-18: Brown, medium to fine SAND, some Silt, moist.			SAND	
18											
	S-19	18-19				NR	S-19: Brown, medium to fine SAND, some Silt, moist.				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4403

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4404 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	52		NR	C-1:	1	TOPSOIL	0.5	No Equipment Installed
	S-1	0-1				0.0	S-1: 0-0.5': Dark brown, TOPSOIL, moist.				
1	S-2	1-2				0.0	0.5-1': Brown, SILT & CLAY, some fine Sand, rock fragments, moist.	2			
2	S-3	2-3				0.0	S-2: Brown, SILT & CLAY, some fine Sand, rock fragments, moist. S-3: Brown, SILT & CLAY, some fine Sand, rock fragments, moist.	3			
3	S-4	3-4				0.0	S-4: Brown, SILT & CLAY, some fine Sand, rock fragments, moist.				
4	S-5	4-5				0.0	S-5: 4-4.7': Brown, SILT & CLAY, some fine Sand, rock fragments, moist.		SILT & CLAY		
5	C-2	5-10	60	54		NR	4.7-5': No recovery. C-2:				
	S-6	5-6				0.0	S-6: Gray-brown, SILT & CLAY, little Sand, moist.				
6	S-7	6-7				0.0	S-7: Gray-brown, SILT & CLAY, little Sand, moist.				
7	S-8	7-8				0.3	S-8: Gray-brown, SILT & CLAY, little Sand, moist.				
8	S-9	8-9				0.0	S-9: Brown, Silty CLAY, moist.			8	
9	S-10	9-10				0.1	S-10: 9-9.5': Brown, Silty CLAY, moist. 9.5-10': No recovery.		SILTY CLAY		
10	C-3	10-15	60	46		NR	C-3:			10	
	S-11	10-11				0.0	S-11: Brown, CLAY, little Silt, moist.				
11	S-12	11-12			11-12	0.0	S-12: Brown, CLAY, little Silt, moist.		CLAY		
12	S-13	12-13				0.0	S-13: 12-12.3': Brown, CLAY, little Silt, moist.			12.3	
13	S-14	13-14			13-14	0.0	12.3-13': Gray, medium to coarse SAND & GRAVEL, some Silt & Clay, moist. S-14: 13-13.8': Gray, fine to medium SAND, some Silt, moist, seam of very light brown fine Silt.		SAND		
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-4404

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4404 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				0.0	13.8-14': No recovery. S-15: No recovery.				
15	C-4	15-20	60	39		NR	C-4:				
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, some Silt, moist.				
16	S-17	16-17				0.0	S-17: Light brown, fine to medium SAND, some Silt, moist.				
17	S-18	17-18				0.0	S-18: Light brown, fine to medium SAND, some Silt, moist.			SAND	
18	S-19	18-19				0.0	S-19: 18-18.8': Light brown, fine to medium SAND, some Silt, moist. 18.8-19': No recovery.				
19	S-20	19-20				0.0	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4404

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4405 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/15/2019 **Finish Date:** 7/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	53		NR	C-1:	1	TOPSOIL	0.5	No Equipment Installed
	S-1	0-1				2.7	S-1: 0-0.5': Brown, TOPSOIL, moist.				
1							0.5-1': Brown, Silty CLAY, some fine Sand, moist.				
	S-2	1-2				2.2	S-2: Brown, Silty CLAY, some fine Sand, moist.	2			
2											
	S-3	2-3				2.2	S-3: Brown, Silty CLAY, some fine Sand, moist.	3			
3									SILTY CLAY		
	S-4	3-4				1.9	S-4: 3-3.5': Brown, Silty CLAY, some fine Sand, moist.	4			
							3.5-4': Brown, Silty CLAY, moist.				
4											
	S-5	4-5				1.7	S-5: Brown, Silty CLAY, moist.				
5											
	C-2	5-10	60	40		NR	C-2:			5.3	
	S-6	5-6				3.0	S-6: 5-5.3': Brown, Silty CLAY, moist.		CLAY		
6							5.3-6': Gray, CLAY, some Sand, moist.			6	
	S-7	6-7				3.1	S-7: 6-6.6': Gray, CLAY, some Sand, moist.				
							6.6-7': Gray, SAND & CLAY, moist.		SAND & CLAY		
7											
	S-8	7-8				48.2	S-8: 7-7.3': Gray, SAND & CLAY, moist.			7.3	
							7.3-7.8': Black to gray, WASTE, Clay, moist.		WASTE	7.8	
8							7.8-8': Gray, SAND & CLAY, moist.		SAND & CLAY	8.2	
	S-9	8-9				15.7	S-9: 8-8.2': Gray, SAND & CLAY, moist.				
							8.2-9': Black to gray, WASTE, Sand & Clay, moist.				
9											
	S-10	9-10				N/A	S-10: No recovery.		WASTE		
10										10	
	C-3	10-15	60	43		NR	C-3:				
	S-11	10-11				9.3	S-11: Brown, Silty CLAY, moist.		SILTY CLAY		
11										11	
	S-12	11-12				152.2	S-12: Gray to black, WASTE, Clay, moist.				
12											
	S-13	12-13				73.9	S-13: 12-12.3': Gray to black, WASTE, Clay, moist.				
							12.3-13': Black, SAND WASTE, moist.		WASTE		
13											
	S-14	13-14				6.2	S-14: Light brown and black, SAND WASTE, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.7 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. Waste odor noted in sample.

Logger:

Makayla Myers

Boring No.:

HS-SB-4405

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4405 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/15/2019 **Finish Date:** 7/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		WASTE	
15										15
	C-4	15-20	60	32		NR	C-4:			
	S-16	15-16				2.5	S-16: Light brown, fine to medium SAND, little Silt, moist.		SAND	
16										
	S-17	16-17				2.5	S-17: 16-16.3': Light brown, fine to medium SAND, little Silt, moist.			16.3
							16.3-16.8': Brown, CLAY, little Silt, moist.		CLAY	16.8
17										
	S-18	17-18				2.8	16.8-17': Light brown to brown, fine to medium SAND, Clay lenses, moist.			
18							S-18: Light brown to brown, fine to medium SAND, Clay lenses, moist.			
	S-19	18-19				N/A	S-19: No recovery.		SAND	
19										
	S-20	19-20				N/A	S-20: No recovery.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4405

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4406 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/15/2019 **Finish Date:** 7/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	54		NR	C-1:	1		
	S-1	0-1				2.3	S-1: Brown, SILT & CLAY, little fine Sand, moist.			
1	S-2	1-2				1.0	S-2: Brown, SILT & CLAY, little fine Sand, moist.	2	SILT & CLAY	No Equipment Installed
2	S-3	2-3				1.7	S-3: 2-2.3': Brown, SILT & CLAY, little fine Sand, moist.	3	2.3	
							2.3-2.6': Brown, fine SAND & SILT, moist.		SANDY SILT 2.6	
3							2.6-2.8': Black, CLAY, WASTE, moist.			
	S-4	3-4				1.7	2.8-3': Brown, Silty CLAY, some fine Sand, moist.			
							S-4: Brown, Silty CLAY, some fine Sand, moist.			
4	S-5	4-5				1.8	S-5: Brown, Silty CLAY, some fine Sand, moist.		SILTY CLAY	
5	C-2	5-10	60	42		NR	C-2:			
	S-6	5-6				2.2	S-6: 5-5.5': Brown, SILT & CLAY, some fine Sand, moist.		5.5	
6							5.5-6': Brown, CLAY, some Silt, moist.			
	S-7	6-7				2.2	S-7: Brown, CLAY, some Silt, moist.			
7	S-8	7-8				2.5	S-8: Brown, CLAY, some Silt, rock fragments, moist.			
8									CLAY	
	S-9	8-9				2.3	S-9: Brown, CLAY, some Silt, moist.			
9	S-10	9-10				N/A	S-10: No recovery.			
10									10	
	C-3	10-15	60	41		NR	C-3:		SILTY CLAY 10.3	
	S-11	10-11				2.0	S-11: Brown, Silty CLAY, little fine Sand, moist.			
11	S-12	11-12				2.2	S-12: 11-11.2': Brown, medium to coarse SAND, some Gravel, little Silt, moist.			
							11.2-12': Brown, medium to fine SAND, some Silt, moist.			
12	S-13	12-13				1.8	S-13: Brown, medium to fine SAND, some Silt, moist.		SAND	
13	S-14	13-14				2.5	S-14: Brown, medium to fine SAND, some Silt, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.9 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-4406

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4406 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/15/2019 **Finish Date:** 7/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.			
15										
	C-4	15-20	60	46		NR	C-4:			
	S-16	15-16				2.1	S-16: Light brown, fine to medium SAND, some Silt, moist.		SAND	
16										
	S-17	16-17				1.7	S-17: 16-16.8': Brown, Silty CLAY, moist. 16.8-17': Light brown, fine to medium SAND, Clay lenses, moist.			16.8
17										
	S-18	17-18				2.0	S-18: 17-17.8': Light brown, fine to medium SAND, Clay lenses, moist. 17.8-18': Brown, medium to coarse SAND, some Silt & Clay, moist.		SILTY CLAY	17.8
18										
	S-19	18-19				2.0	S-19: 18-18.5': Brown, medium to coarse SAND, some Silt & Clay, moist. 18.5-19': Brown, Silty CLAY, moist.		SAND	18.5
19										
	S-20	19-20				N/A	S-20: No recovery.		SILTY CLAY	
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4406

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4407 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Nolan Fonda **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/15/2019 **Finish Date:** 7/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	52		NR	C-1:	1		No Equipment Installed
	S-1	0-1				6.2	S-1: Brown, SILT, some fine Sand, moist, organics present.			
1	S-2	1-2				4.5	S-2: Brown, SILT, some fine Sand, moist, organics present.	2		
2	S-3	2-3				7.1	S-3: Brown, SILT, some fine Sand, moist.	3	SILT	
3	S-4	3-4				5.8	S-4: Brown, SILT, some fine Sand, moist.	4		
4	S-5	4-5				5.6	S-5: Brown, Clayey SILT, some fine Sand, moist.		4	
5	C-2	5-10	60	52		NR	C-2:			
	S-6	5-6				7.7	S-6: Light brown, Clayey SILT, moist.		CLAYEY SILT	
6	S-7	6-7			6-7	86.3	S-7: 6-6.7': Light brown, Clayey SILT, moist. 6.7-7': Black, WASTE.		6.7	
7	S-8	7-8				16.4	S-8: 7-7.5': Black, WASTE. 7.5-8': Gray, SILT & CLAY, moist.		WASTE 7.5 SILT & CLAY 8	
8	S-9	8-9				10.1	S-9: Gray, CLAY.		CLAY	
9	S-10	9-10			9-10	9.9	S-10: 9-9.2': Gray, CLAY. 9.2-10': Gray, fine to coarse SAND, moist.		9.2 9.3 SAND CRUSHED STONE	
10	C-3	10-15	60	43		NR	C-3:		10.3	
	S-11	10-11				6.7	S-11: 10-10.3': White, crushed STONE, moist. 10.3-11': Tan, fine to medium SAND, trace Gravel, moist.			
11	S-12	11-12				3.1	S-12: Tan, fine to medium SAND, trace Gravel, moist.			
12	S-13	12-13				5.4	S-13: Tan, fine to medium SAND, moist.		SAND	
13	S-14	13-14				5.4	S-14: Tan, fine to medium SAND, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 1.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. Waste odor noted in sample.

Logger:

Nolan Fonda

Boring No.:

HS-SB-4407

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4407 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Nolan Fonda **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/15/2019 **Finish Date:** 7/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.			
15										
	C-4	15-20	60	45		NR	C-4:		SAND	
	S-16	15-16				4.1	S-16: Tan, fine to medium SAND, trace Silt, moist.			
16										
	S-17	16-17				3.3	S-17: 16-16.3': Tan, fine to medium SAND, trace Silt, moist.			16.3
							16.3-16.5': Brown, SILT & CLAY, moist		SILT & CLAY	16.5
17							16.5-17': Brown, fine to coarse SAND, trace Gravel, trace			
	S-18	17-18				2.3	Silt, moist.		SAND	
							S-18: 17-17.7': Brown, fine to coarse SAND, trace Gravel,			17.7
18							trace Silt, moist.			
	S-19	18-19				2.1	17.7-18': Brown, SILT & CLAY, moist.			
							S-19: Brown, CLAY, moist.			
19									CLAY	
	S-20	19-20				N/A	S-20: No recovery.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Nolan Fonda

Boring No.:

HS-SB-4407

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4408 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	55		NR	C-1:	1	TOPSOIL	0.3	No Equipment Installed
	S-1	0-1				0.0	S-1: 0-0.3': Dark brown, TOPSOIL, moist.				
1							0.3-1': Brown, SILT & CLAY, little fine Sand, moist.				
	S-2	1-2				0.0	S-2: Brown, SILT & CLAY, little fine Sand, moist.	2			
2											
	S-3	2-3				0.0	S-3: Brown, SILT & CLAY, little fine Sand, moist.	3	SILT & CLAY		
3											
	S-4	3-4				0.0	S-4: Brown, SILT & CLAY, little fine Sand, moist.	4			
4										4	
	S-5	4-5				0.0	S-5: 4-4.6': Brown, Silty CLAY, moist.				
							4.6-5': No recovery.				
5											
	C-2	5-10	60	48		NR	C-2:		SILTY CLAY		
	S-6	5-6				0.0	S-6: Brown, Silty CLAY, little fine Sand, moist.				
6										6	
	S-7	6-7				22.4	S-7: Brown, CLAY, little Silt, moist, lens of black Clay.				
7											
	S-8	7-8				2.8	S-8: Brown, CLAY, little Silt, moist.		CLAY		
8					8-9						
	S-9	8-9				2.3	S-9: 8-8.5': Brown, CLAY, little Silt, moist.				
							8.5-9': Gray to brown, fine to medium SAND, some Clay,			8.5	
9							moist.				
	S-10	9-10				N/A	S-10: No recovery.		SAND		
10										10	
	C-3	10-15	60	35		NR	C-3:		CLAY	10.4	
	S-11	10-11				0.1	S-11: 10-10.4': Brown, CLAY, little Silt & Sand, moist.				
11					11-12		10.4-11': Brown, medium to coarse SAND, some Silt, Clay				
	S-12	11-12				0.0	lens, moist.				
							S-12: Light brown, fine to medium SAND, little Silt, moist.				
12											
	S-13	12-13				0.0	S-13: Light brown, fine to medium SAND, little Silt, moist.		SAND		
13											
	S-14	13-14				N/A	S-14: No recovery.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. Waste odor noted in sample.

Logger:

Makayla Myers

Boring No.:

HS-SB-4408

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4408 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		
15									
	C-4	15-20	60	42		NR	C-4:		
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, some Silt, moist.		
16									
	S-17	16-17				0.0	S-17: Light brown, fine to medium SAND, some Silt, moist.		
17									
	S-18	17-18				0.0	S-18: Light brown, fine to medium SAND, some Silt, Clay lenses, moist.		SAND
18									
	S-19	18-19				NR	S-19: Light brown, fine to medium SAND, some Silt and Clay, moist.		
19									
	S-20	19-20				N/A	S-20: No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4408

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4409 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Nolan Fonda **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	52		NR	C-1:	1		No Equipment Installed
	S-1	0-1				1.1	S-1: Brown and gray, SILT, little fine Sand, moist.			
1	S-2	1-2				1.6	S-2: Brown and gray, SILT, little fine Sand, moist.	2	SILT	
2	S-3	2-3				1.1	S-3: Brown and gray, SILT, little fine Sand, moist.	3		
3	S-4	3-4				2.0	S-4: Brown and gray, Clayey SILT, trace fine sand, moist		3	
4	S-5	4-5				0.4	S-5: Brown and gray, Clayey SILT, trace fine sand, moist		CLAYEY SILT	
5	C-2	5-10	60	42		NR	C-2:			
	S-6	5-6				13.9	S-6: 5-5.7': Brown and Gray, Clayey Silt, trace fine Sand, moist.		5.7	
6	S-7	6-7				50.0	5.7-6.': Dark gray and black, WASTE, moist. S-7: Dark gray and black, WASTE, moist.			
7	S-8	7-8				32.6	S-8: Dark gray and black, WASTE, moist.			
8	S-9	8-9				5.0	S-9: Dark gray and black, WASTE, moist.		WASTE	
9	S-10	9-10				N/A	S-10: No recovery.			
10	C-3	10-15	60	45		NR	C-3:		10	
	S-11	10-11				4.6	S-11: Gray, fine to coarse SAND, trace gray Waste, moist.			
11	S-12	11-12				1.9	S-12: Gray, fine to coarse SAND, trace gray Waste, moist.			
12	S-13	12-13				2.5	S-13: Gray, fine to coarse SAND, trace gray Waste, moist.		SAND	
13	S-14	13-14				1.5	S-14: Gray, fine to coarse SAND, trace gray Waste, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Nolan Fonda

Boring No.:

HS-SB-4409

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4409 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Nolan Fonda **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		
15									
	C-4	15-20	60	35		NR	C-4:		SAND
	S-16	15-16				0.7	S-16: Brown and tan, fine to coarse SAND, little Silt, moist.		
16									
	S-17	16-17				0.2	S-17: 16-16.3': Brown and tan, fine to coarse Sand, little gravel, trace Silt, moist.		16.3
17							16.3-17': Brown and gray, SILT & CLAY, moist.		
	S-18	17-18				1.1	S-18: Brown and gray, SILT & CLAY, moist.		
18									
	S-19	18-19				N/A	S-19: No recovery.		SILT & CLAY
19									
	S-20	19-20				N/A	S-20: No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Nolan Fonda

Boring No.:

HS-SB-4409

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4410 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	57		NR	C-1:	1	TOPSOIL 0.5	No Equipment Installed
	S-1	0-1				0.0	S-1: 0-0.5': Dark brown, TOPSOIL, moist.			
1							0.5-1': Brown, SILT & CLAY, some fine Sand, moist.			
	S-2	1-2				0.0	S-2: Brown, SILT & CLAY, some fine Sand, moist.	2		
2	S-3	2-3				0.0	S-3: Brown, SILT & CLAY, some fine Sand, moist.	3		
3	S-4	3-4				0.0	S-4: Brown, SILT & CLAY, some fine Sand, moist.		SILT & CLAY	
4	S-5	4-5				0.2	S-5: Brown, SILT & CLAY, some fine Sand, moist.			
5	C-2	5-10	60	57		NR	C-2:		5	
	S-6	5-6				0.0	S-6: Brown, Silty CLAY, moist.			
6	S-7	6-7				0.0	S-7: Brown, Silty CLAY, moist.			
7	S-8	7-8				0.0	S-8: Brown, Silty CLAY, moist.			
8	S-9	8-9				0.0	S-9: Brown, Silty CLAY, moist.		SILTY CLAY	
9	S-10	9-10				0.0	S-10: Brown, Silty CLAY, moist.			
10	C-3	10-15	60	44	10-11	NR	C-3:			
	S-11	10-11				0.0	S-11: 10-10.5': Brown, Silty CLAY, moist.		10.5	
11							10.5-11': Brown, SILT & CLAY, moist.		SILT & CLAY 11	
	S-12	11-12				0.0	S-12: 11-11.5': Gray, medium to coarse SAND & GRAVEL, little Silt, moist.		SAND & GRAVEL 11.5	
12	S-13	12-13				0.0	11.5-12': Light brown, fine to medium SAND, some Silt, moist.			
13	S-14	13-14			13-14	0.0	S-13: Light brown, fine to medium SAND, some Silt, moist. S-14: Light brown, fine to medium SAND, some Silt, moist.		SAND	
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-4410

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4410 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/16/2019 **Finish Date:** 7/16/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		
15									
	C-4	15-20	60	46		NR	C-4:		
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, some Silt, moist.		
16									
	S-17	16-17				0.0	S-17: Light brown, fine to medium SAND, some Silt, moist.		
17									
	S-18	17-18				0.0	S-18: Light brown, fine to medium SAND, some Silt, Clay lenses, moist.		SAND
18									
	S-19	18-19				0.0	S-19: Light brown, fine to medium SAND, some Silt, moist.		
19									
	S-20	19-20				N/A	S-20: No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4410

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4411 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/17/2019 **Finish Date:** 7/17/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	52		NR	C-1:	1				
	S-1	0-1				1.3	S-1: 0-0.5': TOPSOIL.			TOPSOIL	0.6	
1							0.5-1': Brown, Silty CLAY, dry.					
	S-2	1-2				1.3	S-2: Brown, Silty CLAY, dry.	2				No Equipment Installed
2												
	S-3	2-3				1.1	S-3: Brown, Silty CLAY, dry.	3				
3												
	S-4	3-4				0.2	S-4: Brown, Silty CLAY, dry.	4				
4										CLAY		
	S-5	4-5				0.4	S-5: 4-4.7': Brown, Silty CLAY, dry.					
							4.7-5': No recovery.					
5												
	C-2	5-10	60	43		NR	C-2:					
	S-6	5-6				0.9	S-6: Brown, Silty CLAY, dry.					
6												
	S-7	6-7				0.5	S-7: Brown, Silty CLAY, moist.					
7											7	
	S-8	7-8				28.4	S-8: Black, WASTE.					
8										WASTE & CLAY		
	S-9	8-9				2.6	S-9: 8-8.6': Dark brown, CLAY, trace Waste.					
							8.6-9': No recovery.					
9											9	
	S-10	9-10				N/A	S-10: No recovery.					
10												
	C-3	10-15	60	43		NR	C-3:					
	S-11	10-11				0.0	S-11: 10-10.5': Brown, Gravelly SAND, moist.					
11							10.5-11': Brown, medium SAND, trace Silt, moist.					
	S-12	11-12				0.2	S-12: Brown, fine to medium SAND, moist.					
										SAND		
12												
	S-13	12-13				0.0	S-13: Brown, fine to medium SAND, moist.					
13												
	S-14	13-14				0.6	S-14: 13-13.6': Brown, fine to medium SAND, moist.					
							13.6-14': No recovery.					
14												

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at X.X ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. Waste odor noted in sample.

Logger:

Laurel Klein

Boring No.:

HS-SB-4411

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4411 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/17/2019 **Finish Date:** 7/17/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	36		NR	C-4:				
	S-16	15-16				0.5	S-16: Brown, fine to medium SAND, trace Silt, moist.				
16											
	S-17	16-17				0.2	S-17: Brown, fine to medium SAND, trace Silt, moist.				
17											
	S-18	17-18				0.0	S-18: Brown, fine to medium SAND, trace Silt, moist.			SAND	
18											
	S-19	18-19				N/A	S-19: No recovery				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4411

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4412 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/17/2019 **Finish Date:** 7/17/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	57		NR	C-1:	1			
	S-1	0-1				0.0	S-1: 0-0.5': Brown, TOPSOIL.		TOPSOIL	0.5	
1							0.5-1': Dark brown, Silty CLAY, dry.				
	S-2	1-2				0.2	S-2: Dark brown, Silty CLAY, dry.	2			No Equipment Installed
2											
	S-3	2-3				0.0	S-3: 2-2.8': Dark brown, Silty CLAY, dry.	3			
							2.8-3': Dark brown, Silty CLAY, moist.				
3											
	S-4	3-4				0.0	S-4: Dark brown, Silty CLAY, moist.	4	CLAY		
4											
	S-5	4-5				0.0	S-5: 4-4.8': Dark brown, Silty CLAY, moist.				
							4.8-5': No recovery.				
5											
	C-2	5-10	60	48		NR	C-2:				
	S-6	5-6				0.0	S-6: 5-5.8': Dark brown, Silty CLAY, moist.				
6							5.8-5.9': Gray, CLAY, moist.			5.9	
	S-7	6-7				78.2	5.9-6': Black, WASTE, moist.				
							S-7: Black/gray, WASTE, moist.				
7									WASTE		
	S-8	7-8				3.2	S-8: 7-7.7': Black, WASTE, moist.				
							7.7-8': Brown, CLAY, moist.			7.7	
8											
	S-9	8-9				0.0	S-9: 8-8.8': Brown, CLAY, moist.		CLAY		
							8.8-9': Brown, gravelly SAND, moist.			8.8	
9											
	S-10	9-10				N.A	S-10: No recovery.				
10											
	C-3	10-15	60	39		NR	C-3:				
	S-11	10-11				0.0	S-11: Light brown, fine to medium SAND, moist.				
11											
	S-12	11-12				0.0	S-12: Light brown, fine to medium SAND, moist.		SAND		
12											
	S-13	12-13				0.0	S-13: Light brown, fine to medium SAND, moist.				
13											
	S-14	13-14				0.0	S-14: 13-13.3': Light brown, fine to medium SAND, moist.				
							13.3-14': No recovery.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. Waste odor noted in sample.

Logger:

Laurel Klein

Boring No.:

HS-SB-4412

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4412
SHEET: 2 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Laurel Klein
Drilling Co.: Stearns Drilling
Foreman: Roger Christenson

Start Date: 7/17/2019
Finish Date: 7/17/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.			
15										
	C-4	15-20	60	36		NR	C-4:			
	S-16	15-16				0.0	S-16: 15-15.8': Light brown, SAND, moist.			
16							15.8-16': Brown, Silty CLAY, trace Sand, moist.		SAND	
	S-17	16-17				0.0	S-17: 16-16.8': Brown, Silty CLAY, trace Sand, moist.			
							16.8-17': Light brown, Gravelly SAND, moist.			
17										
	S-18	17-18				0.0	S-18: 17-17.3': Light brown, Gravelly SAND, moist.			17.3
							17.3-18': Brown, CLAY, moist.			
18										
	S-19	18-19				N/A	S-19: No recovery.			
19									CLAY	
	S-20	19-20				H/A	S-20: No recovery.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
Laurel Klein

Boring No.:
HS-SB-4412

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4413
SHEET: 1 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Laurel Klein
Drilling Co.: Stearns Drilling
Foreman: Roger Christenson

Start Date: 7/17/2019
Finish Date: 7/17/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Stratum Description	Elev. (ft.) / Depth (ft.)	Equipment Installed
	C-1	0-5	60	51		NR	C-1:	1			
	S-1	0-1				0.0	S-1: 0-0.5': Brown, TOPSOIL, dry.		TOPSOIL	0.5	
1							0.5-1': Brown, Silty CLAY, dry.				
	S-2	1-2				0.0	S-2: Brown, Silty CLAY, dry.	2			No Equipment Installed
2											
	S-3	2-3				0.0	S-3: Brown, Silty CLAY, dry.	3			
3											
	S-4	3-4				0.0	S-4: Dark brown, Silty CLAY, moist.				
4											
	S-5	4-5				0.0	S-5: No recovery.				
5											
	C-2	5-10	60	60		NR	C-2:		CLAY		
	S-6	5-6				1.2	S-6: Dark brown, Silty CLAY, moist.				
6					6-7						
	S-7	6-7				0.4	S-7: Dark brown, Silty CLAY, moist.				
7											
	S-8	7-8				1.3	S-8: Dark brown, Silty CLAY, moist.				
8					8-9						
	S-9	8-9				1.2	S-9: 8-8.6': Dark brown, Silty CLAY, moist.				
							8.6-9': Grayish brown, CLAY, trace Sand, moist.				
9											
	S-10	9-10				1.4	S-10: 9-9.5': Grayish brown, CLAY, trace Sand, moist.				
							9.5-10': Dark brown, Gravelly SAND, trace Silt.			9.5	
10											
	C-3	10-15	60	43		NR	C-3:				
	S-11	10-11				1.8	S-11: Brown, fine to medium SAND, trace Silt.				
11											
	S-12	11-12				1.7	S-12: Brown, fine to medium SAND, trace Silt.				
12									SAND		
	S-13	12-13				3.1	S-13: Brown, fine to medium SAND, trace Silt.				
13											
	S-14	13-14				2.3	S-14: 13-13.5': Brown, fine to medium SAND, trace Silt.				
							13.5-14': No recovery.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:
Laurel Klein

Boring No.:
HS-SB-4413

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4413 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/17/2019 **Finish Date:** 7/17/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.			
15										
	C-4	15-20	60	48		NR	C-4:			
	S-16	15-16				1.6	S-16: Brown, fine to medium SAND, trace Silt.			
16										
	S-17	16-17				0.9	S-17: Brown, fine to medium SAND, trace Silt.			
17										
	S-18	17-18				3.1	S-18: Brown, fine to medium SAND, trace Silt.		SAND	
18										
	S-19	18-19				2.7	S-19: Brown, fine to medium SAND, trace Silt.			
19										
	S-20	19-20				N/A	S-20: No recovery.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4413

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4414 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/17/2019 **Finish Date:** 7/17/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	52		NR	C-1:	1	TOPSOIL	0.2	
	S-1	0-1				0.0	S-1: 0-0.2': Brown, TOPSOIL, dry.				
1							0.2-1': Brown, Silty CLAY, dry.				
	S-2	1-2				0.0	S-2: Brown, Silty CLAY, dry.	2			No Equipment Installed
2											
	S-3	2-3				0.0	S-3: Dark brown, Silty CLAY, dry.	3			
3					3-4						
	S-4	3-4				0.0	S-4: Brown, SILT & CLAY.				
4											
	S-5	4-5				0.2	S-5: 4-4.3': Brown, SILT & CLAY.		SILTY CLAY		
							4.3-5': No recovery.				
5					5-6						
	C-2	5-10	60	58		NR	C-2:				
	S-6	5-6				0.3	S-6: Brown, Silty CLAY, moist.				
6											
	S-7	6-7				0.0	S-7: Brown, Silty CLAY, moist.				
7											
	S-8	7-8				0.0	S-8: 7-7.8': Brown, Silty CLAY, moist.				
							7.8-8': Light brown, fine to medium SAND, moist.			7.8	
8									SAND	8.2	
	S-9	8-9				0.0	S-9: 8-8.2': Light brown, fine to medium SAND, moist.				
							8.2-9': Dark brown, Silty CLAY, moist.				
9									SILTY CLAY		
	S-10	9-10				0.0	S-10: 9-9.3': Dark brown, Silty CLAY, moist.			9.3	
							9.3-10': Brown, fine to medium SAND, little Silt, moist.				
10											
	C-3	10-15	60	50		NR	C-3:				
	S-11	10-11				0.0	S-11: Light brown, fine to medium SAND, little Silt, moist.				
11											
	S-12	11-12				0.0	S-12: Light brown, fine to medium SAND, little Silt, moist.				
									SAND		
12											
	S-13	12-13				0.0	S-13: Light brown, fine to medium SAND, little Silt, moist.				
13											
	S-14	13-14				0.0	S-14: Light brown, fine to medium SAND, little Silt, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4414

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4414 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/17/2019 **Finish Date:** 7/17/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				0.0	S-15: 14-14.2': Light brown, fine to medium SAND, little Silt, moist.				
15							14.2-15': No recovery.				
	C-4	15-20	60	41		NR	C-4:				
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, little Silt, moist.				
16											
	S-17	16-17				0.0	S-17: Light brown, fine to medium SAND, little Silt, moist.				
17											
	S-18	17-18				0.0	S-18: Light brown, fine to medium SAND, little Silt, moist.			SAND	
18											
	S-19	18-19				0.0	S-19: Gray, medium to coarse SAND, moist.				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4414

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4415 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Nolan Fonda **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/17/2019 **Finish Date:** 7/17/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	54		NR	C-1:	1		No Equipment Installed
	S-1	0-1				4.6	S-1: Brown, SILT, some fine Sand, moist, roots present.			
1	S-2	1-2				4.0	S-2: Brown, SILT, some fine Sand, moist.	2		
2	S-3	2-3				4.8	S-3: Brown, SILT, some fine Sand, moist.	3	SILT	
3	S-4	3-4				4.2	S-4: Brown, SILT, some fine Sand, moist.			
4	S-5	4-5				3.3	S-5: 4-4.3': Gray, WASTE, moist. 4.3-4.5': Brown, SILT & CLAY, moist. 4.5-5': No recovery.		4 WASTE 4.3 SILT & CLAY 5	
5	C-2	5-10	60	60		NR	C-2:			
	S-6	5-6				2.8	S-6: Brown, Clayey SILT, trace fine Sand, moist.			
6	S-7	6-7				2.4	S-7: Brown and gray, Clayey SILT, moist.			
7	S-8	7-8				2.8	S-8: Brown and gray, Clayey SILT, little fine to coarse Sand, moist.		CLAYEY SILT	
8	S-9	8-9				2.8	S-9: 8-8.5': Brown and gray, Clayey SILT, little fine to coarse Sand, moist. 8.5-9': Light brown, fine to medium SAND, trace Silt, moist.		8.5	
9	S-10	9-10				2.4	S-10: Tan, fine to medium SAND, little Gravel, moist.			
10	C-3	10-15	60	50		NR	C-3:			
	S-11	10-11				2.6	S-11: Tan, fine to medium SAND, moist.			
11	S-12	11-12				3.0	S-12: Tan, fine to medium SAND, moist.		SAND	
12	S-13	12-13				3.2	S-13: Tan, fine to medium SAND, moist.			
13	S-14	13-14				1.5	S-14: Tan, fine to medium SAND, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Nolan Fonda

Boring No.:

HS-SB-4415

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4415
SHEET: 2 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Nolan Fonda
Drilling Co.: Stearns Drilling
Foreman: Roger Christenson

Start Date: 7/17/2019
Finish Date: 7/17/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 7822 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				1.7	S-15: 14-14.8': Tan, fine to medium SAND, moist.		
							14.8-15': No recovery.		
15									
	C-4	15-20	60	49		NR	C-4:		
	S-16	15-16				2.7	S-16: Tan, fine to medium SAND, moist.		
16									
	S-17	16-17				1.8	S-17: Tan, fine to medium SAND, moist.		SAND
17									
	S-18	17-18				1.5	S-18: Tan, fine to coarse SAND, moist.		
18									18
	S-19	18-19				1.7	S-19: Brown, CLAY, trace fine Sand, moist.		
19									
	S-20	19-20				1.2	S-20: 19-19.1': Brown, CLAY, moist.		CLAY
							19.1-20': No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
A81571365

REMARKS

Logger:
Nolan Fonda

Boring No.:
HS-SB-4415

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4416 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/18/2019 **Finish Date:** 7/18/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	55		NR	C-1:	1	TOPSOIL	0.3	
	S-1	0-1				0.9	S-1: 0.0.3': Brown, TOPSOIL, dry.				
1							0.3-1': Brown, Silty CLAY, dry.				
	S-2	1-2				0.6	S-2: Brown, Silty CLAY, dry.	2			No Equipment Installed
2	S-3	2-3				0.7	S-3: Brown, Silty CLAY, dry.	3			
3	S-4	3-4				0.8	S-4: Brown, Silty CLAY, dry.				
4	S-5	4-5				0.1	S-5: Brown, Silty CLAY, dry.				
5	C-2	5-10	60	47		NR	C-2:		CLAY		
	S-6	5-6				0.6	S-6: 5-5.2': Brown, Silty CLAY, dry.				
6					6-7		5.2-6': Brown, Silty CLAY, moist.				
	S-7	6-7				NR	S-7: Brown, Silty CLAY, moist.				
7	S-8	7-8				1.1	S-8: 7-7.6': Brown, Silty CLAY, moist.				
							7.6-8': Grayish, Silty CLAY, moist.				
8	S-9	8-9				0.8	S-9: 8-8.4': Brown, Silty CLAY, moist.				
							8.4-9': Grayish, Silty CLAY, some Gravel, moist.				
9	S-10	9-10			9-10	N/A	S-10: No recovery.				
10	C-3	10-15	60	39		NR	C-3:			10	
	S-11	10-11				0.6	S-11: Dark brown, Gravelly SAND, moist.				
11	S-12	11-12				0.4	S-12: Light brown, fine to medium SAND, moist.				
12	S-13	12-13				0.7	S-13: Light brown, fine to medium SAND, moist.		SAND		
13	S-14	13-14				0.6	S-14: Light brown, fine to medium SAND, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4416

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4416
SHEET: 2 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Laurel Klein
Drilling Co.: Stearns Drilling
Foreman: Roger Christenson

Start Date: 7/18/2019
Finish Date: 7/18/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	40		NR	C-4:				
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, moist.				
16											
	S-17	16-17				0.2	S-17: Light brown, fine to medium SAND, moist.				
17											
	S-18	17-18				0.1	S-18: Light brown, fine to medium SAND, moist.			SAND	
18											
	S-19	18-19				0.1	S-19: Dark brown, Gravelly SAND, moist.				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
Laurel Klein

Boring No.:
HS-SB-4416

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4417 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/18/2019 **Finish Date:** 7/18/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	54		NR	C-1:	1	TOPSOIL	0.2	
	S-1	0-1				0.0	S-1: 0-0.2': TOPSOIL.				
1							0.2-1': Brown, Silty CLAY, dry.				
	S-2	1-2				0.0	S-2: Brown, Silty CLAY, dry.	2			No Equipment Installed
2	S-3	2-3				0.0	S-3: Brown, Silty CLAY, dry.	3			
3	S-4	3-4				0.0	S-4: Brown, Silty CLAY, dry.				
4	S-5	4-5			4-5	0.0	S-5: Brown, Silty CLAY, dry.		CLAY		
5	C-2	5-10	60	54		NR	C-2:				
	S-6	5-6				0.3	S-6: Dark brown, Silty CLAY, moist.				
6	S-7	6-7			6-7	0.2	S-7: Dark brown, Silty CLAY, moist.				
7	S-8	7-8				0.0	S-8: 7-7.8': Dark brown, Silty CLAY, moist.				
							7.8-8': Gray, Gravelly SAND, moist.			7.8	
8	S-9	8-9				0.0	S-9: Gray, fine to medium SAND, moist.				
9	S-10	9-10				0.0	S-10: Gray, fine to medium SAND, moist.				
10	C-3	10-15	60	48		NR	C-3:				
	S-11	10-11				0.0	S-11: Light brown, fine to medium SAND, moist.				
11	S-12	11-12				0.0	S-12: Light brown, fine to medium SAND, moist.		SAND		
12	S-13	12-13				0.2	S-13: Light brown, fine to medium SAND, moist.				
13	S-14	13-14				0.4	S-14: Light brown, fine to medium SAND, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4417

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4417 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/18/2019 **Finish Date:** 7/18/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.			
15										
	C-4	15-20	60	46		NR	C-4:			
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, moist.			
16										
	S-17	16-17				0.0	S-17: Light brown, fine to medium SAND, moist.		SAND	
17										
	S-18	17-18				0.0	S-18: 17-17.8': Light brown, fine to medium SAND, moist. 17.8-18': Brown, gravelly SAND, moist.			
18										
	S-19	18-19				0.0	S-19: 18-18.5': Brown, gravelly SAND, moist. 18.5-18.7': Brown, CLAY, moist. 18.7-19': No recovery.			18.5
19										
	S-20	19-20				N/A	S-20: No recovery.		CLAY	
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4417

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4418 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/18/2019 **Finish Date:** 7/18/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	57		NR	C-1:	1	TOPSOIL 0.4	
	S-1	0-1				0.2	S-1: 0-0.4': Brown, TOPSOIL, dry.			
1							0.4-1': Brown, Silty CLAY, dry.			
	S-2	1-2				0.5	S-2: Brown, Silty CLAY, dry.	2		No Equipment Installed
2										
	S-3	2-3				0.3	S-3: 2-2.8': Brown, Silty CLAY, dry.	3		
							2.8-3': Brown, Silty CLAY, moist.			
3										
	S-4	3-4				0.1	S-4: Brown, Silty CLAY, moist.			
4					4-5					
	S-5	4-5				0.1	S-5: Brown, Silty CLAY, moist.			
5									CLAY	
	C-2	5-10	60	56		NR	C-2:			
	S-6	5-6				0.6	S-6: Brown, Silty CLAY, trace Sand, moist.			
6					6-7					
	S-7	6-7				0.0	S-7: Brown, Silty CLAY, trace Sand, moist.			
7										
	S-8	7-8				0.0	S-8: Brown, CLAY, trace Silt, moist.			
8										
	S-9	8-9				0.0	S-9: Brown, CLAY, trace Silt, moist.			
9										
	S-10	9-10				0.0	S-10: 9-9.5': Brown, CLAY, trace Silt, moist.		9.5	
							9.5-10': Dark brown, Gravelly SAND, moist.			
10										
	C-3	10-15	60	56		NR	C-3:			
	S-11	10-11				0.0	S-11: Light brown, fine to medium SAND, moist.			
11										
	S-12	11-12				0.0	S-12: Light brown, fine to medium SAND, moist.			
12									SAND	
	S-13	12-13				0.0	S-13: Light brown, fine to medium SAND, moist.			
13										
	S-14	13-14				N/A	S-14: No recovery.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4418

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4418 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/18/2019 **Finish Date:** 7/18/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	39		NR	C-4:				
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, moist.				
16											
	S-17	16-17				0.0	S-17: Light brown, fine to medium SAND, moist.				
17											
	S-18	17-18				0.0	S-18: 17-17.2': Light brown, fine to medium SAND, moist. 17.2-18': Dark brown, Gravelly SAND, moist.			SAND	
18											
	S-19	18-19				0.0	S-19: 18-18.3': Dark brown, Gravelly SAND, moist. 18.3-19': No recovery.				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4418

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4419 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/18/2019 **Finish Date:** 7/18/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	55		NR	C-1:	1	TOPSOIL 0.5	No Equipment Installed
	S-1	0-1				0.0	S-1: 0-0.5': Dark brown, TOPSOIL, moist.			
1	S-2	1-2				0.0	0.5-1': Brown, SILT & CLAY, little fine Sand, moist, roots present.	2	SILT & CLAY 1	
2	S-3	2-3				0.0	S-2: Brown, SILT, some Clay, moist. S-3: Brown, SILT, some Clay, moist.	3	SILT	
3	S-4	3-4				0.0	S-4: Brown, SILT & CLAY, little fine Sand, moist.		3	
4	S-5	4-5			4-5	0.0	S-5: Brown, SILT & CLAY, little fine Sand, moist.		SILT & CLAY	
5	C-2	5-10	60	50		NR	C-2:		5	
	S-6	5-6				0.0	S-6: Brown, Silty CLAY, moist.			
6	S-7	6-7			6-7	0.0	S-7: Brown, Silty CLAY, moist.			
7	S-8	7-8				0.0	S-8: Brown, Silty CLAY, moist.		SILTY CLAY	
8	S-9	8-9				0.0	S-9: 8-8.5': Brown, Silty CLAY, moist. 8.5-9': Light brown, fine to medium SAND, little Silt, moist.		8.5	
9	S-10	9-10				0.0	S-10: 9-9.3': Light brown, fine to medium SAND, little Silt, moist.		SAND 9.3	
10	C-3	10-15	60	44		NR	9.3-9.5': Gray-black, medium to coarse Sandy GRAVEL. 9.5-10': Brown, medium to coarse SAND & GRAVEL, moist. C-3:		SANDY GRAVEL 9.5 SAND & GRAVEL	
	S-11	10-11				0.2				
11	S-12	11-12				0.3	S-11: Light brown, medium to coarse SAND & GRAVEL, little Silt, moist. S-12: Light brown, fine to medium SAND, little Silt, moist.		11	
12	S-13	12-13				0.0	S-13: Light brown, fine to medium SAND, little Silt, moist.		SAND	
13	S-14	13-14				0.1	S-14: Light brown, fine to medium SAND, little Silt, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-4419

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4419 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Roger Christenson	**Start Date:** 7/18/2019 **Finish Date:** 7/18/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		
15									
	C-4	15-20	60	46		NR	C-4:		
	S-16	15-16				0.4	S-16: Light brown, fine to medium SAND, little Silt, moist.		
16									
	S-17	16-17				0.5	S-17: Light brown, fine to medium SAND, little Silt, moist.		
17									
	S-18	17-18				0.2	S-18: Light brown, fine to medium SAND, little Silt, moist.		SAND
18									
	S-19	18-19				0.4	S-19: Light brown, fine to medium SAND, little Silt, moist.		
19									
	S-20	19-20				N/A	S-20: No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4419

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4420
SHEET: 1 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Laurel Klein
Drilling Co.: Stearns Drilling
Foreman: Roger Christenson

Start Date: 7/18/2019
Finish Date: 7/18/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	57		NR	C-1:	1	TOPSOIL	0.3	No Equipment Installed
	S-1	0-1				1.7	S-1: 0-0.3': Brown, TOPSOIL, dry.				
1							0.3-1': Brown, Silty CLAY, dry.				
	S-2	1-2				2.1	S-2: Brown, Silty CLAY, dry.	2			
2	S-3	2-3				0.3	S-3: Brown, Silty CLAY, dry.	3			
3	S-4	3-4				0.7	S-4: Brown, Silty CLAY, dry.				
4	S-5	4-5			4-5	0.5	S-5: Brown, Silty CLAY, dry.				
5									CLAY		
	C-2	5-10	60	60		NR	C-2:				
	S-6	5-6				0.8	S-6: Brown, Silty CLAY, dry.				
6	S-7	6-7			6-7	1.2	S-7: Brown, Silty CLAY, dry.				
7	S-8	7-8				1.3	S-8: 7-7.6': Brown, Silty CLAY, dry.				
							7.6-8': Grayish, Silty CLAY, trace Sand, moist.				
8	S-9	8-9				1.1	S-9: Grayish, Silty CLAY, trace Sand, moist.				
9	S-10	9-10				1.2	S-10: 9-9.2': Grayish, Silty CLAY, trace Sand, moist.			9.2	
							9.2-10': Gray, Gravelly SAND, trace Silt, moist.				
10	C-3	10-15	60	41		NR	C-3:				
	S-11	10-11				0.1	S-11: Light brown, SAND, moist.				
11	S-12	11-12				1.2	S-12: Light brown, SAND, moist.				
									SAND		
12	S-13	12-13				0.4	S-13: Light brown, SAND, moist.				
13	S-14	13-14				1.4	S-14: Light brown, SAND, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:
Laurel Klein

Boring No.:
HS-SB-4420

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4420
SHEET: 2 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Laurel Klein
Drilling Co.: Stearns Drilling
Foreman: Roger Christenson

Start Date: 7/18/2019
Finish Date: 7/18/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	44		NR	C-4:				
	S-16	15-16				2.1	S-16: Light brown, SAND, moist.				
16											
	S-17	16-17				0.3	S-17: Light brown, SAND, moist.				
17											
	S-18	17-18				0.2	S-18: Light brown, SAND, moist.			SAND	
18											
	S-19	18-19				0.1	S-19: Light brown, SAND, moist.				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
Laurel Klein

Boring No.:
HS-SB-4420

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4500
SHEET: 1 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Laurel Klein
Drilling Co.: Stearns Drilling
Foreman: Gary Geerligs

Start Date: 7/25/2019
Finish Date: 7/25/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	50		NR	C-1:	1	TOPSOIL	0.2	
	S-1	0-1				0.2	S-1: 0-0.2': Brown, TOPSOIL.				
1							0.2-1': Brown, Silty CLAY, trace Sand, dry.				
	S-2	1-2				0.0	S-2: Brown, Silty CLAY, trace Sand, dry.	2			No Equipment Installed
2											
	S-3	2-3				0.0	S-3: 2-2.6': Brown, Silty CLAY, trace Sand, dry.	3			
							2.6-3': Brown, Silty CLAY, moist.				
3											
	S-4	3-4				0.0	S-4: Brown, Silty CLAY, moist.				
4											
	S-5	4-5				0.0	S-5: 4-4.2': Brown, Silty CLAY, moist.				
							4.2-5': No recovery.				
5											
	C-2	5-10	60	55	6-7	NR	C-2:				
	S-6	5-6				1.4	S-6: Brown, Silty CLAY, moist.				
6											
	S-7	6-7				1.9	S-7: Brown, Silty CLAY, moist.		CLAY		
7											
	S-8	7-8				2.3	S-8: Brown, Silty CLAY, moist.				
8											
	S-9	8-9				1.6	S-9: Brown, Silty CLAY, moist.				
9											
	S-10	9-10				1.3	S-10: Brown, Silty CLAY, moist.				
10											
	C-3	10-15	60	55		NR	C-3:				
	S-11	10-11				2.1	S-11: Brown, Silty CLAY, moist.				
11											
	S-12	11-12				2.2	S-12: 11-11.9': Brown, Silty CLAY, moist.				
							11.9-12': White, Gravelly SAND, moist.				
12										11.9	
	S-13	12-13				2.8	S-13: 12-12.4': White, Gravelly SAND, moist.				
							12.4-13': Light brown, Gravelly SAND, moist.				
13									SAND		
	S-14	13-14				2.0	S-14: Light brown, Gravelly SAND, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:
Laurel Klein

Boring No.:
HS-SB-4500

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4500 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/25/2019 **Finish Date:** 7/25/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				2.4	S-15: Light brown, Gravelly SAND, moist.				
15											
	C-4	15-20	60	48		NR	C-4:				
	S-16	15-16				2.1	S-16: Light brown, Gravelly SAND, moist.				
16					16-17						
	S-17	16-17				1.4	S-17: Light brown, Gravelly SAND, moist.				
17											
	S-18	17-18				1.5	S-18: Light brown, Gravelly SAND, moist.			SAND	
18											
	S-19	18-19				1.6	S-19: Light brown, Gravelly SAND, moist.				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4500

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4501 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/26/2019 **Finish Date:** 7/26/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	46		NR	C-1:	1	TOPSOIL 0.2	No Equipment Installed
	S-1	0-1				1.7	S-1: 0-0.2': Dark brown, TOPSOIL, moist.			
1							0.2-1': Brown, Silty CLAY, moist.			
	S-2	1-2				1.2	S-2: Brown, Silty CLAY, moist.	2		
2									CLAY	
	S-3	2-3				0.9	S-3: Brown, Silty CLAY, moist.	3		
3										
	S-4	3-4				3.7	S-4: 3-3.2': Grayish-brown, Silty CLAY, trace Waste, moist.	4	3.2	
							3.2-3.8': Black, WASTE, moist.			
4							3.8-4': No recovery.			
	S-5	4-5				N/A	S-5: No recovery.			
5									WASTE	
	C-2	5-10	60	45		NR	C-2:			
	S-6	5-6				19.5	S-6: 5-5.8': Gray-black, WASTE, moist.			
6							5.8-6': Brown, Silty CLAY, trace Waste, moist.		5.9	
	S-7	6-7				5.5	S-7: Brown, CLAY, trace Silt, moist.			
7									CLAY	
	S-8	7-8				2.8	S-8: 7-7.6': Brown CLAY, trace Silt, moist.			
							7.6-8': Light brown, Gravelly SAND, moist.		7.6	
8										
	S-9	8-9				1.8	S-9: Light brown, Gravelly SAND, moist.			
9										
	S-10	9-10				N/A	S-10: No recovery.			
10										
	C-3	10-15	60	40		NR	C-3:			
	S-11	10-11				1.3	S-11: Light brown, Gravelly SAND, moist.			
11									SAND	
	S-12	11-12				1.8	S-12: Light brown, Gravelly SAND, moist.			
12										
	S-13	12-13				1.0	S-13: Light brown, Gravelly SAND, moist.			
13										
	S-14	13-14				N/A	S-14: No recovery.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.2 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. Waste odor noted in sample.

Logger:

Laurel Klein

Boring No.:

HS-SB-4501

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4501
SHEET: 2 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Laurel Klein
Drilling Co.: Stearns Drilling
Foreman: Gary Geerligs

Start Date: 7/26/2019
Finish Date: 7/26/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	52		NR	C-4:				
	S-16	15-16				1.3	S-16: Light brown, fine to medium SAND, moist.				
16											
	S-17	16-17				1.3	S-17: Light brown, fine to medium SAND, moist.				
17											
	S-18	17-18				1.0	S-18: Light brown, fine to medium SAND, moist.			SAND	
18											
	S-19	18-19				1.0	S-19: Light brown, fine to medium SAND, moist.				
19											
	S-20	19-20				0.7	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
Laurel Klein

Boring No.:
HS-SB-4501

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4502 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/26/2019 **Finish Date:** 7/26/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	55		NR	C-1:	1		TOPSOIL	0.2	
	S-1	0-1				0.6	S-1: 0-0.2': Brown, TOPSOIL.					
1							0.2-1': Brown, Silty CLAY, dry.					
	S-2	1-2				0.7	S-2: Brown, Silty CLAY, trace gray color, dry.	2				No Equipment Installed
2												
	S-3	2-3				0.6	S-3: Brown, Silty CLAY, trace gray color, dry.	3				
										CLAY		
3												
	S-4	3-4				0.7	S-4: Brown, Silty CLAY, trace gray color, dry.					
4												
	S-5	4-5				0.7	S-5: Brown, Silty CLAY, trace gray color, dry.					
5											5	
	C-2	5-10	60	48	5-6	NR	C-2:					
	S-6	5-6				0.7	S-6: Dark brown, SAND, trace Silt, trace Clay, moist.					
6												
	S-7	6-7				0.8	S-7: Dark brown, SAND, trace Silt, trace Clay, moist.					
7												
	S-8	7-8			7-8	0.8	S-8: 7-7.2': Dark brown, Sandy CLAY, moist.					
							7.2-8': Dark brown, SAND, moist.					
8												
	S-9	8-9				0.8	S-9: 8-8.2': Dark brown, SAND, moist.					
							8.2-9': Light brown, SAND, moist.					
9										SAND		
	S-10	9-10				N/A	S-10: No recovery.					
10												
	C-3	10-15	60	57		NR	C-3:					
	S-11	10-11				0.7	S-11: Light brown, Gravelly SAND, moist.					
11												
	S-12	11-12				0.9	S-12: Light brown, Gravelly SAND, moist.					
12												
	S-13	12-13				1.0	S-13: 12-12.4': Light brown, Gravelly SAND, moist.				12.4	
							12.4-13': Light brown, CLAY, moist.					
13												
	S-14	13-14				0.8	S-14: Light brown, CLAY, moist.			CLAY		
14												

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4502

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4502 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/26/2019 **Finish Date:** 7/26/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				0.9	S-15: 14-14.8': Light brown, CLAY, moist.				
							14.8-15': No recovery.			CLAY	
15											15
	C-4	15-20	60	54		NR	C-4:			SAND	15.3
	S-16	15-16				0.8	S-16: 15-15.3': Brown, gravelly SAND, moist.				
16							15.3-16': Light brown, CLAY, trace Silt, moist				
	S-17	16-17				0.8	S-17: 16-16.8': Light brown, CLAY, trace Silt, moist.			CLAY	
							16.8-17': Light brown, fine to medium SAND, moist.				16.8
17											
	S-18	17-18				0.8	S-18: Light brown, fine to medium SAND, moist.				
18											
	S-19	18-19				0.7	S-19: Light brown, fine to medium SAND, moist.			SAND	
19											
	S-20	19-20				1.0	S-20: 19-19.3': Light brown, fine to medium SAND, moist.				
							19.3-20': No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4502

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4503 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/26/2019 **Finish Date:** 7/26/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	50		NR	C-1:	1	TOPSOIL 0.3	No Equipment Installed
	S-1	0-1				0.8	S-1: 0-0.3': Brown, TOPSOIL, dry.			
1							0.3-1': Brown, Silty CLAY, dry.			
	S-2	1-2				0.8	S-2: Brown, Silty CLAY, dry.	2	CLAY	
2	S-3	2-3				0.6	S-3: Brown, Silty CLAY, dry.	3		
3	S-4	3-4				1.1	S-4: Brown, fine to medium SAND, trace Silt, moist.		3	
4	S-5	4-5				0.7	S-5: 4-4.2': Brown, fine to medium SAND, trace Silt, moist.		SAND	
							4.2-5': No recovery.			
5	C-2	5-10	60	43	5-6	NR	C-2:		5	
	S-6	5-6				0.7	S-6: Light brown, Silty CLAY, trace Sand, moist.			
6	S-7	6-7				0.6	S-7: Light brown, Silty CLAY, trace Sand, moist.		SILTY CLAY	
7	S-8	7-8			7-8	0.7	S-8: Light brown, Silty CLAY, trace Sand, moist.			
8	S-9	8-9				0.7	S-9: 8-8.6': Brown, gravelly SAND, moist.		8	
							8.6-9': No recovery.			
9	S-10	9-10				N/A	S-10: No recovery.			
10	C-3	10-15	60	42		NR	C-3:			
	S-11	10-11				0.6	S-11: Brown, gravelly SAND, moist.			
11	S-12	11-12				1.0	S-12: Brown, gravelly SAND, moist.		SAND	
12	S-13	12-13				0.7	S-13: Brown, gravelly SAND, moist.			
13	S-14	13-14				0.7	S-14: Brown, gravelly SAND, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.4 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4503

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4503 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/26/2019 **Finish Date:** 7/26/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		
15									
	C-4	15-20	60	51		NR	C-4:		
	S-16	15-16				0.8	S-16: Light brown, fine to medium SAND, moist.		
16									
	S-17	16-17				1.1	S-17: Light brown, fine to medium SAND, moist.		
17									
	S-18	17-18				1.1	S-18: Light brown, fine to medium SAND, moist.		SAND
18									
	S-19	18-19				0.9	S-19: Light brown, fine to medium SAND, moist.		
19									
	S-20	19-20				0.9	S-20: 19-19.2': Light brown, fine to medium SAND, moist. 19.2-20': No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4503

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4504 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/26/2019 **Finish Date:** 7/26/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	56		NR	C-1:	1	TOPSOIL	0.3	
	S-1	0-1				0.6	S-1: 0-0.3': Brown, TOPSOIL, dry.				
1							0.3-1': Brown, Silty CLAY, dry.				
	S-2	1-2				0.8	S-2: Brown, Silty CLAY, dry.	2			No Equipment Installed
2											
	S-3	2-3				0.8	S-3: Brown, Silty CLAY, dry.	3			
3											
	S-4	3-4				0.7	S-4: Brown, Silty CLAY, dry.		CLAY		
4											
	S-5	4-5				0.5	S-5: 4-4.7': Brown, Silty CLAY, dry.				
							4.7-5': No recovery.				
5					5-6						
	C-2	5-10	60	44		NR	C-2:				
	S-6	5-6				0.8	S-6: 5-5.5': Dark brown, Silty CLAY, moist.				
6							5.5-6': Dark brown, Silty CLAY, trace Sand, moist.				
	S-7	6-7				0.9	S-7: 6-6.6': Dark brown, Silty CLAY, trace Sand, moist.				
							6.6'-7': Light brown, Gravelly SAND, moist.			6.6	
7					7-8						
	S-8	7-8				0.6	S-8: Light brown, Gravelly SAND, moist.				
8											
	S-9	8-9				1.1	S-9: 8-8.6': Light brown, Gravelly SAND, moist.				
							8.6-9': No recovery.				
9											
	S-10	9-10				N/A	S-10: No recovery.				
10											
	C-3	10-15	60	37		NR	C-3:		SAND		
	S-11	10-11				0.8	S-11: Light brown, Gravelly SAND, moist.				
11											
	S-12	11-12				0.8	S-12: Light brown, Gravelly SAND, moist.				
12											
	S-13	12-13				0.7	S-13: Light brown, Gravelly SAND, moist.				
13											
	S-14	13-14				0.7	S-14: 13-13.2': Light brown, Gravelly SAND, moist.				
							13.2-14': No recovery.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.5 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4504

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4504
SHEET: 2 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Laurel Klein
Drilling Co.: Stearns Drilling
Foreman: Gary Geerligs

Start Date: 7/26/2019
Finish Date: 7/26/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	50		NR	C-4:				
	S-16	15-16				0.4	S-16: Light brown, fine to medium SAND, moist.				
16											
	S-17	16-17				0.5	S-17: Light brown, fine to medium SAND, moist.				
17											
	S-18	17-18				0.4	S-18: Light brown, fine to medium SAND, moist.			SAND	
18											
	S-19	18-19				0.5	S-19: Light brown, fine to medium SAND, moist.				
19											
	S-20	19-20				0.5	S-20: 19-19.2': Light brown, fine to medium SAND, moist. 19.2-20': No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
Laurel Klein

Boring No.:
HS-SB-4504

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4505 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	56		NR	C-1:	1		
	S-1	0-1				0.0	S-1: 0-0.8': Dark brown, TOPSOIL, moist.		TOPSOIL 0.8	
1							0.8-1': Brown, SILT, some Clay & Sand, moist.		SILT 1	
	S-2	1-2				0.0	S-2: Brown, SILT & CLAY, moist	2		No Equipment Installed
2	S-3	2-3				0.0	S-3: Brown, SILT & CLAY, moist	3		
3	S-4	3-4				0.0	S-4: Brown, SILT & CLAY, moist	4		
4	S-5	4-5				0.0	S-5: Brown, SILT & CLAY, moist			
5	C-2	5-10	60	60		NR	C-2:			
	S-6	5-6				0.0	S-6: Brown, Silty CLAY, rock fragments, moist.		SILT & CLAY	
6	S-7	6-7			6-7	0.0	S-7: Brown, SILT & CLAY, moist			
7	S-8	7-8				0.0	S-8: Brown, SILT & CLAY, rock fragments, moist.			
8	S-9	8-9			8-9	0.0	S-9: Brown, SILT & CLAY, rock fragments, moist.			
9	S-10	9-10				0.0	S-10: Brown, SILT & CLAY, rock fragments, moist.			
10	C-3	10-15	60	46		NR	C-3:		10	
	S-11	10-11				0.0	S-11: Brown, Silty CLAY, moist.		SILTY CLAY	
11	S-12	11-12				0.0	S-12: Brown, medium to coarse SAND, some Silt, moist.		11	
12	S-13	12-13				0.0	S-13: Brown, medium to coarse SAND, some Silt, moist.		SAND	
13	S-14	13-14				0.0	S-14: Brown, medium to coarse SAND, some Silt, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. PID readings may be inaccurate due to high humidity.

Logger:

Makayla Myers

Boring No.:

HS-SB-4505

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4505 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				0.0	S-15: No recovery.		
15									
	C-4	15-20	60	39		NR	C-4:		
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, moist.		
16									
	S-17	16-17				0.0	S-17: Light brown, fine to medium SAND, moist.		SAND
17									
	S-18	17-18				0.0	S-18: Light brown, medium to coarse SAND, some Gravel, moist.		
18									18
	S-19	18-19				0.0	S-19: Brown CLAY, moist.		
19									
	S-20	19-20				0.0	S-20: No recovery.		CLAY
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4505

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4506 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	54		NR	C-1:	1		No Equipment Installed
	S-1	0-1				0.0	S-1: Dark brown, TOPSOIL, moist.		TOPSOIL 1	
1	S-2	1-2				0.0	S-2: Brown, CLAY & SILT, moist.	2		
2	S-3	2-3				0.0	S-3: Brown, CLAY & SILT, moist.	3	CLAY & SILT	
3	S-4	3-4				0.0	S-4: Brown, CLAY & SILT, moist.	4	4	
4	S-5	4-5			4-5	0.0	S-5: Brown, Silty CLAY, moist		SILTY CLAY 5	
5	C-2	5-10	60	56		NR	C-2:			
	S-6	5-6				0.0	S-6: Brown, SILT & CLAY, moist.			
6	S-7	6-7			6-7	0.0	S-7: Brown, SILT & CLAY, moist.			
7	S-8	7-8				0.0	S-8: Brown, SILT & CLAY, moist.		SILT & CLAY	
8	S-9	8-9				0.0	S-9: Brown, SILT & CLAY, moist.			
9	S-10	9-10				0.0	S-10: Brown, SILT & CLAY, moist.			
10	C-3	10-15	60	51		NR	C-3:		10	
	S-11	10-11				0.0	S-11: 10-10.5': Brown, SAND & GRAVEL, moist.		SAND & GRAVEL 10.5	
11	S-12	11-12				0.0	10.5-11': Brown, CLAY & SILT, some Sand, moist. S-12: Brown, CLAY & SILT, some Sand, moist.		CLAY & SILT 12	
12	S-13	12-13				0.0	S-13: Brown, CLAY & SAND, moist.		CLAY & SAND 13	
13	S-14	13-14				0.0	S-14: Light brown, fine to medium SAND, some Silt, moist.		SAND 14	
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. PID readings may be inaccurate due to high humidity.

Logger:

Makayla Myers

Boring No.:

HS-SB-4506

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4506 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				0.0	S-15: Brown, Silty CLAY, moist.			
15										
	C-4	15-20	60	52		NR	C-4:		SILTY CLAY	
	S-16	15-16				0.0	S-16: Brown, Silty CLAY, moist.			
16										16
	S-17	16-17				0.0	S-17: Light brown, medium to coarse SAND & GRAVEL, moist.			
17										
	S-18	17-18				0.0	S-18: Light brown, medium to coarse SAND & GRAVEL, moist.		SAND & GRAVEL	
18										18
	S-19	18-19				0.0	S-19: Brown, CLAY, moist			
19										
	S-20	19-20				0.0	S-20: Brown, CLAY, moist		CLAY	
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4506

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4507 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Depth (ft.) Description	Equipment Installed
	C-1	0-5	60	55		NR	C-1:	1		
	S-1	0-1				0.0	S-1: Brown, Clayey SILT, moist.		TOPSOIL 1	
1	S-2	1-2				0.0	S-2: Brown, Clayey SILT, moist.	2		No Equipment Installed
2	S-3	2-3				0.0	S-3: Brown, Clayey SILT, moist.	3	CLAYEY SILT 3	
3	S-4	3-4				0.0	S-4: Brown, Silty CLAY, moist.	4		
4	S-5	4-5				0.0	S-5: Brown, Silty CLAY, moist.			
5	C-2	5-10	60	60		NR	C-2:			
	S-6	5-6				0.0	S-6: Brown, Silty CLAY, moist.			
6	S-7	6-7			6-7	0.0	S-7: Brown, Silty CLAY, moist.			
7	S-8	7-8				0.0	S-8: Brown, Silty CLAY, moist.		SILTY CLAY	
8	S-9	8-9			8-9	0.0	S-9: Brown, Silty CLAY, little fine Sand, moist.			
9	S-10	9-10				0.0	S-10: Brown, Silty CLAY, moist.			
10	C-3	10-15	60	43		NR	C-3:			
	S-11	10-11				0.0	S-11: Brown, Silty CLAY, moist.			
11	S-12	11-12				0.0	S-12: Brown, CLAY & GRAVEL, rock fragments, moist.		11 CLAY & GRAVEL 12	
12	S-13	12-13				0.0	S-13: Brown, Gravelly SAND, some Clay, moist.			
13	S-14	13-14				0.0	S-14: Brown, Gravelly SAND, some Clay, moist.		GRAVEL & SAND	
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. PID readings may be inaccurate due to high humidity.

Logger:

Makayla Myers

Boring No.:

HS-SB-4507

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4507 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		GRAVEL & SAND
15									15
	C-4	15-20	60	38		NR	C-4:		
	S-16	15-16				0.0	S-16: Brown, medium to coarse SAND, moist		
16									
	S-17	16-17				0.0	S-17: Light brown, fine to medium SAND, little Silt, moist.		
17									
	S-18	17-18				0.0	S-18: Light brown, fine to medium SAND, little Silt, moist.		SAND
18									
	S-19	18-19				0.0	S-19: Light brown, fine to medium SAND, little Silt, moist.		
19									
	S-20	19-20				N/A	S-20: No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4507

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4508 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Stratum Description	Elev. (ft.) / Depth (ft.)	Equipment Installed
	C-1	0-5	60	51		NR	C-1:	1	TOPSOIL	0.5	No Equipment Installed
	S-1	0-1				0.0	S-1: 0-0.5': Dark brown, TOPSOIL, moist.				
1							0.5'-1': Brown, Clayey SILT, moist.				
	S-2	1-2				0.0	S-2: Brown, Clayey SILT, moist.	2	CLAYEY SILT	2	
2	S-3	2-3				0.0	S-3: Brown, SILT & CLAY, moist.	3			
3	S-4	3-4				0.0	S-4: Brown, SILT & CLAY, moist.	4	SILT & CLAY	4	
4	S-5	4-5				0.0	S-5: Brown, Silty CLAY, moist.		SILTY CLAY	5	
5	C-2	5-10	60	56		NR	C-2:				
	S-6	5-6				0.0	S-6: Brown, CLAY, moist.				
6	S-7	6-7			6-7	0.0	S-7: Gray, CLAY, little Silt, rock fragments, moist.		CLAY		
7	S-8	7-8				0.0	S-8: Gray, CLAY, little Silt, rock fragments, moist.			8	
8	S-9	8-9			8-9	0.0	S-9: Brown and gray, SILT & CLAY, moist.		SILT & CLAY	9	
9	S-10	9-10				0.0	S-10: Gray, fine SAND, some Silt, moist.		SAND	10.5	
10	C-3	10-15	60	51		NR	C-3:				
	S-11	10-11				0.0	S-11: 10-10.5': Gray, fine SAND, some Silt, moist.				
11							10.5'-11': Brown and Gray, Silty CLAY, moist.				
	S-12	11-12				0.0	S-12: Brown and Gray, Silty CLAY, moist.		SILTY CLAY	12.3	
12	S-13	12-13				0.0	S-13: 12-12.3': Brown and Gray, Silty CLAY, moist.				
							12.3-13': Brown, coarse SAND & GRAVEL, little Silt, moist.		SAND & GRAVEL	13	
13	S-14	13-14				0.0	S-14: Brown, medium to coarse SAND, moist.		SAND		
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. PID readings may be inaccurate due to high humidity.

Logger:

Makayla Myers

Boring No.:

HS-SB-4508

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4508 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				0.0	S-15: Brown, medium to coarse SAND, moist.				
15											
	C-4	15-20	60	46		NR	C-4:				
	S-16	15-16				0.0	S-16: Brown, medium to coarse SAND, moist.				
16											
	S-17	16-17				0.0	S-17: Light brown, fine SAND, little Silt, moist.				
17											
	S-18	17-18				0.0	S-18: Light brown, fine SAND, little Silt, moist.			SAND	
18											
	S-19	18-19				0.0	S-19: Light brown, fine SAND, little Silt, moist.				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4508

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4600 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	45		NR	C-1:	1	TOPSOIL	0.2	No Equipment Installed
	S-1	0-1				0.0	S-1: 0-0.2': Brown, TOPSOIL, dry.				
1	S-2	1-2				0.0	0.2-1': Brown, Silty CLAY, trace Sand, dry, leather fragments present.	2			
2	S-3	2-3				0.0	S-2: Brown, Silty CLAY, trace Sand, dry, leather fragments present. S-3: Brown, Silty CLAY, trace Sand, dry, leather fragments present.	3			
3	S-4	3-4				0.0	S-4: Brown, Silty CLAY, trace Sand, dry, leather fragments present.	4	CLAY		
4	S-5	4-5				0.0	S-5: No recovery.				
5	C-2	5-10	60	32	5-6	NR	C-2:				
	S-6	5-6				0.0	S-6: 5-5.5': Brown, Silty CLAY, trace Sand, dry.			5.5	
6	S-7	6-7				0.0	5.5-6': Light brown SAND, moist. S-7: 6-6.5': Light brown SAND, moist. 6.5-7': Brown, Silty CLAY, moist.		SAND	6.5	
7	S-8	7-8				0.0	S-8: Brown, Silty CLAY, moist.		CLAY		
8	S-9	8-9				0.0	S-9: No recovery.			8	
9	S-10	9-10				N/A	S-10: No recovery.				
10	C-3	10-15	60	53	10-11	NR	C-3:				
	S-11	10-11				0.0	S-11: 10-10.7': Dark brown, Silty SAND, leather fragments, moist.				
11	S-12	11-12				0.0	10.7-11': Light brown, SAND, moist. S-12: Light brown, SAND, moist.		SAND		
12	S-13	12-13				0.0	S-13: Light brown, SAND, moist.				
13	S-14	13-14				0.0	S-14: Light brown, SAND, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. PID readings may be inaccurate due to high humidity.

Logger:

Laurel Klein

Boring No.:

HS-SB-4600

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4600 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				0.0	S-15: 14-14.6': Light brown, SAND, moist. 14.6-15': No recovery.				
15	C-4	15-20	60	60		NR	C-4:			SAND	
	S-16	15-16				0.0	S-16: 15-15.8': Light brown, SAND, leather fragments, moist.				15.8
16	S-17	16-17				0.0	15.8-15.9': Dark brown, Silty CLAY, moist. 15.9-16': Brown SAND, moist.			CLAY	15.9
17	S-18	17-18				0.0	S-17: Brown SAND, moist. S-18: Brown SAND, moist.				
18	S-19	18-19				0.0	S-19: Brown SAND, moist.			SAND	
19	S-20	19-20				0.0	S-20: Brown SAND, moist.				
20							End of exploration at 20 feet.				20
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4600

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4601 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	52		NR	C-1:	1	TOPSOIL	0.3	
	S-1	0-1				0.0	S-1: 0-0.3': Brown, TOPSOIL, dry.				
1							0.3-1': Brown, Silty CLAY, dry.				
	S-2	1-2				0.0	S-2: Brown, Silty CLAY, dry.	2			No Equipment Installed
2	S-3	2-3				0.0	S-3: Brown, Silty CLAY, dry.	3			
3	S-4	3-4				0.0	S-4: Brown, Silty CLAY, dry.	4			
									CLAY		
4	S-5	4-5				0.0	S-5: Brown, Silty CLAY, dry.				
5	C-2	5-10	60	47		NR	C-2:				
	S-6	5-6				0.0	S-6: 5-5.4': Brown, Silty CLAY, dry.				
6							5.4-6': Brown, Silty CLAY, moist.				
	S-7	6-7				0.0	S-7: 6-6.8': Brown, Silty CLAY, moist.				
							6.8-7': Gray, WASTE.			6.8	
7	S-8	7-8				8.5	S-8: Gray, WASTE.				
									WASTE		
8	S-9	8-9				0.0	S-9: 8-8.2': Gray, WASTE.			8.3	
							8.2-8.3': Black, WASTE.				
9							8.3-8.9': Light brown, fine SAND, moist.				
	S-10	9-10				N/A	S-10: No recovery.		SAND		
10										10	
	C-3	10-15	60	56		NR	C-3:		WASTE	10.3	
	S-11	10-11				0.0	S-11: 10-10.3': Gray, WASTE.				
11							10.3-11': Light brown, fine SAND, moist.				
	S-12	11-12				0.0	S-12: Light brown, fine SAND, moist.				
12	S-13	12-13				0.0	S-13: Light brown, fine SAND, moist.		SAND		
13	S-14	13-14				0.0	S-14: Light brown, fine SAND, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. PID readings may be inaccurate due to high humidity.

Logger:

Laurel Klein

Boring No.:

HS-SB-4601

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4601 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				0.0	S-15: 14-14.7': Light brown, fine SAND, moist. 14.7-15': No recovery.				
15	C-4	15-20	60	51		NR	C-4:				
	S-16	15-16				2.0	S-16: Light brown, fine SAND, trace Waste, moist.				
16	S-17	16-17				0.0	S-17: Light brown, fine SAND, moist.				
17	S-18	17-18				0.0	S-18: Light brown, fine SAND, moist.			SAND	
18	S-19	18-19				0.0	S-19: Light brown, fine SAND, moist.				
19	S-20	19-20				0.0	S-20: 19-19.2': Light brown, fine SAND, moist. 19.2-20': No recovery.				
20							End of exploration at 20 feet.				20
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4601

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4602 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	49		NR	C-1:		TOPSOIL	0.3	
	S-1	0-1				0.0	S-1: 0-0.3': Brown, TOPSOIL, dry.				
1							0.3-1': Brown, Silty CLAY, trace Sand, dry.				
	S-2	1-2				0.0	S-2: Brown, Silty CLAY, trace Sand, dry.				No Equipment Installed
2	S-3	2-3				0.0	S-3: Brown, Silty CLAY, trace Sand, dry.				
3	S-4	3-4				0.0	S-4: Brown, Silty CLAY, trace Sand, dry.		CLAY		
4	S-5	4-5			4-5	0.0	S-5: Brown, Silty CLAY, trace Sand, dry.				
5	C-2	5-10	60	45		NR	C-2:				
	S-6	5-6				0.0	S-6: Brown, Silty CLAY, trace Sand, dry.				
6	S-7	6-7			6-7	0.0	S-7: 6-6.7': Brown, Silty CLAY, trace Sand, dry.				
							6.7-6.8': Gray, WASTE.			6.5	
7							6.8-7': Light brown, fine SAND, moist.		WASTE	6.8	
	S-8	7-8				0.0	S-8: 7-7.4': Light brown, fine SAND, moist.				
							7.4-7.8': Brown, CLAY, trace Silt & Sand, moist.				
8							7.8-8': Light brown, fine SAND, moist.				
	S-9	8-9				0.0	S-9: Light brown, fine SAND, moist.				
9	S-10	9-10				N/A	S-10: No recovery.				
10	C-3	10-15	60	60		NR	C-3:				
	S-11	10-11				0.0	S-11: Light brown, fine to medium SAND, moist.		SAND		
11	S-12	11-12				0.0	S-12: Light brown, fine to medium SAND, moist.				
12	S-13	12-13				0.0	S-13: Light brown, fine to medium SAND, moist.				
13	S-14	13-14				0.0	S-14: Light brown, fine to medium SAND, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4602

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4602 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				0.0	S-15: Light brown, fine to medium SAND, moist.				
15											
	C-4	15-20	60	60		NR	C-4:				
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, moist.				
16											
	S-17	16-17				0.0	S-17: Light brown, fine to medium SAND, moist.				
17											
	S-18	17-18				0.0	S-18: Light brown, fine to medium SAND, moist.			SAND	
18											
	S-19	18-19				0.0	S-19: Light brown, fine to medium SAND, moist.				
19											
	S-20	19-20				0.0	S-20: Light brown, fine to medium SAND, moist.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4602

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4603 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	47		NR	C-1:	1	TOPSOIL	0.3	No Equipment Installed
	S-1	0-1				0.0	S-1: 0-0.3': Brown, TOPSOIL, moist.				
1	S-2	1-2				0.0	0.3-0.7': Dark brown, Silty CLAY, dry, leather fragments present.	2			
							0.7-1': Dark brown, Silty CLAY, moist.				
2	S-3	2-3			2-3	0.0	S-2: Dark brown, Silty CLAY, moist S-3: 2-2.7': Dark brown, Silty CLAY, moist	3			
3	S-4	3-4				0.0	2.7-2.8': Black, WASTE, some Silty CLAY, leather fragments present. 2.8-3': Dark brown, Silty CLAY, moist.				
4	S-5	4-5				N/A	S-4: Dark brown, Silty CLAY, moist. S-5: No recovery.		CLAY		
5	C-2	5-10	60	49		NR	C-2:				
	S-6	5-6				0.4	S-6: 5-5.5': Dark brown, Silty CLAY, leather fragments present.				
6	S-7	6-7				0.0	5.5-6': Brown, CLAY, moist. S-7: No recovery.				
7	S-8	7-8				0.0	S-8: Brown, CLAY, moist.				
8	S-9	8-9				0.0	S-9: 8-8.4': Brown, CLAY, moist.			8.4	
							8.4-8.7': Brown, SAND, trace Silt, moist.				
9	S-10	9-10				0.0	8.7-9.0': Light brown, SAND, moist. S-10: Light brown, SAND, moist.		SAND		
10	C-3	10-15	60	53		NR	C-3:				
	S-11	10-11				0.0	S-11: 10-10.8': Light brown, SAND, moist.			10.8	
11	S-12	11-12				0.0	10.8-11': Brown, Silty CLAY, moist. S-12: 11-11.1': Brown, Silty CLAY, moist.		CLAY	11.1	
							11.1-12': Light brown, fine to medium SAND, moist.				
12	S-13	12-13			12-13	0.0	S-13: Light brown, fine to medium SAND, moist.		SAND		
13	S-14	13-14				0.0	S-14: Light brown, fine to medium SAND, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4603

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4603 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/29/2019 **Finish Date:** 7/29/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				0.0	S-15: Light brown, fine to medium SAND, Clay lenses, moist.		
15	C-4	15-20	60	60		NR	C-4:		
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, moist.		
16	S-17	16-17				0.0	S-17: Light brown, fine to medium SAND, moist.		
17	S-18	17-18				0.0	S-18: Light brown, fine to medium SAND, moist.		SAND
18	S-19	18-19				0.0	S-19: Light brown, fine to medium SAND, moist.		
19	S-20	19-20				0.0	S-20: Light brown, fine to medium SAND, moist.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4603

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4509 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/30/2019 **Finish Date:** 7/30/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	48		NR	C-1:	1	TOPSOIL	0.3	No Equipment Installed
	S-1	0-1				0.0	S-1: 0-0.3': Dark brown, TOPSOIL, moist.				
1							0.3-1': Brown, Clayey SILT, moist.		CLAYEY SILT		
	S-2	1-2				0.0	S-2: 1-1.5': Brown, Clayey SILT, moist.	2		1.5	
							1.5-2': Brown, CLAY & SILT, moist.				
2	S-3	2-3				0.0	S-3: Brown, CLAY & SILT, moist.	3	CLAY & SILT		
3	S-4	3-4				3.6	S-4: Brown, CLAY, Waste, moist.			3	
4	S-5	4-5				N/A	S-5: No recovery.		CLAY & WASTE		
5	C-2	5-10	60	56		NR	C-2:		WASTE	5 / 5.3	
	S-6	5-6				0.8	S-6: 5-5.3': Black, WASTE, moist.				
6							5.3-6': Gray, fine SAND & CLAY, moist.		SAND & CLAY		
	S-7	6-7				0.8	S-7: 6-6.5': Gray, fine SAND & CLAY, moist.			6.5	
							6.5-7': Gray, CLAY, moist.		CLAY		
7	S-8	7-8				0.9	S-8: Brown, Silty CLAY, moist.			7	
8	S-9	8-9				1.0	S-9: Brown, Silty CLAY, moist.		SILTY CLAY		
9	S-10	9-10				0.8	S-10: Brown, Silty CLAY, moist.				
10	C-3	10-15	60	47		NR	C-3:			10	
	S-11	10-11				0.8	S-11: Brown, medium to coarse SAND, little Clay & Silt, moist.				
11	S-12	11-12				0.6	S-12: Brown, medium to coarse SAND, little Clay & Silt, moist.		SAND		
12	S-13	12-13				0.7	S-13: Brown, medium to coarse SAND, little Clay & Silt, moist.				
13	S-14	13-14				0.6	S-14: 13-13.5': Brown, medium to coarse SAND, little Clay & Silt, moist.			13.5	
14							13.5-14': Brown, CLAY, moist.		CLAY		

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-4509

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4509 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/30/2019 **Finish Date:** 7/30/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		
15									CLAY
	C-4	15-20	60	51		NR	C-4:		
	S-16	15-16				0.3	S-16: 15-15.5': Brown, CLAY, moist.		15.5
16							15.5-16': Light brown, fine to medium SAND, Clay lenses, moist.		
	S-17	16-17				0.9	S-17: Light brown, fine to medium SAND, moist.		
17									
	S-18	17-18				0.8	S-18: Light brown, fine to medium SAND, moist.		
18									SAND
	S-19	18-19				0.9	S-19: Light brown, fine to medium SAND, moist.		
19									
	S-20	19-20				0.6	S-20: Light brown, fine to medium SAND, moist.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4509

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/10/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4510 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/30/2019 **Finish Date:** 7/30/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	52		0.0	C-1:	1		No Equipment Installed
	S-1	0-1				0.3	S-1: 0-0.8': Dark brown, TOPSOIL, moist.		TOPSOIL 0.8	
1							0.8-1': Brown, Clayey SILT, moist.			
	S-2	1-2				0.3	S-2: Brown, Clayey SILT, moist.	2	CLAYEY SILT 2	
2	S-3	2-3				0.3	S-3: Brown, CLAY & fine SAND, little Silt, moist.	3		
3	S-4	3-4				0.6	S-4: 3-3.8': Brown, CLAY & fine SAND, little Silt, moist.		CLAY & SAND 3.8	
							3.8-4': Brown, fine to medium SAND, moist.			
4	S-5	4-5				0.4	S-5: Brown, fine to medium SAND, moist.			
5	C-2	5-10	60	48	5-6	0.0	C-2:			
	S-6	5-6				0.1	S-6: Brown, fine to medium SAND, some Clay, moist.			
6	S-7	6-7				0.0	S-7: Brown, fine to medium SAND, some Clay, moist.			
7	S-8	7-8			7-8	0.0	S-8: Brown, fine to medium SAND, some Clay, moist.			
8	S-9	8-9				0.0	S-9: Brown, fine to medium SAND, some Clay, moist.			
9	S-10	9-10				N/A	S-10: No recovery.		SAND	
10	C-3	10-15	60	48		NR	C-3:			
	S-11	10-11				0.0	S-11: Light brown, fine to medium SAND, little Silt, moist.			
11	S-12	11-12				0.1	S-12: 11-11.5': Light brown, fine to medium SAND, little Silt, moist.			
12	S-13	12-13				0.1	11.5-12': Light brown, medium to coarse SAND, some Clay, little Silt, moist. S-13: Light brown, medium to coarse SAND, some Clay, little Silt, moist.			
13	S-14	13-14				0.1	S-14: Light brown, fine to medium SAND, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-4510

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4510 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/30/2019 **Finish Date:** 7/30/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	56		NR	C-4:				
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, moist.				
16											
	S-17	16-17				0.0	S-17: Light brown, fine to medium SAND, moist.			SAND	
17											
	S-18	17-18				0.0	S-18: Light brown, fine to medium SAND, moist.				
18											18
	S-19	18-19				0.0	S-19: Brown, Silty CLAY, moist.				
19											
	S-20	19-20				0.0	S-20: Brown, Silty CLAY, moist.			SILTY CLAY	
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4510

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4511 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/30/2019 **Finish Date:** 7/30/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	56		NR	C-1:	1		
	S-1	0-1				0.2	S-1: Brown, SILT, some Clay, moist.			
1	S-2	1-2				0.5	S-2: Brown, SILT, some Clay, moist.	2	SILT	No Equipment Installed
2									2	
	S-3	2-3				0.3	S-3: Brown, CLAY & SILT, moist	3		
3	S-4	3-4				0.2	S-4: Brown, CLAY & SILT, moist			
4	S-5	4-5				0.2	S-5: Brown, CLAY & SILT, moist			
5	C-2	5-10	60	56	5-6	NR	C-2:			
	S-6	5-6				0.0	S-6: Brown, CLAY & SILT, moist.			
6	S-7	6-7				0.0	S-7: Brown, CLAY & SILT, moist.			
7	S-8	7-8			7-8	0.3	S-8: Brown, CLAY & SILT, moist.			
8	S-9	8-9				0.3	S-9: Brown, CLAY & SILT, rock fragments, moist.		CLAY & SILT	
9	S-10	9-10				0.1	S-10: Brown, CLAY & SILT, moist.			
10	C-3	10-15	60	57		0.0	C-3:			
	S-11	10-11				0.2	S-11: Brown, CLAY & SILT, moist.			
11	S-12	11-12				0.0	S-12: Brown, CLAY & SILT, moist.			
12	S-13	12-13				0.1	S-13: Brown, CLAY & SILT, rock fragments, moist.			
13	S-14	13-14				0.1	S-14: 13-13.3': Brown, CLAY & SILT, moist.		13.3	
14							13.3-14': Brown, medium to coarse SAND, some Clay, moist.		SAND	

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-4511

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4511 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/30/2019 **Finish Date:** 7/30/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				0.0	S-15: 14-14.3': Brown, medium to coarse SAND, some Clay, moist.				14.3
15							14.3-15': Brown, CLAY & SILT, moist.			CLAY & SILT	15
	C-4	15-20	60	56		0.0	C-4:				
	S-16	15-16				0.1	S-16: Brown, CLAY, trace Silt & Sand, moist.				
16											
	S-17	16-17				0.0	S-17: Brown, CLAY, trace Silt & Sand, moist.				
17											
	S-18	17-18				0.0	S-18: Brown, CLAY, trace Silt & Sand, moist.			CLAY	
18											
	S-19	18-19				0.3	S-19: Brown, CLAY, trace Silt & Sand, moist.				
19											
	S-20	19-20				0.3	S-20: 19-19.3': Brown, CLAY, trace Silt & Sand, moist.				
							19.3-20': Light brown, fine to medium SAND, moist.				19.5
20										SAND	20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4511

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4604
SHEET: 1 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Laurel Klein
Drilling Co.: Stearns Drilling
Foreman: Thomas Ulrich

Start Date: 7/30/2019
Finish Date: 7/30/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Stratum Description	Elev. (ft.) / Depth (ft.)	Equipment Installed
	C-1	0-5	60	45		0.0	C-1:	1	TOPSOIL	0.4	No Equipment Installed
	S-1	0-1				1.3	S-1: 0-0.4': Brown, TOPSOIL, dry.				
1							0.4-1': Brown, Silty CLAY, dry, leather fragments present.				
	S-2	1-2				1.6	S-2: Brown, Silty CLAY, dry.	2			
2											
	S-3	2-3				1.1	S-3: 2-2.5': Brown, Silty CLAY, dry.	3			
							2.5-2.8': Roots/organic matter.				
3							2.8-3': Brown, Silty CLAY, dry.				
	S-4	3-4				0.4	S-4: Brown, Silty CLAY, dry.		CLAY		
4											
	S-5	4-5				N/A	S-5: No recovery.				
5											
	C-2	5-10	60	46		0.0	C-2:				
	S-6	5-6				0.8	S-6: 5-5.6': Brown, Silty CLAY, dry.				
6							5.6-6': Light brown, Silty CLAY, trace Sand, moist.				
	S-7	6-7				1.2	S-7: 6-6.4': Brown, CLAY, moist.			6.4	
							6.4-7': Light brown, fine to medium SAND, moist.				
7											
	S-8	7-8				0.9	S-8: Light brown, fine to medium SAND, moist.				
8											
	S-9	8-9				1.5	S-9: Light brown, fine to medium SAND, moist.				
9											
	S-10	9-10				N/A	S-10: No recovery.				
10											
	C-3	10-15	60	56		0.0	C-3:		SAND		
	S-11	10-11				1.4	S-11: 10-10.9': Light brown, fine to medium SAND, moist.				
11							10.9-11': Brown, SILT & SAND, moist.				
	S-12	11-12				1.3	S-12: 11-11.1': Brown, SILT & SAND, moist.				
							11.1-12': Light brown, fine to medium SAND, moist.				
12					12-13						
	S-13	12-13				1.0	S-13: Light brown, fine to medium SAND, moist.				
13											
	S-14	13-14				1.3	S-14: Light brown, fine to medium SAND, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:
Laurel Klein

Boring No.:
HS-SB-4604

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4604 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/30/2019 **Finish Date:** 7/30/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15			14-15	1.9	S-15: 14-14.7': Light brown, fine to medium SAND, moist. 14.7-15': No recovery.				
15	C-4	15-20	60	56		0.0	C-4:				
	S-16	15-16				1.2	S-16: Light brown, fine to medium SAND, moist.				
16	S-17	16-17				1.1	S-17: 16-16.2': Brown, Gravelly SAND. 16.2-17': Brown, Silty fine SAND, wet.				
17	S-18	17-18				1.1	S-18: Brown, Silty fine SAND, wet.			SAND	
18	S-19	18-19				1.3	S-19: Brown, Silty fine SAND, wet.				
19	S-20	19-20				2.2	S-20: Brown, Silty fine SAND, wet.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4604

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4605 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/30/2019 **Finish Date:** 7/30/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	48		0.0	C-1:	1	TOPSOIL 0.3	
	S-1	0-1				0.8	S-1: 0-0.3': Brown, TOPSOIL, dry.			
1							0.3-1': Brown, Silty CLAY, dry.			
	S-2	1-2				0.6	S-2: Brown, Silty CLAY, dry.	2		No Equipment Installed
2										
	S-3	2-3				0.4	S-3: 2-2.5': Brown, Silty CLAY, trace Sand, moist.	3		
							2.5-3': Light brown, Silty CLAY, moist.			
3										
	S-4	3-4				0.6	S-4: Brown, Silty CLAY, moist.		CLAY	
4										
	S-5	4-5				N/A	S-5: No recovery.			
5										
	C-2	5-10	60	46	5-6	0.0	C-2:			
	S-6	5-6				0.0	S-6: Brown, CLAY, moist.			
6									6	
	S-7	6-7				0.8	S-7: Light brown, fine to medium SAND, moist.			
7										
	S-8	7-8			7-8	0.5	S-8: Light brown, fine to medium SAND, moist.			
8										
	S-9	8-9				0.7	S-9: Light brown, fine to medium SAND, moist.			
9										
	S-10	9-10				0.7	S-10: No recovery.			
10										
	C-3	10-15	60	50		NR	C-3:		SAND	
	S-11	10-11				0.6	S-11: Light brown, fine to medium SAND, moist.			
11										
	S-12	11-12				0.3	S-12: Light brown, fine to medium SAND, moist.			
12										
	S-13	12-13				0.5	S-13: Light brown, fine to medium SAND, moist.			
13										
	S-14	13-14				0.4	S-14: Light brown, fine to medium SAND, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4605

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4605 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/30/2019 **Finish Date:** 7/30/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				0.1	S-15: 14-14.2': Light brown, fine to medium SAND, moist. 14.2-15': No recovery.				
15	C-4	15-20	60	60		0.0	C-4:				
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, moist.				
16	S-17	16-17				0.0	S-17: Light brown, fine to medium SAND, moist.				
17	S-18	17-18				0.0	S-18: Light brown, fine to medium SAND, moist.			SAND	
18	S-19	18-19				0.0	S-19: Light brown, fine to medium SAND, moist.				
19	S-20	19-20				0.0	S-20: Light brown, fine to medium SAND, moist.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4605

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4606
SHEET: 1 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Laurel Klein
Drilling Co.: Stearns Drilling
Foreman: Thomas Ulrich

Start Date: 7/30/2019
Finish Date: 7/30/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	36		0.0	C-1:	1	TOPSOIL	0.3	No Equipment Installed
	S-1	0-1				0.0	S-1: 0-0.3': Brown, TOPSOIL, dry.				
1							0.3-1': Brown, Silty CLAY, dry.				
	S-2	1-2				0.0	S-2: Brown, Silty CLAY, dry.	2	CLAY		
2										2	
	S-3	2-3				0.0	S-3: Light brown, Silty SAND, moist.	3			
3											
	S-4	3-4				N/A	S-4: No recovery.		SAND		
4											
	S-5	4-5				N/A	S-5: No recovery.				
5										5	
	C-2	5-10	60	44	5-6	0.0	C-2:				
	S-6	5-6				0.0	S-6: Brown, Silty CLAY, moist.				
6											
	S-7	6-7				0.0	S-7: Brown, Silty CLAY, moist.		CLAY		
7											
	S-8	7-8			7-8	0.0	S-8: 7-7.5': Brown, Silty CLAY, moist.				
							7.5-8': Light brown, Silty SAND, moist.			7.5	
8											
	S-9	8-9				0.0	S-9: 8-8.7': Light brown, Silty SAND, moist.				
							8.7-9': No recovery.				
9											
	S-10	9-10				N/A	S-10: No recovery.		SAND		
10											
	C-3	10-15	60	53		0.0	C-3:				
	S-11	10-11				0.0	S-11: 10-10.6': Light brown, fine to medium SAND, moist.			10.6	
11							10.6-11': Brown, Silty CLAY, moist.		CLAY	11	
	S-12	11-12				0.0	S-12: Light brown, fine to medium SAND, moist.				
12											
	S-13	12-13				0.0	S-13: Light brown, fine to medium SAND, moist.		SAND		
13											
	S-14	13-14				0.0	S-14: Light brown, fine to medium SAND, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:
Laurel Klein

Boring No.:
HS-SB-4606

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4606 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/30/2019 **Finish Date:** 7/30/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				0.0	S-15: 14-14.4': Light brown, fine to medium SAND, moist. 14.4-15': No recovery.				
15	C-4	15-20	60	60		0.0	C-4:				
	S-16	15-16				0.1	S-16: Light brown, fine to medium SAND, moist.				
16	S-17	16-17				0.1	S-17: Light brown, fine to medium SAND, moist.				
17	S-18	17-18				0.0	S-18: Light brown, fine to medium SAND, moist.			SAND	
18	S-19	18-19				0.0	S-19: Light brown, fine to medium SAND, moist.				
19	S-20	19-20				0.0	S-20: Light brown, fine to medium SAND, moist.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4606

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4607 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/30/2019 **Finish Date:** 7/30/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	52		0.0	C-1:	1	TOPSOIL 0.3	
	S-1	0-1				0.0	S-1: 0-0.3': Brown, TOPSOIL, dry.			
1							0.3-1': Brown, Silty CLAY, dry.			
	S-2	1-2				0.0	S-2: Brown, Silty CLAY, dry.	2		No Equipment Installed
2	S-3	2-3				0.0	S-3: Brown, Silty CLAY, dry.	3		
3	S-4	3-4				0.0	S-4: Brown, Silty CLAY, dry.			
4	S-5	4-5			4-5	0.0	S-5: 4-4.5': Brown, Silty CLAY, dry.			
							4.5-5': No recovery.			
5	C-2	5-10	60	35		0.0	C-2:		CLAY	
	S-6	5-6				0.0	S-6: Brown, Silty CLAY, moist.			
6	S-7	6-7			6-7	0.0	S-7: Brown, Silty CLAY, moist.			
7	S-8	7-8				0.0	S-8: 7-7.7': Brown, Silty CLAY, moist.			
							7.7-8': Rocks.			
8	S-9	8-9				N/A	S-9: No recovery.			
9	S-10	9-10				N/A	S-10: No recovery.			
10	C-3	10-15	60	51		0.0	C-3:		10	
	S-11	10-11				0.0	S-11: Light brown, fine to medium SAND, moist.			
11	S-12	11-12				0.0	S-12: Light brown, fine to medium SAND, moist.			
12	S-13	12-13				0.0	S-13: Light brown, fine to medium SAND, moist.		SAND	
13	S-14	13-14				0.0	S-14: Light brown, fine to medium SAND, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4607

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4607 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/30/2019 **Finish Date:** 7/30/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				0.0	S-15: 14-14.2': Light brown, fine to medium SAND, moist. 14.2-15': No recovery.				
15											
	C-4	15-20	60	60		0.0	C-4:			SAND	
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, moist.				
16											
	S-17	16-17				0.0	S-17: 16-16.2': Light brown, fine to medium SAND, moist. 16.2-16.3': Brown, Silty CLAY. 16.3-17': Light brown, fine to medium SAND, moist.			CLAY	16.2 16.3
17											
	S-18	17-18				0.0	S-18: Light brown, fine to medium SAND, moist.				
18											
	S-19	18-19				0.0	S-19: Light brown, fine to medium SAND, moist.			SAND	
19											
	S-20	19-20				0.0	S-20: Light brown, fine to medium SAND, moist.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4607

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4608 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/30/2019 **Finish Date:** 7/30/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	47		0.0	C-1:	1	TOPSOIL	0.3	
	S-1	0-1				0.7	S-1: 0-0.3': Brown, TOPSOIL, dry.				
1							0.3-1': Light brown, Silty CLAY, dry.				
	S-2	1-2				1.3	S-2: Light brown, Silty CLAY, dry.	2			No Equipment Installed
2											
	S-3	2-3				1.0	S-3: 2-2.3': Light brown, Silty CLAY, dry.	3			
							2.3-3': Brown, Silty CLAY, moist.				
3											
	S-4	3-4				1.3	S-4: Brown, Silty CLAY, moist.				
4											
	S-5	4-5				N/A	S-5: No recovery.		CLAY		
5											
	C-2	5-10	60	60		0.0	C-2:				
	S-6	5-6				0.0	S-6: Brown, Silty CLAY, moist				
6											
	S-7	6-7				0.0	S-7: rown, Silty CLAY, moist.				
7											
	S-8	7-8			7-8	0.0	S-8: rown, Silty CLAY, moist.				
8										8	
	S-9	8-9				0.0	S-9: 8-8.6': Brown, Silty SAND.				
							8.6-9': Light brown, fine to medium SAND.				
9											
	S-10	9-10				0.0	S-10: Light brown, fine to medium SAND.				
10											
	C-3	10-15	60	60	10-11	0.0	C-3:				
	S-11	10-11				0.0	S-11: 10-10.7': Light brown, fine to medium SAND.				
11							10.7-10.8': Brown, Silty CLAY, leather fragments present.				
	S-12	11-12				0.0	10.8-11': Light brown, fine to medium SAND.		SAND		
							S-12: Light brown, fine to medium SAND.				
12											
	S-13	12-13				0.0	S-13: Light brown, fine to medium SAND.				
13											
	S-14	13-14				0.0	S-14: Light brown, fine to medium SAND.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4608

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4608 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/30/2019 **Finish Date:** 7/30/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				0.0	S-15: Light brown, fine to medium SAND.				
15											
	C-4	15-20	60	60		0.0	C-4:				
	S-16	15-16				0.7	S-16: 15-15.8': Light brown, fine to medium SAND, moist.				
16							15.8-16': Light brown, Silty SAND, moist, roots present.				
	S-17	16-17				1.3	S-17: Light brown, fine to medum SAND, moist.				
17											
	S-18	17-18				0.7	S-18: Light brown, fine to medum SAND, moist.			SAND	
18											
	S-19	18-19				0.9	S-19: Light brown, fine to medum SAND, moist.				
19											
	S-20	19-20				0.7	S-20: Light brown, fine to medum SAND, moist.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4608

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4609 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/31/2019 **Finish Date:** 7/31/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	53		0.0	C-1:	1	TOPSOIL 0.4	
	S-1	0-1				0.1	S-1: 0-0.4': Brown, TOPSOIL, dry.			
1							0.4-0.5': Rocks.			
	S-2	1-2				0.1	0.5-1': Brown, Silty CLAY, dry.	2		No Equipment Installed
							S-2: Brown, Silty CLAY, dry.			
2										
	S-3	2-3				0.0	S-3: Brown, Silty CLAY, dry.	3		
3										
	S-4	3-4				0.0	S-4: Brown, Silty CLAY, dry.			
4										
	S-5	4-5				0.2	S-5: Brown, Silty CLAY, dry.			
5									CLAY	
	C-2	5-10	60	60		0.0	C-2:			
	S-6	5-6				0.4	S-6: Brown, Silty CLAY, dry.			
6										
	S-7	6-7				0.7	S-7: 6-6.4': Brown, Silty CLAY, dry.			
							6.4-7': Brown CLAY, moist.			
7										
	S-8	7-8				0.5	S-8: Brown CLAY, moist.			
8										
	S-9	8-9				1.2	S-9: Brown CLAY, moist.			
9										
	S-10	9-10				0.5	S-10: 9-9.5': Brown CLAY, moist.			
							9.5-10': Light brown, fine to medium SAND.		9.5	
10										
	C-3	10-15	60	60		0.0	C-3:			
	S-11	10-11				1.6	S-11: 10-10.2': Light brown, fine to medium SAND.			
11							10.2-10.4': Brown, SILT, leather fragments present.			
	S-12	11-12				0.9	10.4-11': Light brown, fine to medium SAND.			
							S-12: Light brown, fine to medium SAND.			
12									SAND	
	S-13	12-13				0.6	S-13: Light brown, fine to medium SAND.			
13										
	S-14	13-14			13-14	0.9	S-14: Light brown, fine to medium SAND.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4609

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4609 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/31/2019 **Finish Date:** 7/31/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				1.0	S-15: Light brown, fine to medium SAND.		
15									
	C-4	15-20	60	60		0.0	C-4:		
	S-16	15-16				0.2	S-16: Light brown, fine to medium SAND, moist.		
16					16-17				
	S-17	16-17				0.0	S-17: 16-16.5': Brown, SILT, moist. 16.5-17': Light brown, fine to medium SAND, moist.		
17									
	S-18	17-18				0.6	S-18: Light brown, fine to medium SAND, moist.		SAND
18									
	S-19	18-19				1.3	S-19: Light brown, fine to medium SAND, wet.		
19									
	S-20	19-20				0.5	S-20: Light brown, fine to medium SAND, wet.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4609

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4610 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/31/2019 **Finish Date:** 7/31/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	55		0.0	C-1:	1	TOPSOIL 0.4	
	S-1	0-1				0.7	S-1: 0-0.4': Brown, TOPSOIL, moist.			
1							0.4-1': Brown, Silty CLAY, dry.			
	S-2	1-2				1.0	S-2: Brown, Silty CLAY, dry.	2		No Equipment Installed
2										
	S-3	2-3				1.0	S-3: Brown, Silty CLAY, moist.	3		
3										
	S-4	3-4				1.3	S-4: Brown, Silty CLAY, moist.			
4										
	S-5	4-5				0.8	S-5: Brown, Silty CLAY, moist.			
5										
	C-2	5-10	60	60		0.0	C-2:		CLAY	
	S-6	5-6				0.8	S-6: Brown, Silty CLAY.			
6										
	S-7	6-7				0.5	S-7: 6-6.8': Medium brown, Silty CLAY.			
							6.8-7': Brown, CLAY, moist.			
7										
	S-8	7-8				0.6	S-8: Brown, CLAY, moist.			
8										
	S-9	8-9				0.7	S-9: Brown, CLAY, moist.			
9										
	S-10	9-10				0.9	S-10: 9-9.6': Brown, CLAY, moist.			
							9.6-10': Light brown, fine to medium SAND.		9.6	
10									SAND 10	
	C-3	10-15	60	54		0.0	C-3:		CLAY 10.5	
	S-11	10-11				0.6	S-11: 10-10.5': Brown, Silty CLAY.			
11							10.5-11': Light brown, fine to medium SAND.			
	S-12	11-12				1.0	S-12: Light brown, fine to medium SAND.			
12										
	S-13	12-13				1.3	S-13: Light brown, fine to medium SAND.		SAND	
13					13-14					
	S-14	13-14				1.1	S-14: Light brown, fine to medium SAND.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4610

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4610 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/31/2019 **Finish Date:** 7/31/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				1.3	S-15: Light brown, fine to medium SAND.				
15											
	C-4	15-20	60	60		0.0	C-4:			SAND	
	S-16	15-16				1.0	S-16: Light brown, fine to medium SAND.				
16					16-17						
	S-17	16-17				1.0	S-17: 16-16.2': Light brown, fine to medium SAND.				16.2
							16.2-16.3': Silty CLAY.			CLAY	16.3
17							16.3-17': Light brown, fine to medium SAND.				
	S-18	17-18				1.5	S-18: Light brown, fine to medium SAND.				
18											
	S-19	18-19				0.9	S-19: Light brown, fine to medium SAND.			SAND	
19											
	S-20	19-20				1.3	S-20: Light brown, fine to medium SAND.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4610

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4700 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/31/2019 **Finish Date:** 7/31/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	45		NR	C-1:	1	TOPSOIL 0.5	No Equipment Installed
	S-1	0-1				0.6	S-1: 0-0.5': Dark brown, TOPSOIL, moist, roots present.			
1							0.5-1': Brown, SILT & fine SAND, some Clay, moist.			
	S-2	1-2				0.8	S-2: Brown, SILT & fine SAND, some Clay, moist.	2		
2	S-3	2-3				0.7	S-3: Brown, SILT & fine SAND, some Clay, moist.	3		
3	S-4	3-4				0.7	S-4: Brown, SILT & fine SAND, some Clay, moist.	4	SILT & SAND	
4	S-5	4-5				N/A	S-5: No recovery.			
5	C-2	5-10	60	50		NR	C-2:			
	S-6	5-6				114.7	S-6: 5-5.6': Brown, SILT & fine SAND, some Clay, moist.		5.6	
6							5.6-6': Black to gray, WASTE, moist.			
	S-7	6-7				169.7	S-7: Black to gray, WASTE, moist.			
7	S-8	7-8				322.1	S-8: Black to gray, WASTE, moist.		WASTE	
8	S-9	8-9				8.3	S-9: Brown, SILT & CLAY, moist.		8	
9	S-10	9-10				2.5	S-10: Brown, SILT & CLAY, moist.		SILT & CLAY	
10	C-3	10-15	60	40		NR	C-3:		10	
	S-11	10-11				10.6	S-11: Brown, SAND & GRAVEL, little Silt, little Clay, moist.		SAND & GRAVEL	
11	S-12	11-12				1.4	S-12: Light brown, fine to medium SAND, little Silt, moist.		11	
12	S-13	12-13				1.2	S-13: Light brown, fine to medium SAND, little Silt, little Clay, moist.		SAND	
13	S-14	13-14				0.7	S-14: Brown, CLAY, moist.		13	
14									CLAY	

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. Waste odor noted in sample.

Logger:

Makayla Myers

Boring No.:

HS-SB-4700

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4700 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/31/2019 **Finish Date:** 7/31/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.			CLAY	
15											15
	C-4	15-20	60	42		NR	C-4:				
	S-16	15-16				2.3	S-16: Light brown, fine to medium SAND, little Silt, little Clay, moist.				
16											
	S-17	16-17				1.1	S-17: Light brown, fine to medium SAND, little Silt, little Clay, moist.				
17											
	S-18	17-18				0.8	S-18: Light brown, fine to medium SAND, little Silt, little Clay, moist.			SAND	
18											
	S-19	18-19				0.8	S-19: Light brown, fine to medium SAND, little Silt, little Clay, moist.				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4700

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4701 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: M. Myers/L. Klein **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 7/31/2019 **Finish Date:** 7/31/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	42		0.0	C-1:	1		
	S-1	0-1				3.0	S-1: 0-0.5': Brown, TOPSOIL, moist.		TOPSOIL 0.5	
1							0.5-1': Brown, Silty CLAY, moist.			
	S-2	1-2				1.6	S-2: Brown, Silty CLAY, moist.	2		No Equipment Installed
2										
	S-3	2-3				2.7	S-3: Brown, Silty CLAY, moist.	3		
3										
	S-4	3-4				3.0	S-4: 3-3.5': Brown, Silty CLAY, moist.		CLAY	
							3.5-4': No recovery.			
4										
	S-5	4-5				N/A	S-5: No recovery.			
5										
	C-2	5-10	60	42		0.0	C-2:			
	S-6	5-6				3.0	S-6: 5-5.5': Brown, Silty CLAY, trace Sand, moist.		5.5	
6							5.5-6': Brown, medium SAND, moist.		SAND	
	S-7	6-7				3.2	S-7: 6-6.2': Light brown, SAND, moist.		6.2	
							6.2-7': Brown, CLAY, moist.		CLAY	
7					7-8				7	
	S-8	7-8				4.2	S-8: Light brown, fine to medium SAND, moist.			
8										
	S-9	8-9				3.7	S-9: Light brown, fine to medium SAND, moist.			
9										
	S-10	9-10				N/A	S-10: No recovery.		SAND	
10										
	C-3	10-15	60	36		NR	C-3:			
	S-11	10-11				1.0	S-11: Light brown, fine to medium SAND, little Silt, moist.			
11					11-12					
	S-12	11-12				0.9	S-12: 11-11.5': Light brown, fine to medium SAND, moist.			
							11.5-12': Brown, SAND & GRAVEL, little Silt & Clay, moist.		11.5	
12										
	S-13	12-13				0.9	S-13: Brown, SAND & GRAVEL, little Silt & Clay, moist.			
13									SAND & GRAVEL	
	S-14	13-14				N/A	S-14: No recovery.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.4 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

M. Myers/L. Klein

Boring No.:

HS-SB-4701

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4701
SHEET: 2 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: M. Myers/L. Klein
Drilling Co.: Stearns Drilling
Foreman: Gary Geerligs

Start Date: 7/31/2019
Finish Date: 7/31/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 7822 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.			
15									SAND & GRAVEL	
	C-4	15-20	60	52		NR	C-4:			
	S-16	15-16				0.8	S-16: 15-15.5': Brown, fine to medium SAND, moist.			15.5
16							15.5-16': Brown, Silty CLAY, some Sand, moist.		CLAY	
	S-17	16-17				0.6	S-17: 16-16.5': Brown, Silty CLAY, some Sand, moist.			16.3
17							16.5-17': Brown, fine SAND, moist.			
	S-18	17-18				1.2	S-18: Brown, fine SAND, moist.			
18										
	S-19	18-19				0.9	S-19: Brown, fine SAND, moist.		SAND	
19										
	S-20	19-20				1.2	S-20: Brown, fine SAND, moist.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
M. Myers/L. Klein

Boring No.:
HS-SB-4701

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4702 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/31/2019 **Finish Date:** 7/31/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	44		0.0	C-1:	1	TOPSOIL 0.4	No Equipment Installed
	S-1	0-1				0.4	S-1: 0-0.5': Brown, TOPSOIL, dry.			
1							0.5-1': Brown, Silty CLAY, dry.			
	S-2	1-2				0.9	S-2: Brown, Silty CLAY, dry.	2		
2										
	S-3	2-3				1.0	S-3: Brown, Silty CLAY, dry.	3		
3									CLAY	
	S-4	3-4				0.8	S-4: Brown, Silty CLAY, dry.			
4										
	S-5	4-5				N/A	S-5: No recovery.			
5									5	
	C-2	5-10	60	48		0.0	C-2:			
	S-6	5-6				2.0	S-6: Brown, Silty CLAY, trace Sand, moist.			
6									SAND & WASTE	
	S-7	6-7				2.3	S-7: 6-6.2': Light brown, SAND and gray WASTE, moist.			
							6.2-7': Light brown, SAND, moist.			
7									7	
	S-8	7-8				2.1	S-8: 7-7.5': Brown, CLAY, moist.		CLAY 7.5	
							7.5-8': Light brown, SAND, moist.			
8										
	S-9	8-9				2.3	S-9: Light brown, SAND, moist.			
9									SAND	
	S-10	9-10				N/A	S-10: No recovery.			
10									10	
	C-3	10-15	60	60		NR	C-3:			
	S-11	10-11				3.9	S-11: Light brown, Silty CLAY, wet.			
11									CLAY	
	S-12	11-12				2.0	S-12: Light brown, CLAY & SAND, trace Silt, wet.			
12									12	
	S-13	12-13				1.2	S-13: Light brown, SAND, wet.			
13									SAND	
	S-14	13-14				1.3	S-14: Light brown, SAND, wet.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4702

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4702 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 7/31/2019 **Finish Date:** 7/31/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				1.2	S-15: Light brown, SAND, wet.			SAND	
15											15
	C-4	15-20	60	48		NR	C-4:				
	S-16	15-16				1.8	S-16: Light brown, alternating lenses of SAND and CLAY, moist.			CLAY & SAND	
16											
	S-17	16-17				2.4	S-17: Light brown, alternating lenses of SAND and CLAY, moist.				
17											17
	S-18	17-18				2.0	S-18: Light brown, SAND, moist.				
18											
	S-19	18-19				1.8	S-19: Light brown, SAND, moist.			SAND	
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4702

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4703 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/1/2019 **Finish Date:** 8/1/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	38		NR	C-1:	1	TOPSOIL	0.5	No Equipment Installed
	S-1	0-1				0.2	S-1: 0-0.5': Brown, TOPSOIL, moist. 0.5-1': Brown, SILT & SAND, moist.				
1	S-2	1-2				0.2	S-2: Brown, SILT & SAND, moist.	2			
2	S-3	2-3				0.2	S-3: Brown, SILT & SAND, moist.	3			
3	S-4	3-4				0.1	S-4: Brown, SILT & SAND, moist.		SILT & SAND		
4	S-5	4-5				N/A	S-5: No recovery.				
5	C-2	5-10	60	41		0.0	C-2:				
	S-6	5-6				0.2	S-6: Brown, SILT & SAND, moist.				
6	S-7	6-7				0.3	S-7: Light brown, fine to medium SAND, little Silt, moist.			6	
7	S-8	7-8			7-8	0.4	S-8: Light brown, fine to medium SAND, little Silt, moist.		SAND		
8	S-9	8-9				0.4	S-9: Light brown, fine to medium SAND, little Silt, moist.				
9	S-10	9-10				N/A	S-10: No recovery.				
10	C-3	10-15	60	30		NR	C-3:				
	S-11	10-11				0.3	S-11: Light brown, fine to medium SAND, little Silt, little Clay, moist.				
11	S-12	11-12			11-12	0.2	S-12: Light brown, fine to medium SAND, little Silt, moist.				
12	S-13	12-13				0.3	S-13: Light brown, fine to medium SAND, little Silt, little Clay, moist.				
13	S-14	13-14				N/A	S-14: No recovery.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-4703

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4703 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/1/2019 **Finish Date:** 8/1/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		SAND
15									15
	C-4	15-20	60	42		NR	C-4:		
	S-16	15-16				0.5	S-16: Brown, SAND & GRAVEL, moist.		SAND & GRAVEL
16									16
	S-17	16-17				0.4	S-17: Light brown, fine to medium SAND, some Clay, some Gravel, moist.		SAND
17									17
	S-18	17-18				0.6	S-18: 17-17.5': Brown, SAND & GRAVEL, moist. 17.5-18': Brown, Silty CLAY, moist.		SAND & GRAVEL 17.5 SILTY CLAY
18									18
	S-19	18-19				0.6	S-19: Light brown, fine to medium SAND, moist.		
19									
	S-20	19-20				N/A	S-20: No recovery.		SAND
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4703

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4704 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/1/2019 **Finish Date:** 8/1/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	43		NR	C-1:	1		TOPSOIL	0.4	
	S-1	0-1				1.9	S-1: 0-0.5': Brown, TOPSOIL, dry.					
1							0.5-1': Brown, Silty CLAY, dry.					
	S-2	1-2				3.4	S-2: Brown, Silty CLAY, dry.	2				No Equipment Installed
2												
	S-3	2-3				1.8	S-3: Brown, Silty CLAY, dry.	3				
3												
	S-4	3-4				1.7	S-4: Brown, CLAY, moist.	4				
4										CLAY		
	S-5	4-5				N/A	S-5: No recovery.					
5												
	C-2	5-10	60	48		NR	C-2:					
	S-6	5-6				0.7	S-6: Brown, fine to medium SAND, trace Silt & Clay, moist.					
6												
	S-7	6-7				0.9	S-7: 6-6.5': Brown, fine to medium SAND, trace Silt & Clay, moist.					
7							6.5-7': Brown, Silty CLAY, wet.					
	S-8	7-8				42.9	S-8: 7-7.2': Brown, Silty CLAY, wet.				7.2	
							7.2-8': Black, WASTE.			WASTE		
8											8	
	S-9	8-9				3.3	S-9: Brown, CLAY, wet.					
9												
	S-10	9-10				N/A	S-10: No recovery.					
10												
	C-3	10-15	60	48		NR	C-3:			CLAY		
	S-11	10-11				21.7	S-11: 10-10.3': Brown, Silty SAND, wet.					
11							10.3-11': Lenses of WASTE & brown CLAY, wet.					
	S-12	11-12				16.6	S-12: 11-11.4': Lenses of WASTE & brown CLAY, wet.					
							11.4-12': Brown, CLAY, moist.					
12												
	S-13	12-13				1.8	S-13: 12-12.2': Brown, CLAY, moist.				12.2	
							12.2-13': Light brown, Gravelly SAND, trace Clay, moist.			SAND		
13											13	
	S-14	13-14				1.0	S-14: Brown, CLAY, moist.					
										CLAY		
14												

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. Waste odor noted in sample.

Logger:

Laurel Klein

Boring No.:

HS-SB-4704

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4704 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/1/2019 **Finish Date:** 8/1/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.			
15									CLAY	
	C-4	15-20	60	42		NR	C-4:			
	S-16	15-16				3.0	S-16: 15-15.6': Brown, Silty CLAY, moist.			15.6
16							15.6-16': Brown, fine SAND, moist.			
	S-17	16-17				2.0	S-17: Brown, fine SAND, moist.			
17										
	S-18	17-18				2.1	S-18: Brown, fine SAND, moist.			
18									SAND	
	S-19	18-19				0.9	S-19: Brown, fine SAND, moist.			
19										
	S-20	19-20				N/A	S-20: No recovery.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4704

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4705 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/1/2019 **Finish Date:** 8/1/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	46		0.0	C-1:	1		
	S-1	0-1				0.9	S-1: 0-0.8': Dark brown, TOPSOIL, moist.		TOPSOIL 0.8	
1							8.8-1': Brown, SILT & SAND, moist.			
	S-2	1-2				0.2	S-2: Brown, SILT & SAND, little Clay, moist.	2		No Equipment Installed
2										
	S-3	2-3				0.2	S-3: Brown, SILT & SAND, some Clay, moist.	3		
3									SILT & SAND	
	S-4	3-4				0.2	S-4: Brown, SILT & SAND, little Clay, moist.			
4										
	S-5	4-5				N/A	S-5: No recovery.			
5									5	
	C-2	5-10	60	48		NR	C-2:			
	S-6	5-6				0.3	S-6: Brown, fine to medium SAND, some Clay, little Silt, moist.			
6										
	S-7	6-7				0.3	S-7: Brown, fine to medium SAND, some Clay, little Silt, moist.			
7					7-8					
	S-8	7-8				0.2	S-8: Brown, fine to medium SAND, some Clay, little Silt, moist.			
8										
	S-9	8-9				1.0	S-9: Brown, fine to medium SAND, some Clay, little Silt, moist.			
9										
	S-10	9-10				N/A	S-10: No recovery.			
									SAND	
10										
	C-3	10-15	60	46		0.5	C-3:			
	S-11	10-11				1.2	S-11: Brown, fine to medium SAND, some Clay, little Silt, moist.			
11										
	S-12	11-12				1.2	S-12: Brown, fine to medium SAND, Clay lenses, moist.			
12										
	S-13	12-13				1.2	S-13: Brown, fine SAND, little Clay, some Silt, moist.			
13					13-14					
	S-14	13-14				1.2	S-14: Brown, fine SAND, little Clay, some Silt, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-4705

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4705 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/1/2019 **Finish Date:** 8/1/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		SAND	
15										15
	C-4	15-20	60	53		0.0	C-4:		SILTY CLAY	15.5
	S-16	15-16				1.2	S-16: 15-15.5': Brown, Silty CLAY, moist.			
16							15.5-16': Light brown, fine SAND, some Silt, moist.			
	S-17	16-17				0.9	S-17: Light brown, fine SAND, some Silt, moist.			
17										
	S-18	17-18				1.2	S-18: Light brown, fine SAND, some Silt, moist.			
18									SAND	
	S-19	18-19				1.2	S-19: Light brown, fine SAND, some Silt, moist.			
19										
	S-20	19-20				1.2	S-20: Light brown, fine SAND, some Silt, moist.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4705

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4706 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/1/2019 **Finish Date:** 8/1/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	40		0.0	C-1:	1	TOPSOIL 0.4	No Equipment Installed
	S-1	0-1				2.7	S-1: 0-0.4': Brown, TOPSOIL, dry.			
1							0.4-1': Brown, Silty CLAY, dry.			
	S-2	1-2				2.0	S-2: Brown, Silty CLAY, dry.	2		
2	S-3	2-3				1.4	S-3: Brown, Silty CLAY, dry.	3		
3	S-4	3-4				2.3	S-4: Brown, Silty CLAY, dry.		CLAY	
4	S-5	4-5				N/A	S-5: No recovery.			
5	C-2	5-10	60	46		0.0	C-2:			
	S-6	5-6				2.0	S-6: Brown, Silty CLAY, dry.			
6	S-7	6-7				33.8	S-7: 6-6.4': Brown, Silty CLAY, dry.		6.4	
							6.4-7': Gray and black, WASTE.			
7	S-8	7-8				40.9	S-8: 7-7.8': Black, WASTE.		WASTE	
							7.8-8': Brown, CLAY, moist.		7.8	
8	S-9	8-9				6.5	S-9: Brown, CLAY, moist.			
9	S-10	9-10				N/A	S-10: No recovery.		CLAY	
10	C-3	10-15	60	36		0.0	C-3:			
	S-11	10-11				2.6	S-11: Brown, CLAY, leather fragments present.			
11	S-12	11-12				0.5	S-12: Light brown, SAND, moist.		11	
12	S-13	12-13				1.2	S-13: Light brown, SAND, moist.		SAND	
13	S-14	13-14				N/A	S-14: No recovery.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4706

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4706 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/1/2019 **Finish Date:** 8/1/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.			
15									SAND	15
	C-4	15-20	60	36		NR	C-4:		CLAY	15.5
	S-16	15-16				1.4	S-16: 15-15.5': Light brown, CLAY, moist.			
16							15.5-16': Light brown, SAND, moist.			
	S-17	16-17				1.4	S-17: Light brown, fine to medium SAND, moist.			
17										
	S-18	17-18				2.4	S-18: Light brown, fine to medium SAND, moist.			
18									SAND	
	S-19	18-19				N/A	S-19: No recovery.			
19										
	S-20	19-20				N/A	S-20: No recovery.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4706

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4707 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/1/2019 **Finish Date:** 8/1/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	60		0.1	C-1:	1	TOPSOIL 0.5	No Equipment Installed
	S-1	0-1				1.2	S-1: 0-0.8': Dark brown, TOPSOIL, moist.			
1							0.8-1': Light brown, fine SAND & SILT, moist.			
	S-2	1-2				1.4	S-2: Light brown, fine SAND & SILT, moist.	2	SAND & SILT	
2									2	
	S-3	2-3				1.6	S-3: 2-2.3': Gray, CLAY, moist.	3		
							2.3-3': Brown, CLAY, little Silt, moist.			
3	S-4	3-4				1.4	S-4: Brown, CLAY, little Silt, moist.			
									CLAY	
4	S-5	4-5				2.1	S-5: Brown, CLAY, little Silt, moist.			
5									5	
	C-2	5-10	60	60		0.0	C-2:			
	S-6	5-6				1.1	S-6: Brown, Silty CLAY, moist.			
6	S-7	6-7				0.9	S-7: Brown, Silty CLAY, moist.			
7	S-8	7-8				0.7	S-8: Brown, Silty CLAY, moist.			
									SILTY CLAY	
8	S-9	8-9				1.1	S-9: Brown, Silty CLAY, moist.			
9	S-10	9-10				1.4	S-10: Brown, Silty CLAY, moist.			
10									10	
	C-3	10-15	60	48		NR	C-3:		WASTE 10.3	
	S-11	10-11				1.4	S-11: 10-10.3': Gray, CLAY (waste), moist.			
11							10.3-11': Brown, SILT & CLAY, moist.			
	S-12	11-12				1.5	S-12: Brown, SILT & CLAY, moist.		SILTY CLAY	
12									12	
	S-13	12-13				1.6	S-13: 12-12.3': Black, SAND, moist.			
							12.3-13':Brown, fine SAND & CLAY, rock fragments, moist.			
13	S-14	13-14				1.0	S-14: Light brown, fine Sand, little Silt, moist.		SAND	
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-4707

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4707 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/1/2019 **Finish Date:** 8/1/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		SAND
15									15
	C-4	15-20	60	48		0.0	C-4:		
	S-16	15-16				1.0	S-16: Brown, CLAY, moist.		CLAY
16									16
	S-17	16-17				0.7	S-17: Light brown, fine SAND, moist.		
17									
	S-18	17-18				0.8	S-18: Light brown, fine SAND, moist.		
18									
	S-19	18-19				1.0	S-19: Light brown, fine SAND, moist.		SAND
19									
	S-20	19-20				N/A	S-20: No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4707

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4708
SHEET: 1 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Laurel Klein
Drilling Co.: Stearns Drilling
Foreman: Thomas Ulrich

Start Date: 8/1/2019
Finish Date: 8/1/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	36		1.6	C-1:	1		
	S-1	0-1				2.7	S-1: 0-0.5': Brown, TOPSOIL, moist.		TOPSOIL 0.5	
1							0.5-1': Brown, SILT & SAND, moist.			
	S-2	1-2				2.1	S-2: Brown, SILT & SAND, moist.	2	SAND	No Equipment Installed
2										
	S-3	2-3				1.0	S-3: 2-2.3': Brown, SILT & SAND, moist.	3	2.3	
							2.3-3': Brown, CLAY, moist.			
3										
	S-4	3-4				N/A	S-4: No recovery.	4		
4										
	S-5	4-5				N/A	S-5: No recovery.		CLAY	
5										
	C-2	5-10	60	50		0.0	C-2:			
	S-6	5-6				0.9	S-6: Brown, Silty CLAY, moist.			
6										
	S-7	6-7				52.6	S-7: 6-6.5': Brown, Silty CLAY, moist.		6.3	
							6.5-7': Black, WASTE, moist.			
7									WASTE	
	S-8	7-8				16.7	S-8: 7-7.3': Black, WASTE, moist.		7.3	
							7.3-8': Brown, CLAY, moist.			
8									CLAY 8.1	
	S-9	8-9				2.6	S-9: 8-8.9': Brown, CLAY, moist.			
							8.9-9': White, SAND, moist.			
9										
	S-10	9-10				3.1	S-10: 9-9.2': White, SAND, moist.		SAND	
							9.2-10': No recovery.			
10									10	
	C-3	10-15	60	36		0.0	C-3:		WASTE 10.4	
	S-11	10-11				7.9	S-11: 10-10.4': Gray, WASTE, moist.			
11							10.4-11': Light brown, SAND, moist.			
	S-12	11-12				2.7	S-12: Light brown, SAND, moist.			
12										
	S-13	12-13				2.6	S-13: Light brown, SAND, moist.		SAND	
13										
	S-14	13-14				N/A	S-14: No recovery.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. Waste odor noted in sample.

Logger:
Laurel Klein

Boring No.:
HS-SB-4708

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4708 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/1/2019 **Finish Date:** 8/1/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.			SAND	
15											15
	C-4	15-20	60	48		0.0	C-4:				
	S-16	15-16				2.7	S-16: Light brown, CLAY, moist.			CLAY	
16											
	S-17	16-17				2.2	S-17: 16-16.5': Light brown, CLAY, moist. 16.5-17': Light brown, SAND, moist.				16.5
17											
	S-18	17-18				1.2	S-18: Light brown, SAND, moist.				
18											
	S-19	18-19				2.3	S-19: Light brown, SAND, moist.			SAND	
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4708

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4709 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/1/2019 **Finish Date:** 8/1/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	60		0.1	C-1:	1	TOPSOIL 0.5	No Equipment Installed
	S-1	0-1				2.0	S-1: 0-0.8': Dark brown, TOPSOIL, moist.			
1							0.8-1': Brown, Clayey SILT, moist.		CLAYEY SILT 1	
	S-2	1-2				3.5	S-2: Brown, CLAY & SILT, moist.	2		
2	S-3	2-3				4.0	S-3: Brown, CLAY & SILT, moist.	3	CLAY & SILT 3	
3	S-4	3-4				2.6	S-4: Brown, Silty CLAY, moist.		SILTY CLAY 4	
4	S-5	4-5				3.9	S-5: Brown, CLAY, moist.		CLAY 5	
5	C-2	5-10	60	60		0.0	C-2:			
	S-6	5-6				1.4	S-6: Brown, Silty CLAY, moist.			
6	S-7	6-7				1.2	S-7: Brown, Silty CLAY, moist.			
7	S-8	7-8			7-8	2.3	S-8: Brown, Silty CLAY, moist.			
8	S-9	8-9				0.7	S-9: Brown, Silty CLAY, little fine Sand, moist.		SILTY CLAY	
9	S-10	9-10				1.2	S-10: Brown, Silty CLAY, little fine Sand, moist.			
10	C-3	10-15	60	54		0.0	C-3:			
	S-11	10-11				1.6	S-11: Brown, Silty CLAY, little fine Sand, moist.			
11	S-12	11-12				2.1	S-12: 11-11.8': Brown, Silty CLAY, little fine Sand, moist.			
							11.8-12': White, rock fragments.		11.8	
12	S-13	12-13				1.8	S-13: 12-12.5': White, rock fragments.		ROCK FRAGMENTS 12.5	
							12.5-13': Brown, SAND & GRAVEL, some Clay, moist.		SAND & GRAVEL 13	
13	S-14	13-14			13-14	1.3	S-14: Light brown, fine to medium SAND, moist.		SAND 14	
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-4709

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4709 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/1/2019 **Finish Date:** 8/1/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				1.0	S-15: Brown, CLAY, some Sand, moist.			
15										
	C-4	15-20	60	48		0.1	C-4:			
	S-16	15-16				1.6	S-16: Brown, CLAY, moist.		CLAY	
16										
	S-17	16-17				2.4	S-17: Brown, CLAY, moist.			
17										17
	S-18	17-18				1.7	S-18: Light brown, fine to medium SAND, moist.			
18										
	S-19	18-19				1.6	S-19: Light brown, fine to medium SAND, moist.		SAND	
19										
	S-20	19-20				N/A	S-20: No recovery.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-4709

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4710 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/1/2019 **Finish Date:** 8/1/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	50		0.0	C-1:	1	TOPSOIL	0.2	
	S-1	0-1				2.8	S-1: 0-0.2': Brown, TOPSOIL, moist.				
1							0.2-1': Brown, Silty CLAY, moist.				
	S-2	1-2				4.7	S-2: Brown, Silty CLAY, moist.	2			No Equipment Installed
2											
	S-3	2-3				3.7	S-3: Brown, Silty CLAY, moist.	3			
3											
	S-4	3-4				5.0	S-4: Brown, Silty CLAY, moist.		CLAY		
4											
	S-5	4-5				4.6	S-5: Brown, Silty CLAY, moist.				
5											
	C-2	5-10	60	50		0.0	C-2:				
	S-6	5-6				2.6	S-6: 5-5.9': Brown, Silty CLAY, moist.				
6							5.9-6': Gray, WASTE.			5.9	
	S-7	6-7				4.3	S-7: 6-6.3': Gray, WASTE.		WASTE	6.3	
							6.3-7': Brown, CLAY, moist.				
7											
	S-8	7-8				3.4	S-8: Brown, CLAY, moist.				
8											
	S-9	8-9				3.4	S-9: Brown, CLAY, moist.		CLAY		
9					9-10						
	S-10	9-10				1.8	S-10: Brown, CLAY, moist.				
10										10	
	C-3	10-15	60	44		0.0	C-3:				
	S-11	10-11				2.1	S-11: 10-10.8': Light brown, Silty SAND, moist.		SAND		
11							10.8-11': Brown, CLAY, moist.			10.8	
	S-12	11-12				2.5	S-12: 11-11.3': Brown, CLAY, moist.		CLAY	11.3	
							11.3-11.8': Brown, SAND, moist.		SAND	11.8	
12							11.8-12': Brown, CLAY, moist.				
	S-13	12-13				3.5	S-13: 12-12.5': Brown, CLAY, moist.			12.5	
							12.5-13': Brown, SAND, moist.		SAND	13	
13	S-14	13-14				1.9	S-14: Brown, CLAY, moist.				
14									CLAY		

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.2 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4710

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4710 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/1/2019 **Finish Date:** 8/1/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		
15									
	C-4	15-20	60	55		0.0	C-4:		
	S-16	15-16				4.0	S-16: Brown, Silty CLAY, moist.		
16									CLAY
	S-17	16-17				3.1	S-17: Brown, CLAY, moist.		
17									
	S-18	17-18				0.8	S-18: 17-17.7': Brown, CLAY, moist. 17.7-18': Light brown, SAND, moist.		17.7
18									
	S-19	18-19				2.9	S-19: Light brown, SAND, moist.		
19									SAND
	S-20	19-20				0.8	S-20: Light brown, SAND, moist.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4710

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4711
SHEET: 1 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Sheryl Stephenson
Drilling Co.: Stearns Drilling
Foreman: Gary Geerligs

Start Date: 8/5/2019
Finish Date: 8/5/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	48		NR	C-1:				No Equipment Installed
	S-1	0-1				1.1	S-1: Brown, TOPSOIL, dry.		TOPSOIL		
1	S-2	1-2				2.9	S-2: 1-1.2': Brown, TOPSOIL, dry. 1.2-2': Tan, fine to medium SAND, dry.			1.2	
2	S-3	2-3				5.0	S-3: Tan, fine to medium SAND, 3" Clay and Silt lens from 2.5'-2.8', dry.		SAND		
3	S-4	3-4				3.8	S-4: 3-3.7': Tan, fine to medium SAND, dry. 3.7-4': Brown, Silty CLAY, dry.			3.7	
4	S-5	4-5				N/A	S-5: No recovry.		SILTY CLAY		
5	C-2	5-10	60	60		NR	C-2:			5	
	S-6	5-6				2.9	S-6: Brown, CLAY & SILT, little fine to medium Sand, trace Gravel, dry.				
6	S-7	6-7				7.0	S-7: Brown, CLAY & SILT, little fine to medium Sand, trace Gravel, dry.				
7	S-8	7-8			7-8	4.3	S-8: Brown, CLAY & SILT, little fine to medium Sand, trace Gravel, dry.				
8	S-9	8-9				4.0	S-9: Brown, CLAY & SILT, little fine to medium Sand, trace Gravel, dry.		CLAY & SILT		
9	S-10	9-10				6.4	S-10: Brown, CLAY & SILT, little fine to medium Sand, trace Gravel, dry.				
10	C-3	10-15	60	55		NR	C-3:				
	S-11	10-11				18.5	S-11: Brown, CLAY & SILT, little fine to medium Sand, trace Gravel, dry.				
11	S-12	11-12				15.4	S-12: Tan/brown, fine to medium SAND, little Silt, trace Gravel, moist.			11.2	
12	S-13	12-13				15.1	S-13: 12-12.2': Brown, CLAY & SILT, little fine to medium Sand, trace Gravel, dry. 12.2-12.7': Brown/white, fine to coarse SAND, little Silt, dry.		SAND		
13	S-14	13-14			13-14	12.8	12.7-13': Tan/brown, fine to medium SAND, little Silt, trace Gravel, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
Sheryl Stephenson

Boring No.:
HS-SB-4711

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4711 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/5/2019 **Finish Date:** 8/5/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-14: 13-13.6': Tan/brown, fine to medium SAND, little Silt, trace Gravel, moist.			SAND	
15	C-4	15-20	60	60		NR	13.6-14': Tan/brown, fine to medium SAND, little Silt, trace Gravel, moist.				15
	S-16	15-16				12.5	S-15: Tan/brown, fine to medium SAND, little Silt, trace Gravel, wet.				
16	S-17	16-17				9.0	C-4:				
							S-16: Brown, Silty CLAY, dry.			SILTY CLAY	
17	S-18	17-18				8.4	S-17: Brown, Silty CLAY, dry. S-18: Brown, Silty CLAY, dry.				
18											18
	S-19	18-19				8.7	S-19: Tan, fine SAND, dry.				
19	S-20	19-20				8.1	S-20: Tan, fine SAND, dry.			SAND	
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4711

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4712 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/2/2019 **Finish Date:** 8/2/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	51		0.0	C-1:	1	TOPSOIL 0.2	
	S-1	0-1				1.0	S-1: 0-0.2': Brown, TOPSOIL, moist.			
1							0.2-1': Brown, Silty CLAY, dry.			
	S-2	1-2				1.6	S-2: Brown, Silty CLAY, dry.	2		No Equipment Installed
2	S-3	2-3				1.6	S-3: Brown, Silty CLAY, dry.	3		
3	S-4	3-4				1.9	S-4: Brown, Silty CLAY, dry.			
									CLAY	
4	S-5	4-5				2.5	S-5: Brown, Silty CLAY, dry.			
5	C-2	5-10	60	60		0.0	C-2:			
	S-6	5-6				1.4	S-6: Brown, Silty CLAY, moist.			
6	S-7	6-7			6-7	0.5	S-7: Brown, Silty CLAY, moist.			
7									7	
	S-8	7-8				0.9	S-8: Brown, Silty CLAY, moist.			
8	S-9	8-9				0.8	S-9: Brown, Gravelly SAND, moist.			
9	S-10	9-10			9-10	1.2	S-10: Brown, Gravelly SAND, moist.		SAND	
10	C-3	10-15	60	56		0.0	C-3:			
	S-11	10-11				1.5	S-11: 10-10.8': Gray, Gravelly SAND, moist.			
11							10.8-11': Brown, CLAY, moist.		10.8	
	S-12	11-12				0.7	S-12: 11-11.2': Brown, CLAY, moist.		CLAY 11.2	
							11.2-12': Lgiht brown, fine to medium SAND, moist.			
12	S-13	12-13				1.0	S-13: Lgiht brown, fine to medium SAND, moist.			
									SAND	
13	S-14	13-14				1.0	S-14: Lgiht brown, fine to medium SAND, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.2 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4712

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4712 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/2/2019 **Finish Date:** 8/2/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				1.3	S-15: Lght brown, fine to medium SAND, wet.			SAND	
15	C-4	15-20	60	56		0.0	C-4:				15
	S-16	15-16				0.7	S-16: Brown, Silty CLAY, wet.				
16	S-17	16-17				0.9	S-17: Brown, Silty CLAY, wet.			CLAY	
17	S-18	17-18				0.9	S-18: Brown, Silty CLAY, wet.				
18	S-19	18-19				0.5	S-19: Light brown, SAND, wet.				18
19	S-20	19-20				0.4	S-20: Light brown, SAND, wet.			SAND	
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4712

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4713 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/5/2019 **Finish Date:** 8/5/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	48		NR	C-1:				
	S-1	0-1				2.0	S-1: 0-0.8': Brown, TOPSOIL, dry.		TOPSOIL	0.8	
1							0.8-1': Brown, CLAY & SILT, little fine to medium Sand, dry.				
	S-2	1-2				4.2	S-2: 1-1.8': Brown, CLAY & SILT, little fine to medium Sand, dry.		CLAY & SILT	1.8	No Equipment Installed
2							1.8-2': Brown/orange, fine to medium SAND, some Silt, dry.		SAND	2.3	
	S-3	2-3				1.8	S-3: 2-2.3': Brown/orange, fine to medium SAND, some Silt, dry.		CLAY & SILT	2.6	
3	S-4	3-4				3.0	2.3-2.6': Brown, CLAY & SILT, little fine to medium Sand, dry.				
4							2.6-3': Tan, fine to medium SAND, dry.		SAND		
	S-5	4-5				N/A	S-4: Tan, fine to medium SAND, dry. S-5: No recovery.				
5										5	
	C-2	5-10	60	60		NR	C-2:				
	S-6	5-6				0.9	S-6: Brown, CLAY & SILT, little fine to medium Sand, dry.				
6	S-7	6-7				2.9	S-7: Brown, CLAY & SILT, little fine to medium Sand, dry.				
7	S-8	7-8			7-8	1.3	S-8: Brown, CLAY & SILT, little fine to medium Sand, dry.				
8	S-9	8-9				2.1	S-9: Brown, CLAY & SILT, little fine to medium Sand, dry.		CLAY & SILT		
9	S-10	9-10				1.3	S-10: Brown, CLAY & SILT, little fine to medium Sand, dry.				
10	C-3	10-15	60	48	10-11	NR	C-3:				
	S-11	10-11				1.0	S-11: Brown, CLAY & SILT, little fine to medium Sand, dry.				
11	S-12	11-12				1.2	S-12: 11-11.3': Brown, CLAY & SILT, little fine to medium Sand, dry.			11.3	
12							11.3-11.8': Brown,/white, fine to coarse SAND, little Silt, dry.				
	S-13	12-13				0.6	11.8-12': Tan, fine SAND, dry. S-13: Tan, fine SAND, dry.		SAND		
13	S-14	13-14				1.6	S-14: Brown, fine to medium SAND, little Silt, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4713

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4713 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/5/2019 **Finish Date:** 8/5/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		SAND
15									15
	C-4	15-20	60	48		NR	C-4:		
	S-16	15-16				1.7	S-16: Brown, CLAY, dry.		CLAY
16									
	S-17	16-17				2.3	S-17: 16-16.7': Brown, CLAY, dry. 16.7-17': Tan, fine SAND, dry.		16.7
17									
	S-18	17-18				2.4	S-18: Tan, fine SAND, dry.		
18									
	S-19	18-19				0.8	S-19: Tan, fine SAND, dry.		SAND
19									
	S-20	19-20				N/A	S-20: No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4713

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4714 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/2/2019 **Finish Date:** 8/2/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	55		0.0	C-1:	1	TOPSOIL 0.2	
	S-1	0-1				2.6	S-1: 0-0.2': Brown, TOPSOIL, moist. 0.2-1': Brown, Silty CLAY, moist.			
1	S-2	1-2				4.4	S-2: Brown, Silty CLAY, moist.	2		No Equipment Installed
2	S-3	2-3				2.4	S-3: Brown, Silty CLAY, moist.	3		
3	S-4	3-4				2.6	S-4: Brown, Silty CLAY, moist.			
4	S-5	4-5				4.1	S-5: Brown, Silty CLAY, moist.			
5	C-2	5-10	60	60		0.0	C-2:			
	S-6	5-6				2.3	S-6: Brown, Silty CLAY, moist.			
6	S-7	6-7			6-7	2.8	S-7: Brown, Silty CLAY, moist.		CLAY	
7	S-8	7-8				2.3	S-8: Brown, Silty CLAY, moist.			
8	S-9	8-9				1.7	S-9: Brown, Silty CLAY, moist.			
9	S-10	9-10			9-10	3.4	S-10: Brown, Silty CLAY, moist.			
10	C-3	10-15	60	60		0.0	C-3:			
	S-11	10-11				2.5	S-11: Brown, Silty CLAY, Sand seams, moist.			
11	S-12	11-12				2.5	S-12: Brown, Silty CLAY, Sand seams, moist.			
12	S-13	12-13				2.5	S-13: Light brown, fine to medium SAND, moist.		12	
13	S-14	13-14				2.5	S-14: Light brown, fine to medium SAND, moist.		SAND	
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.5 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4714

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4714 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/2/2019 **Finish Date:** 8/2/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15										SAND	
	C-4	15-20	60	60		NR	C-4:				
	S-16	15-16				2.9	S-16: 15-15.5': Light brown, fine SAND, moist.				15.5
16							15.5-16': Brown, CLAY, moist.			CLAY	16
	S-17	16-17				2.2	S-17: Light brown, fine to medium SAND, moist.				
17											
	S-18	17-18				1.8	S-18: Light brown, fine to medium SAND, moist.				
18										SAND	
	S-19	18-19				2.7	S-19: Light brown, fine to medium SAND, moist.				
19											
	S-20	19-20				2.4	S-20: Light brown, fine to medium SAND, moist.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Laurel Klein

Boring No.:

HS-SB-4714

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4715 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/5/2019 **Finish Date:** 8/5/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	48		NR	C-1:				
	S-1	0-1				0.4	S-1: 0-0.8': Brown, TOPSOIL, dry.		TOPSOIL	0.8	
1							0.8-1': Brown, CLAY & SILT, little fine to medium Sand, dry.				
	S-2	1-2				0.6	S-2: Brown, CLAY & SILT, little fine to medium Sand, dry.		CLAY & SILT		No Equipment Installed
2											
	S-3	2-3				0.8	S-3: Brown, CLAY & SILT, little fine to medium Sand, dry.			2.2	
3											
	S-4	3-4				0.6	S-4: 3-3.2': Brown, CLAY & SILT, little fine to medium Sand, dry.		SAND		
4							3.2-4': Brown/orange, fine SAND, little Silt, moist.				
	S-5	4-5				N/A	S-5: No recovery.				
5										5	
	C-2	5-10	60	54		NR	C-2:				
	S-6	5-6				0.4	S-6: Brown, CLAY & SILT, little fine to medium Sand, trace Gravel, dry.				
6	S-7	6-7			6-7	0.7	S-7: Brown, CLAY & SILT, little fine to medium Sand, trace Gravel, dry.				
7											
	S-8	7-8				0.8	S-8: Brown, CLAY & SILT, little fine to medium Sand, trace Gravel, dry.				
8											
	S-9	8-9				0.5	S-9: Brown, CLAY & SILT, some fine to medium Sand, trace Gravel, dry.		CLAY & SILT		
9					9-10						
	S-10	9-10				0.5	S-10: Brown, CLAY & SILT, some fine to medium Sand, trace Gravel, dry.				
10											
	C-3	10-15	60	42		NR	C-3:				
	S-11	10-11				0.6	S-11: Brown, CLAY & SILT, little fine to medium Sand, trace Gravel, dry.				
11										11	
	S-12	11-12				0.6	S-12: 11-11.2': Brown, fine to coarse SAND, little Silt, moist. 11.2-12': Tan/brown fine SAND, trace Silt, dry.				
12											
	S-13	12-13				0.5	S-13: Tan/brown fine SAND, trace Silt, Clay & Silt lens, dry.		SAND		
13											
	S-14	13-14				1.1	S-14: Tan, fine SAND, trace Silt, wet.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4715

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4715 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/5/2019 **Finish Date:** 8/5/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.			
15									SAND	
	C-4	15-20	60	54		NR	C-4:			15.4
	S-16	15-16				1.4	S-16: 15-15.4': Tan, fine SAND, trace Silt, moist.			
16							15.4-16': Brown, CLAY & SILT, trace fine to medium Sand, dry.		CLAY & SILT	
	S-17	16-17				1.6	S-17: Brown, CLAY & SILT, trace fine to medium Sand, dry.			
17										17.2
	S-18	17-18				1.7	S-18: 17-17.2': Brown, CLAY & SILT, trace fine to medium Sand, dry.			
18							17.2-18': Tan, fine SAND, dry.			
	S-19	18-19				1.1	S-19: Tan, fine SAND, dry.			
19									SAND	
	S-20	19-20				1.6	S-20: Tan, fine SAND, dry.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4715

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4716 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Laurel Klein **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/2/2019 **Finish Date:** 8/2/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	55		0.0	C-1:	1		
	S-1	0-1				1.8	S-1: 0-0.5': Brown, TOPSOIL, dry.		TOPSOIL 0.5	
1							0.5-1': Brown, Silty CLAY, dry.			
	S-2	1-2				1.7	S-2: Brown, Silty CLAY, dry.	2		No Equipment Installed
2										
	S-3	2-3				1.7	S-3: Brown, Silty CLAY, dry.	3		
3										
	S-4	3-4				2.3	S-4: Brown, Silty CLAY, dry.			
4										
	S-5	4-5				1.6	S-5: Brown, Silty CLAY, dry.			
5										
	C-2	5-10	60	60		0.0	C-2:		CLAY	
	S-6	5-6				2.1	S-6: Brown, Silty CLAY, dry.			
6					6-7					
	S-7	6-7				1.7	S-7: Brown, CLAY, moist.			
7										
	S-8	7-8				1.1	S-8: White, CLAY, with rock fragments, moist.			
8										
	S-9	8-9				2.1	S-9: White, CLAY, with rock fragments, moist.			
9					9-10					
	S-10	9-10				1.5	S-10: White, CLAY, with rock fragments, moist.			
10									10	
	C-3	10-15	60	60		0.0	C-3:			
	S-11	10-11				1.3	S-11: Light brown, fine SAND, moist.		SAND	
11									11	
	S-12	11-12				1.2	S-12: Brown, CLAY, moist.			
12										
	S-13	12-13				1.4	S-13: Brown, CLAY, moist.		CLAY	
13										
	S-14	13-14				2.1	S-14: Brown, CLAY, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.5 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Laurel Klein

Boring No.:

HS-SB-4716

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4716
SHEET: 2 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Laurel Klein
Drilling Co.: Stearns Drilling
Foreman: Thomas Ulrich

Start Date: 8/2/2019
Finish Date: 8/2/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	60		NR	C-4:				
	S-16	15-16				1.9	S-16: Brown, CLAY, moist.				
16											
	S-17	16-17				2.1	S-17: Brown, CLAY, moist.			CLAY	
17											
	S-18	17-18				2.5	S-18: Brown, CLAY, moist.				
18											
	S-19	18-19				1.7	S-19: 18-18.8': Brown, CLAY, moist.				
							18.8-19': Light brown, SAND, moist.				18.8
19											
	S-20	19-20				2.4	S-20: Light brown, SAND, moist.			SAND	
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
Laurel Klein

Boring No.:
HS-SB-4716

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-HULA1 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/2/2019 **Finish Date:** 8/2/2019 **Final Depth (ft.):** 25	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	48		NR	C-1:	1		No Equipment Installed
	S-1	0-1				5.2	S-1: Brown, TOPSOIL, moist.		TOPSOIL 1	
1	S-2	1-2				8.7	S-2: Brown and white, FILL and Silty CLAY, moist.	2		
2	S-3	2-3				9.1	S-3: Brown and white, FILL and Silty CLAY, moist.	3	FILL	
3	S-4	3-4				10.6	S-4: 3-3.8': Brown and white, FILL and Silty CLAY, moist. 3.8-4': Brown, fine to medium SAND, moist.		3.8	
4	S-5	4-5				N/A	S-5: No recovery.			
5	C-2	5-10	60	36		0.0	C-2:		SAND	
	S-6	5-6				6.5	S-6: Brown/light brown, fine to medium SAND, moist.		6	
6	S-7	6-7				5.8	S-7: Brown, CLAY, moist.		CLAY	
7	S-8	7-8				4.2	S-8: 7-7.2': Brown, CLAY, moist. 7.2-8': Light brown, fine to medium SAND, moist.		7.2	
8	S-9	8-9				N/A	S-9: No recovery.			
9	S-10	9-10				N/A	S-10: No recovery.			
10	C-3	10-15	60	48		0.0	C-3:			
	S-11	10-11				5.5	S-11: Light brown, fine to medium SAND, moist.		SAND	
11	S-12	11-12				8.1	S-12: Light brown, fine to medium SAND, moist.			
12	S-13	12-13				7.0	S-13: Light brown, fine to medium SAND, moist.			
13	S-14	13-14				8.0	S-14: Light brown, fine to medium SAND, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-HULA1

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-HULA1 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/2/2019 **Finish Date:** 8/2/2019 **Final Depth (ft.):** 25	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	52		0.0	C-4:				
	S-16	15-16				4.2	S-16: Light brown, fine to medium SAND, moist.				
16											
	S-17	16-17				4.4	S-17: Light brown, fine to medium SAND, moist.				
17											
	S-18	17-18				5.4	S-18: Light brown, fine to medium SAND, moist.				
18											
	S-19	18-19				6.3	S-19: Light brown, fine to medium SAND, moist.				
19											
	S-20	19-20				1.4	S-20: Light brown, fine to medium SAND, moist.			SAND	
20											
	C-5	20-25	60	43		0.0	C-5:				
	S-21	20-21				4.8	S-21: Light brown, fine to medium SAND, moist.				
21											
	S-22	21-22				4.5	S-22: Light brown, fine to medium SAND, moist.				
22											
	S-23	22-23				5.1	S-23: Light brown, fine to medium SAND, moist.				
23											
	S-24	23-24				5.5	S-24: Light brown, fine to medium SAND, moist.				
24											
	S-25	24-25				N/A	S-25: No recovery.				
25											25
							End of exploration at 25 feet.				
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Makayla Myers

Boring No.:

HS-SB-HULA1

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-HULA2 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/2/2019 **Finish Date:** 8/2/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	48		0.0	C-1:	1		No Equipment Installed
	S-1	0-1				1.8	S-1: Dark brown, TOPSOIL, moist.		TOPSOIL 1	
1	S-2	1-2				2.6	S-2: 1-1.8': Dark brown, Clayey SILT, moist. 1.8-2': Brown and white, FILL, moist.	2	CLAYEY SILT 1.8	
2	S-3	2-3				3.7	S-3: Brown and white, FILL, moist.	3		
3	S-4	3-4				3.8	S-4: Brown and white, FILL, moist.		FILL	
4	S-5	4-5				N/A	S-5: No recovery.			
5	C-2	5-10	60	40		0.0	C-2:		5	
	S-6	5-6				7.1	S-6: Light brown, fine to medium SAND, moist.			
6	S-7	6-7				4.2	S-7: Light brown, fine to medium SAND, moist.			
7	S-8	7-8				6.4	S-8: Light brown, fine to medium SAND, Clay lens, moist.			
8	S-9	8-9				4.2	S-9: Light brown, fine to medium SAND, moist.			
9	S-10	9-10				N/A	S-10: No recovery.		SAND	
10	C-3	10-15	60	48		0.0	C-3:			
	S-11	10-11				4.7	S-11: Light brown, fine to medium SAND, moist.			
11	S-12	11-12				3.8	S-12: Light brown, fine to medium SAND, moist.			
12	S-13	12-13				2.8	S-13: Light brown, fine to medium SAND, moist.			
13	S-14	13-14				3.3	S-14: Light brown, fine to medium SAND, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.2 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-HULA2

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-HULA2
SHEET: 2 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Makayla Myers
Drilling Co.: Stearns Drilling
Foreman: Gary Geerligs

Start Date: 8/2/2019
Finish Date: 8/2/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 7822 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	48		0.0	C-4:				
	S-16	15-16				3.3	S-16: Light brown, fine to medium SAND, moist.				
16											
	S-17	16-17				2.7	S-17: Light brown, fine to medium SAND, moist.				
17											
	S-18	17-18				2.3	S-18: Light brown, fine to medium SAND, moist.			SAND	
18											
	S-19	18-19				1.7	S-19: Light brown, fine to medium SAND, moist.				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
Makayla Myers

Boring No.:
HS-SB-HULA2

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-HULA3 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/2/2019 **Finish Date:** 8/2/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	48		0.0	C-1:	1				
	S-1	0-1				15.5	S-1: 0-0.5': Dark brown, TOPSOIL, moist.			TOPSOIL	0.5	
1							0.5-1': Brown, Clayey SILT, moist.					
	S-2	1-2				21.8	S-2: Brown, Clayey SILT, moist.	2				No Equipment Installed
2												
	S-3	2-3				16.0	S-3: 2-2.7': Brown, Clayey SILT, moist.	3				
							2.7-3': White and brown, FILL, moist.					
3										FILL		
	S-4	3-4				9.1	S-4: White and brown, FILL, moist.					
4												
	S-5	4-5				N/A	S-5: No recovery.					
5											5	
	C-2	5-10	60	44		0.0	C-2:					
	S-6	5-6				25.3	S-6: Light brown, fine to medium SAND, moist.					
6												
	S-7	6-7				14.4	S-7: Light brown, fine to medium SAND, moist.			SAND		
7												
	S-8	7-8				15.8	S-8: 7-7.6': Light brown, fine to medium SAND, moist.					
							7.6-8': Light brown, CLAY, moist.				7.6	
8										CLAY	8	
	S-9	8-9				13.3	S-9: Light brown, fine to medium SAND, moist.					
9												
	S-10	9-10				N/A	S-10: No recovery.					
10												
	C-3	10-15	60	48		0.0	C-3:					
	S-11	10-11				21.8	S-11: Light brown, fine to medium SAND, moist.					
11												
	S-12	11-12				20.3	S-12: Light brown, fine to medium SAND, moist.			SAND		
12												
	S-13	12-13				22.7	S-13: Light brown, fine to medium SAND, moist.					
13												
	S-14	13-14				22.4	S-14: Light brown, fine to medium SAND, moist.					
14												

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-HULA3

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-HULA3
SHEET: 2 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Makayla Myers
Drilling Co.: Stearns Drilling
Foreman: Gary Geerligs

Start Date: 8/2/2019
Finish Date: 8/2/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 7822 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	57		NR	C-4:				
	S-16	15-16				17.1	S-16: Light brown, fine to medium SAND, moist.				
16											
	S-17	16-17				16.4	S-17: Light brown, fine to medium SAND, moist.				
17											
	S-18	17-18				15.1	S-18: Light brown, fine to medium SAND, moist.			SAND	
18											
	S-19	18-19				7.8	S-19: Light brown, fine to medium SAND, moist.				
19											
	S-20	19-20				3.6	S-20: Light brown, fine to medium SAND, moist.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
Makayla Myers

Boring No.:
HS-SB-HULA3

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-HULA4 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/2/2019 **Finish Date:** 8/2/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	45		0.4	C-1:	1		No Equipment Installed
	S-1	0-1				18.4	S-1: Brown, TOPSOIL, moist.			
1	S-2	1-2				10.0	S-2: 1-1.8': Brown, TOPSOIL, moist. 1.8-2': Brown and white, FILL, moist.	2	TOPSOIL 1.8	
2	S-3	2-3				18.1	S-3: Brown and white, FILL, moist.	3	FILL 3	
3	S-4	3-4				19.2	S-4: Brown, fine to medium SAND, moist, roots and organic matter present.			
4	S-5	4-5				N/A	S-5: No recovery.		SAND	
5	C-2	5-10	60	48		0.4	C-2:			
	S-6	5-6				11.7	S-6: Brown, fine to medium SAND, moist.			
6	S-7	6-7				14.7	S-7: Brown, CLAY, Sand seams, moist.		6	
7	S-8	7-8				13.3	S-8: Brown, CLAY, moist.		CLAY	
8	S-9	8-9				14.7	S-9: Light brown, fine to medium SAND, moist.		8	
9	S-10	9-10				N/A	S-10: No recovery.			
10	C-3	10-15	60	48		0.4	C-3: Light brown, fine to medium SAND, moist.			
	S-11	10-11				17.2	S-11: Light brown, fine to medium SAND, moist.			
11	S-12	11-12				16.2	S-12: Light brown, fine to medium SAND, moist.		SAND	
12	S-13	12-13				20.2	S-13: Light brown, fine to medium SAND, moist.			
13	S-14	13-14				12.3	S-14: Light brown, fine to medium SAND, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.8 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-HULA4

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-HULA4
SHEET: 2 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Makayla Myers
Drilling Co.: Stearns Drilling
Foreman: Gary Geerligs

Start Date: 8/2/2019
Finish Date: 8/2/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 7822 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	48		0.4	C-4:				
	S-16	15-16				19.8	S-16: Light brown, fine to medium SAND, moist.				
16											
	S-17	16-17				18.8	S-17: Light brown, fine to medium SAND, moist.				
17											
	S-18	17-18				17.9	S-18: Light brown, fine to medium SAND, moist.			SAND	
18											
	S-19	18-19				19.8	S-19: Light brown, fine to medium SAND, moist.				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
Makayla Myers

Boring No.:
HS-SB-HULA4

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-HULA5 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Makayla Myers **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/2/2019 **Finish Date:** 8/2/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	48		NR	C-1:	1	TOPSOIL 0.5	No Equipment Installed
	S-1	0-1				14.0	S-1: 0-0.5': Dark brown, TOPSOIL, moist. 0.5-1': Brown and white, FILL, moist.			
1	S-2	1-2				12.1	S-2: Brown and white, FILL, moist.	2	FILL	
2	S-3	2-3				13.6	S-3: Brown and white, FILL, moist.	3		
3	S-4	3-4				16.8	S-4: Light brown, fine to medium SAND, moist.		3	
4	S-5	4-5				N/A	S-5: No recovery.			
5	C-2	5-10	60	48		NR	C-2:			
	S-6	5-6				11.4	S-6: Light brown, fine to medium SAND, moist.			
6	S-7	6-7				11.9	S-7: Light brown, fine to medium SAND, moist.			
7	S-8	7-8				16.4	S-8: Light brown, fine to medium SAND, Clay lenses, moist.			
8	S-9	8-9				18.9	S-9: Light brown, fine to medium SAND, moist.		SAND	
9	S-10	9-10				N/A	S-10: No recovery.			
10	C-3	10-15	60	48		NR	C-3:			
	S-11	10-11				15.8	S-11: Light brown, fine to medium SAND, moist.			
11	S-12	11-12				10.0	S-12: Light brown, fine to medium SAND, moist.			
12	S-13	12-13				10.1	S-13: Light brown, fine to medium SAND, moist.			
13	S-14	13-14				6.6	S-14: Light brown, fine to medium SAND, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.5 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

Makayla Myers

Boring No.:

HS-SB-HULA5

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-HULA5
SHEET: 2 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Makayla Myers
Drilling Co.: Stearns Drilling
Foreman: Gary Geerligs

Start Date: 8/2/2019
Finish Date: 8/2/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 7822 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	52		NR	C-4:				
	S-16	15-16				12.4	S-16: Light brown, fine to medium SAND, moist.				
16											
	S-17	16-17				12.8	S-17: Light brown, fine to medium SAND, moist.				
17											
	S-18	17-18				13.5	S-18: Light brown, fine to medium SAND, moist.			SAND	
18											
	S-19	18-19				11.9	S-19: Light brown, fine to medium SAND, moist.				
19											
	S-20	19-20				8.8	S-20: Light brown, fine to medium SAND, moist.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
Makayla Myers

Boring No.:
HS-SB-HULA5

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4717 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/5/2019 **Finish Date:** 8/5/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	54		NR	C-1:			No Equipment Installed
	S-1	0-1				3.4	S-1: Brown, TOPSOIL, dry.		TOPSOIL 1	
1	S-2	1-2				3.8	S-2: Red/brown, SILT & CLAY, some fine to medium Sand, dry.		SILT & CLAY 2.2	
2	S-3	2-3				3.8	S-3: 2-2.2': Red/brown, SILT & CLAY, some fine to medium Sand, dry. 2.2-3': Brown, CLAY & SILT, little fine to medium Sand, dry.			
3	S-4	3-4				1.2	S-4: Brown, CLAY & SILT, little fine to medium Sand, dry.		CLAY & SILT 4.2	
4	S-5	4-5				1.8	S-5: 4-4.2': Brown, CLAY & SILT, little fine to medium Sand, dry. 4.2-5': Brown/red, fine SAND, some Silt, moist.		SAND 4.5 NO RECOVERY 5	
5	C-2	5-10	60	53		NR	C-2:			
	S-6	5-6				2.7	S-6: Brown, CLAY & SILT, little fine to coarse Sand, dry.			
6	S-7	6-7			6-7	1.9	S-7: Brown, CLAY & SILT, little fine to coarse Sand, dry.			
7	S-8	7-8				3.5	S-8: Brown, CLAY & SILT, little fine to coarse Sand, dry.		CLAY & SILT	
8	S-9	8-9				1.5	S-9: Brown, CLAY & SILT, little fine to coarse Sand, dry.			
9	S-10	9-10			9-10	0.7	S-10: Brown/white, fine to coarse SAND, little Silt, dry.		9	
10	C-3	10-15	60	42		NR	C-3:			
	S-11	10-11				3.9	S-11: 10-10.5': Brown/white, fine to coarse SAND, with Clay (chunk), little Silt, dry.			
11	S-12	11-12				3.8	10.5-11': Tan, fine to medium SAND, trace Silt, dry. S-12: Tan, fine to medium SAND, trace Silt, dry.		SAND	
12	S-13	12-13				3.9	S-13: 12-12.4': Tan, fine to medium SAND, trace Silt, dry. 12.4-13': Tan, fine to medium SAND, some Silt, trace Silt, dry.		13	
13	S-14	13-14				5.0	S-14: 13-13.5': Brown, CLAY, dry.		CLAY 13.5	
14									SAND	

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4717

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4717 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/5/2019 **Finish Date:** 8/5/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.			
15	C-4	15-20	60	54		NR	C-4:		SAND	
	S-16	15-16				2.6	S-16: Tan, fine SAND, some Silt, some Clay, moist.			
16	S-17	16-17				3.8	S-17: Brown, CLAY & SILT, trace fine Sand, dry.			16
17	S-18	17-18				3.6	S-18: 17-17.8': Brown, CLAY & SILT, trace fine Sand, dry. 17.8-18': Tan, fine SAND, trace Silt, dry.		CLAY & SILT	17.8
18	S-19	18-19				4.4	S-19: Tan, fine SAND, trace Silt, dry.			
19	S-20	19-20				3.5	S-20: Tan, fine SAND, trace Silt, dry.		SAND	
20							End of exploration at 20 feet.			20
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4717

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4718 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/5/2019 **Finish Date:** 8/5/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	46		0.0	C-1:	1		No Equipment Installed
	S-1	0-1				0.7	S-1: 0-0.8': Brown, fine to medium SAND, little Clay, trace fine Gravel, trace Silt, moist, roots present.			
1	S-2	1-2				0.8	0.8-1': Light brown, fine to medium SAND, little Clay little fine Gravel, trace Silt, moist.	2	SAND	
2	S-3	2-3				0.6	S-2: 1-1.8': Light brown, fine to medium SAND, little Clay little fine Gravel, trace Silt, moist.	3		
3	S-4	3-4				1.0	1.8-2': Light brown, fine to medium SAND, little Clay, trace fine Gravel, trace Silt, moist. S-3: 2-2.8': Light brown, fine to medium SAND, little Clay, trace fine Gravel, trace Silt, moist.		2.8 CLAY & SILT 3.4	
4	S-5	4-5				N/A	2.8-3': Brown, CLAY & SILT, little fine to medium Sand, moist. S-4: 3-3.4': Brown, CLAY & SILT and fine to medium Sand, moist.		SAND	
5	C-2	5-10	60	52		0.0				
	S-6	5-6				0.9	3.4-4': Brown, fine to medium SAND and Clay & Silt, moist.		5.5	
6	S-7	6-7				1.4	S-5: No recovery. C-2: S-6: 5-5.5': Brown, fine to medium SAND and Clay & Silt, moist.		CLAY & SILT 6.4 SAND 6.9	
7	S-8	7-8			7-8	1.7	5.5-5.8': Brown, CLAY & SILT, little fine to medium Sand, moist.			
8	S-9	8-9				1.6	5.8-6': Gray, CLAY & SILT, some fine to medium Sand, moist.		SILTY CLAY	
9	S-10	9-10				0.8	S-7: 6-6.4': Gray, CLAY & SILT, some fine to medium Sand, moist. 6.4-6.9': Light brown, fine to medium SAND, little Silt, trace Clay, moist.			
10	C-3	10-15	60	40	10-11	0.0	6.9-7': Brown, Silty CLAY, trace fine to medium Sand.		10 SAND AND SILTY CLAY 10.3	
	S-11	10-11				1.2	S-8: Brown, Silty CLAY, trace fine to medium Sand.			
11	S-12	11-12				1.1	S-9: 8-8.8': Brown, Silty CLAY, trace fine to medium Sand. 8.8-9': Light brown, Silty CLAY, moist.		SILTY CLAY 11.2 CLAY 11.5	
12	S-13	12-13				0.0	S-10: Brown, Silty CLAY, trace fine to medium Sand. C-3: S-11: 10-10.3': Light brown to brown, fine to medium SAND and Silty CLAY, moist.			
13	S-14	13-14				1.7	10.3-11': Gray, Silty CLAY, trace fine to medium Sand, moist.		SAND	
14							S-12: 11-11.2': Gray, Silty CLAY, trace fine to medium			

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.2 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4718

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4718 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/5/2019 **Finish Date:** 8/5/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	Sand, moist.			
							11.2-11.5': Brown, CLAY, trace fine Gravel, moist.			
15							11.5-12': Light brown, fine to medium SAND, moist.		SAND	
	C-4	15-20	60	47		NR	S-13: Light brown, fine to medium SAND, moist.			
	S-16	15-16				0.9	S-14: Light brown, fine to medium SAND, moist.			15.8
16							S-15: No recovery.			
	S-17	16-17				0.7	C-4:		SILTY CLAY	16.4
							S-16: 15-15.8': Brown, fine to medium SAND, some Silt,			
17							wet.			
	S-18	17-18				1.1	15.8-16': Brown, Silty CLAY, little fine to medium Sand, wet.			
							S-17: 16-16.4': Brown, Silty CLAY, little fine to medium			
18							Sand, wet.			
	S-19	18-19				1.1	16.4-17': Light brown, fine to medium SAND, little Silt, moist.		SAND	
							S-18: Light brown, fine to medium SAND, little Silt, moist.			
19										
	S-20	19-20				N/A	S-19: Light brown, fine to medium SAND, little Silt, moist.			
							S-20: No recovery.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4718

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4719 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/6/2019 **Finish Date:** 8/6/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	56		NR	C-1:			No Equipment Installed
	S-1	0-1				10.4	S-1: Brown, TOPSOIL, dry.		TOPSOIL 1	
1	S-2	1-2				9.7	S-2: Brown, SILT & CLAY, little fine to medium Sand, dry.		SILT & CLAY 2.3	
2	S-3	2-3				8.8	S-3: 2-2.2': Brown, SILT & CLAY, little fine to medium Sand, dry. 2.2-3': Brown, CLAY & SILT, little fine Sand, dry.			
3	S-4	3-4				9.4	S-4: Brown, CLAY & SILT, little fine Sand, dry.			
4	S-5	4-5				7.9	S-5: Brown, CLAY & SILT, trace fine Sand, dry.		CLAY & SILT	
5	C-2	5-10	60	60		NR	C-2:			
	S-6	5-6				9.2	S-6: Brown, CLAY & SILT, little fine to medium Sand, dry.			
6	S-7	6-7			6-7	6.1	S-7: Brown, CLAY & SILT, little fine to medium Sand, dry.			
7	S-8	7-8				9.3	S-8: Brown, CLAY & SILT, little fine to medium Sand, rock fragments, dry.		7 SAND	
8	S-9	8-9				5.7	S-9: Light brown/white, fine to coarse SAND, little Silt, rock fragments, dry.		8 CLAY	
9	S-10	9-10			9-10	6.4	S-10: 9-9.7': Brown, CLAY, some fine to coarse Sand, dry. 9.7-10': Brown, fine to coarse SAND, some Gravel, little Silt, dry.		9.7 SAND 10	
10	C-3	10-15	60	36		NR	C-3:			
	S-11	10-11				4.8	S-11: Brown, CLAY & SILT, trace fine Sand, dry.			
11	S-12	11-12				3.1	S-12: Brown, CLAY & SILT, trace fine Sand, dry.			
12	S-13	12-13				6.4	S-13: Brown, CLAY & SILT, trace fine Sand, dry.		CLAY & SILT	
13	S-14	13-14				N/A	S-14: No recovery.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4719

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4719 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/6/2019 **Finish Date:** 8/6/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		CLAY & SILT	
15										15
	C-4	15-20	60	56		NR	C-4:			
	S-16	15-16				5.3	S-16: Brown, CLAY, trace fine Sand, dry.			
16										
	S-17	16-17				3.6	S-17: Brown, CLAY, trace fine Sand, dry.			
17									CLAY	
	S-18	17-18				5.8	S-18: Brown, CLAY, trace fine Sand, dry.			
18										
	S-19	18-19				4.9	S-19: 18-18.7': Brown, CLAY, trace fine Sand, dry. 18.7-19': Tan, fine SAND, dry.			18.7
19										
	S-20	19-20				4.0	S-20: Tan, fine SAND, dry.		SAND	
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4719

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4720 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/5/2019 **Finish Date:** 8/5/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	45		0.0	C-1:	1		No Equipment Installed
	S-1	0-1				1.0	S-1: 0-0.9': Brown to light brown, fine to medium SAND, little Clay, trace Silt, moist.		SAND	
1	S-2	1-2				1.2	0.9-1': Light brown, fine to medium SAND, trace Silty Clay, moist.	2	1.2	
2	S-3	2-3				0.9	S-2: 1-1.2': Light brown, fine to medium SAND, trace Silty Clay, moist.	3	CLAY & SILT 2.1	
							1.2-2': Brown, CLAY & SILT, little fine to medium Sand, moist.		CLAY & SILT & SAND 2.8	
3	S-4	3-4				1.0	S-3: 2-2.1': Brown, CLAY & SILT, little fine to medium Sand, moist.		SAND 3.5	
4	S-5	4-5				N/A	2.1-2.8': Brown, CLAY & SILT and fine to medium SAND, trace fine Gravel, moist.		SILTY CLAY	
							2.8-3': Brown, fine to medium SAND, trace Silty Clay, moist.			
5	C-2	5-10	60	42		0.0	S-4: 3-3.5': Brown, fine to medium SAND, trace Silty Clay, moist.		5	
	S-6	5-6				1.0	3.5-3.8': Brown, Silty CLAY, trace fine to medium Sand, moist.		SAND AND SILTY CLAY	
6	S-7	6-7				1.0	3.8-4': No recovery.		6	
7	S-8	7-8			7-8	1.0	S-5: No recovery.		SAND 6.9	
							C-2:		CLAY 7	
8	S-9	8-9				1.1	S-6: Brown, fine to medium SAND and Silty CLAY, moist.			
							S-7: 6-6.9': Brown, fine to medium SAND, little Silty Clay, moist.			
9	S-10	9-10				N/A	6.9-7': Gray, CLAY, moist.			
							S-8: Brown, Silty CLAY.		SILTY CLAY	
							S-9: 8-8.4': Brown, Silty CLAY.			
10	C-3	10-15	60	32		NR	8.4-9': No recovery.			
							S-10: No recovery.			
	S-11	10-11				0.8	C-3:			
11	S-12	11-12				0.7	S-11: Brown, Silty CLAY, moist.			
							S-12: 11-11.2': Brown, Silty CLAY, moist.		11.2	
12	S-13	12-13				0.9	11.2-11.6': Brown, fine to medium SAND, little Silty Clay, moist.		SAND	
							11.6-12': Light brown, fine to medium SAND, trace Silty Clay, moist.		12.6	
13	S-14	13-14			13-14	N/A	S-13: 12-12.6': Light brown, fine to medium SAND, trace Silty Clay, moist.		CLAY	
14							12.6-12.7': Brown, CLAY, wet.			

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.3 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4720

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4720 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/5/2019 **Finish Date:** 8/5/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	12.7-13': No recovery.				
							S-14: No recovery.			CLAY	
15							S-15: No recovery.				15
	C-4	15-20	60	38		0.0	C-4:			SAND	15.5
	S-16	15-16				0.9	S-16: 15-15.5': Light brown, fine to medium SAND, little Silty Clay, moist.			SILTY CLAY	15.9
16											
	S-17	16-17				0.9	15.5-15.9': Brown, Silty CLAY, trace fine to medium Sand, wet.				
17											
	S-18	17-18				0.8	15.9-16': Light brown, fine to medium SAND, trace Silty Clay, moist.				
18							S-17: Light brown, fine to medium SAND, trace Silty Clay, moist.			SAND	
	S-19	18-19				1.0	S-18: Light brown, fine to medium SAND, trace Silty Clay, moist.				
19											
	S-20	19-20				N/A	S-19: 18-18.2': Light brown, fine to medium SAND, trace Silty Clay, moist.				
20							18.2-19': No recovery.				20
							S-20: No recovery.				
21							End of exploration at 20 feet.				
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4720

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4721
SHEET: 1 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Sheryl Stephenson
Drilling Co.: Stearns Drilling
Foreman: Gary Geerligs

Start Date: 8/6/2019
Finish Date: 8/6/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	60		NR	C-1:				
	S-1	0-1				4.2	S-1: 0-0.8': Brown, TOPSOIL, dry.		TOPSOIL	0.8	
1							0.8-1': Brown, SILT & CLAY, little fine Sand, dry.				
	S-2	1-2				5.5	S-2: 1-1.7': Brown, SILT & CLAY, little fine Sand, dry.		SILT & CLAY	1.7	No Equipment Installed
							1.7-2': Brown, CLAY & SILT, little fine Sand, dry.				
2											
	S-3	2-3				3.3	S-3: Brown, CLAY & SILT, little fine Sand, dry.				
3											
	S-4	3-4				4.8	S-4: Brown, CLAY & SILT, little fine Sand, dry.				
4											
	S-5	4-5				5.5	S-5: Brown, CLAY & SILT, little fine Sand, dry.				
5											
	C-2	5-10	60	60		NR	C-2:				
	S-6	5-6				5.8	S-6: Brown, CLAY & SILT, little fine Sand, dry.				
6											
	S-7	6-7				6.1	S-7: Brown, CLAY & SILT, little fine Sand, dry.				
									CLAY & SILT		
7					7-8						
	S-8	7-8				6.0	S-8: Brown, CLAY & SILT, little fine Sand, dry.				
8											
	S-9	8-9				6.4	S-9: Brown, CLAY & SILT, little fine Sand, dry.				
9											
	S-10	9-10				4.2	S-10: Brown, CLAY & SILT, little fine Sand, trace Gravel/Rock, dry.				
10											
	C-3	10-15	60	60		NR	C-3:				
	S-11	10-11				4.2	S-11: Brown, CLAY & SILT, little fine Sand, trace Gravel/Rock, dry.				
11											
	S-12	11-12				4.7	S-12: 11-11.4': Brown, CLAY & SILT, little fine Sand, dry.			11.4	
							11.4-12': Light brown/white, fine to coarse SAND, with Gravel, rock fragments, dry.		SAND		
12											
	S-13	12-13				4.0	S-13: 12-12.4': Light brown/white, fine to coarse SAND, with Gravel, rock fragments, dry.			12.4	
13					13-14						
	S-14	13-14				4.2	12.4-13': Brown, CLAY, dry. S-14: Brown, CLAY, dry.		CLAY		
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
Sheryl Stephenson

Boring No.:
HS-SB-4721

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4721 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/6/2019 **Finish Date:** 8/6/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				3.8	S-15: Brown, CLAY, dry.			
15										
	C-4	15-20	60	56		NR	C-4:			
	S-16	15-16				3.8	S-16: Brown, CLAY, dry.		CLAY	
16										
	S-17	16-17				3.8	S-17: 16-16.8': Brown, CLAY, dry. 16.8-17': Tan, fine SAND, dry.			16.8
17										
	S-18	17-18				3.6	S-18: Tan, fine SAND, dry.			
18										
	S-19	18-19				4.6	S-19: Tan, fine SAND, dry.		SAND	
19										
	S-20	19-20				3.9	S-20: Tan, fine SAND, dry.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4721

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4722 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/5/2019 **Finish Date:** 8/5/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	43		0.0	C-1:	1		No Equipment Installed
	S-1	0-1				0.9	S-1: 0-0.6': Brown, TOPSOIL, moist, roots present.		SAND	
1	S-2	1-2				1.1	0.6-1': Brown, fine to medium SAND, trace Silt & Clay, moist.	2	1.2	
2	S-3	2-3				0.7	S-2: 1-1.4': Brown, fine to medium SAND, trace Silt & Clay, moist. 1.4-2': Brown, fine to medium SAND, some Silt & Clay, moist.	3	CLAY & SILT 2.1 CLAY & SILT & SAND 2.8	
3	S-4	3-4				0.9	S-3: 2-2.8': Brown, fine to medium SAND, some Silt & Clay, moist.		SAND 3.5	
4	S-5	4-5				N/A	2.8-3': Brown, fine to medium SAND, trace Silty Clay, moist. S-4: 3-3.6': Brown, fine to medium SAND, trace Silty Clay, moist. 3.6-4': No recovery.		SILTY CLAY	
5	C-2	5-10	60	52		0.0	S-5: No recovery.		5	
	S-6	5-6				0.6	C-2:		SAND AND SILTY CLAY	
6	S-7	6-7			6-7	0.7	S-6: Brown to light brown, fine to medium SAND, trace Silty Clay, moist.		6	
7	S-8	7-8				0.9	S-7: Brown to light brown, fine to medium SAND, trace Silty Clay, moist. S-8: 7-7.3': Brown to light brown, fine to medium SAND, trace Silty Clay, moist.		SAND 6.9 CLAY 7	
8	S-9	8-9				1.1	7.3-8': Brown, Silty CLAY, trace fine Gravel, moist. S-9: Brown, Silty CLAY, trace fine Gravel, moist.		SILTY CLAY	
9	S-10	9-10				0.9	S-10: Brown, Silty CLAY, trace fine Gravel, moist.			
10	C-3	10-15	60	48	10-11	0.0	C-3:		10	
	S-11	10-11				0.6	S-11: Light brown to brown, fine to medium SAND, trace Silt, moist.		SAND	
11	S-12	11-12				0.8	S-12: Brown, Silty CLAY, moist.		11	
12	S-13	12-13				1.0	S-13: Brown, Silty CLAY, moist.		CLAY	
13	S-14	13-14				0.8	S-14: 13-13.4': Brown, Silty CLAY, moist. 13.4-13.9': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at ?.? ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4722

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4722 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/5/2019 **Finish Date:** 8/5/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	13.9-14': Gray, CLAY, some fine to medium Sand, trace fine Gravel, moist.			CLAY	
15							S-15: No recovery.				15
	C-4	15-20	60	34		NR	C-4:				
	S-16	15-16				0.8	S-16: Light brown, fine to medium SAND, little Silty Clay, trace fine Gravel, moist.				
16											
	S-17	16-17				0.8	S-17: 16-16.5': Light brown, fine to medium SAND, little Silty Clay, trace fine Gravel, moist.				
17											
	S-18	17-18				N/A	16.5-17': Light brown, fine to medium SAND, trace fine Gravel, trace Silt, moist.			SAND	
							S-18: No recovery.				
18											
	S-19	18-19				N/A	S-19: No recovery.				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4722

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4724 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/5/2019 **Finish Date:** 8/5/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	42		0.0	C-1:	1		No Equipment Installed
	S-1	0-1				2.7	S-1: Brown, fine to medium SAND, little Clay, trace Silt, moist. roots present.			
1	S-2	1-2				0.7	S-2: 1-1.6': Brown, fine to medium SAND, little Clay, trace Silt, moist. roots present.	2		
2	S-3	2-3				0.8	1.6-2': Brown, fine to medium SAND, trace Silt, moist. S-3: Brown, fine to medium SAND, trace Silt, moist.	3		
3	S-4	3-4				0.6	S-4: 3-3.5': Brown, fine to medium SAND, trace Silt, moist. 3.5-4': No recovery.		SAND	
4	S-5	4-5				N/A	S-5: No recovery.			
5	C-2	5-10	60	56		0.0	C-2:			
	S-6	5-6				2.6	S-6: 5-5.8': Brown, fine to medium SAND, trace Silt, moist.			
6	S-7	6-7				3.2	5.8-5.9': Dark brown, fine to medium SAND, little Silt & Clay, moist, mica rock fragments.		5.9	
7	S-8	7-8			7-8	3.1	5.9-6': Brown, Silty CLAY, trace fine Gravel, trace fine to medium Sand, moist, roots present. S-7: Brown, Silty CLAY, trace fine Gravel, trace fine to medium Sand, moist, roots present.			
8	S-9	8-9				3.5	S-8: Brown, Silty CLAY, trace fine Gravel, trace fine to medium Sand, moist, roots present.		SILTY CLAY	
9	S-10	9-10				2.6	S-9: Brown, Silty CLAY, trace fine Gravel, trace fine to medium Sand, moist. S-10: 9-9.7': Brown, Silty CLAY, trace fine Gravel, trace fine to medium Sand, moist.			
10	C-3	10-15	60	45	10-11	0.0	9.7-10': No recovery.		10	
	S-11	10-11				2.7	C-3:		SAND	
11	S-12	11-12				3.0	S-11: 10-10.9': Light brown, fine to medium SAND, trace Silt, moist.		10.9	
							10.9-11': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.		SILTY CLAY 11.5	
12	S-13	12-13				3.3	S-12: 11-11.5': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
13	S-14	13-14				2.7	11.5-12': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, wet.		SAND	
14							S-13: 12-12.2': Brown, Silty CLAY, little fine to medium			

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.5 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4724

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4724 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/5/2019 **Finish Date:** 8/5/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	Sand, trace fine Gravel, wet.			
15	C-4	15-20	60	44		0.0	12.2-13': Brown to light brown, fine to medium SAND, little Silt, moist. S-14: 13-13.5': Brown to light brown, fine to medium SAND, little Silt, moist.		SAND	15.1
	S-16	15-16				2.2			SILTY CLAY	
16	S-17	16-17				1.9	13.5-14': No recovery. S-15: No recovery. C-4:			16
17	S-18	17-18				2.4	S-16: 15-15.1': Brown to light brown, fine to medium SAND, little Silt, moist. 15.1-16': Brown, Silty CLAY, moist.			
18	S-19	18-19				2.7	S-17: Light brown, fine to medium SAND, little Silt, moist. S-18: Light brown, fine to medium SAND, little Silt, moist.		SAND	
19	S-20	19-20				N/A	S-19: 18-18.7': Light brown, fine to medium SAND, little Silt, moist. 18.7-19': No recovery.			
20							S-20: No recovery.			20
21							End of exploration at 20 feet.			
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4724

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4726 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/6/2019 **Finish Date:** 8/6/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	48		NR	C-1:			No Equipment Installed
	S-1	0-1				7.8	S-1: 0-0.8': Brown, TOPSOIL, dry.		TOPSOIL 0.8	
1							0.8-1': Brown, CLAY & SILT, little fine to medium Sand, dry.			
	S-2	1-2				8.7	S-2: 1-1.8': Brown, CLAY & SILT, little fine to medium Sand, dry.		CLAY & SILT 1.8	
2							1.8-2': Tan/brown, fine to medium SAND, little Silt, dry.			
	S-3	2-3				9.3	S-3: Tan/brown, fine to medium SAND, little Silt, dry.			
3										
	S-4	3-4				11.4	S-4: Tan, fine to medium SAND, little Silt, dry.			
4									SAND	
	S-5	4-5				N/A	S-5: No recovery.			
5										
	C-2	5-10	60	60		NR	C-2:			
	S-6	5-6				9.9	S-6: 5-5.7': Tan/brown, fine to medium SAND, little Silt, dry.		5.7	
6							5.7-6': Brown, CLAY & SILT, little fine to medium Sand, dry.		CLAY & SILT 6	
	S-7	6-7				12.0	S-7: 6-6.8': Tan, fine to medium SAND, little Silt, dry.		SAND 6.8	
7							6.8-7': Brown, CLAY & SILT, trace fine to medium Sand, dry.			
	S-8	7-8			7-8	8.9	S-8: 7-7.4': Brown, CLAY & SILT, trace fine to medium Sand, dry.		CLAY & SILT 7.4	
8							7.4-8': Brown, fine SAND, little Silt, dry.		SAND 8	
	S-9	8-9				14.1	S-9: Brown, CLAY & SILT, trace fine to medium Sand, dry.			
9										
	S-10	9-10				14.4	S-10: Brown, CLAY & SILT, trace fine to medium Sand, dry.		CLAY & SILT	
10									10	
	C-3	10-15	60	28		NR	C-3:			
	S-11	10-11				12.3	S-11: 10-10.8': Tan/brown, fine to medium SAND, little Silt, dry.		SAND	
11					11-12					
	S-12	11-12				12.9	10.8-11': Brown, fine SAND, little Silt, dry.		11.3	
							S-12: 11-11.3': Brown, fine SAND, little Silt, dry.			
12							11.3-12': Brown, CLAY & SILT, trace fine to medium Sand, dry.		CLAY & SILT 12.3	
	S-13	12-13				10.0	S-13: Brown, CLAY & SILT, trace fine to medium Sand, dry.			
13										
	S-14	13-14				N/A	S-14: No recovery.		NO RECOVERY	
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4726

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4726 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/6/2019 **Finish Date:** 8/6/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		NO RECOVERY
15									15
	C-4	15-20	60	48		NR	C-4:		
	S-16	15-16				10.6	S-16: Brown, fine to medium SAND, little Silt, dry.		
16									
	S-17	16-17				11.6	S-17: 16-16.4': Brown, fine to medium SAND, little Silt, Clay lens, dry. 16.4-17': Tan, fine SAND, green rock at 16.5', dry.		
17									
	S-18	17-18				11.8	S-18: Tan, fine SAND, dry.		SAND
18									
	S-19	18-19				12.7	S-19: Tan, fine SAND, dry.		
19									
	S-20	19-20				N/A	S-20: No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4726

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4728 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/6/2019 **Finish Date:** 8/6/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	50		0.0	C-1:	1				
	S-1	0-1				2.3	S-1: 0-0.2': Brown, fine to medium SAND, little Clay, trace Silt, moist, roots present.			SAND		
1	S-2	1-2				1.5	0.2-1': Light brown, fine to medium SAND, little Silty Clay, trace fine Gravel, moist.	2			1.3	No Equipment Installed
2	S-3	2-3				1.6	S-2: 1-1.3': Light brown, fine to medium SAND, little Silty Clay, trace fine Gravel, moist. 1.3-2': Brown, Silty CLAY, little fine Sand, dry.	3		SILTY CLAY		
3	S-4	3-4				1.3	S-3: Brown, Silty CLAY, little fine Sand, dry. S-4: 3-3.2': Brown, Silty CLAY, little fine Sand, dry. 3.2-4': Light brown, fine to medium SAND, little Silt, moist.				3.2	
4	S-5	4-5				0.8	S-5: 4-4.2': Light brown, fine to medium SAND, little Silt, moist. 4.2-5': No recovery.					
5	C-2	5-10	60	43		0.0	C-2:					
	S-6	5-6				1.6	S-6: Light brown, fine to medium SAND, little Silt, moist.					
6	S-7	6-7				1.7	S-7: Light brown, fine to medium SAND, little Silt, moist.					
7	S-8	7-8			7-8	1.7	S-8: Light brown, fine to medium SAND, little Silt, moist.					
8	S-9	8-9				1.3	S-9: Light brown, fine to medium SAND, little Silt, moist.			SAND		
9	S-10	9-10				N/A	S-10: No recovery.					
10	C-3	10-15	60	45		0.0	C-3:					
	S-11	10-11				1.6	S-11: Light brown, fine to medium SAND, little Silt, moist.					
11	S-12	11-12			11-12	1.4	S-12: Light brown to brown, fine to medium SAND, little Silt, trace fine Gravel, moist.					
12	S-13	12-13				1.5	S-13: 12-12.6': Brown, fine to medium SAND, some Silty Clay, trace fine Gravel, moist. 12.6-13': Light brown to brown, fine to medium SAND, little Silty Clay, moist.					
13	S-14	13-14				2.2	S-14: 13-13.4': Light brown to brown, fine to medium SAND,				13.4	
14										SILTY CLAY	13.6	

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.2 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4728

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4728 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/6/2019 **Finish Date:** 8/6/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	little Silty Clay, moist.				
							13.4-13.6': Brown, Silty CLAY, moist.				
15							13.6-14': Light brown, fine to medium SAND, trace Silt, wet.				
	C-4	15-20	60	38		0.0	S-15: No recovery.				
	S-16	15-16				1.3	C-4:				
16							S-16: Light brown, fine to medium SAND, trace Silt, wet.				
	S-17	16-17				1.5	S-17: Light brown, fine to medium SAND, trace Silt, wet.				
17											
	S-18	17-18				2.0	S-18: Light brown, fine to medium SAND, trace Silt, wet.			SAND	
18											
	S-19	18-19				1.7	S-19: Light brown, fine to medium SAND, trace Silt, wet.				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4728

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4730 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/6/2019 **Finish Date:** 8/6/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	58		0.0	C-1:	1	SAND 0.4	No Equipment Installed
	S-1	0-1				0.6	S-1: 0-0.4': Brown, fine to medium SAND, litle Silt, moist, roots present.			
1	S-2	1-2				0.5	0.4-1': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist, roots present.	2		
2	S-3	2-3				2.2	S-2: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist, roots present.	3		
3	S-4	3-4				1.9	S-3: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
4	S-5	4-5				1.6	S-4: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.		SILTY CLAY	
5	C-2	5-10	60	51		0.0	S-5: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
	S-6	5-6				1.0	C-2:			
6	S-7	6-7			6-7	1.4	S-6: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
7	S-8	7-8				1.6	S-7: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.		7	
8	S-9	8-9				1.4	S-8: 7-7.9': Light gray, fine to coarse SAND, some fine Gravel, little Silty Clay, dry.		SAND	
9	S-10	9-10			9-10	1.6	7.9-8': Dark brown, fine to medium SAND, some Silty Clay, moist.		8.9	
10	C-3	10-15	60	53		0.0	S-9: 8-8.9': Light gray and brown, fine to coarse SAND and fine GRAVEL, trace Silt, moist.		9.1 SILTY CLAY	
	S-11	10-11				1.7	8.9-9': Brown, Silty CLAY, little fine to medium Sand, moist.		SAND	
11	S-12	11-12				1.0	S-10: 9-9.1': Brown, Silty CLAY, little fine to medium Sand, moist.		10	
12	S-13	12-13				1.3	9.1-9.2': Light brown, fine to medium SAND, trace Silt, moist.		SILTY CLAY	
13	S-14	13-14				1.0	9.2-10': No recovery.			
14							C-3:			
							S-11: 10-10.9': Light brown, fine to medium SAND, trace Silt, moist.			
							10.9-11': Brown, Silty CLAY, moist.		12.6	
							S-12: Brown, Silty CLAY, moist.		SAND 13.1	
							S-13: 12-12.6': Brown, Silty CLAY, moist.		13.3 SILTY CLAY	
							12.6-13': Light brown, fine to medium SAND, some Silty		SAND 14	

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4730

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4730 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/6/2019 **Finish Date:** 8/6/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				1.4	Clay, moist.		
15							S-14: 13-13.1': Light brown, fine to medium SAND, some Silty Clay, moist.		
	C-4	15-20	60	29		NR	13.1-13.3': Brown, Silty CLAY, moist.		SILTY CLAY
	S-16	15-16				0.7	13.3-14': Light brown, fine to medium SAND, little Silt, moist.		
16							S-15: Brown, Silty CLAY, little fine to medium Sand, moist.		
	S-17	16-17				2.4	C-4:		
17							S-16: 15-15.4': Brown, Silty CLAY, little fine to medium Sand, moist.		16.7
	S-18	17-18				1.8	15.4-16': Brown, Silty CLAY, moist.		
18							S-17: 16-16.7': Brown, Silty CLAY, moist.		
	S-19	18-19				N/A	16.7-17': Light brown, fine to medium SAND, little Silt, moist.		
							S-18: Light brown, fine to medium SAND, little Silt, moist.		SAND
19							S-19: No recovery.		
	S-20	19-20				N/A	S-20: No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4730

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-518A **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/6/2019 **Finish Date:** 8/6/2019 **Final Depth (ft.):** 15	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
1											No Equipment Installed
2											
3											
4											
5											
6	C-1	6-11	60	48		NR	C-1:				
	S-7	6-7					S-7: 6-6.6': Brown, CLAY & SILT, little fine to medium Sand, dry.		CLAY & SILT	6.6	
7	S-8	7-8				NR	6.6-6.8': Brown, fine to medium SAND, some Silt, trace Gravel, dry.		SAND	6.8	
									CLAY & SILT	7.3	
8	S-9	8-9				NR	6.8-7': Brown, CLAY & SILT, little fine to medium Sand, dry. S-8: 7-7.3': Brown, CLAY & SILT, little fine to medium Sand, dry.		WASTE	8	
									SAND	8.6	
9	S-10	9-10				NR	7.3-8': Black/blue, WASTE, odor present. S-9: 8-8.6': Tan, fine to medium SAND, little Silt, dry.				
10						NR	8.6-9': Brown, Silty CLAY, trace fine Sand, dry. S-10: Brown, Silty CLAY, trace fine Sand, dry.		SILTY CLAY		
						NR					
11	C-2	11-15	48	48	11-12	NR	C-2:			11.4	
	S-12	11-12					S-12: 11-11.4': Brown, Silty CLAY, trace fine Sand, dry.				
12	S-13	12-13				NR	11.4-12': Tan, fine SAND, dry. S-13: 12-12.3': Brown, CLAY, dry.		SAND	12	
									CLAY	12.3	
							12.3-12.7': Tan, fine SAND, dry.		SAND	12.7	
13	S-14	13-14				NR	12.7-13': Brown, CLAY, dry. S-14: 13-13.4': Brown, CLAY, dry.		CLAY	13.4	
14							13.4-14': Tan, fine SAND, dry.		SAND	14	

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-518A

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-518A
SHEET: 2 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Sheryl Stephenson
Drilling Co.: Stearns Drilling
Foreman: Gary Geerligs

Start Date: 8/6/2019
Finish Date: 8/6/2019
Final Depth (ft.): 15

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				NR	S-15: 14-14.2': Brown, CLAY, dry.			CLAY	14.2
							14.2-15': Tan, fine SAND, dry.			SAND	
15											15
							End of exploration at 15 feet.				
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
Sheryl Stephenson

Boring No.:
HS-SB-518A

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Wolverine World Wide
House Street
Rockford, Michigan

EXPLORATION NO.: HS-SB-4800
SHEET: 1 of 2
PROJECT NO: 16.0062335.52
REVIEWED BY: BLW

Logged By: Sheryl Stephenson
Drilling Co.: Stearns Drilling
Foreman: Gary Geerligs

Start Date: 8/8/2019
Finish Date: 8/8/2019
Final Depth (ft.): 20

BORING COORDINATES (International Feet):
N TBD **E** TBD
H. Datum: MI State Plane S Zone NAD83

Type of Rig: Geoprobe
Rig Model: 6620 DT
Drilling Method: Direct Push

Sampler Type: Macro Core
Sampler O.D. (in.): 2.25"
Sampler Length (in.): 5.0'

Offset of Boring From Original Location:
NA
Ground Elevation: See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	60	0-2	NR	C-1:		TOPSOIL	0.2	1" PVC Riser (0-14')
	S-1	0-1				1.9	S-1: 0-0.2': Dark brown, TOPSOIL.		GRANITE ROCK	0.4	
1							0.2-0.4': Crushed granite.				
	S-2	1-2				2.4	0.4-1': Brown, SILT, litttle fine to coarse Sand, dry, wood debris present.		SILT	1.7	
2	S-3	2-3				1.2	S-2: 1-1.7': Brown, SILT, litttle fine to coarse Sand, dry, wood debris present.				
							1.7-2': Brown, CLAY & SILT, trace fine Sand, dry.		CLAY & SILT		
3	S-4	3-4				2.0	S-3: Brown, CLAY & SILT, trace fine Sand, dry. S-4: 3-3.5': Brown, CLAY & SILT, trace fine Sand, dry.			3.5	
							3.5-3.6': Brown/orange, fine SAND, some Silt.		SAND	3.6	
4	S-5	4-5				1.9	3.6-4': Brown, CLAY & SILT, trace fine Sand, dry. S-5: Brown, CLAY & SILT, trace fine Sand, dry.		CLAY & SILT		
5	C-2	5-10	60	44		NR	C-2:			5.2	
	S-6	5-6				1.8	S-6: 5-5.2': Brown, CLAY & SILT, trace fine Sand, dry.				
6							5.2-6': Light brown, fine SAND, some Silt, dry.				
	S-7	6-7				2.6	S-7: 6-6.4': Light brown, fine SAND, some Silt, dry.				
							6.4-7': Brown, fine to coarse SAND, some Silt, dry.				
7	S-8	7-8				3.0	S-8: Tan/brown, fine to medium SAND, little Silt, moist.				Bentonite (0.5-12')
8	S-9	8-9				3.2	S-9: 8-8.7': Tan/brown, fine to medium SAND, little Silt, moist.				
							8.7-9': No recovery.				
9	S-10	9-10				N/A	S-10: No recovery.				
									SAND		
10	C-3	10-15	60	48		NR	C-3:				
	S-11	10-11				3.3	S-11: Tan/brown, fine to medium SAND, little Silt, moist.				
11	S-12	11-12				2.9	S-12: Tan/brown, fine to medium SAND, little Silt, moist.				
12	S-13	12-13				3.4	S-13: Tan/brown, fine to medium SAND, little Silt, moist.				
13	S-14	13-14				3.3	S-14: Tan/brown, fine to medium SAND, little Silt, moist.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
B91621870

REMARKS

Logger:
Sheryl Stephenson

Boring No.:
HS-SB-4800

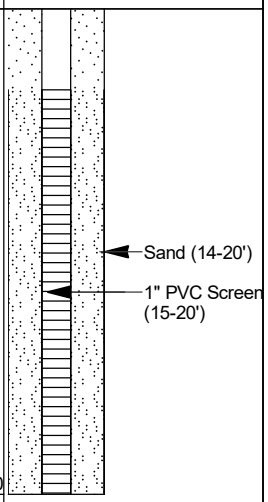
WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4800 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/8/2019 **Finish Date:** 8/8/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15	C-4	15-20	60	48	15-17	NR	C-4:				
	S-16	15-16				3.3	S-16: Tan/brown, fine to medium SAND, trace Silt, moist.				
16	S-17	16-17					S-17: Tan/brown, fine to medium SAND, trace Silt, moist.				
17	S-18	17-18				3.5	S-18: Brown, fine SAND, some Silt, gray Clay lenses, wet.			SAND	
18	S-19	18-19				3.6	S-19: Brown, fine SAND, some Silt, gray Clay lenses, brown Clay lens, wet.				
19	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											



Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4800

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4801 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/8/2019 **Finish Date:** 8/8/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	53	0-2	0.0	C-1:	1		TOPSOIL	0.2	1" PVC Riser (0-14')
	S-1	0-1				1.8	S-1: 0-0.2': Brown, TOPSOIL, moist, roots present.			SAND	0.7	
1	S-2	1-2				2.1	0.2-0.7': Light brown, fine to medium SAND, little Clay, trace Silt, moist, roots present.	2				
2	S-3	2-3				4.3	0.7-1': Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist, roots present.	3				
3	S-4	3-4				5.0	S-2: Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist, roots present.					
4	S-5	4-5				5.6	S-3: Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist, roots present.			CLAY & SILT		
5	C-2	5-10	60	53		0.0	S-4: Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist, roots present.					Bentonite (0.5-10')
	S-6	5-6				5.1	S-5: 4-4.4': Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist, roots present.					
6	S-7	6-7				5.8	4.4-5': No recovery.					
7	S-8	7-8				5.5	C-2:				6.8	
8	S-9	8-9				5.7	S-6: Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist, roots present.			SAND	7.2	
9	S-10	9-10				6.3	S-7: 6-6.8': Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist, roots present.			CLAY & SILT	8.9	
10	C-3	10-15	60	36		NR	6.8-7': Brown, fine to medium SAND, some Clay, little Silt, moist.					
11	S-11	10-11				3.8	S-8: 7-7.2': Brown, fine to medium SAND, some Clay, little Silt, moist.					
12	S-12	11-12				3.8	7.2-8': Brown, CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist.					
13	S-13	12-13				4.3	S-9: 8-8.9': Brown, CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist.					
14	S-14	13-14				N/A	8.9-9': Light brown, fine to medium SAND, little Clay & Silt, moist.			SAND		
							S-10: 9-9.4': Light brown, fine to medium SAND, little Clay & Silt, moist.					
							9.4-10': No recovery.					
							C-3:					
							S-11: Light brown, fine to medium SAND, little Clay & Silt, moist.					
							S-12: Light brown, fine to medium SAND, little Clay & Silt, moist.					
							S-13: Light brown, fine to medium SAND, little Clay & Silt,					

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.2 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4801

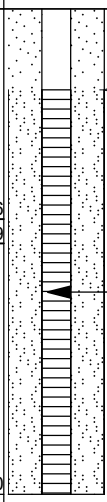
WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4801 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/8/2019 **Finish Date:** 8/8/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	moist.			
							S-14: No recovery.			
15					15-17		S-15: No recovery.			
	C-4	15-20	60	33		NR	C-4:		SAND	
	S-16	15-16				3.7	S-16: Light brown, fine to medium SAND, little Clay & Silt, moist.			
16	S-17	16-17				3.8	S-17: 16-16.6': Light brown, fine to medium SAND, little Clay & Silt, moist.			16.6
17							16.6-16.9': Brown, CLAY & SILT, moist.		CLAY & SILT	16.9
	S-18	17-18				5.3	16.9-17': Brown, fine to coarse SAND and fine GRAVEL, trace Silt, moist.			
18	S-19	18-19				N/A	S-18: 17-17.8': Brown, fine to coarse SAND and fine GRAVEL, trace Silt, moist.		SAND & GRAVEL	
19							17.8-18': No recovery.			
	S-20	19-20				N/A	S-19: No recovery.			
							S-20: No recovery.			
20										20
21							End of exploration at 20 feet.			
22										
23										
24										
25										
26										
27										
28										



Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4801

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4802 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/9/2019 **Finish Date:** 8/9/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	53	0-2	NR	C-1:		TOPSOIL	0.2	1" PVC Riser (0-14')
	S-1	0-1				12.9	S-1: 0-0.2': Brown, TOPSOIL, roots present.				
1							0.2-1': Light brown, SILT, little fine Sand, dry.		SILT		
	S-2	1-2				11.9	S-2: 1-1.4': Light brown, SILT little fine Sand, dry.			1.4	
							1.4-2': Brown, CLAY & SILT, little fine Sand, dry.				
2											
	S-3	2-3				10.5	S-3: Brown, CLAY & SILT, little fine Sand, white rock fragments at 2.7', moist.		CLAY & SILT		
3											
	S-4	3-4				9.2	S-4: 3-3.8': Brown, CLAY & SILT, little fine Sand, moist.				
							3.8-4': Brown, fine to coarse SAND, rock fragments, moist.			3.8	
4									SAND	4	
	S-5	4-5				9.8	S-5: 4-4.1': Brown, CLAY & SILT, moist.		CLAY & SILT	4.1	
							4.1-4.4': Brown/orange, fine SAND, little Silt, moist.				
5							4.4-5': No recovery.				
	C-2	5-10	60	48		NR	C-2:				Bentonite (0.5-10')
	S-6	5-6				6.0	S-6: Brown/orange/tan, fine SAND, little Silt, moist.				
6											
	S-7	6-7				6.2	S-7: Brown/orange/tan, fine SAND, little Silt, moist.				
7											
	S-8	7-8				6.6	S-8: Brown/orange/tan, fine SAND, little Silt, moist.				
8											
	S-9	8-9				7.8	S-9: Brown/orange/tan, fine SAND, little Silt, moist.				
9											
	S-10	9-10				N/A	S-10: No recovery.		SAND		
10											
	C-3	10-15	60	34		NR	C-3:				
	S-11	10-11				5.8	S-11: Tan, fine SAND, trace Silt, moist.				
11											
	S-12	11-12				3.1	S-12: Tan, fine SAND, trace Silt, moist.				
12											
	S-13	12-13				6.6	S-13: 12-12.8': Tan, fine SAND, trace Silt, moist.				
							12.8-13': No recovery.				
13											
	S-14	13-14				N/A	S-14: No recovery.				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4802

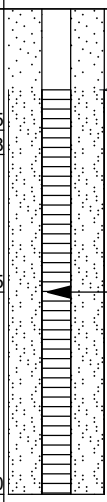
WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4802 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/9/2019 **Finish Date:** 8/9/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) / Stratum Description / Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		SAND
15	C-4	15-20	60	36	15-17	NR	C-4:		
	S-16	15-16				5.2	S-16: 15-15.5': Tan, fine SAND, trace Silt, moist.		15.5
16	S-17	16-17				5.3	15.5-15.8': Brown and gray, CLAY & SILT, some coarse Gravel, moist.		CLAY & SILT 15.8
							15.8-16': Tan, fine SAND, trace Silt, moist.		SAND
17	S-18	17-18				5.2	S-17: Tan, fine SAND, trace Silt, moist. S-18: 17-17.5': Tan, fine SAND, trace Silt, moist.		17.5
18							17.5-18': Brown, CLAY, dry.		
	S-19	18-19				N/A	S-19: No recovery.		CLAY
19	S-20	19-20				N/A	S-20: No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									



Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4802

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

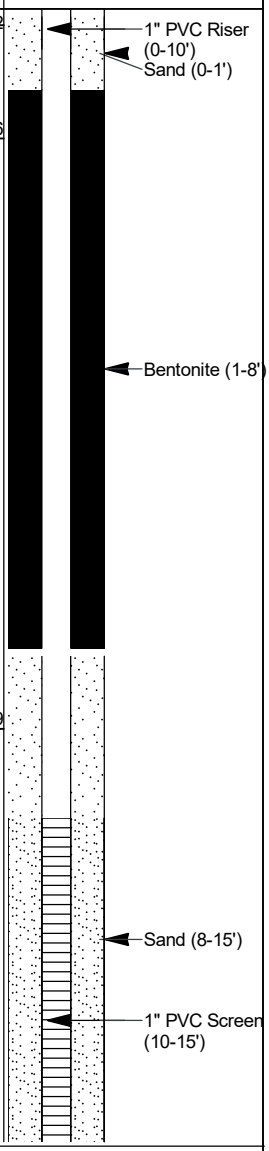
GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.: HS-SB-4803** **SHEET: 1 of 2** **PROJECT NO: 16.0062335.52** **REVIEWED BY: BLW**

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/8/2019 **Finish Date:** 8/8/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	C-1	0-5	60	51	0-2	0.0	C-1:	1		TOPSOIL	0.2
	S-1	0-1				1.0	S-1: 0-0.2': Brown, TOPSOIL, moist, roots present.				
1	S-2	1-2				1.6	0.2-1': Light brown, fine to medium SAND, little Clay, trace Silt, moist, roots present.	2		SAND	1.6
2	S-3	2-3				1.1	S-2: 1-1.6': Light brown, fine to medium SAND, little Clay, trace Silt, moist, roots present.	3			
3	S-4	3-4				1.1	1.6-2': Brown, CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist, roots present.				
4	S-5	4-5				0.3	S-3: Brown, CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist.				
5	C-2	5-10	60	60		0.0	S-4: Brown, CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist.				
	S-6	5-6				0.9	S-5: 4-4.2': Brown, CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist.			CLAY & SILT	
6	S-7	6-7			6-8	0.9	4.2-5': No recovery.				
7	S-8	7-8				1.1	C-2:				
8	S-9	8-9				1.8	S-6: Brown, CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist.				
9	S-10	9-10				1.2	S-7: Brown, CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist.				
10	C-3	10-15	60	37		0.0	S-8: Brown, CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist.				
	S-11	10-11				1.2	S-9: 8-8.9': Brown, CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist.				
11	S-12	11-12				1.1	8.9-9': Gray, medium SAND, wet.				8.9
12	S-13	12-13				1.6	S-10: Brown, fine to medium SAND, trace Silt & Clay, wet.			SAND	
13	S-14	13-14				1.7	C-3:				
14							S-11: Brown, fine to medium SAND, trace Silt & Clay, wet.				
							S-12: Brown, fine to medium SAND, trace Silt & Clay, wet.				
							S-13: Brown, fine to medium SAND, trace Silt & Clay, trace fine Gravel, wet.				
							S-14: 13-13-1': Brown, fine to medium SAND, trace Silt & Clay, wet.				
							13.1-14': No recovery.				

Equipment Installed



Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4803

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/10/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4803 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/8/2019 **Finish Date:** 8/8/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.				
15											
	C-4	15-20	60	40		0.0	C-4:				
	S-16	15-16				1.5	S-16: Brown, fine to medium SAND, trace Silt & Clay, wet.				
16											
	S-17	16-17				1.7	S-17: Brown, fine to medium SAND, trace Silt & Clay, trace fine Gravel, wet.				
17											
	S-18	17-18				2.1	S-18: Brown, fine to medium SAND, trace Silt & Clay, trace fine Gravel, wet.			SAND	
18											
	S-19	18-19				1.3	S-19: 18-18.3': Brown, fine to medium SAND, trace Silt & Clay, trace fine Gravel, wet. 18.3-19': No recovery.				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4803

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.: HS-SB-4804** **SHEET: 1 of 2** **PROJECT NO: 16.0062335.52** **REVIEWED BY: BLW**

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/8/2019 **Finish Date:** 8/8/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	C-1	0-5	60	42	0-2	0.0	C-1:	1		TOPSOIL	0.2
	S-1	0-1				1.6	S-1: 0-0.2': Brown, TOPSOIL, moist, roots present.				
1							0.2-1': Light brown, fine to medium SAND, little Clay, moist,			SAND	
	S-2	1-2				2.6	roots present.	2			1.4
							S-2: 1-1.4': Light brown, fine to medium SAND, little Clay,				
2							moist, roots present.				
	S-3	2-3				1.8	1.4-2': Brown, CLAY & SILT, little fine tomedium Sand, trace	3			
							fine Gravel, moist, roots present.	4			
3							S-3: 2-2.9': Brown, CLAY & SILT, trace fine to medium				
	S-4	3-4				2.6	Sand, trace fine Gravel, moist, roots present.				
							2.9-3': Brown, CLAY & SILT, trace fine to medium mottled			CLAY & SILT	
4							Sand, trace fine Gravel, moist, roots present.				
	S-5	4-5				N/A	S-4: Brown, CLAY & SILT, trace fine to medium mottled				
							Sand, trace fine Gravel, moist, roots present.				
5											
	C-2	5-10	60	59		NR	S-5: No recovery.				
	S-6	5-6				2.3	C-2:				
							S-6: Brown, CLAY & SILT, trace fine to medium mottled				
6											6.1
	S-7	6-7				2.6	Sand, trace fine Gravel, moist, roots present.				
							S-7: 6-6.1': Brown, CLAY & SILT, trace fine to medium			SAND	
7							mottled Sand, trace fine Gravel, moist, roots present.				6.9
	S-8	7-8				2.7	6.1-6.9': Brown, fine to medium SAND, some Clay & Silt,			CLAY & SILT	
							moist, roots present.				7.6
8							6.9-7': Brown, CLAY & SILT, trace fine to medium mottled			CLAY & SILT & SAND	8.1
	S-9	8-9				2.5	Sand, trace fine Gravel, moist, roots present.			SAND	8.6
							S-8: 7-7.6': Brown, CLAY & SILT, trace fine to medium			CLAY	8.8
9							mottled Sand, trace fine Gravel, moist, roots present.				
	S-10	9-10				2.1	7.6-8': Brown, CLAY & SILT and fine to coarse SAND, little			SAND & GRAVEL	
							fine Gravel, moist.				
10					10-12						10
	C-3	10-15	60	40		NR	S-9: 8-8.1': Brown, CLAY & SILT and fine to coarse SAND,				
	S-11	10-11				1.5	little fine Gravel, moist.				
11							8.1-8.6': Light brown, fine to coarse SAND, trace Clay & Silt,				
	S-12	11-12				1.8	moist.				
							8.6-8.8': Brown, CLAY & SILT, trace fine to coarse Sand,				
12							moist.			SAND	
	S-13	12-13				2.0	8.8-9': Light brown, fine to coarse SAND and fine GRAVEL,				
							trace Clay & Silt, moist.				
13							S-10: No recovery.				
	S-14	13-14				2.1	C-3:				
14							S-11: Light brown, fine to coarse SAND, little fine Gravel,				

Equipment Installed

- 1" PVC Riser (0-20')
- Bentonite (0-1')
- Sand (1-8')
- Collapse

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.4 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.
4. Rock obstruction at 2.4' caused half of core diameter to be blocked from 2.4'-2.9'.

Logger:

V. Larimore

Boring No.:

HS-SB-4804

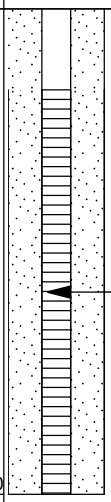
WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4804 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/8/2019 **Finish Date:** 8/8/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	trace Clay & Silt, moist.		
15	C-4	15-20	60	25		NR	S-12: 11-11.5': Brown, fine to coarse SAND, little Clay, little Silt, trace fine Gravel, moist.		
	S-16	15-16				2.7	11.5-12': Brown, fine to coarse SAND, little fine Gravel, trace Silt, trace Clay, wet.		
16	S-17	16-17				1.9	S-13: Brown, fine to coarse SAND, little fine Gravel, trace Silt, trace Clay, wet.		
17	S-18	17-18				2.1	S-14: 13-13.3': Brown, fine to coarse SAND, little fine Gravel, trace Silt, trace Clay, wet.		SAND
							13.3-14': No recovery.		
18	S-19	18-19				N/A	S-15: No recovery.		
							C-4:		
19	S-20	19-20				N/A	S-16: Brown, fine to coarse SAND, little fine Gravel, trace Silt, trace Clay, wet.		
							S-17: Brown, fine to coarse SAND, little fine Gravel, trace Silt, trace Clay, wet.		
20							S-18: 17-17.1': Brown, fine to coarse SAND, little fine Gravel, trace Silt, trace Clay, wet.		20
21							17.1-18': No recovery.		
							S-19: No recovery.		
							S-20: No recovery.		
22							End of exploration at 20 feet.		
23									
24									
25									
26									
27									
28									



Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4804

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

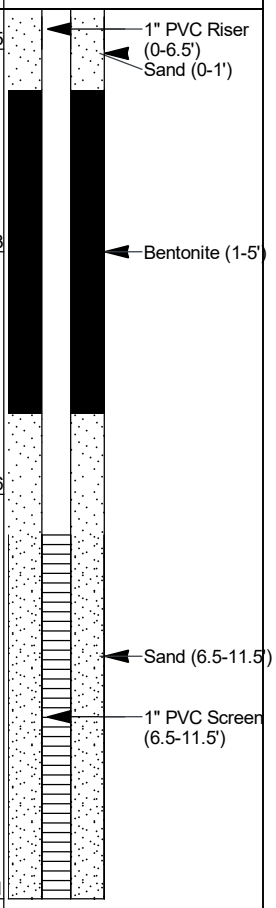
GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4805 **SHEET:** 1 of 1 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** N/A **Foreman:** S. Stephenson, K. Hedinger	**Start Date:** 8/8/2019 **Finish Date:** 8/8/2019 **Final Depth (ft.):** 11	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: N/A **Rig Model:** N/A **Drilling Method:** Hand Auger	**Sampler Type:** Auger **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	C-1	0-5	60	N/A	0-2	NR	C-1:		TOPSOIL	0.5
	S-1	0-1				2.4	S-1: 0-0.5': Brown, TOPSOIL, roots present. 0.5-1': Light brown, SILT, some fine Sand, dry.			
1	S-2	1-2				6.2	S-2: Light brown, SILT, some fine Sand, dry.		SILT	
2	S-3	2-3				5.5	S-3: Light brown, SILT, some fine Sand, dry.			
3	S-4	3-4				3.8	S-4: Light brown, SILT & CLAY, trace fine Gravel, dry.			3
4	S-5	4-5				7.4	S-5: Light brown, SILT & CLAY, trace fine Gravel, trace fine to medium Sand, dry.		SILT & CLAY	
5	C-2	5-10	60	N/A		NR	C-2:			
	S-6	5-6				7.7	S-6: Light brown, SILT & CLAY, trace fine Gravel, trace fine to medium Sand, dry.			
6	S-7	6-7				7.5	S-7: Brown, fine to coarse SAND, some Clay, trace fine Gravel, moist.			6
7	S-8	7-8			7-9	8.1	S-8: Light brown, fine to coarse SAND, little Gravel, little Silt, moist.		SAND	
8	S-9	8-9				9.0	S-9: Light brown, fine to coarse SAND, little Gravel, little Silt, moist.			
9	S-10	9-10				9.4	S-10: Light brown, fine to coarse SAND, little Gravel, little Silt, wet.			
10	C-3	10-15	60	N/A		NR	C-3:			
	S-11	10-11				8.6	S-11: Light brown, fine to coarse SAND, little Gravel, little Silt, wet.			11
11							End of exploration at 11 feet.			
12										
13										
14										

Equipment Installed



Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4805

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4806 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/13/2019 **Finish Date:** 8/13/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	51	0-2	0.0	C-1:	1		TOPSOIL	0.2	No Equipment Installed
	S-1	0-1				0.0	S-1: 0-0.2': Brown, TOPSOIL, moist, roots present.					
1	S-2	1-2				0.0	0.2-1': Brown, fine to medium SAND, little Clay trace Silt, moist, roots present. S-2: 1-1.6': Brown, fine to medium SAND, little Clay trace Silt, moist, roots present.	2		SAND	1.6	
2	S-3	2-3				0.0	1.6-2': Brown, CLAY & SILT, some fine to medium Sand, dry, roots present.	3				
3	S-4	3-4				0.0	S-3: Brown, CLAY & SILT, some fine to medium Sand, dry, roots present.					
4	S-5	4-5				0.0	S-4: 4-4.2': Brown, CLAY & SILT, some fine to medium Sand, dry. 4.2-5': No recovery. S-5: No recovery.			CLAY & SILT		
5	C-2	5-10	60	52		NR	C-2:					
	S-6	5-6				0.0	S-6: Brown, CLAY & SILT, some fine to medium Sand, trace fine Gravel, moist.					
6	S-7	6-7				0.2	S-7: Brown, CLAY & SILT, some fine to medium Sand, trace fine Gravel, moist.					
7	S-8	7-8			7-9	0.0	S-8: 7-7.2': Brown, fine to coarse SAND, trace fine Gravel, trace Silt, moist.				7.2	
8	S-9	8-9				0.2	7.2-7.8': Brown, fine to coarse SAND, little fine Gravel, trace Silt, moist. 7.8-8': Light brown, fine to medium SAND, little Silt, moist. S-9: Light brown, fine to medium SAND, little Silt, moist.					
9	S-10	9-10				0.2	S-10: 9-9.3': Light brown, fine to medium SAND, little Silt, moist. 9.3-10': No recovery.					
10	C-3	10-15	60	41		NR	C-3:					
	S-11	10-11				0.0	S-11: Light brown, fine to medium SAND, little Silt, moist.			SAND		
11	S-12	11-12				0.0	S-12: Light brown, fine to medium SAND, little Silt, moist.					
12	S-13	12-13				0.0	S-13: Light brown, fine to medium SAND, little Silt, moist.					
13	S-14	13-14				0.0	S-14: 13-13.4': Light brown, fine to medium SAND, little Silt, trace fine Gravel, moist.					
14							13.4-14': No recovery.					

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4806

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4806 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/13/2019 **Finish Date:** 8/13/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovrey.		
15									
	C-4	15-20	60	42		NR	C-4:		
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, little Silt, trace fine Gravel, moist.		
16									
	S-17	16-17				0.0	S-17: Light brown, fine to medium SAND, little Silt, trace fine Gravel, moist.		
17									
	S-18	17-18				0.6	S-18: Light brown, fine to medium SAND, little Silt, trace fine Gravel, moist.		SAND
18									
	S-19	18-19				0.0	S-19: Light brown, fine to medium SAND, little Silt, trace fine Gravel, moist.		
19									
	S-20	19-20				N/A	S-20: No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4806

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4807 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/14/2019 **Finish Date:** 8/14/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	C-1	0-5	60	55	0-2	NR	C-1:	1		TOPSOIL	0.3
	S-1	0-1				0.0	S-1: 0-0.3': Brown, TOPSOIL, moist, roots present.				
1	S-2	1-2				0.0	0.3-1': Brown, Clayey SILT, little fine to medium Sand, trace fine Gravel, moist.			SILT	
2	S-3	2-3				0.0	S-2: Brown, Clayey SILT, little fine to medium Sand, trace fine Gravel, moist. S-3: Brown, Silty CLAY, little fine to medium Gravel, trace fine Gravel, moist.	3			2
3	S-4	3-4				0.0	S-4: 4-4.6': Brown, Silty CLAY, little fine to medium Gravel, trace fine Gravel, moist.			CLAY	
4	S-5	4-5				0.0	4.6-5': No recovery. S-5: No recovery.				
5	C-2	5-10	60	51		NR	C-2:				5.2
	S-6	5-6				0.5	S-6: 5-5.2': Brown, Silty CLAY, little fine to medium Gravel, trace fine Gravel, moist.				
6	S-7	6-7				0.1	5.2-6': Light brown, fine to medium SAND, little Silt, moist. S-7: Light brown, fine to medium SAND, little Silt, moist.			SAND	
7	S-8	7-8				0.1	S-8: 7-7.4': Light brown, fine to medium SAND, little Silt, moist.				7.4
8	S-9	8-9				0.2	7.4-8': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			CLAY	
9	S-10	9-10				N/A	S-9: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist. S-10: 9-9.2': Brown, fine to medium SAND, little Silt, trace Clay, trace fine Gravel, moist.			SAND	9
10	C-3	10-15	60	36	10-12	NR	9.2-10': No recovery. C-3:				10
	S-11	10-11				0.2	S-11: 10-10.7': Brown, CLAY, some fine to medium Sand, trace Silt, moist.				
11	S-12	11-12				0.2	10.7-11': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.				
12	S-13	12-13				0.3	S-12: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			CLAY	
13	S-14	13-14				N/A	S-13: 12-12.6': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.				
14							12.6-13': Brown, Silty CLAY, little fine to medium Sand,				

Equipment Installed

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.1 ppmv.
3. Groundwater was encountered at approximately 12.7 below ground surface.

Logger:

S. Spezzano

Boring No.:

HS-SB-4807

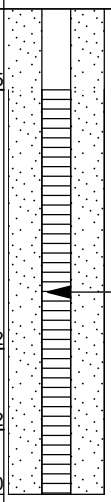
WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4807 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/14/2019 **Finish Date:** 8/14/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	trace fine Gravel, wet. S-14: No recovery. S-15: No recovery.		CLAY
15	C-4	15-20	60	58		NR	C-4:		15
	S-16	15-16				0.6	S-16: Brown, fine to medium SAND, some Clay, little Silt, trace fine Gravel, wet.		
16	S-17	16-17				0.4	S-17: Brown, fine to medium SAND, little Silt, trace fine Gravel, wet.		SAND
17	S-18	17-18				0.4	S-18: Brown, fine to medium SAND, little Silt, trace fine Gravel, wet.		
18	S-19	18-19				0.3	S-19: 18-18.2': Brown, fine to medium SAND, little Silt, trace fine Gravel, wet.		18.2
19	S-20	19-20				0.3	18.2-19': Brown, CLAY, little fine to medium Sand, trace fine Gravel, wet. S-20: 19-19.2': Brown, CLAY, little fine to medium Sand, trace fine Gravel, wet.		CLAY 19.2
20							19.2-19.8': Brown, fine to medium SAND, little Silt, trace fine Gravel, wet. 19.8-20': No recovery.		SAND 20
21							End of exploration at 20 feet.		
22									
23									
24									
25									
26									
27									
28									



Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

S. Spezzano

Boring No.:

HS-SB-4807

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4808 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/14/2019 **Finish Date:** 8/14/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)
	C-1	0-5	60	47	0-2	NR
	S-1	0-1				6.5
1						
	S-2	1-2				14.2
2						
	S-3	2-3				8.3
3						
	S-4	3-4				6.5
4						
	S-5	4-5				N/A
5						
	C-2	5-10	60	38		NR
	S-6	5-6				5.2
6					6-8	
	S-7	6-7				5.7
7						
	S-8	7-8				8.0
8						
	S-9	8-9				7.0
9						
	S-10	9-10				N/A
10						
	C-3	10-15	60	26		NR
	S-11	10-11				5.7
11						
	S-12	11-12				7.6
12						
	S-13	12-13				7.6
13						
	S-14	13-14				N/A
14						

Sample Description & Configuration Modified Burmister

C-1:

S-1: 0-0.2': Brown, TOPSOIL, moist, roots present.

0.2-0.8': Light brown, fine to medium SAND, some Clay, little Silt, moist, roots present.

0.8-1': Brown, CLAY & SILT, little fine to medium Sand, moist, roots present.

S-2: 1-1.9': Brown, CLAY & SILT, little fine to medium Sand, moist, roots present.

1.9-2': Light brown, fine to medium SAND, little Clay & Silt, moist.

S-3: 2-2.1': Light brown, fine to medium SAND, little Clay & Silt, moist.

2.1-3': Brown, CLAY & SILT, some fine to medium Sand, trace fine Gravel, moist, roots present.

S-4: 3-3.2': Brown, CLAY & SILT, some fine to medium Sand, trace fine Gravel, moist, roots present.

3.2-3.9': Brown, fine to coarse SAND, little Clay & Silt, trace fine Gravel, moist. roots present.

3.9-4': No recovery.

S-5: No recovery.

C-2:

S-6: Brown, fine to coarse SAND, little fine Gravel, trace Silt, moist.

S-7: Brown, fine to coarse SAND, little fine Gravel, trace Silt, moist.

S-8: Brown, fine to coarse SAND, little fine Gravel, trace Silt, moist.

S-9: 8-8.2': Brown, fine to coarse SAND, little fine Gravel, trace Silt, moist.

8.2-9': No recovery.

S-10: No recovery.

C-3:

S-11: Brown, fine to coarse SAND, little fine Gravel, trace Silt, moist.

S-12: Brown, fine to coarse SAND, little fine Gravel, trace Silt, moist.

S-13: 12-12.2': Light brown, fine to medium SAND, little Clay & Silt, moist.

12.2-13': No recovery.

Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
1		TOPSOIL	0.2
		SAND	0.8
2		CLAY & SILT	1.9
3		SAND	2.1
		CLAY & SILT	3.2
		SAND	

Equipment Installed

No Equipment Installed

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.4 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4808

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4808 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/14/2019 **Finish Date:** 8/14/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-14: No recovery. S-15: No recovery.				
15	C-4	15-20	60	28		NR	C-4:				
	S-16	15-16				4.6	S-16: 15-15.5': Brown, fine to coarse SAND, little fine Gravel, trace Silt, moist.				
16	S-17	16-17				4.5	15.5-16': Light brown, fine to medium SAND, little Silt, little Clay, moist. S-17: Light brown, fine to medium SAND, little Silt, little Clay, moist.			SAND	
17	S-18	17-18				5.2	S-18: 17-17.3': Light brown, fine to medium SAND, little Silt, little Clay, moist. 17.3-18': No recovery.				
18	S-19	18-19				N/A	S-19: No recovery.				
19	S-20	19-20				N/A	S-20: No recovery.				
20							End of exploration at 20 feet.				20
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4808

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4809 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/14/2019 **Finish Date:** 8/14/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	54	0-2	NR	C-1:	1		No Equipment Installed
	S-1	0-1				9.2	S-1: 0-0.9': Brown, TOPSOIL, moist, roots present.		TOPSOIL 0.9	
1	S-2	1-2				6.7	0.9-1': Brown, CLAY & SILT, little fine to medium Sand, dry, roots present.	2		
2	S-3	2-3				6.6	S-2: Brown, CLAY & SILT, little fine to medium Sand, dry, roots present. S-3: 2-2.7': Brown, CLAY & SILT, little fine to medium Sand, dry, roots present.	3	CLAY & SILT 2.7	
3	S-4	3-4				6.1	2.7-3': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
4	S-5	4-5				6.4	S-4: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist. S-5: 4-4.5': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.		SILTY CLAY 5.3	
5	C-2	5-10	60	42		NR	4.5-5': No recovery.			
	S-6	5-6				10.4	C-2:			
6	S-7	6-7			6-8	8.4	S-6: 5-5.3': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
7	S-8	7-8				11.5	5.3-5.7': Brown, fine to coarse SAND, little Silty Clay, trace fine Gravel, moist. 5.7-5.9': Brown, fine to medium SAND, little Silty Clay, moist.			
8	S-9	8-9				7.9	5.9-6': Light brown, fine to medium SAND, little Silt, moist. S-7: Light brown, fine to medium SAND, little Silt, moist. S-8: Light brown, fine to medium SAND, little Silt, moist.			
9	S-10	9-10				N/A	S-9: 8-8.5': Light brown, fine to medium SAND, little Silt, moist. 8.5-9': No recovery.		SAND	
10	C-3	10-15	60	44		NR	S-10: No recovery.			
	S-11	10-11				6.9	C-3:			
11	S-12	11-12				7.2	S-11: Light brown, fine to medium SAND, little Silt, moist. S-12: Light brown, fine to medium SAND, little Silt, moist.			
12	S-13	12-13				5.3	S-13: Light brown, fine to medium SAND, little Silt, moist.			
13	S-14	13-14				5.3	S-14: Light brown, fine to medium SAND, little Silt, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.6 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4809

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4809 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/14/2019 **Finish Date:** 8/14/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		
15									
	C-4	15-20	60	44		NR	C-4:		
	S-16	15-16				7.9	S-16: Light brown, fine to medium SAND, little Silt, moist.		
16									
	S-17	16-17				6.5	S-17: Light brown, fine to medium SAND, little Silt, moist.		
17									
	S-18	17-18				3.4	S-18: Light brown, fine to medium SAND, little Silt, moist.		SAND
18									
	S-19	18-19				6.7	S-19: Light brown, fine to medium SAND, little Silt, moist.		
19									
	S-20	19-20				N/A	S-20: No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4809

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4810 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: J. Markosky **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/15/2019 **Finish Date:** 8/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	43	0-2	NR	C-1:	1			
	S-1	0-1				4.4	S-1: 0-0.6': Dark brown, TOPSOIL, dry, roots present.		TOPSOIL	0.6	
1							0.6-1': Light brown, SILT, some fine to medium Sand, dry.				
	S-2	1-2				3.5	S-2: Light brown, SILT, some fine to medium Sand, dry.	2	SILT		No Equipment Installed
2										2	
	S-3	2-3				3.8	S-3: Brown, fine to medium SAND, little Silt, moist.	3			
3											
	S-4	3-4				6.2	S-4: 3-3.6': Brown, fine to medium SAND, little Silt, moist.				
							3.6-4': No recovery.				
4											
	S-5	4-5				N/A	S-5: No recovery.				
5											
	C-2	5-10	60	36		NR	C-2:				
	S-6	5-6				3.5	S-6: Orange-brown/fine to medium SAND, little Silt, moist.				
6					6-8						
	S-7	6-7				3.3	S-7: Orange-brown/fine to medium SAND, little Silt, moist.		SAND		
7											
	S-8	7-8				3.7	S-8: Orange-brown/fine to medium SAND, little Silt, moist.				
8											
	S-9	8-9				N/A	S-9: No recovery.				
9											
	S-10	9-10				N/A	S-10: No recovery.				
10										10	
	C-3	10-15	60	60		NR	C-3:				
	S-11	10-11				6.6	S-11: Brown, Silty CLAY, trace fine Sand, dry.				
11											
	S-12	11-12				4.2	S-12: 11-11.7': Brown, Silty CLAY, trace fine Sand, dry.				
							11.7-12': Brown, Silty CLAY, some fine to medium Sand, dry.		CLAY		
12											
	S-13	12-13				4.1	S-13: Brown, Silty CLAY, some fine to medium Sand, dry.				
13										13	
	S-14	13-14				1.6	S-14: 13-13.3': Brown, fine to medium SAND, little Silt, moist.		SAND	13.4	
14							13.3-14': Brown, Silty CLAY, little fine Sand, trace Gravel,		CLAY		

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.2 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

J. Markosky

Boring No.:

HS-SB-4810

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4810 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: J. Markosky **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/15/2019 **Finish Date:** 8/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				7.0	moist.			
15							S-15: Brown, Silty CLAY, little fine Sand, trace Gravel, Sand lenses, moist.		CLAY	15
	C-4	15-20	60	60		NR	C-4:			
	S-16	15-16				3.8	S-16: Brown, fine to medium SAND, little Silt, moist.		SAND	16
16	S-17	16-17				4.5	S-17: Brown, Silty CLAY, trace fine Sand, moist.		CLAY	17
17	S-18	17-18				4.5	S-18: 17-17.5': Brown, fine to medium SAND, some Silt, moist.		SAND	17.5
18							17.5-18': Brown, Silty CLAY, trace fine Sand, moist.			
	S-19	18-19				4.6	S-19: Brown, Silty CLAY, trace fine Sand, moist.		CLAY	
19	S-20	19-20				3.9	S-20: Brown, Silty CLAY, trace fine Sand, moist.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

J. Markosky

Boring No.:

HS-SB-4810

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4811 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: J. Markosky **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/15/2019 **Finish Date:** 8/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	48	0-2	NR	C-1:		TOPSOIL	0.3	No Equipment Installed
	S-1	0-1				3.9	S-1: 0-0.3': Dark brown, TOPSOIL, dry, roots present.				
1							0.3-1': Brown, fine SAND, some Silt, dry.				
	S-2	1-2				2.0	S-2: 1-1.5': Brown, fine SAND, some Silt, dry.		SAND		
							1.5-2': Brown, fine to medium SAND, some Silt, dry.				
2											
	S-3	2-3				3.8	S-3: 2-2.5': Brown, fine to medium SAND, some Silt, dry.			2.5	
							2.5-3': Dark brown, Silty CLAY, trace fine to medium Sand, moist.				
3											
	S-4	3-4				2.1	S-4: Dark brown, Silty CLAY, trace fine to medium Sand, moist.				
4											
	S-5	4-5				N/A	S-5: No recovery.				
5											
	C-2	5-10	60	48		NR	C-2:				
	S-6	5-6				2.9	S-6: Brown, Silty CLAY, little fine Sand, moist.		CLAY		
6											
	S-7	6-7				4.2	S-7: Brown, Silty CLAY, little fine Sand, moist.				
7											
	S-8	7-8				2.5	S-8: Brown, Silty CLAY, little fine to medium Sand, moist.				
8											
	S-9	8-9				3.4	S-9: 8-8.5': Brown, Silty CLAY, little fine to medium Sand, moist.			8.5	
9							8.5-9': Dark brown, SILT & CLAY, some Gravel, moist.				
	S-10	9-10				N/A	S-10: No recovery.		SILT & CLAY		
10										10	
	C-3	10-15	60	44		NR	C-3:				
	S-11	10-11				4.4	S-11: Brown, fine to medium SAND, little Silt, moist.				
11											
	S-12	11-12				4.6	S-12: Brown, fine to medium SAND, little Silt, moist.				
12											
	S-13	12-13			12-14	2.4	S-13: 12-12.8': Brown, fine to medium SAND, little Silt, moist.		SAND		
13							12.8-13': Dark brown, fine to medium SAND, lenses of Silty Clay, moist.				
	S-14	13-14				1.6	S-14: Dark brown, fine to medium SAND, lenses of Silty				
14											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

J. Markosky

Boring No.:

HS-SB-4811

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4811 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: J. Markosky **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/15/2019 **Finish Date:** 8/15/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	Clay, moist. S-15: No recovery.			
15									SAND	
	C-4	15-20	60	44		NR	C-4:			
	S-16	15-16				3.7	S-16: 15-15.7': Brown, fine to medium SAND, some Silt, moist.			15.7
16									CLAY	16.3
	S-17	16-17				4.2	15.7-16': Brown, Silty CLAY, trace fine Sand, moist. S-17: 16-16.3': Brown, Silty CLAY, trace fine Sand, moist.			
17									SAND	17
	S-18	17-18				4.6	16.3-17': Brown, fine to coarse SAND, some Gravel, little Silt, moist. S-18: Brown, Silty CLAY, trace fine Sand, moist.			
18									CLAY	
	S-19	18-19				2.7	S-19: 18-18.3': Brown, Silty CLAY, trace fine Sand, moist. 18.3-18.7': Brown, fine to medium SAND, little Silt, moist.			18.3
19							18.7-19': No recovery.			
	S-20	19-20				N/A	S-20: No recovery.		SAND	
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

J. Markosky

Boring No.:

HS-SB-4811

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4900 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/9/2019 **Finish Date:** 8/9/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) / Stratum Description / Depth (ft.)	Equipment Installed
	C-1	0-5	60	51	0-2	0.0	C-1:	1		
	S-1	0-1				0.9	S-1: 0-0.8': Brown, TOPSOIL, moist, roots present.		TOPSOIL	1" PVC Riser (0-15')
1							0.8-1': Brown, fine to medium SAND, little Clay, trace fine		0.8	
	S-2	1-2				2.0	Gravel, trace Silt, moist, roots present.	2		
							S-2: 1-1.8': Brown, fine to medium SAND, little Clay, trace		SAND	
2							fine Gravel, trace Silt, moist, roots present.			
	S-3	2-3				1.7	1.8-2': Light brown,, fine to medium SAND, little Clay, trace	3	2.2	
							Silt, moist, roots present.			
3							S-3: 2-2.2': Brown, fine to medium SAND, little Clay, trace			
	S-4	3-4				1.6	fine Gravel, trace Silt, moist, roots present.			
							2.2-3': Brown, CLAY & SILT, little fine to medium Sand,			
4										
	S-5	4-5				2.1	moist.			
							S-4: Brown, CLAY & SILT, little fine to medium Sand, moist.			
5							S-5: 4-4.2': Brown, CLAY & SILT, little fine to medium Sand,			
	C-2	5-10	60	58		2.1	moist.			
	S-6	5-6				1.6	4.2-5': No recovery.			Bentonite (1-10')
6							C-2:			
	S-7	6-7				1.9	S-6: Brown, mottled, CLAY & SILT, little fine to medium			
							Sand, moist.			
7							S-7: Brown, mottled, CLAY & SILT, little fine to medium			
	S-8	7-8				2.2	Sand, trace fine Gravel, moist.			
							S-8: Brown, mottled, CLAY & SILT, trace fine Gravel, trace		CLAY & SILT	
8							fine to medium Sand, moist.			
	S-9	8-9				2.1	S-9: Brown, mottled, CLAY & SILT, trace fine Gravel, trace			
							fine to medium Sand, moist.			
9										
	S-10	9-10				2.1	S-10: No recovery.			
10										
	C-3	10-15	60	50		0.0	C-3:			
	S-11	10-11				1.6	S-11: Brown, mottled, CLAY & SILT, trace fine Gravel, trace			
11							fien to medium Sand, moist.			
	S-12	11-12				1.7	S-12: Brown, mottled, CLAY & SILT, trace fine Gravel, trace			
							fien to medium Sand, moist.			
12										
	S-13	12-13				2.0	S-13: 12-12.8': Brown, mottled, CLAY & SILT, trace fine			
							Gravel, trace fien to medium Sand, moist.		12.8	
13							12.8-13': Brown, medium to coarse SAND and GRAVEL,			
	S-14	13-14				0.9	trace Silt, moist.			
							S-14: 13-13.2': Brown, medium to coarse SAND and		SAND & GRAVEL	
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4900

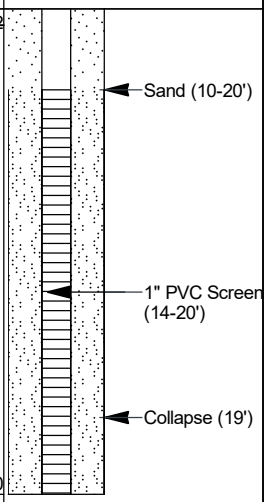
WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4900 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/9/2019 **Finish Date:** 8/9/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				1.1	GRAVEL, trace Silt, moist.		14.2
							13.2-14': Light brown, fine to coarse SAND, trace Silt, moist.		
15							S-15: 14-14.2': Light brown, fine to coarse SAND, trace Silt,		
	C-4	15-20	60	36		NR	moist.		
	S-16	15-16				1.0	14.2-15': No recovery.		
16							C-4:		
	S-17	16-17				1.3	S-16: Light brown, fine to coarse SAND, trace Silt, moist.		
							S-17: 16-16.9': Light brown, fine to coarse SAND, trace Silt,		
17					17-19		moist.		
	S-18	17-18				1.3	16.9-17': Brown, fine to coarse SAND, little fine Gravel,		SAND
							trace Silt, moist.		
18							S-18: 17-17.8': Brown, fine to coarse SAND, little fine		
	S-19	18-19				N/A	Gravel, trace Silt, moist.		
							17.8-18': Brown, fine to coarse SAND, little fine Gravel,		
19									
	S-20	19-20				N/A	trace Silt, wet.		
							S-19: No recovery.		
20							S-20: No recovery.		20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									



Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4900

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4901 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/9/2019 **Finish Date:** 8/9/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)
	C-1	0-5	60	52	0-2	0.0
	S-1	0-1				0.7
1	S-2	1-2				3.8
2	S-3	2-3				2.1
3	S-4	3-4				1.9
4	S-5	4-5				1.9
5	C-2	5-10	60	31		0.0
	S-6	5-6				1.8
6	S-7	6-7				2.0
7	S-8	7-8				1.9
8	S-9	8-9				N/A
9	S-10	9-10				N/A
10	C-3	10-15	60	44		0.0
	S-11	10-11				1.7
11	S-12	11-12				1.3
12	S-13	12-13				1.9
13	S-14	13-14				2.9
14						

Sample Description & Configuration Modified Burmister

C-1:
S-1: 0-0.2': Brown, TOPSOIL, moist, roots present.
0.2-1': Brown, fine to medium SAND, little Clay, trace Silt, trace fine Gravel, moist, roots present.
S-2: 1-1.7': Brown, fine to medium SAND, little Clay, trace Silt, trace fine Gravel, moist, roots present.
1.7-2': Brown, fine to medium SAND, some Clay & Silt, trace fine Gravel, moist, roots present.
S-3: 2-2.1': Brown, fine to medium SAND, some Clay & Silt, trace fine Gravel, moist, roots present.
2.1-3': Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist, roots present.
S-4: Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist.
S-5: 4-4.1': Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist.
4.1-4.3': Brown, CLAY & SILT and fine GRAVEL, little fine to coarse Sand, moist.
4.3-5': No recovery.
C-2:
S-6: 5-5.4': Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist.
5.4-5.8': Brown, medium to coarse SAND & fine GRAVEL, lilttle Clay & Silt, moist.
5.8-6': Brown, fine to coarse SAND, trace fine Gravel, trace Clay, trace Silt, moist.
S-7: Brown, fine to coarse SAND, trace fine Gravel, trace Clay, trace Silt, moist.
S-8: 7-7.6': Brown, fine to coarse SAND, trace fine Gravel, trace Clay, trace Silt, moist.
7.6-8': No recovery.
S-9: No recovery.
S-10: No recovery.
C-3:
S-11: Brown, fine to coarse SAND, trace fine Gravel, trace Clay, trace Silt, moist.
S-12: Brown, fine to coarse SAND, trace fine Gravel, trace Clay, trace Silt, moist.
S-13: 12-12.5': Brown, fine to coarse SAND, trace fine

Remark: 1, 2

Stratum Description (Elev. (ft.) / Depth (ft.)):
- TOPSOIL — 0.2
- SAND — 2.1
- CLAY & SILT — 4.1
- CLAY & SILT & GRAVEL — 5.4
- SAND & GRAVEL — 5.8
- SAND

Equipment Installed

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:
A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.3 ppmv.
2. Borehole was backfilled with Bentonite upon completion.

Logger:
V. Larimore

Boring No.:
HS-SB-4901

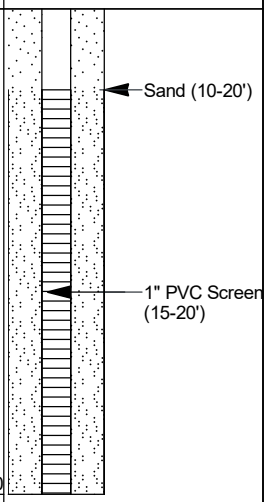
WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4901 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/9/2019 **Finish Date:** 8/9/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	Gravel, trace Clay, trace Silt, moist.		
15	C-4	15-20	60	35		NR	12.5-13': Brown, fine to coarse SAND, little fine Gravel, trace Clay, trace Silt, moist. S-14: 13-13.7': Brown, fine to coarse SAND, little fine Gravel, trace Clay, trace Silt, moist.		
	S-16	15-16				2.2			
16	S-17	16-17				1.8	13.7-14': No recovery. S-15: No recovery. C-4:		
17	S-18	17-18				1.8	S-16: Brown, fine to coarse SAND, little fine Gravel, trace Clay, trace Silt, moist.		SAND
18	S-19	18-19			18-20	N/A	S-17: Brown, fine to coarse SAND, little fine Gravel, trace Clay, trace Silt, moist. S-18: 17-17.2': Brown, fine to coarse SAND, little fine Gravel, trace Clay, trace Silt, moist.		
19	S-20	19-20				N/A	17.2-17.9': Light brown, fine to medium SAND, little Silt, moist.		
20							17.9-18': No recovery. S-19: No recovery. S-20: No recovery.		20
21							End of exploration at 20 feet.		
22									
23									
24									
25									
26									
27									
28									



Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4901

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4902 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/9/2019 **Finish Date:** 8/9/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	60	0-2	0.0	C-1:	1	SILT 0.4	1" PVC Riser (0-15')
	S-1	0-1				3.9	S-1: 0-0.4': Brown, SILT, little fine Sand, dry, roots present.			
1	S-2	1-2				5.4	0.4-1': Brown, CLAY & SILT, little fine Sand, dry, roots present.	2		
2	S-3	2-3				6.5	S-2: Brown, CLAY & SILT, little fine Sand, dry, roots present. S-3: Brown, CLAY & SILT, little fine Sand, trace fine Gravel, dry, roots present.		CLAY & SILT	
3	S-4	3-4				3.9	S-4: Brown, CLAY & SILT, little fine Sand, trace fine Gravel, dry, roots present.			
4	S-5	4-5				7.2	S-5: Brown, CLAY & SILT, little fine Sand, trace fine Gravel, dry, roots present.		4.4	
5	C-2	5-10	60	42		0.0	C-2:			
	S-6	5-6				7.9	S-6: 5-5.7': Tan/brown, fine to coarse SAND, little Silt, moist.			Bentonite (1-10')
6	S-7	6-7			6-8	8.4	5.7-6': Tan/brown, fine to coarse SAND, some fine Gravel, little Silt, moist. S-7: 6-6.7': Tan/brown, fine to coarse SAND, some fine Gravel, little Silt, moist.		SAND	
7	S-8	7-8				7.9	6.7-7': Tan/brown, fine to coarse SAND, little Silt, moist. S-8: Tan/brown, fine to coarse SAND, little Silt, moist. Rock at 7.3'.			
8	S-9	8-9				7.9	S-9: 8-8.2': Tan, fine to medium SANd, little Silt, moist. 8.2-8.5': Brown, CLAY, dry.			
9	S-10	9-10				7.9	8.5-9': No recovery. S-10: No recovery.		9	
10	C-3	10-15	60	60		0.0	C-3:		CLAY	
	S-11	10-11				7.6	S-11: Brown, CLAY, dry.			
11	S-12	11-12				7.1	S-12: Brown, CLAY, dry.			
12	S-13	12-13				7.0	S-13: Brown, CLAY, dry.			
13	S-14	13-14				6.6	S-14: Brown, CLAY, dry.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv.
2. Borehole was backfilled with Bentonite upon completion.

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4902

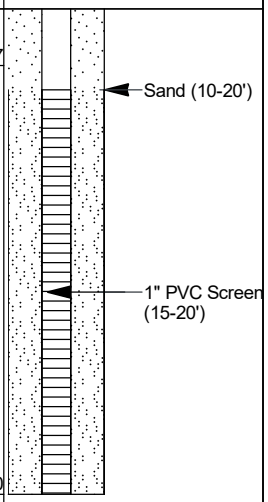
WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4902 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/9/2019 **Finish Date:** 8/9/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				7.0	S-15: 14-14.7': Brown, CLAY, dry. 14.7-15': Tan, fine SAND, dry.			CLAY	14.7
15	C-4	15-20	60	40		NR	C-4:			SAND	
	S-16	15-16				6.3	S-16: Tan, fine SAND, dry.				
16	S-17	16-17				6.7	S-17: Tan, fine SAND, dry.				
17	S-18	17-18				8.3	S-18: Tan, fine SAND, dry.				
18	S-19	18-19				8.7	S-19: 18-18.3': Tan, fine SAND, dry. 18.3-19': No recovery.				
19	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											



Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4902

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4903 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/9/2019 **Finish Date:** 8/9/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	60	0-2	0.0	C-1:	1		
	S-1	0-1				4.3	S-1: Light brown, SILT, trace Gravel, roots present.		SILT	1" PVC Riser (0-13')
1	S-2	1-2				5.0	S-2: 1-1.2': Light brown, SILT, trace Gravel, roots present. 1.2-2': Brown, CLAY & SILT, some gray and orange coloration, trace fine Sand, dry.	2	1.2	
2	S-3	2-3				4.6	S-3: Brown, CLAY & SILT, some gray and orange coloration, trace fine Sand, Sand lens 2.8-2.9', dry.			
3	S-4	3-4				5.3	S-4: Brown, CLAY & SILT, some gray and orange coloration, trace fine Sand, Sand lens 2.8-2.9', dry.			
4	S-5	4-5				5.2	S-5: Brown, CLAY & SILT, some gray and orange coloration, trace fine Sand, Sand lens 2.8-2.9', dry.			
5	C-2	5-10	60	60		0.0	C-2:			
	S-6	5-6				5.5	S-6: Brown, CLAY & SILT, little fine Sand, dry. Gray coloration.			Bentonite (1-10')
6	S-7	6-7				5.1	S-7: Brown, CLAY & SILT, little fine Sand, dry.			
7	S-8	7-8				5.5	S-8: Brown, CLAY & SILT, little fine Sand, dry.		CLAY & SILT	
8	S-9	8-9				6.3	S-9: Brown, CLAY & SILT, little fine Sand, dry.			
9	S-10	9-10				4.7	S-10: Brown, CLAY & SILT, little fine Sand, dry.			
10	C-3	10-15	60	60		0.0	C-3:			
	S-11	10-11				4.1	S-11: Brown, CLAY & SILT, little fine Sand, trace Gravel, dry.			
11	S-12	11-12			11-13	5.5	S-12: Brown, CLAY & SILT, little fine Sand, trace Gravel, dry.			
12	S-13	12-13				4.3	S-13: Brown, CLAY & SILT, little fine Sand, trace Gravel, dry.			
13	S-14	13-14				4.6	S-14: Brown, Clayey SILT, some fine Sand, trace Gravel, wet.		13 CLAYEY SILT	
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv.
2. Borehole was backfilled with Bentonite upon completion.

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4903

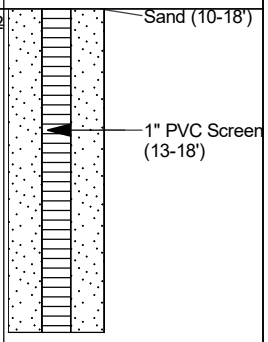
WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/10/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4903 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/9/2019 **Finish Date:** 8/9/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				4.5	S-15: 14-14.2': Brown, Clayey SILT, some fine Sand, trace Gravel, wet.			14.2
15							14.2-15': Brown, CLAY & SILT, dry.			
	C-4	15-20	60	60		0.0	C-4:			
	S-16	15-16				2.5	S-16: Brown/gray, CLAY & SILT, little fine to coarse Sand, dry.			
16										
	S-17	16-17				3.9	S-17: Brown/gray, CLAY & SILT, little fine to coarse Sand, dry.		CLAY & SILT	
17										
	S-18	17-18				2.9	S-18: Brown/gray, CLAY & SILT, little fine to coarse Sand, dry.			
18										
	S-19	18-19				1.4	S-19: 18-18.3': Brown/gray, CLAY & SILT, little fine to coarse Sand, dry.			
19							18.3-19': Brown, CLAY & SILT, little fine to coarse Sand, dry.			19
	S-20	19-20				2.3	S-20: Tan, fine to coarse SAND, some Gravel, trace Silt, dry.		SAND	
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										



Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4903

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/10/2019

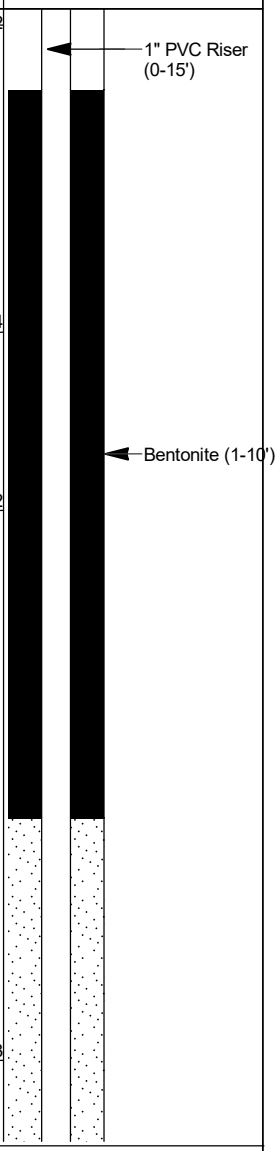
GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4904 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/9/2019 **Finish Date:** 8/9/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	C-1	0-5	60	53	0-2	0.0	C-1:	1		TOPSOIL	0.2
	S-1	0-1				6.5	S-1: 0-0.2': Brown, TOPSOIL, dry, roots present.				
1							0.2-1': Light brown, SILT, little fine to medium Sand, dry.				
	S-2	1-2				5.5	S-2: Light brown, SILT, little fine to medium Sand, dry.	1			
2											
	S-3	2-3				5.1	S-3: Very light brown/light gray, SILT, little fine to medium Sand, dry.			SILT	
3											
	S-4	3-4				5.8	S-4: Light brown, SILT, some fine to coarse Sand, trace fine Gravel, dry.				
4											4
	S-5	4-5				5.0	S-5: 4-4.4': Brown, Clayey SILT, some fine to coarse Sand, dry.				
5							4.4-5': No recovery.				
	C-2	5-10	60	42		0.0	C-2:			CLAYEY SILT	
	S-6	5-6				0.8	S-6: Brown, Clayey SILT, some fine to coarse Sand, dry.				
6											6.2
	S-7	6-7				0.8	S-7: 6-6.2': Brown, Clayey SILT, some fine to coarse Sand, dry.				
7							6.2-7': Brown, fine SAND, some Silt, trace Gravel, moist.				
	S-8	7-8				1.0	S-8: Light brown/brown, fine to coarse SAND, little Silt, moist.				
8											
	S-9	8-9				1.7	S-9: 8-8.5': Light brown/brown, fine to coarse SAND, little Silt, moist.				
9							8.5-9': No recovery.				
	S-10	9-10				N/A	S-10: No recovery.				
										SAND	
10											
	C-3	10-15	60	36		0.0	C-3:				
	S-11	10-11				0.9	S-11: Tan, fine to medium SAND, little Silt, trace Gravel, moist.				
11											
	S-12	11-12				0.6	S-12: 11-11.8': Tan, fine to medium SAND, little Silt, trace Gravel, moist.				
12							11.8-12': Brown, fine SAND, some Silt, moist.				
	S-13	12-13				1.4	S-13: 12-12.5': Brown, fine SAND, some Silt, moist.				
							12.5-13': Tan/brown, fine to medium SAND, little Silt, moist.				
13											13
	S-14	13-14				N/A	S-14: No recovery.			NO RECOVERY	
14											

Equipment Installed



Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv.
2. Borehole was backfilled with Bentonite upon completion.

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4904

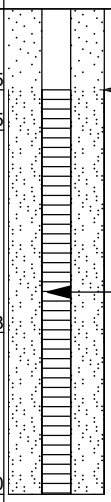
WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4904 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: Sheryl Stephenson **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/9/2019 **Finish Date:** 8/9/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		NO RECOVERY	
15	C-4	15-20	60	43	15-17	0.0	C-4:			15
	S-16	15-16				5.2	S-16: 15-15.7': Tan/brown, fine to medium SAND, some Silt, Clay lenses, moist.		SAND	15.5
16	S-17	16-17				5.4	15.7-16': Brown, Clayey SILT, some fine to carse Sand, trace Gravel, moist.		CLAYEY SILT	
17	S-18	17-18				5.3	S-17: Brown, Clayey SILT, some fine to carse Sand, trace Gravel, moist.			
18	S-19	18-19				N/A	S-18: 17-17.2': Brown, Clayey SILT, some fine to carse Sand, trace Gravel, moist, some black coloration.			18
19	S-20	19-20				N/A	17.2-18': Orange, clayey SILT, some fine to medium Sand, wet.		SAND	
20							S-19: 18-18.9': Orange, fine to medium SAND with Silt, wet.			
							18.9-19': No recovery.			
							S-20: No recovery.			20
21							End of exploration at 20 feet.			
22										
23										
24										
25										
26										
27										
28										



Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

Sheryl Stephenson

Boring No.:

HS-SB-4904

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4905 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/12/2019 **Finish Date:** 8/12/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	51	0-2	0.0	C-1:	1		No Equipment Installed
	S-1	0-1				0.0	S-1: Brown, mottled CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist, roots present.			
1	S-2	1-2				0.0	S-2: Brown, mottled CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist, roots present.	2		
2	S-3	2-3				0.0	S-3: Brown, mottled CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist, roots present.	3		
3	S-4	3-4				0.0	S-4: Brown, mottled CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist, roots present.			
4	S-5	4-5				0.0	S-5: 4-4.2': Brown, mottled CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist. 4.2-5': No recovery.			
5	C-2	5-10	60	47		0.0	C-2:		CLAY 8 SILT	
	S-6	5-6				2.2	S-6: Brown, mottled CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist.			
6	S-7	6-7				0.0	S-7: Brown, mottled CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist.			
7	S-8	7-8				0.0	S-8: Brown, mottled CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist.			
8	S-9	8-9				0.5	S-9: 8-8.9': Brown, mottled CLAY & SILT, trace fine to medium Sand, trace fine Gravel, moist. 8.9-9': No recovery.			
9	S-10	9-10				N/A	S-10: No recovery.			
10	C-3	10-15	60	37		0.0	C-3:		10	
	S-11	10-11				2.7	S-11: Brown, fine to coarse SAND, little fine Gravel, trace Silt, moist.			
11	S-12	11-12				2.2	S-12: Brown, fine to coarse SAND, little fine Gravel, trace Silt, moist.			
12	S-13	12-13				1.1	S-13: 12-12.6': Brown, fine to coarse SAND, little fine Gravel, trace Silt, moist. 12.6-13': Light brown, fine to medium SAND, little Silt, moist.		SAND	
13	S-14	13-14				0.9	S-14: 13-13.4': Light brown, fine to medium SAND, little Silt, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4905

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4905 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/12/2019 **Finish Date:** 8/12/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	13.4-14': No recovery. S-15: No recovery.			
15	C-4	15-20	60	33	15-17	0.0	C-4:			
	S-16	15-16				3.6	S-16: Light brown, fine to medium SAND, little Silt, moist.			
16	S-17	16-17				1.6	S-17: Light brown, fine to medium SAND, little Silt, moist.			
17	S-18	17-18				1.2	S-18: 17-17.8': Light brown, fine to medium SAND, little Silt, moist. 17.8-18': No recovery.		SAND	
18	S-19	18-19				N/A	S-19: No recovery.			
19	S-20	19-20				N/A	S-20: No recovery.			
20							End of exploration at 20 feet.			20
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4905

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4906 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/14/2019 **Finish Date:** 8/14/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	50	0-2	0.0	C-1:	1				
	S-1	0-1				0.0	S-1: 0-0.6': Brown, TOPSOIL, moist, roots present.			TOPSOIL	0.6	
1	S-2	1-2				0.1	0.6-1': Brown, fine to medium SAND, little Clay, trace Silt, grace fine Gravel, moist, wood and roots present.	2		SAND		No Equipment Installed
2	S-3	2-3				0.5	S-2: Brown, fine to medium SAND, little Clay, trace Silt, grace fine Gravel, moist, wood and roots present.	3			2	
3	S-4	3-4				1.7	S-3: Light brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist.			CLAY & SILT		
4	S-5	4-5				3.2	S-4: 3-3.6': Light brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist.				3.6	
5	C-2	5-10	60	40		0.0	3.6-4': Light brown, fine to medium SAND, little Clay, trace Silt, trace fine Gravel, moist.			SAND		
	S-6	5-6				0.9	S-5: 4-4.2': Light brown, fine to medium SAND, little Clay, trace Silt, trace fine Gravel, moist.				5	
6	S-7	6-7				0.9	4.2-5': No recovery.			CLAYEY SILT		
7	S-8	7-8				1.0	C-2:					
8	S-9	8-9				1.5	S-6: Brown/light brown, Clayey SILT, little fine to medium Sand, trace fine Gravel, moist.				6.6	
9	S-10	9-10				N/A	S-7: 6.6.6': Brown/light brown, Clayey SILT, little fine to medium Sand, trace fine Gravel, moist.					
10	C-3	10-15	60	38		0.0	6.6-7': Brown, fine to coarse SAND, trace fine Gravel, trace Silt, moist.			SAND		
11	S-11	10-11				0.7	S-8: Brown, fine to coarse SAND, trace fine Gravel, trace Silt, moist.					
12	S-12	11-12				0.2	S-9: 8-8.3': Brown, fine to coarse SAND, trace fine Gravel, trace Silt, moist.					
13	S-13	12-13				1.3	8.3-9': No recovery.					
14	S-14	13-14				2.4	S-10: No recovery.					
							C-3:					
							S-11: Brown, fine to coarse SAND, trace fine Gravel, trace Silt, moist.					
							S-12: Brown, fine to coarse SAND, trace fine Gravel, trace Silt, moist.					
							S-13: 12-12.9': Brown, fine to coarse SAND, trace fine Gravel, trace Silt, moist.					
							12.9-13': Light brown, fine SAND, little Silt, trace fine Gravel, moist.					
							S-14: 13-13.2': Light brown, fine SAND, little Silt, trace fine					

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

S. Spezzano

Boring No.:

HS-SB-4906

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4906 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/14/2019 **Finish Date:** 8/14/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	Gravel, moist. 13.2-14': No recovery. S-15: No recovery.			
15	C-4	15-20	60	44		0.0	C-4:			
	S-16	15-16				1.2	S-16: Light brown, fine SAND, little Silt, trace fine Gravel, moist.			
16	S-17	16-17			16-18	1.6	S-17: Light brown, fine SAND, little Silt, trace fine Gravel, moist.		SAND	
17	S-18	17-18				2.9	S-18: Light brown, fine SAND, little Silt, trace fine Gravel, moist.			
18	S-19	18-19				0.3	S-19: 18-18.3': Light brown, fine SAND, little Silt, trace fine Gravel, moist. 18.3-18.7': Brown, CLAY, trace Silt, moist.			18.3
19	S-20	19-20				N/A	18.7-19': No recovery. S-20: No recovery.		CLAY	
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

S. Spezzano

Boring No.:

HS-SB-4906

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4907 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/12/2019 **Finish Date:** 8/12/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	44	0-2	0.0	C-1:	1		TOPSOIL	0.2	
	S-1	0-1				0.2	S-1: 0-0.2': Brown, TOPSOIL, moist, roots present.					
1	S-2	1-2				0.8	0.2-1': Brown, SILT, little fine to medium Sand, moist, roots present.	2		SILT		No Equipment Installed
2	S-3	2-3				0.6	S-2: 1-1.8': Brown, SILT, little fine to medium Sand, moist, roots present. 1.8-2': Brown, SILT, some fine Sand, moist.	3			2.2	
							S-3: 2-2.2': Brown, SILT, some fine Sand, moist.			SAND	2.8	
3	S-4	3-4				0.7	2.2-2.8': Light brown, fine to medium SAND, trace Silt, moist.			SILT	3.1	
4	S-5	4-5				N/A	2.8-3': Gray-brown, SILT, trace fine Sand, wet. S-4: 3-3.1': Gray-brown, SILT, trace fine Sand, wet. 3.1-3.7': Dark gray, Silty CLAY, trace fine to medium Sand, wet.			SILTY CLAY		
5	C-2	5-10	60	49		0.0	3.7-4': No recovery.				5	
	S-6	5-6				1.6	S-5: No recovery.					
6	S-7	6-7				1.7	C-2: S-6: Gray, mottled CLAY & SILT, little fine to medium Sand, moist.					
7	S-8	7-8				0.5	S-7: Gray, mottled CLAY & SILT, little fine to medium Sand, moist.					
8	S-9	8-9				0.7	S-8: Gray, mottled CLAY & SILT, little fine to medium Sand, moist.					
9	S-10	9-10				0.3	S-9: Gray, mottled CLAY & SILT, little fine to medium Sand, moist, roots present. S-10: Gray, mottled CLAY & SILT, little fine to medium Sand, moist, roots present.			CLAY & SILT		
10	C-3	10-15	60	33		0.0	C-3:					
	S-11	10-11				0.0	S-11: Gray, mottled CLAY & SILT, little fine to medium Sand, moist, roots present.					
11	S-12	11-12				0.0	S-12: 11-11.5': Gray, mottled CLAY & SILT, little fine to medium Sand, moist, roots present.					
12	S-13	12-13			12-14	0.0	11.5-12': Gray-brown, CLAY & SILT, little fine to medium Sand, moist, roots present.				12.5	
13	S-14	13-14				N/A	S-13: 12-12.5': Gray-brown, CLAY & SILT, little fine to medium Sand, moist, roots present. 12.5-13': Brown, fine to coarse SAND, little Silty Clay, little fine Gravel, moist.			SAND		
14												

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4907

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4907 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/12/2019 **Finish Date:** 8/12/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				N/A	S-14: No recovery. S-15: No recovery.			SAND	
15	C-4	15-20	60	52		0.0	C-4:				15
	S-16	15-16				0.7	S-16: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.				
16	S-17	16-17				0.7	S-17: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			SILTY CLAY	
17	S-18	17-18				0.1	S-18: 17-17.3': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist. 17.3-17.7': Brown, fine to coarse SAND, little fine Gravel, trace Silt, moist.				17.3
										SAND	17.7
18	S-19	18-19				0.2	17.7-18': Brown, Silty CLAY, trace fine to medium Sand, trace fine Gravel, moist.			SILTY CLAY	18.1
19	S-20	19-20				0.0	S-19: 18-18.1': Brown, Silty CLAY, trace fine to medium Sand, trace fine Gravel, moist. 18.1-19': Brown and gray, fine to coarse SAND, little fine Gravel, trace Silt, moist. S-20: 19-19.3': Brown and gray, fine to coarse SAND, little fine Gravel, trace Silt, moist. 19.3-20': No recovery.			SAND	
20							End of exploration at 20 feet.				20
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4907

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4908 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/13/2019 **Finish Date:** 8/13/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	55	0-2	0.0	C-1:	1		
	S-1	0-1				0.4	S-1: 0-0.6': Brown, TOPSOIL, moist, roots present.		TOPSOIL 0.6	
1	S-2	1-2				0.3	0.6-1': Light brown, fine to medium SAND, little Clay, trace Silt, moist, roots present.	2	SAND 1.5	No Equipment Installed
2	S-3	2-3				0.5	S-2: 1-1.5': Light brown, fine to medium SAND, little Clay, trace Silt, moist, roots present. 1.5-2': Brown, mottled, Silty CLAY, little fine to medium Sand, moist.	3		
3	S-4	3-4				0.1	S-3: Brown, mottled, Silty CLAY, little fine to medium Sand, moist.			
4	S-5	4-5				0.1	S-4: Brown, mottled, Silty CLAY, little fine to medium Sand, moist.			
5							S-5: 4-4.6': Brown, mottled, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
	C-2	5-10	60	51		0.0	4.6-5': No recovery.			
	S-6	5-6				0.7	C-2:			
6	S-7	6-7				0.8	S-6: Brown, mottled, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
7	S-8	7-8			7-9	0.7	S-7: Brown, mottled, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist. S-8: 7-7.6': Brown, mottled, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
8	S-9	8-9				0.8	7.6-8': Brown, mottled, Silty CLAY, trace fine to medium Sand, moist.		SILTY CLAY	
9	S-10	9-10				0.4	S-9: Brown, mottled, Silty CLAY, trace fine to medium Sand, moist. S-10: 9-9.2': Brown, mottled, Silty CLAY, trace fine to medium Sand, moist.			
10	C-3	10-15	60	39		0.0	9.2-10': No recovery.			
	S-11	10-11				0.4	C-3:			
11	S-12	11-12				0.9	S-11: Brown, mottled, Silty CLAY, trace fine to medium Sand, moist.			
12	S-13	12-13				1.2	S-12: Brown, mottled, Silty CLAY, trace fine to medium Sand, trace fine Gravel, moist. S-13: Brown, mottled, Silty CLAY, trace fine to medium Sand, trace fine Gravel, moist.			
13	S-14	13-14				0.9	S-14: 13-13.1': Brown, mottled, Silty CLAY, trace fine to medium Sand, trace fine Gravel, moist.			
14							13.1-13.2': Brown, mottled, Silty CLAY, some fine to coarse			

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4908

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4908 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/13/2019 **Finish Date:** 8/13/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	Sand, trace fine Gravel, moist.			
							13.2-14': No recovery.		SILTY CLAY	
15							S-15: No recovery.			15
	C-4	15-20	60	36		0.0	C-4:			
	S-16	15-16				1.0	S-16: Light brown, fine to medium SAND, little Silt, trace fine Gravel, moist.			
16										
	S-17	16-17				0.9	S-17: Light brown, fine to medium SAND, little Silt, trace fine Gravel, moist.			
17										
	S-18	17-18				0.6	S-18: Light brown, fine to medium SAND, little Silt, trace fine Gravel, moist.		SAND	
18										
	S-19	18-19				N/A	S-19: No recovery.			
19										
	S-20	19-20				N/A	S-20: No recovery.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4908

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4909 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/13/2019 **Finish Date:** 8/13/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Depth (ft.) Description	Equipment Installed
	C-1	0-5	60	57	0-2	0.0	C-1:	1		No Equipment Installed
	S-1	0-1				0.1	S-1: Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist, roots present.			
1	S-2	1-2				0.3	S-2: Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist, roots present.	2		
2	S-3	2-3				0.5	S-3: Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist, roots present.	3		
3	S-4	3-4				0.3	S-4: Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist.		CLAY & SILT	
4	S-5	4-5				0.3	S-5: 4-4.8': Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist. 4.8-5': No recovery.			
5	C-2	5-10	60	58		0.0	C-2:			
	S-6	5-6				0.3	S-6: Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist.			
6	S-7	6-7				0.4	S-7: 6-6.3': Brown, CLAY & SILT, little fine to medium Sand, trace fine Gravel, moist.		6.3	
7	S-8	7-8				0.3	6.3-7': Brown, SILT & CLAY, trace fine to medium Sand, trace fine Gravel, moist.			
8	S-9	8-9				0.3	S-8: Brown, SILT & CLAY, trace fine to medium Sand, trace fine Gravel, moist. S-9: Brown, SILT & CLAY, trace fine to medium Sand, trace fine Gravel, moist.		SILT & CLAY	
9	S-10	9-10				0.3	S-10: 9-9.2': Brown, SILT & CLAY, trace fine to medium Sand, trace fine Gravel, moist.			
10	C-3	10-15	60	39		0.0	9.2-9.8': Brown, SILT & CLAY, little fine to medium Sand, trace fine Gravel, moist.		10	
	S-11	10-11				0.2	9.8-10': No recovery.			
11	S-12	11-12			11-13	0.3	C-3: S-11: 10-10.8': Brown, fine to medium SAND, little Silt, trace fine Gravel, moist.		SAND	
12	S-13	12-13				0.2	10.8-11': Brown, fine to coarse SAND, little Silt, trace fine Gravel, moist.			
13	S-14	13-14				0.3	S-12: Brown, fine to coarse SAND, little Silt, trace fine Gravel, moist. S-13: 12-12.7': Brown, fine to medium SAND, little Silt, trace fine Gravel, moist.		12.7 CLAY	
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

S. Spezzano

Boring No.:

HS-SB-4909

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4909 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** Gary Geerligs	**Start Date:** 8/13/2019 **Finish Date:** 8/13/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 6620 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	12.7-13': Brown, Silty CLAY, trace fine Sand, moist.			
							S-14: 13-13.2': Brown, Silty CLAY, trace fine Sand, moist.			
15							13.2-14': No recovery.			
	C-4	15-20	60	54		0.0	S-15: No recovery.			
	S-16	15-16				0.0	C-4:			
16							S-16: Brown, Silty CLAY, little fine Sand, trace fine Gravel,		CLAY	
	S-17	16-17				0.0	moist.			
							S-17: Brown, Silty CLAY, little fine Sand, trace fine Gravel,			
17							moist.			
	S-18	17-18				0.0	S-18: 17-17.5': Brown, Silty CLAY, little fine Sand, trace fine			17.5
							Gravel, moist.			
18							17.5-18': Brown, fine to coarse SAND, trace fine Gravel,			
	S-19	18-19				0.0	trace Silt, moist.			
							S-19: 18-18.3': Brown, fine to coarse SAND, trace fine		SAND	
19							Gravel, trace Silt, moist.			
	S-20	19-20				0.0	18.3-19': Light brown, fine to medium SAND, little Silt, moist.			
20							S-20: 19-19.5': Light brown, fine to medium SAND, little Silt,			20
							moist.			
							19.5-20': No recovery.			
21							End of exploration at 20 feet.			
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

B91621870

REMARKS

Logger:

S. Spezzano

Boring No.:

HS-SB-4909

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/10/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4910 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/13/2019 **Finish Date:** 8/13/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	55	0-2	0.0	C-1:	1		
	S-1	0-1				0.0	S-1: 0-0.7': Brown, TOPSOIL, moist, roots present.		TOPSOIL 0.7	
1	S-2	1-2				0.0	0.7-1': Brown, SILT, some fine to medium Sand, trace fine Gravel, moist, roots present.	2		No Equipment Installed
2	S-3	2-3				0.0	S-2: Brown, SILT, some fine to medium Sand, trace fine Gravel, moist, roots present. S-3: Brown, SILT, some fine to medium Sand, trace fine Gravel, moist, roots present.	3	SILT	
3	S-4	3-4				0.1	S-4: 3-3.5': Brown, Clayey SILT, some fine Sand, trace fine Gravel, moist.		3.5	
4	S-5	4-5				0.0	3.5-4': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist. S-5: 4-4.6': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
5	C-2	5-10	60	58		0.0	4.6-5': No recovery.			
	S-6	5-6				0.1	C-2:			
6	S-7	6-7				0.0	S-6: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
7	S-8	7-8				0.0	S-7: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist. S-8: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
8	S-9	8-9				0.0	S-9: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
9	S-10	9-10				0.0	S-10: 9-9.8': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.		CLAY	
10	C-3	10-15	60	58	10-12	0.0	9.8-10': No recovery. C-3:			
	S-11	10-11				0.0	S-11: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
11	S-12	11-12				0.0	S-12: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
12	S-13	12-13				0.0	S-13: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
13	S-14	13-14				0.0	S-14: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

S. Spezzano

Boring No.:

HS-SB-4910

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4910 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/13/2019 **Finish Date:** 8/13/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				0.0	S-15: 14-14.8': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.				
15							14.8-15': No recovery.				
	C-4	15-20	60	58		0.0	C-4:				
	S-16	15-16				0.0	S-16: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.				
16											
	S-17	16-17				0.0	S-17: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.				
17										CLAY	
	S-18	17-18				0.0	S-18: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.				
18											
	S-19	18-19				0.0	S-19: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.				
19											
	S-20	19-20				0.0	S-20: 19-19.8': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.				
20							19.8-20': No recovery.				20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

S. Spezzano

Boring No.:

HS-SB-4910

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4911 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/13/2019 **Finish Date:** 8/13/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	55	0-2	0.0	C-1:	1				No Equipment Installed
	S-1	0-1				0.0	S-1: 0-0.9': Dark brown, TOPSOIL, moist, roots present.			TOPSOIL		
1							0.9-1': Brown, SILT, little fine to medium Sand, trace fine				0.9	
	S-2	1-2				0.0	Gravel, moist, roots present.	2				
							S-2: Brown, SILT, little fine to medium Sand, trace fine			SILT		
2							Gravel, moist, roots present.				2	
	S-3	2-3				0.0	S-3: Brown, Silty CLAY, little fine to medium Sand, trace fine	3				
							Gravel, moist.					
3												
	S-4	3-4				0.0	S-4: Brown, Silty CLAY, trace fine to medium Sand, trace					
							fine Gravel, moist.					
4												
	S-5	4-5				0.0	S-5: 4-4.6': Brown, Silty CLAY, trace fine to medium Sand,					
							trace fine Gravel, moist.					
5							4.6-5': No recovery.					
	C-2	5-10	60	58		0.0	C-2:					
	S-6	5-6				0.0	S-6: Brown, Silty CLAY, trace fine to medium Sand, trace					
6							fine Gravel, moist.					
	S-7	6-7				0.0	S-7: Brown, Silty CLAY, trace fine to medium Sand, trace					
							fine Gravel, moist.					
7										CLAY		
	S-8	7-8				0.0	S-8: Brown, Silty CLAY, trace fine to medium Sand, trace					
							fine Gravel, moist.					
8												
	S-9	8-9				0.0	S-9: Brown, Silty CLAY, trace fine to medium Sand, trace					
							fine Gravel, moist.					
9												
	S-10	9-10				0.0	S-10: 9-9.8': Brown, Silty CLAY, trace fine to medium Sand,					
							trace fine Gravel, moist.					
10							9.8-10': No recovery.					
	C-3	10-15	60	58		0.0	C-3:					
	S-11	10-11				0.3	S-11: Brown, Silty CLAY, trace fine to medium Sand, trace					
11					11-13		fine Gravel, moist.					
	S-12	11-12				0.1	S-12: 11-11.5': Brown, Silty CLAY, trace fine to medium				11.5	
							Sand, trace fine Gravel, moist.					
12							11.5-12': Brown, fine to coarse SAND, little Silt, trace fine			SAND		
	S-13	12-13				0.0	Gravel, moist.				12.3	
							S-13: 12-12.3': Brown, fine to coarse SAND, little Silt, trace					
13							fine Gravel, moist.			CLAY		
	S-14	13-14				0.0	12.3-13': Brown, Silty CLAY, trace fine to medium Sand,				13.4	
14							trace fine Gravel, moist.			SAND		

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

S. Spezzano

Boring No.:

HS-SB-4911

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4911 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/13/2019 **Finish Date:** 8/13/2019 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				0.0	S-14: 13-13.4': Brown, Silty CLAY, trace fine to medium Sand, trace fine Gravel, moist.				
15							13.4-14': Light brown, fine to medium SAND, little Silt, moist.				
	C-4	15-20	60	46		0.0	S-15: 14-14.8': Light brown, fine to medium SAND, little Silt, moist.				
	S-16	15-16				0.0					
16							14.8-15': No recovery.				
	S-17	16-17				0.0	C-4:				
							S-16: Light brown, fine to medium SAND, little Silt, moist.				
17							S-17: Light brown, fine to medium SAND, little Silt, moist.			SAND	
	S-18	17-18				0.0	S-18: Light brown, fine to medium SAND, little Silt, moist.				
18											
	S-19	18-19				0.0	S-19: Light brown, fine to medium SAND, little Silt, moist.				
19											
	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

S. Spezzano

Boring No.:

HS-SB-4911

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4912 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/14/2018 **Finish Date:** 8/14/2018 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	57	0-2	0.0	C-1:	1		
	S-1	0-1				0.0	S-1: 0-0.6': Brown, TOPSOIL, moist, roots present.		TOPSOIL 0.6	
1	S-2	1-2				0.0	0.6-1': Brown, Clayey SILT, little fine to medium Sand, trace fine Gravel, moist, roots present.	2	SILT	No Equipment Installed
2	S-3	2-3				0.0	S-2: Brown, Clayey SILT, little fine to medium Sand, trace fine Gravel, moist, roots present. S-3: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.	3	2	
3	S-4	3-4				0.0	S-4: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.		CLAY	
4	S-5	4-5				0.0	S-5: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
5	C-2	5-10	60	36	5-7	0.0	C-2:		5.2	
	S-6	5-6				0.0	S-6: 5-5.2': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.		SAND	
6	S-7	6-7				0.0	5.2-6': Brown, fine to medium SAND, little Silt, trace fine Gravel, moist.		6 CLAY 6.4	
7	S-8	7-8				0.0	S-7: 6-6.4': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.			
8	S-9	8-9				N/A	6.4-7': Brown, fine to coarse SAND, little Silt, trace fine Gravel, moist. S-8: Brown, fine to coarse SAND, little Silt, trace fine Gravel, moist.			
9	S-10	9-10				N/A	S-9: No recovery. S-10: No recovery.			
10	C-3	10-15	60	48		0.0	C-3:		SAND	
	S-11	10-11				0.0	S-11: Brown, fine to coarse SAND, little Silt, trace fine Gravel, moist.			
11	S-12	11-12				0.0	S-12: Brown, fine to coarse SAND, little Silt, trace fine Gravel, moist.			
12	S-13	12-13				0.0	S-13: 12-12.4': Brown, fine to coarse SAND, little Silt, trace fine Gravel, moist.			
13	S-14	13-14				0.0	12.4-13': Light brown, fine to medium SAND, little Silt, trace fine Gravel, moist. S-14: Light brown, fine to medium SAND, little Silt, trace fine			
14										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.0 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

S. Spezzano

Boring No.:

HS-SB-4912

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4912 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/14/2018 **Finish Date:** 8/14/2018 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)
	S-15	14-15				N/A	Gravel, moist. S-15: No recovery			
15	C-4	15-20	60	41		0.0	C-4:			
	S-16	15-16				0.0	S-16: Light brown, fine to medium SAND, little Silt, trace fine Gravel, moist.		SAND	
16	S-17	16-17				0.2	S-17: Light brown, fine to medium SAND, little Silt, trace fine Gravel, moist.			
17	S-18	17-18				0.0	S-18: 17-17.8': Light brown, fine to medium SAND, little Silt, trace fine Gravel, moist. 17.8-18': Brown, CLAY, little fine to medium Sand, moist.			17.8
18	S-19	18-19				0.0	S-19: 18-18.5': Brown, CLAY, little fine to medium Sand, moist. 18.5-19': No recovery.		CLAY	
19	S-20	19-20				N/A	S-20: No recovery.			
20										20
							End of exploration at 20 feet.			
21										
22										
23										
24										
25										
26										
27										
28										

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

S. Spezzano

Boring No.:

HS-SB-4912

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4913 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/14/2018 **Finish Date:** 8/14/2018 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)	Equipment Installed
	C-1	0-5	60	44		0.0	C-1:	1		
	S-1	0-1				5.6	S-1: 0-0.9': Brown, TOPSOIL, moist, roots present.		TOPSOIL	
1							0.9-1': Brown, CLAY & SILT, little fine to medium Sand,		0.9	
	S-2	1-2				3.6	trace fine Gravel, moist.	2		No Equipment Installed
							S-2: Brown, CLAY & SILT, little fine to medium Sand, trace			
2							fine Gravel, moist.			
	S-3	2-3				4.0	S-3: Brown, CLAY & SILT, little fine to medium Sand, trace	3		
							fine Gravel, moist.			
3									CLAY & SILT	
	S-4	3-4				3.3	S-4: 3-3.7': Brown, CLAY & SILT, little fine to medium Sand,			
							trace fine Gravel, moist.			
4							3.7-4': No recovery.			
	S-5	4-5				N/A	S-5: No recovery.			
5									5	
	C-2	5-10	60	35		0.1	C-2:		SAND 5.3	
	S-6	5-6				6.6	S-6: 5-5.3': Brown, fine to medium SAND, some Clay & Silt,			
6							moist.		CLAY & SILT 6	
	S-7	6-7				5.2	5.3-6': Brown, CLAY & SILT, little fine to medium Sand,			
							trace fine Gravel, moist.			
7							S-7: 6-6.3': Brown, fine to coarse SAND, little fine Gravel,			
	S-8	7-8				11.0	trace Silt, moist.			
							6.3-7': Light brown, fine to coarse SAND, trace fine Gravel,			
8							trace Silt, moist.			
	S-9	8-9				N/A	S-8: 7-7.9': Light brown, fine to coarse SAND, trace fine			
							Gravel, trace Silt, moist.			
9							7.9-8': No recovery.			
	S-10	9-10				N/A	S-9: No recovery.			
							S-10: No recovery.			
10									SAND	
	C-3	10-15	60	32		0.1	C-3:			
	S-11	10-11				7.6	S-11: Light brown, fine to coarse SAND, trace fine Gravel,			
11							trace Silt, moist.			
	S-12	11-12				6.9	S-12: 11-11.2': Light brown, fine to coarse SAND, trace fine			
							Gravel, trace Silt, moist.			
12							11.2-12': Brown, fine to coarse SAND, some fine Gravel,			
	S-13	12-13				N/A	trace Silt, moist.			
							S-13: 12-12.7': Brown, fine to coarse SAND, some fine			
13							Gravel, trace Silt, moist.			
	S-14	13-14				N/A	12.7-13': No recovery.			
14							S-14: No recovery.			

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.3 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

V. Larimore

Boring No.:

HS-SB-4913

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4913 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: V. Larimore **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/14/2018 **Finish Date:** 8/14/2018 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	S-15	14-15				N/A	S-15: No recovery.		
15									
	C-4	15-20	60	35		NR	C-4:		
	S-16	15-16				6.0	S-16: Brown, fine to coarse SAND, little fine Gravel, trace Silt, moist.		SAND
16									
	S-17	16-17				5.0	S-17: Brown, fine to coarse SAND, little fine Gravel, trace Silt, moist.		
17									17
	S-18	17-18				7.9	S-18: 17-17.9': Brown, Silty CLAY, moist. 17.9-18': No recovery.		
18									
	S-19	18-19				N/A	S-19: No recovery.		SILTY CLAY
19									
	S-20	19-20				N/A	S-20: No recovery.		
20									20
							End of exploration at 20 feet.		
21									
22									
23									
24									
25									
26									
27									
28									

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

V. Larimore

Boring No.:

HS-SB-4913

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4914 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/14/2018 **Finish Date:** 8/14/2018 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)	Equipment Installed
	C-1	0-5	60	57	0-2	0.0	C-1:	1		TOPSOIL	0.3	No Equipment Installed
	S-1	0-1				7.2	S-1: 0-0.3': Brown, TOPSOIL, roots present.					
1	S-2	1-2				1.5	0.3-1': Brown, Clayey SILT, little fine to medium Sand, trace fine Gravel, moist, roots present.	2		SILT		
2	S-3	2-3				3.2	S-2: Brown, Clayey SILT, little fine to medium Sand, trace fine Gravel, moist, roots present. S-3: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.	3			2	
3	S-4	3-4				2.3	S-4: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.					
4	S-5	4-5				2.1	S-5: 4-4.8': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist. 4.8-5': No recovery.					
5	C-2	5-10	60	58		0.0	C-2:			SILTY CLAY		
	S-6	5-6				2.1	S-6: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.					
6	S-7	6-7				7.0	S-7: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.					
7	S-8	7-8				2.7	S-8: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.					
8	S-9	8-9			8-10	1.8	S-9: 8-8.8': Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist.				8.8	
9	S-10	9-10				2.0	8.8-9': Brown, fine to coarse SAND, little fine to medium Gravel, little Silt, moist.			SAND		
10	C-3	10-15	60	52		0.0	S-10: 9-9.8': Brown, fine to coarse SAND, little fine to medium Gravel, little Silt, moist. 9.8-10': No recovery.				10.2	
	S-11	10-11				1.8	C-3:			SILT		
11	S-12	11-12				0.9	S-11: 10-10.2': Brown, fine to coarse SAND, little fine to medium Gravel, little Silt, moist.				11	
12	S-13	12-13				4.9	10.2-11': Brown, Clayey SILT, little fine to medium Sand, trace fine Gravel, moist.			CLAY	12	
13	S-14	13-14				2.1	S-12: Brown, Silty CLAY, little fine to medium Sand, trace fine Gravel, moist. S-13: Light brown, fine to medium SAND, little Silt, rock fragments, moist.			SAND		
14							S-14: Light brown, fine to medium SAND, little Silt, moist.					

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.6 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

S. Spezzano

Boring No.:

HS-SB-4914

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/10/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4914 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** Thomas Ulrich	**Start Date:** 8/14/2018 **Finish Date:** 8/14/2018 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				3.6	S-15: 14-14.3': Light brown, fine to medium SAND, little Silt, moist.				
15							14.3-15': No recovery.				
	C-4	15-20	60	54		NR	C-4:				
	S-16	15-16				0.9	S-16: Light brown, fine to medium SAND, little Silt, moist.				
16											
	S-17	16-17				3.6	S-17: Light brown, fine to medium SAND, little Silt, moist.				
17											
	S-18	17-18				4.3	S-18: Light brown, fine to medium SAND, little Silt, moist.			SAND	
18											
	S-19	18-19				3.6	S-19: Light brown, fine to medium SAND, little Silt, moist.				
19											
	S-20	19-20				2.8	S-20: 19-19.5': Light brown, fine to medium SAND, little Silt, moist.				
20							19.5-20': No recovery.				20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

S. Spezzano

Boring No.:

HS-SB-4914

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

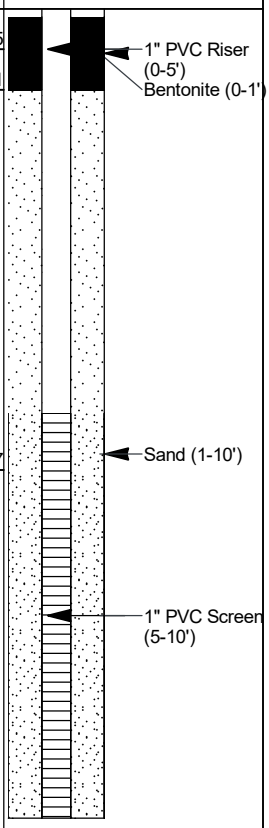
GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4915 **SHEET:** 1 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** R. Christensen	**Start Date:** 8/19/2018 **Finish Date:** 8/19/2018 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.) Stratum Description Depth (ft.)
	C-1	0-5	60	52	0-2	0.0	C-1:	1	
	S-1	0-1				0.3	S-1: 0-0.5': Brown, TOPSOIL, moist, roots present.		TOPSOIL 0.5
1							0.5-1': Brown, Clayey SILT, little fine to medium Sand, trace		SILT 1
	S-2	1-2				0.7	fine Gravel, moist, roots present.	2	
							S-2: Brown, Silty CLAY, little fine to medium Sand, trace fine		
2					2-4		Gravel, moist, roots present.		
	S-3	2-3				1.1	S-3: 2-2.5': Brown, Silty CLAY, little fine to medium Sand,	3	
							trace fine Gravel, moist, roots present.		
3							2.5-3': Brown, CLAY, little fine to medium Sand, trace fine		
	S-4	3-4				1.4	Gravel, trace Silt, moist.		CLAY
							S-4: Brown, CLAY, little fine to medium Sand, trace fine		
4							Gravel, trace Silt, moist.		
	S-5	4-5				0.8	S-5: 4-4.3': Brown, CLAY, little fine to medium Sand, trace		
							fine Gravel, trace Silt, moist.		
5									
	C-2	5-10	60	43		0.0	4.3-5': No recovery.		
	S-6	5-6				0.4	C-2:		5.7
6							S-6: 5-5.7': Brown, CLAY, little fine to medium Sand, trace		
	S-7	6-7				0.7	fine Gravel, trace Silt, moist.		
							5.7-6': Brown, PEAT, moist, roots present.		
7							S-7: Brown, PEAT, moist, roots present.		
	S-8	7-8				1.1	S-8: Brown, PEAT, moist, roots present.		
8									
	S-9	8-9				1.1	S-9: 8-8.6': Brown, PEAT, moist, roots present.		
							8.6-9': No recovery.		
9									
	S-10	9-10				N/A	S-10: No recovery.		
10									PEAT
	C-3	10-15	60	55		0.0	C-3:		
	S-11	10-11				1.4	S-11: Brown/gray, PEAT, moist, roots present.		
11									
	S-12	11-12				1.2	S-12: Brown/gray, PEAT, moist, roots present.		
12									
	S-13	12-13				1.9	S-13: Brown/gray, PEAT, moist, roots present.		
13									
	S-14	13-14				1.5	S-14: Brown/gray, PEAT, moist, roots present.		
14									

Equipment Installed



Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

1. Field screening of samples for organic vapors was performed with a MiniRAE 3000 photoionization detector equipped with a 10.6 eV lamp. Readings above background levels are shown in parts per million by volume (ppmv) of isobutylene. ND represents <0.1 ppmv. Background was measured at 0.3 ppmv.
2. Groundwater was not encountered during drilling or upon completion.
3. Borehole was backfilled with Bentonite upon completion.

Logger:

S. Spezzano

Boring No.:

HS-SB-4915

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019

GEOPROBE LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**Wolverine World Wide** **House Street** **Rockford, Michigan**	**EXPLORATION NO.:** HS-SB-4915 **SHEET:** 2 of 2 **PROJECT NO:** 16.0062335.52 **REVIEWED BY:** BLW

Logged By: S. Spezzano **Drilling Co.:** Stearns Drilling **Foreman:** R. Christensen	**Start Date:** 8/19/2018 **Finish Date:** 8/19/2018 **Final Depth (ft.):** 20	**BORING COORDINATES (International Feet):** **N** TBD **E** TBD **H. Datum:** MI State Plane S Zone NAD83
Type of Rig: Geoprobe **Rig Model:** 7822 DT **Drilling Method:** Direct Push	**Sampler Type:** Macro Core **Sampler O.D. (in.):** 2.25" **Sampler Length (in.):** 5.0'	**Offset of Boring From Original Location:** NA **Ground Elevation:** See Survey **V. Datum:** See Survey

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Submitted To Lab	PID (ppm)	Sample Description & Configuration Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-15	14-15				1.3	S-15: 14-14.6': Brown/gray, PEAT, moist, roots present. 14.6-15': No recovery.				
15	C-4	15-20	60	44		0.0	C-4:				
	S-16	15-16				0.7	S-16: Brown/gray, PEAT, moist, roots present.				
16	S-17	16-17				0.7	S-17: Brown/gray, PEAT, moist, roots present.				
17	S-18	17-18				1.0	S-18: Brown/gray, PEAT, moist, roots present.			PEAT	
18	S-19	18-19				0.7	S-19: 18-18.7': Brown/gray, PEAT, moist, roots present. 18.7-19': No recovery.				
19	S-20	19-20				N/A	S-20: No recovery.				
20											20
							End of exploration at 20 feet.				
21											
22											
23											
24											
25											
26											
27											
28											

Granular Soils Blows/FT Density	Cohesive Soils Blows/FT Consistency	Plasticity SM Thread Diameter Rolled	
0-4 -- Very Loose	<2 -- Very Soft	None	SILT
4-10 -- Loose	2-4 -- Soft	1/4"	Clayey SILT
10-30 -- Medium Dense	4-8 -- M. Stiff	1/8"	SILT & CLAY
30-50 -- Dense	8-15 -- Stiff	1/16"	CLAY & SILT
>50 -- Very Dense	15-30 -- V. Stiff	1/32"	Silty CLAY
	>30 -- Hard	1/64"	CLAY

MISSDIG Ticket Number:

A81571365

REMARKS

Logger:

S. Spezzano

Boring No.:

HS-SB-4915

WOLVERINE WORLD WIDE.GPJ; GZA GEOPROBE WITH EQUIP WOLVERINE; 10/9/2019