August 13, 2019 Reference No. 11137465

Mr. Clint Babcock
Glenn Springs Holdings, Inc.
A Subsidiary of Occidental Petroleum Corporation
7601 Old Channel Trail
Montague, Michigan
U.S.A. 49437

Dear Mr. Babcock:

Re: Results of January/February 2019 Split Sampling near Former Niagara Sanitation Site

This memo presents a summary of split sampling conducted earlier this year at locations near the Former Niagara Sanitation Site in Wheatfield, New York (Site).

The sampling event was conducted by Plaintiffs associated with ongoing litigation regarding the Site. Pursuant to a Court Order, Plaintiffs were required to provide Defendants, including OxyChem, with access to the sampling locations and split samples of all samples that Plaintiffs obtained from the groundwater, surface soils, subsurface soils, indoor dust, indoor air, and outdoor air at these locations. GHD, retained by OxyChem, attended all sampling events during January and February 2019 to observe and obtain split samples from each of the locations.

The sampling was conducted at approximately 20 residences in the vicinity of the Site, and two residential locations located 5 or more miles away near Buffalo (Williamsville). The Plaintiff's did not specify the purpose for collecting samples at these two "off-site" locations (referred to as "Buffalo Locations"). Based on their distance from the Site, it was assumed that they would provide a reference to background levels at locations farther away from and unrelated to the Site, and were used as such for evaluation of the split sample data.

Samples were collected between January 15 and February 27, 2019. All sampling activities were conducted using the methods outlined in the notification letter provided to the Defendants by the Plaintiff's. The Plaintiff's notification letters are provided in Attachment A for reference. The description of work in the Plaintiff's notification letters, and certain sampling methodologies used by the Plaintiff's, did not comply with the standards approved or employed by New York State Department of Environmental Conservation (NYSDEC) for remedial investigations. In addition, some deviations from Plaintiffs' description of work were observed during their sampling activities.

All subsurface soil and dust samples were split by the Plaintiff's laboratory and the resulting split samples were provided to GHD's laboratory for analysis. GHD did not observe the sample splitting activities, and no chains of custody were supplied by Plaintiffs' laboratory for those sample splitting activities. Surface soil samples analyzed for volatile organic compounds (VOCs) were collected directly by GHD from the same location and depth as the Plaintiffs. Groundwater samples collected by the Plaintiffs were split in the

field. Air samples were collected in tubes and Goresorbers set up by GHD adjacent to the tubes and Goresorbers placed by the Plaintiffs. Samples were submitted to the following laboratories for analysis:

- Soil, groundwater, and dust samples provided to, or collected by, GHD were submitted to TestAmerica Laboratories, Inc.
- Air samples collected by GHD were submitted to ALS Environmental
- Goresorbers collected by GHD were submitted to Amplified Geochemical Imaging, LLC

All samples collected by GHD and provided as split samples to GHD were handled by GHD, and the laboratories contracted by GHD, in accordance with standard chain of custody procedures.

A sample summary is presented in Table 1. Locations of the properties sampled are shown on Figure 1. A discussion of the analytical results is presented below.

Groundwater Samples

Groundwater samples from three monitoring wells on properties near the Site were collected and analyzed for SVOCs, pesticides, metals, polychlorinated biphenyl (PCB) congeners, and polychlorinated dibenzodioxins (PCDDs), and polychlorinated dibenzofurans (PCDFs). There were no groundwater samples collected from the Buffalo Locations. Groundwater analytical results are presented in Table 2 and shown on Figure 2, and were compared to Class GA groundwater standards set forth in the NYSDECs Division of Water Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998). All groundwater concentrations were either low level or non-detect, with only one exceedance of a Class GA standard for alpha-BHC (0.012 J micrograms per litre [μg/L] vs 0.01 μg/L). This concentration is an estimated concentration (J qualifier) and marginally above the Class GA standard. Given the above, groundwater has not been impacted by the Site.

Soil Samples

A total of 31 soil samples were collected from 11 properties near the Site, and six soil samples were collected from the two Buffalo properties. Soil samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), semivolatile organic compounds (SVOCs), PCB Aroclors, pesticides, metals, and PCDDs/PCDFs. The samples collected from the Buffalo properties were analyzed for the same parameters as above except that PCB congeners were analyzed for instead of PCB Aroclors and full VOCs were analyzed for instead of BTEX. Results of soil sampling are presented in Table 3a and shown on Figure 3. The analytical data were compared to New York State 6 NYCRR 375-6.8(b) Restricted Use Soil Cleanup Objectives. There were no exceedances of residential soil cleanup objectives for any soil samples. No detections were present for BTEX or PCBs, and SVOCs and pesticides only had low-level detections below residential cleanup standards. Toxicity equivalency quotients (TEQs) were calculated for the PCDDs/PCDFs in soil samples, as a summary of detected compounds with relative concentrations in terms of toxicity of 2,3,7,8-TCDD. As shown in Table 3b, the detected levels of PCDDs/PCDFs are generally low, and are comparable to the concentrations found in the Buffalo Locations. Based on the

above, the soils have not been impacted by the Site and are essentially no different than those found in the background locations.

Indoor Air Samples

A total of 33 indoor air samples were collected from 11 properties near the Site, and 16 indoor air samples were taken from Buffalo Locations. In addition, 8 outdoor air samples were collected from 5 properties near the Site, and 5 outdoor air samples collected from Buffalo Locations. These samples were analyzed for BTEX, with a select number of the samples also being analyzed for additional VOCs. Analytical results for the air samples are presented in Table 4a (indoor air) and Table 4b (outdoor air), and shown on Figure 4. No applicable criteria are available for these air sample results; however, the analytical results collected from the properties near the Site are comparable to the Buffalo Location. This indicates that air samples results are within typical background levels, and as such, do not indicate any impact from the Site.

Dust Samples

A total of 13 dust samples were collected from 11 properties near the Site, and two samples were collected from the Buffalo Locations. These samples were collected from vacuums located in the residences or, when not available, by wiping dust from various surfaces. These samples were analyzed for SVOCs, PCB Aroclors, pesticides, metals, and PCDDs/PCDFs. The Buffalo Location samples for dust were analyzed for the same parameters except that PCB congeners were analyzed for instead of Aroclors, and included VOCs. As such, a comparison could not be made for these parameters between the samples collected from properties near the Site and the samples from the Buffalo Locations. These results are presented in Table 5a, and shown on Figure 5. No applicable criteria are available for dust sample results. The only SVOCs detected were parameters associated with plastics, such as bis(2-ethylhexyl)phthalate. These parameters were detected in samples from both properties near the Site and the Buffalo Locations. Metals were also detected in samples from both properties near the Site and the Buffalo Locations; however, the concentrations varied. Pesticides were detected in both the samples collected from properties near the Site and the Buffalo Locations. The concentrations are generally consistent, considering the higher detection limits associated with the Buffalo Location samples. TEQs were calculated for the detected PCDDs/PCDFs. As shown in Table 5b, the concentrations of PCDDs/PCDFs are higher in the samples collected from properties near the Site than the concentrations detected in the one Buffalo Location sample analyzed for these parameters. However, since only one Buffalo location sample was collected, and the indoor dust levels are much higher than any outdoor detections, the elevated levels of PCDDs/PCDFs in indoor dust samples are not indicative of migration of chemicals from the Site.

Chemicals considered indicators of Love Canal waste were not found in most sampling locations. In very few locations, one or two such chemicals were found at low concentrations but in the absence of any other Love Canal indicator chemicals. The failure to find all such indicator chemicals at any location, at concentrations associated with Love Canal waste, reinforces NYSDEC's previous conclusion that the

Love Canal waste at the Site was effectively removed in 2015 and did not migrate off-site to the surrounding neighborhood.

In conclusion, these sampling data support the findings of previous reports prepared by GHD regarding its removal work at the Site, and by the NYSDEC regarding its numerous sampling events at the Site. GHD's report entitled "Interim Remedial Measure Project Summary Report, NYSDEC Site #932054", dated January 2016, documented the excavation of impacted soils from the Niagara Sanitation Site. Confirmatory sampling collected after excavation activities were complete shows that the soils outside of the excavation area were not impacted by the materials removed. Consistent with earlier investigations, the Remedial Investigation report, prepared by NYSDEC in 2019, presents data from sampling in various media both on and off-site. No criteria exceedances were present in samples on plaintiff properties, which confirms that the plaintiff's properties have not been impacted by the Site.

Based on the results of split sampling conducted in January and February 2019 of various media, as well as the conclusions of numerous prior reports by the NYSDEC and GHD, the concentrations of analytes found are not indicative of migration of chemicals originating from the Site.

Should you have any questions on the above, please do not hesitate to contact me.

Sincerely,

GHD

John Pentilchuk, P. Eng.

JS/lj/1

Encl.

LEGEND

NASH ROAD LANDFILL SITE

PARCEL BOUNDARY

APPROXIMATE SAMPLE LOCATION

NOTES:

- LOCATIONS SHOWN ARE APPROXIMATE.

SOURCE:
PARCEL INFORMATION FROM NYS GIS CLEARINGHOUSE

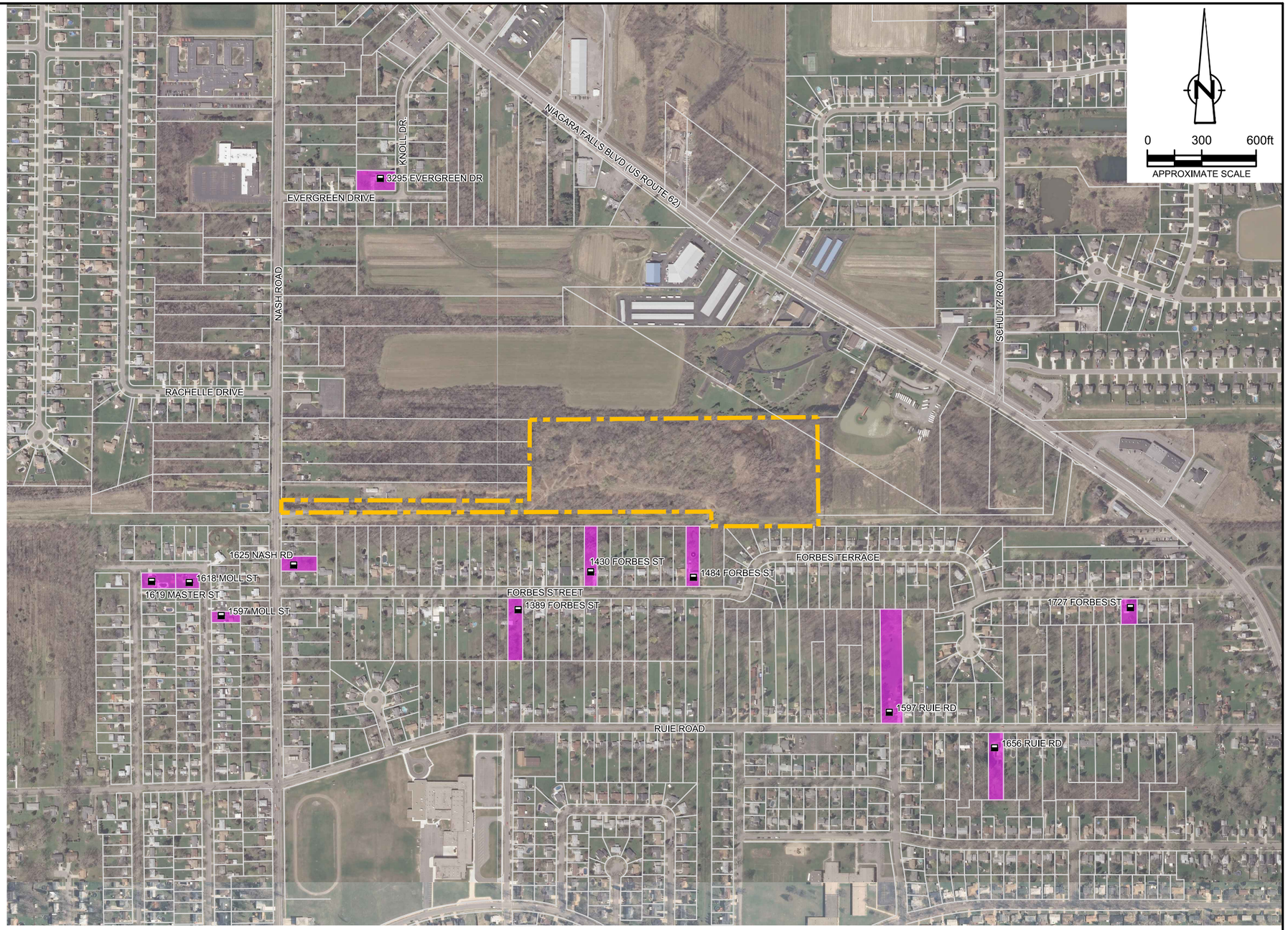


figure 1

SAMPLE LOCATIONS
2019 ANALYTICAL RESULTS
NASH ROAD LANDFILL
Wheatfield, New York

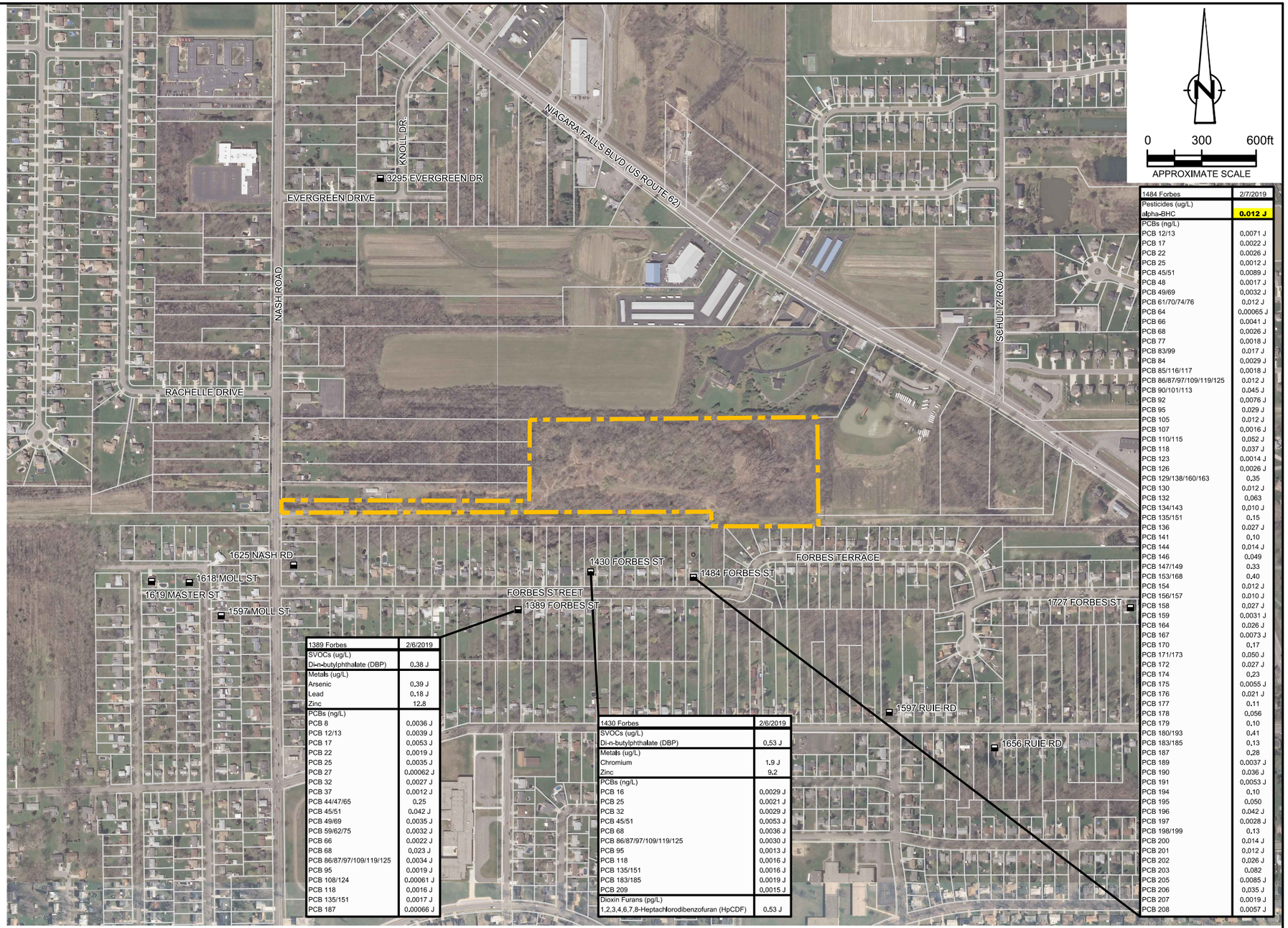
LEGEND

- NASH ROAD LANDFILL SITE
- PARCEL BOUNDARY
- APPROXIMATE SAMPLE LOCATION
- J — ESTIMATED CONCENTRATION
- µg/L — MICROGRAMS PER LITER
- ng/L — NANOGRAMS PER LITER
- pg/L — PICOGRAMS PER LITER
- EXCEEDS CRITERIA

Detected Parameters	GA Standards
SVOCs (ug/L) [65 Analytes]	
Di-n-butylphthalate (DBP)	50
Metals (ug/L) [12 analytes]	
Arsenic	25
Chromium	50
Lead	0.7
Zinc	–
Pesticides (ug/L) [21 Analytes]	
alpha-BHC	0.01
gamma-BHC (lindane)	0.05

NOTES:
- LOCATIONS SHOWN ARE APPROXIMATE.
- PCBS WERE ANALYZED FOR 162 ANALYTES. NO CRITERIA IS AVAILABLE FOR THESE ANALYTES.
- DIOXINS/FURANS WERE ANALYZED FOR 17 ANALYTES. NO CRITERIA IS AVAILABLE FOR THESE ANALYTES.
- **ONLY DETECTED ANALYTES ARE SHOWN.**

SOURCE:
PARCEL INFORMATION FROM NYS GIS CLEARINGHOUSE



1389 Forbes	2/6/2019
SVOCs (ug/L)	
Di-n-butylphthalate (DBP)	0.38 J
Metals (ug/L)	
Arsenic	0.39 J
Lead	0.18 J
Zinc	12.8
PCBs (ng/L)	
PCB 8	0.0036 J
PCB 12/13	0.0039 J
PCB 17	0.0053 J
PCB 22	0.0019 J
PCB 25	0.0035 J
PCB 27	0.00062 J
PCB 32	0.0027 J
PCB 37	0.0012 J
PCB 44/47/65	0.25
PCB 45/51	0.042 J
PCB 49/69	0.0035 J
PCB 59/62/75	0.0032 J
PCB 66	0.0022 J
PCB 68	0.023 J
PCB 86/87/97/109/119/125	0.0034 J
PCB 95	0.0019 J
PCB 108/124	0.00061 J
PCB 118	0.0016 J
PCB 135/151	0.0017 J
PCB 187	0.00066 J

1430 Forbes	2/6/2019
SVOCs (ug/L)	
Di-n-butylphthalate (DBP)	0.53 J
Metals (ug/L)	
Chromium	1.9 J
Zinc	9.2
PCBs (ng/L)	
PCB 16	0.0029 J
PCB 25	0.0021 J
PCB 32	0.0029 J
PCB 45/51	0.0053 J
PCB 68	0.0036 J
PCB 86/87/97/109/119/125	0.0030 J
PCB 95	0.0013 J
PCB 118	0.0016 J
PCB 135/151	0.0016 J
PCB 183/185	0.0019 J
PCB 209	0.0015 J
Dioxin Furans (pg/L)	
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	0.53 J

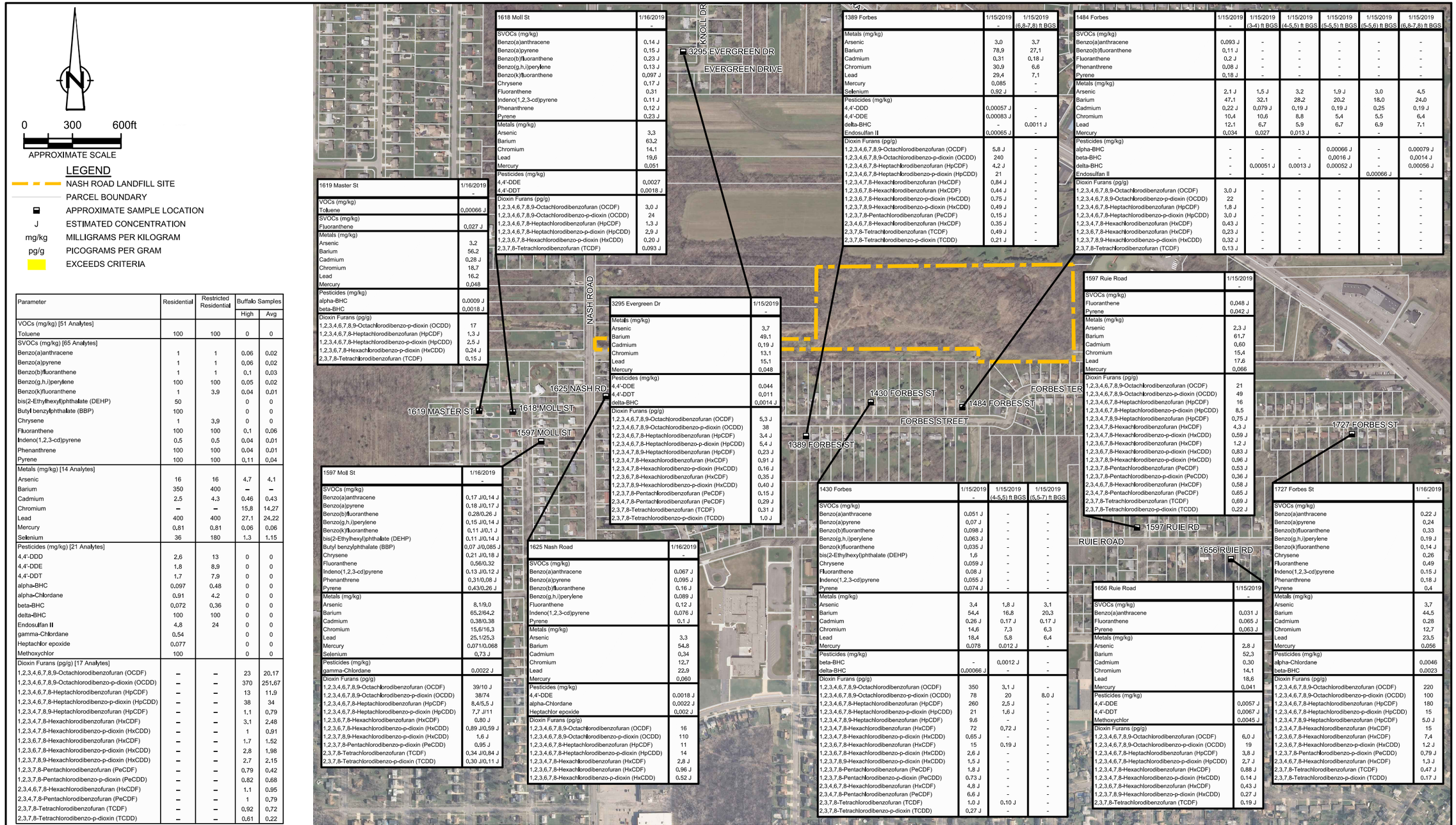
1484 Forbes	2/7/2019
Pesticides (ug/L)	
alpha-BHC	**0.012 J**
PCBs (ng/L)	
PCB 12/13	0.0071 J
PCB 17	0.0022 J
PCB 22	0.0026 J
PCB 25	0.0012 J
PCB 45/51	0.0089 J
PCB 48	0.0017 J
PCB 49/69	0.0032 J
PCB 61/70/74/76	0.012 J
PCB 64	0.00065 J
PCB 66	0.0041 J
PCB 68	0.0026 J
PCB 77	0.0018 J
PCB 83/99	0.017 J
PCB 84	0.0029 J
PCB 85/116/117	0.0018 J
PCB 86/87/97/109/119/125	0.012 J
PCB 90/101/113	0.045 J
PCB 92	0.0076 J
PCB 95	0.029 J
PCB 105	0.012 J
PCB 107	0.0016 J
PCB 110/115	0.052 J
PCB 118	0.037 J
PCB 123	0.0014 J
PCB 126	0.0026 J
PCB 129/138/160/163	0.35
PCB 130	0.012 J
PCB 132	0.063
PCB 134/143	0.010 J
PCB 135/151	0.15
PCB 136	0.027 J
PCB 141	0.10
PCB 144	0.014 J
PCB 146	0.049
PCB 147/149	0.33
PCB 153/168	0.40
PCB 154	0.012 J
PCB 156/157	0.010 J
PCB 158	0.027 J
PCB 159	0.0031 J
PCB 164	0.026 J
PCB 167	0.0073 J
PCB 170	0.17
PCB 171/173	0.050 J
PCB 172	0.027 J
PCB 174	0.23
PCB 175	0.0055 J
PCB 176	0.021 J
PCB 177	0.11
PCB 178	0.056
PCB 179	0.10
PCB 180/193	0.41
PCB 183/185	0.13
PCB 187	0.28
PCB 189	0.0037 J
PCB 190	0.036 J
PCB 191	0.0053 J
PCB 194	0.10
PCB 195	0.050
PCB 196	0.042 J
PCB 197	0.0028 J
PCB 198/199	0.13
PCB 200	0.014 J
PCB 201	0.012 J
PCB 202	0.026 J
PCB 203	0.082
PCB 205	0.0085 J
PCB 206	0.035 J
PCB 207	0.0019 J
PCB 208	0.0057 J

figure 2

ANALYTICAL RESULTS FOR GROUNDWATER
2019 ANALYTICAL RESULTS
NASH ROAD LANDFILL
Wheatfield, New York

GHD

N:\CA\Waterloo\Legacy\CAD\drawings\11137000s\11137465\11137465-corr\11137465-01(HOGA002)\11137465-01(HOGA002)GN\11137465-01(HOGA002)GN-WA002.DWG Plot Date: JUN 24, 2019



Parameter	Residential	Restricted Residential	Buffalo Samples	
			High	Avg
VOCs (mg/kg) [51 Analytes]				
Toluene	100	100	0	0
SVOCs (mg/kg) [65 Analytes]				
Benzo(a)anthracene	1	1	0.06	0.02
Benzo(a)pyrene	1	1	0.06	0.02
Benzo(b)fluoranthene	1	1	0.1	0.03
Benzo(g,h,i)perylene	100	100	0.05	0.02
Benzo(k)fluoranthene	1	3.9	0.04	0.01
bis(2-Ethylhexyl)phthalate (DEHP)	50		0	0
Butyl benzylphthalate (BBP)	100		0	0
Chrysene	1	3.9	0	0
Fluoranthene	100	100	0.1	0.06
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.04	0.01
Phenanthrene	100	100	0.04	0.01
Pyrene	100	100	0.11	0.04
Metals (mg/kg) [14 Analytes]				
Arsenic	16	16	4.7	4.1
Barium	350	400	–	–
Cadmium	2.5	4.3	0.46	0.43
Chromium	–	–	15.8	14.27
Lead	400	400	27.1	24.22
Mercury	0.81	0.81	0.06	0.06
Selenium	36	180	1.3	1.15
Pesticides (mg/kg) [21 Analytes]				
4,4'-DDD	2.6	13	0	0
4,4'-DDE	1.8	8.9	0	0
4,4'-DDT	1.7	7.9	0	0
alpha-BHC	0.097	0.48	0	0
alpha-Chlordane	0.91	4.2	0	0
beta-BHC	0.072	0.36	0	0
delta-BHC	100	100	0	0
Endosulfan II	4.8	24	0	0
gamma-Chlordane	0.54		0	0
Heptachlor epoxide	0.077		0	0
Methoxychlor	100		0	0
Dioxin Furans (pg/g) [17 Analytes]				
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	–	–	23	20.17
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	–	–	370	251.67
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	–	–	13	11.9
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	–	–	38	34
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	–	–	1.1	0.79
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	–	–	3.1	2.48
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	–	–	1	0.91
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	–	–	1.7	1.52
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	–	–	2.8	1.98
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	–	–	2.7	2.15
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	–	–	0.79	0.42
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	–	–	0.82	0.68
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	–	–	1.1	0.95
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	–	–	1	0.79
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	–	–	0.92	0.72
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	–	–	0.61	0.22

1618 Moll St	1/16/2019
	-
SVOCs (mg/kg)	
Benzo(a)anthracene	0.14 J
Benzo(a)pyrene	0.15 J
Benzo(b)fluoranthene	0.23 J
Benzo(g,h,i)perylene	0.13 J
Benzo(k)fluoranthene	0.097 J
Chrysene	0.17 J
Fluoranthene	0.31
Indeno(1,2,3-cd)pyrene	0.11 J
Phenanthrene	0.12 J
Pyrene	0.23 J
Metals (mg/kg)	
Arsenic	3.3
Barium	63.2
Chromium	14.1
Lead	19.6
Mercury	0.051
Pesticides (mg/kg)	
4,4'-DDE	0.0027
4,4'-DDT	0.0018 J
Dioxin Furans (pg/g)	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	3.0 J
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	24
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	1.3 J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	2.9 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.20 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	0.093 J

1619 Master St	1/16/2019
	-
VOCs (mg/kg)	
Toluene	0.00066 J
SVOCs (mg/kg)	
Fluoranthene	0.027 J
Metals (mg/kg)	
Arsenic	3.2
Barium	56.2
Cadmium	0.28 J
Chromium	18.7
Lead	16.2
Mercury	0.048
Pesticides (mg/kg)	
alpha-BHC	0.0009 J
beta-BHC	0.0018 J
Dioxin Furans (pg/g)	
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	17
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	1.3 J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	2.5 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.24 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	0.15 J

1597 Moll St	1/16/2019
	-
SVOCs (mg/kg)	
Benzo(a)anthracene	0.17 J/0.14 J
Benzo(a)pyrene	0.18 J/0.17 J
Benzo(b)fluoranthene	0.28/0.26 J
Benzo(g,h,i)perylene	0.15 J/0.14 J
Benzo(k)fluoranthene	0.11 J/0.1 J
bis(2-Ethylhexyl)phthalate (DEHP)	0.11 J/0.14 J
Butyl benzylphthalate (BBP)	0.07 J/0.085 J
Chrysene	0.21 J/0.18 J
Fluoranthene	0.56/0.32
Indeno(1,2,3-cd)pyrene	0.13 J/0.12 J
Phenanthrene	0.31/0.08 J
Pyrene	0.43/0.26 J
Metals (mg/kg)	
Arsenic	8.1/9.0
Barium	65.2/64.2
Cadmium	0.38/0.38
Chromium	15.6/16.3
Lead	25.1/25.3
Mercury	0.071/0.068
Selenium	0.73 J
Pesticides (mg/kg)	
gamma-Chlordane	0.0022 J
Dioxin Furans (pg/g)	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39/10 J
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	38/74
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	8.4/5.5 J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	7.7 J/11
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	0.80 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.89 J/0.59 J
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	1.6 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	0.95 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	0.34 J/0.84 J
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0.30 J/0.11 J

1625 Nash Road	1/16/2019
	-
SVOCs (mg/kg)	
Benzo(a)anthracene	0.067 J
Benzo(a)pyrene	0.095 J
Benzo(b)fluoranthene	0.16 J
Benzo(g,h,i)perylene	0.089 J
Fluoranthene	0.12 J
Indeno(1,2,3-cd)pyrene	0.076 J
Pyrene	0.1 J
Metals (mg/kg)	
Arsenic	3.3
Barium	54.8
Cadmium	0.34
Chromium	12.7
Lead	22.9
Mercury	0.060
Pesticides (mg/kg)	
4,4'-DDE	0.0018 J
alpha-Chlordane	0.0022 J
Heptachlor epoxide	0.002 J
Dioxin Furans (pg/g)	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	16
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	110
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	11
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	14
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	2.8 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	0.96 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.52 J

3295 Evergreen Dr	1/15/2019
	-
Metals (mg/kg)	
Arsenic	3.7
Barium	49.1
Cadmium	0.19 J
Chromium	13.1
Lead	15.1
Mercury	0.048
Pesticides (mg/kg)	
4,4'-DDE	0.044
4,4'-DDT	0.011
delta-BHC	0.0014 J
Dioxin Furans (pg/g)	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	5.3 J
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	38
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	3.4 J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	5.4 J
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	0.23 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	0.91 J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.16 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	0.35 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.40 J
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	0.15 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	0.29 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	0.31 J
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1.0 J

1389 Forbes	1/15/2019	1/15/2019
	-	(6,8-7,8) ft BGS
Metals (mg/kg)		
Arsenic	3.0	3.7
Barium	78.9	27.1
Cadmium	0.31	0.18 J
Chromium	30.9	6.6
Lead	29.4	7.1
Mercury	0.085	-
Selenium	0.92 J	-
Pesticides (mg/kg)		
4,4'-DDD	0.00057 J	-
4,4'-DDE	0.00083 J	-
delta-BHC	-	0.0011 J
Endosulfan II	0.00065 J	-
Dioxin Furans (pg/g)		
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	5.8 J	-
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	240	-
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	4.2 J	-
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	21	-
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	0.84 J	-
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	0.44 J	-
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.75 J	-
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	0.49 J	-
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	0.15 J	-
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	0.35 J	-
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	0.49 J	-
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0.21 J	-

1484 Forbes	1/15/2019	1/15/2019	1/15/2019	1/15/2019	1/15/2019	1/15/2019
	-	(3-4) ft BGS	(4-5,5) ft BGS	(5-5,5) ft BGS	(5-5,6) ft BGS	(6,8-7,8) ft BGS
SVOCs (mg/kg)						
Benzo(a)anthracene	0.093 J	-	-	-	-	-
Benzo(b)fluoranthene	0.11 J	-	-	-	-	-
Fluoranthene	0.2 J	-	-	-	-	-
Phenanthrene	0.08 J	-	-	-	-	-
Pyrene	0.18 J	-	-	-	-	-
Metals (mg/kg)						
Arsenic	2.1 J	1.5 J	3.2	1.9 J	3.0	4.5
Barium	47.1	32.1	28.2	20.2	18.0	24.0
Cadmium	0.22 J	0.079 J	0.19 J	0.19 J	0.25	0.19 J
Chromium	10.4	10.6	8.8	5.4	5.5	6.4
Lead	12.1	6.7	5.9	6.7	6.9	7.1
Mercury	0.034	0.027	0.013 J	-	-	-
Pesticides (mg/kg)						
alpha-BHC	-	-	-	0.00066 J	-	0.00079 J
beta-BHC	-	-	-	0.0016 J	-	0.0014 J
delta-BHC	-	0.00051 J	0.0013 J	0.00052 J	-	0.00056 J
Endosulfan II	-	-	-	-	0.00066 J	-
Dioxin Furans (pg/g)						
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	3.0 J	-	-	-	-	-
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	22	-	-	-	-	-
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	1.8 J	-	-	-	-	-
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	3.0 J	-	-	-	-	-
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	0.43 J	-	-	-	-	-
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	0.23 J	-	-	-	-	-
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	0.32 J	-	-	-	-	-
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	0.13 J	-	-	-	-	-

1597 Ruie Road	1/15/2019
	-
SVOCs (mg/kg)	
Fluoranthene	0.048 J
Pyrene	0.042 J
Metals (mg/kg)	
Arsenic	2.3 J
Barium	61.7
Cadmium	0.60
Chromium	15.4
Lead	17.6
Mercury	0.066
Dioxin Furans (pg/g)	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	21
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	49
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	16
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	8.5
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	0.75 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	4.3 J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.59 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	1.2 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.83 J
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	0.96 J
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	0.53 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	0.36 J
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	0.58 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	0.65 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	0.69 J
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0.22 J

1727 Forbes St	1/16/2019
	-
SVOCs (mg/kg)	
Benzo(a)anthracene	0.22 J
Benzo(a)pyrene	0.24
Benzo(b)fluoranthene	0.33
Benzo(g,h,i)perylene	0.19 J
Benzo(k)fluoranthene	0.14 J
Chrysene	0.26
Fluoranthene	0.49
Indeno(1,2,3-cd)pyrene	0.15 J
Phenanthrene	0.18 J
Pyrene	0.4
Metals (mg/kg)	
Arsenic	3.7
Barium	44.5
Cadmium	0.28
Chromium	12.7
Lead	23.5
Mercury	0.056
Pesticides (mg/kg)	
alpha-Chlordane	0.0046
beta-BHC	0.0023
Dioxin Furans (pg/g)	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	220
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	100
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	180
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	15
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	5.0 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	15
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	7.4
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	1.2 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	0.79 J
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	1.3 J
2,3,4,7,8-Pentachlorodibenzofuran (TCDF)	0.47 J
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0.17 J

1430 Forbes	1/15/2019	1/15/2019	1/15/2019
	-	(4-5,5) ft BGS	(5,5-7) ft BGS
SVOCs (mg/kg)			
Benzo(a)anthracene	0.051 J	-	-
Benzo(a)pyrene	0.07 J	-	-
Benzo(b)fluoranthene	0.098 J	-	-
Benzo(g,h,i)perylene	0.063 J	-	-
Benzo(k)fluoranthene	0.035 J	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	1.6	-	-
Chrysene	0.059 J	-	-
Fluoranthene	0.08 J	-	-
Indeno(1,2,3-cd)pyrene	0.055 J	-	-
Pyrene	0.074 J	-	-
Metals (mg/kg)			
Arsenic	3.4	1.8 J	3.1
Barium	54.4	16.8	20.3
Cadmium	0.26 J	0.17 J	0.17 J
Chromium	14.6	7.3	6.3
Lead	18.4	5.8	6.4
Mercury	0.078	0.012 J	-
Pesticides (mg/kg)			
beta-BHC	-	0.0012 J	-
delta-BHC	0.00066 J	-	-
Dioxin Furans (pg/g)			
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	350	3.1 J	-
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	78	20	8.0 J
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	260	2.5 J	-
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	21	1.6 J	-
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	9.6	-	-
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	72	0.72 J	-
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.65 J	-	-
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	15	0.19 J	-
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	2.6 J	-	-
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	1.5 J	-	-
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	1.8 J	-	-
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	0.73 J	-	-
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	4.8 J	-	-
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	6.6 J	-	-
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	1.0 J	0.10 J	-
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0.27 J	-	-

1656 Ruie Road	1/15/2019
	-
SVOCs (mg/kg)	
Benzo(a)anthracene	0.031 J
Fluoranthene	0.065 J
Pyrene	0.063 J
Metals (mg/kg)	
Arsenic	2.8 J
Barium	52.3
Cadmium	0.30
Chromium	14.1
Lead	18.6
Mercury	0.041
Pesticides (mg/kg)	
4,4'-DDE	0.0057 J
4,4'-DDT	0.0067 J
Methoxychlor	0.0045 J
Dioxin Furans (pg/g)	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	6.0 J
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	19
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	3.8 J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	2.7 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	0.88 J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.14 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	0.43 J
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	0.27 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	0.19 J

figure 3

ANALYTICAL RESULTS FOR SOIL
2019 ANALYTICAL RESULTS
NASH ROAD LANDFILL
Wheatfield, New York

NOTES:
- LOCATIONS SHOWN ARE APPROXIMATE.
- PCBs WERE ANALYZED FOR 7 ANALYTES, BUT NONE WERE DETECTED.
- **ONLY DETECTED ANALYTES ARE SHOWN.**

SOURCE:
PARCEL INFORMATION FROM NYS GIS CLEARINGHOUSE

LEGEND

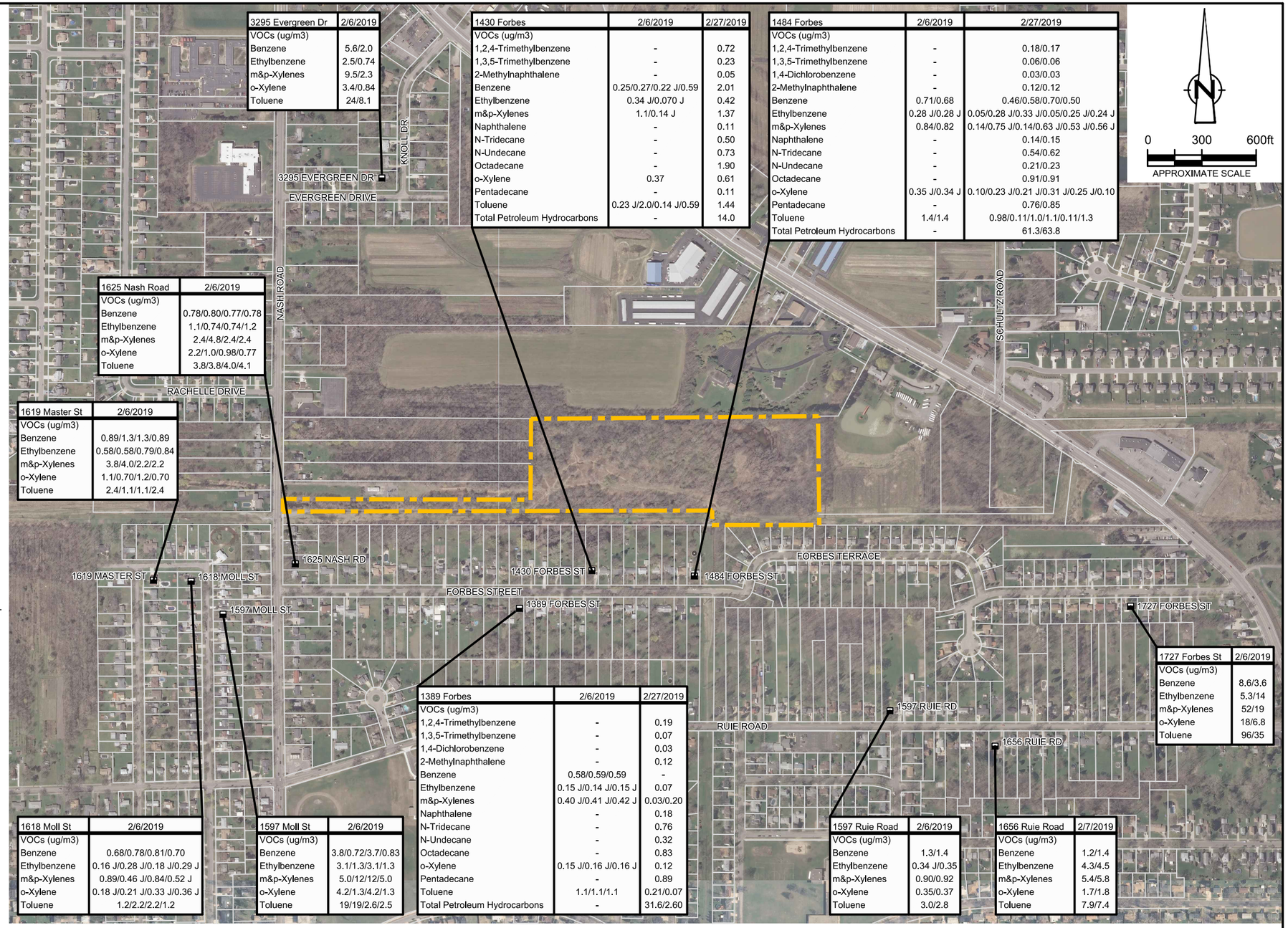
- NASH ROAD LANDFILL SITE
- PARCEL BOUNDARY
- APPROXIMATE SAMPLE LOCATION
- J — ESTIMATED CONCENTRATION
- µg/m3 — MICROGRAMS PER METER CUBED

Detected Parameters	Buffalo Samples	
	High	Avg
VOCs (µg/m3)		
1,2,4-Trimethylbenzene	2.13	1.344
1,3,5-Trimethylbenzene	0.68	0.43
1,4-Dichlorobenzene	0	0
2-Methylnaphthalene	0.35	0.19
Benzene	5.91	1.8507
Ethylbenzene	5.3	1.8942
m&p-Xylenes	19	6.7821
Naphthalene	0.5	0.316
N-Tridecane	1.41	0.668
N-Undecane	0.72	0.382
Octadecane	0.42	0.298
o-Xylene	6.8	2.3968
Pentadecane	0.82	0.424
Toluene	35	11.7221
Total Petroleum Hydrocarbons	53.3	30.174

NOTES:

- LOCATIONS SHOWN ARE APPROXIMATE.
- SAMPLES ANALYZED FOR BTEX AT ALL LOCATIONS AND 34 VOCS AT 1389 FORBES, 1430 FORBES, AND 1484 FORBES.
- **ONLY DETECTED ANALYTES ARE SHOWN.**

SOURCE:
PARCEL INFORMATION FROM NYS GIS CLEARINGHOUSE



3295 Evergreen Dr	2/6/2019
VOCs (ug/m3)	
Benzene	5.6/2.0
Ethylbenzene	2.5/0.74
m&p-Xylenes	9.5/2.3
o-Xylene	3.4/0.84
Toluene	24/8.1

1430 Forbes	2/6/2019	2/27/2019
VOCs (ug/m3)		
1,2,4-Trimethylbenzene	-	0.72
1,3,5-Trimethylbenzene	-	0.23
2-Methylnaphthalene	-	0.05
Benzene	0.25/0.27/0.22 J/0.59	2.01
Ethylbenzene	0.34 J/0.070 J	0.42
m&p-Xylenes	1.1/0.14 J	1.37
Naphthalene	-	0.11
N-Tridecane	-	0.50
N-Undecane	-	0.73
Octadecane	-	1.90
o-Xylene	0.37	0.61
Pentadecane	-	0.11
Toluene	0.23 J/2.0/0.14 J/0.59	1.44
Total Petroleum Hydrocarbons	-	14.0

1484 Forbes	2/6/2019	2/27/2019
VOCs (ug/m3)		
1,2,4-Trimethylbenzene	-	0.18/0.17
1,3,5-Trimethylbenzene	-	0.06/0.06
1,4-Dichlorobenzene	-	0.03/0.03
2-Methylnaphthalene	-	0.12/0.12
Benzene	0.71/0.68	0.46/0.58/0.70/0.50
Ethylbenzene	0.28 J/0.28 J	0.05/0.28 J/0.33 J/0.05/0.25 J/0.24 J
m&p-Xylenes	0.84/0.82	0.14/0.75 J/0.14/0.63 J/0.53 J/0.56 J
Naphthalene	-	0.14/0.15
N-Tridecane	-	0.54/0.62
N-Undecane	-	0.21/0.23
Octadecane	-	0.91/0.91
o-Xylene	0.35 J/0.34 J	0.10/0.23 J/0.21 J/0.31 J/0.25 J/0.10
Pentadecane	-	0.76/0.85
Toluene	1.4/1.4	0.98/0.11/1.0/1.1/0.11/1.3
Total Petroleum Hydrocarbons	-	61.3/63.8

1625 Nash Road	2/6/2019
VOCs (ug/m3)	
Benzene	0.78/0.80/0.77/0.78
Ethylbenzene	1.1/0.74/0.74/1.2
m&p-Xylenes	2.4/4.8/2.4/2.4
o-Xylene	2.2/1.0/0.98/0.77
Toluene	3.8/3.8/4.0/4.1

1619 Master St	2/6/2019
VOCs (ug/m3)	
Benzene	0.89/1.3/1.3/0.89
Ethylbenzene	0.58/0.58/0.79/0.84
m&p-Xylenes	3.8/4.0/2.2/2.2
o-Xylene	1.1/0.70/1.2/0.70
Toluene	2.4/1.1/1.1/2.4

1727 Forbes St	2/6/2019
VOCs (ug/m3)	
Benzene	8.6/3.6
Ethylbenzene	5.3/14
m&p-Xylenes	52/19
o-Xylene	18/6.8
Toluene	96/35

1389 Forbes	2/6/2019	2/27/2019
VOCs (ug/m3)		
1,2,4-Trimethylbenzene	-	0.19
1,3,5-Trimethylbenzene	-	0.07
1,4-Dichlorobenzene	-	0.03
2-Methylnaphthalene	-	0.12
Benzene	0.58/0.59/0.59	-
Ethylbenzene	0.15 J/0.14 J/0.15 J	0.07
m&p-Xylenes	0.40 J/0.41 J/0.42 J	0.03/0.20
Naphthalene	-	0.18
N-Tridecane	-	0.76
N-Undecane	-	0.32
Octadecane	-	0.83
o-Xylene	0.15 J/0.16 J/0.16 J	0.12
Pentadecane	-	0.89
Toluene	1.1/1.1/1.1	0.21/0.07
Total Petroleum Hydrocarbons	-	31.6/2.60

1618 Moll St	2/6/2019
VOCs (ug/m3)	
Benzene	0.68/0.78/0.81/0.70
Ethylbenzene	0.16 J/0.28 J/0.18 J/0.29 J
m&p-Xylenes	0.89/0.46 J/0.84/0.52 J
o-Xylene	0.18 J/0.21 J/0.33 J/0.36 J
Toluene	1.2/2.2/2.2/1.2

1597 Moll St	2/6/2019
VOCs (ug/m3)	
Benzene	3.8/0.72/3.7/0.83
Ethylbenzene	3.1/1.3/3.1/1.3
m&p-Xylenes	5.0/12/12/5.0
o-Xylene	4.2/1.3/4.2/1.3
Toluene	19/19/2.6/2.5

1597 Ruie Road	2/6/2019
VOCs (ug/m3)	
Benzene	1.3/1.4
Ethylbenzene	0.34 J/0.35
m&p-Xylenes	0.90/0.92
o-Xylene	0.35/0.37
Toluene	3.0/2.8

1656 Ruie Road	2/7/2019
VOCs (ug/m3)	
Benzene	1.2/1.4
Ethylbenzene	4.3/4.5
m&p-Xylenes	5.4/5.8
o-Xylene	1.7/1.8
Toluene	7.9/7.4

figure 4

ANALYTICAL RESULTS FOR AIR
2019 ANALYTICAL RESULTS
NASH ROAD LANDFILL
Wheatfield, New York

N:\CA\Waterloo\Legacy\CAD\drawings\11137000s\11137465\11137465-corr\11137465-01(HOGA002)\11137465-01(HOGA002)GN\11137465-01(HOGA002)GN-WA004.DWG Plot Date: JUN 24, 2019

LEGEND

- NASH ROAD LANDFILL SITE
- PARCEL BOUNDARY
- APPROXIMATE SAMPLE LOCATION
- J — ESTIMATED CONCENTRATION
- mg/kg — MILLIGRAMS PER KILOGRAM
- pg/g — PICOGRAMS PER GRAM

Parameter	Buffalo Samples	
	NSH-166D	NSH-156D
SVOCs (mg/kg) [65 Analytes]		
bis(2-Ethylhexyl)phthalate (DEHP)	390	130
Butyl benzylphthalate (BBP)	70	40 J
Di-n-butylphthalate (DBP)	17 J	81 U
Di-n-octyl phthalate (DnOP)	15 J	81 U
Metals (mg/kg) [14 Analytes]		
Antimony	11,3	–
Arsenic	1.1	–
Barium	-	–
Beryllium	0.051 J	–
Cadmium	0,44	–
Chromium	22,5	–
Copper	45,4	–
Lead	10,6	–
Mercury	0.061	–
Selenium	0,28 J	–
Silver	0,24	–
Thallium	0,10 U	–
Titanium	47,5	–
Zinc	365	–
Pesticides (mg/kg) [21 Analytes]		
4,4'-DDD	0,099 U	0,38 U
4,4'-DDE	0,099 U	0,38 U
4,4'-DDT	0,099 U	0,38 U
Aldrin	0,099 U	0,38 U
alpha-BHC	0,099 U	0,38 U
beta-BHC	0,099 U	0,38 U
delta-BHC	0,021 J	0,38 U
Dieldrin	0,099 U	0,38 U
Endosulfan I	0,099 U	0,38 U
Endosulfan II	0,099 U	0,38 U
Endosulfan sulfate	0,099 U	0,38 U
Endrin	0,099 U	0,38 U
Endrin ketone	0,099 U	0,15 J
gamma-BHC (lindane)	0,099 U	0,38 U
gamma-Chlordane	0,043 J	0,38 U
Heptachlor	0,099 U	0,38 U
Heptachlor epoxide	0,099 U	0,38 U
Methoxychlor	0,099 U	3,8 U
Dioxin Furans (pg/g) [17 Analytes]		
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	23	–
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	1000	–
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	8,9 J	–
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	140	–
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	2,0 J	–
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	2,3 J	–
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	1,0 J	–
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	1,5 J	–
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	3,5 J	–
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	2,5 U	–
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	2,8	–
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	2,5 U	–
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	2,5 U	–
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	1,4 J	–
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	2,5 U	–
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	1,0 J	–
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0,51 U	–

NOTES:

- LOCATIONS SHOWN ARE APPROXIMATE.
- PCBS WERE ANALYZED FOR 7 PARAMETERS AS AROCLORS, WHEREAS BUFFALO SAMPLES WERE ANALYZED FOR PCB CONGENERS.
- **ONLY DETECTED ANALYTES ARE SHOWN.**

SOURCE:
PARCEL INFORMATION FROM NYS GIS CLEARINGHOUSE

GHD

1618 Moll St	1/16/2019
Metals (mg/kg)	
Arsenic	0,88 J
Barium	12,3
Cadmium	0.24
Chromium	3,4
Lead	6,7
Mercury	0.020 J
Selenium	0.99 J
Silver	0,20 J
Pesticides (mg/kg)	
beta-BHC	0.092
delta-BHC	0,013 J
Endrin ketone	0,087
gamma-BHC (lindane)	0.0091 J
gamma-Chlordane	0,046 J
Heptachlor	0,035 J
Dioxin Furans (pg/g)	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	43 J
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	2000 J
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	32 J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	160 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	4.1 J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	2,4 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	2,5 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	5.9 J
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	8,5 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	1.2 J
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0.38 J

3295 Evergreen Dr	1/15/2019
Metals (mg/kg)	
Barium	108
Cadmium	29,0
Chromium	42,3
Lead	111

1625 Nash Road	1/16/2019
Metals (mg/kg)	
Arsenic	3,7 J
Barium	201
Cadmium	8.2
Chromium	32,7
Lead	1580
Mercury	0,94
Selenium	1.3 J
Silver	2,5
Pesticides (mg/kg)	
4,4'-DDD	0.0051 J
4,4'-DDE	0,098
alpha-BHC	0,02
Dieldrin	0.035
gamma-Chlordane	0.077
Methoxychlor	0,32
PCBs (mg/kg)	
Aroclor-1260	0,71 J
Dioxin Furans (pg/g)	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	730
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	41000 J
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	290
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	7700
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	18 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	27 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	13 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	250
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	52
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	11 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	6,0 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	3,7 J

1430 Forbes	1/15/2019	2/27/2019
SVOCs (mg/kg)		
bis(2-Ethylhexyl)phthalate (DEHP)	-	190
Butyl benzylphthalate (BBP)	-	44
Di-n-butylphthalate (DBP)	-	11 J
Metals (mg/kg)		
Antimony	-	3.0
Arsenic	1.8 J	3.5
Barium	25.7	-
Beryllium	-	0.35
Cadmium	3.3	50.9
Chromium	25.2	25.9
Copper	-	95.1
Lead	27,4	59,8
Mercury	0.38	0.68
Selenium	2.5 J	1.2
Silver	1.1	1.7
Thallium	-	0.087 J
Titanium	-	73.7
Zinc	-	9900
Pesticides (mg/kg)		
4,4'-DDT	0.26	-
Heptachlor epoxide	0.095 J	-
Methoxychlor	0,22	-

1484 Forbes	1/15/2019	2/27/2019
SVOCs (mg/kg)		
bis(2-Ethylhexyl)phthalate (DEHP)	-	60
Di-n-octyl phthalate (DnOP)	-	120
Metals (mg/kg)		
Antimony	-	7,5
Arsenic	0,91 J	6,3
Barium	37,5	-
Beryllium	-	0.29
Cadmium	0,34	5,0
Chromium	12,5	20,2
Copper	-	130
Lead	17,2	119
Mercury	0,048	0,68
Selenium	1,1 J	0.56
Silver	2,2	0.94
Thallium	-	0,084 J
Titanium	-	204
Zinc	-	3420
Pesticides (mg/kg)		
4,4'-DDE	-	0,06 J
4,4'-DDT	0,062 J	-
delta-BHC	0,054 J	-
Endrin ketone	-	0,14 J
gamma-BHC (lindane)	0,64	2,9
Heptachlor epoxide	0,13 J	-
Dioxin Furans (pg/g)		
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	140	-
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	1100	-
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	60 J	-
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	250	-
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	15	-
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	1,2 J	-
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	3,9 J	-
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	9,4	-
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	5,6	-
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	0.69 J	-
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	2,1 J	-
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	1,3 J	-
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	0.70 J	-
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0.44 J	-

1619 Master St	1/16/2019
Metals (mg/kg)	
Mercury	6,5
Pesticides (mg/kg)	
4,4'-DDD	0,025 J
alpha-BHC	0,026 J
delta-BHC	0.022 J
Endosulfan sulfate	0,16
Endrin ketone	0,21
gamma-BHC (lindane)	0,027 J
gamma-Chlordane	0,16
Heptachlor	0,023 J
Dioxin Furans (pg/g)	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	220
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	5200 J
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	75 J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	860
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	21
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	13
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	4,3 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	44
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	9,8
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	4,7 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	1,5 J
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0,27 J

1597 Moll St	1/16/2019
Metals (mg/kg)	
Arsenic	2,7
Barium	70,3
Cadmium	1,4
Chromium	16,3
Lead	61,4
Mercury	0,11
Selenium	0,72 J
Silver	0,95
Pesticides (mg/kg)	
4,4'-DDD	0,28
4,4'-DDT	0,11 J
alpha-BHC	0,072 J
beta-BHC	0,18
delta-BHC	0,091 J
Dieldrin	0,084 J
Endrin ketone	0,52
gamma-BHC (lindane)	0,046 J
gamma-Chlordane	0,095 J
Heptachlor epoxide	0,051 J
PCBs (mg/kg)	
Aroclor-1254	0,59 J
Dioxin Furans (pg/g)	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	210
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	4500 J
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	94 J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	870
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	7,8
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	4,1 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	18
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	11
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	1,4 J
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	3,2 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	1,5 J
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0.45 J

1389 Forbes	1/15/2019
Metals (mg/kg)	
Arsenic	2.1
Barium	64,9
Cadmium	1.7
Chromium	20.5
Lead	69,3
Mercury	0,13
Selenium	0,94 J
Silver	0,94
Pesticides (mg/kg)	
4,4'-DDE	0,18 J
delta-BHC	0,067 J
Endosulfan II	0,068 J
PCBs (mg/kg)	
Aroclor-1254	12
Dioxin Furans (pg/g)	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	230
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	6400 J
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	150 J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	1300
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	8,7
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	35
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	16
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	50
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	12
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	3,0 J
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	9,8
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	14
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	9,4
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0.37 J

1597 Ruie Road	1/15/2019
Metals (mg/kg)	
Arsenic	2,8
Barium	102
Cadmium	1,6
Chromium	12,3
Lead	27,9
Mercury	0,093
Silver	0,36 J
Pesticides (mg/kg)	
4,4'-DDE	0,14 J
delta-BHC	0,03 J
Dieldrin	0,19 J
Endosulfan II	0,031 J
Methoxychlor	0,37 J
PCBs (mg/kg)	
Aroclor-1254	18

1656 Ruie Road	1/15/2019
Metals (mg/kg)	
Arsenic	1,4 J
Barium	128
Cadmium	1,2
Chromium	22,8
Lead	170
Mercury	0,51
Pesticides (mg/kg)	
4,4'-DDE	0,044 J
4,4'-DDT	0,2
delta-BHC	0,039 J
Endosulfan sulfate	0,077 J
Heptachlor epoxide	0,042 J
Methoxychlor	0,56

1727 Forbes St	1/16/2019
Metals (mg/kg)	
Mercury	0,22
Pesticides (mg/kg)	
4,4'-DDD	0,19 J
4,4'-DDE	0,13 J
4,4'-DDT	0,21 J
Aldrin	0,04 J
alpha-BHC	0,016 J
delta-BHC	0,022 J
Dieldrin	0,19 J
Endosulfan I	0,027 J
Endosulfan II	0,027 J
Endrin	0,038 J
Endrin ketone	0,13 J
gamma-BHC (lindane)	0,013 J
gamma-Chlordane	0,084 J
Heptachlor	0,033 J
Heptachlor epoxide	0,021 J
PCBs (mg/kg)	
Aroclor-1254	4,6 J
Dioxin Furans (pg/g)	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	570
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	9300 J
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	170
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	810
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	7,8
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	28
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	3,2 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	8,6
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	19
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	17
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	4,3 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	6,0
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	11
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	3.8

0 300 600ft
APPROXIMATE SCALE

figure 5

ANALYTICAL RESULTS FOR DUST
2019 ANALYTICAL RESULTS
NASH ROAD LANDFILL
Wheatfield, New York

N:\CA\Waterloo\Legacy\CAD\drawings\11137000s\11137465\11137465-corr\11137465-01(HOGA002)\11137465-01(HOGA002)GN\11137465-01(HOGA002)GN-WA005.DWG Plot Date: JUN 24, 2019

Sample Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Address	Sample ID	Matrix	Deployment Date	Deployment Time	Retrieval Date/ Sample Date	Retrieval Time/ Sample Time	Analysis	Location/Comments
1389 Forbes	NSH-095D	Dust	-	-	1/15/19	8:30	PCBs-DX (Aroclors), OC-pesticides, RCRA Metals	Composite of 5 vacuums.
	NSH-096A	Indoor Air - EPA 325 Tubes	1/15/19	9:00	2/6/19	9:10	BTEX	Basement
	NSH-097A	Basement, field blank - not sampled	1/15/19	9:04			-	
	NSH-098A	Indoor Air - EPA 325 Tubes	1/15/19	9:12	2/6/19	9:14	BTEX	1st floor - living room mantle
	NSH-099S	Surface Soil	-	-	1/15/19	9:44	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	Backyard
	NSH-102S	Subsurface Soil	-	-	1/15/19	10:10	SVOCs, PCBs (Aroclors), RCRA Metals, OC-pesticides	6.8-7.8' Dioxins not analyzed due to insufficient sample volume
	NSH-143A	Indoor Air - Gore Sorber	2/6/19	9:28	2/27/19	9:06	BTEX + TICs (EPA 325)	Basement - SE corner
	NSH-144W	Groundwater	-	-	2/6/19	10:00	PCBs-DX (Congeners), TCL pesticides, TCL SVOCs, Metals	MW-1
	NSH-145A	Outdoor Air - Gore Sorber	2/6/19	10:28	2/27/19	9:00	BTEX + TICs (EPA 325)	In well riser for MW-1
1430 Forbes	NSH-117D	Dust	-	-	1/15/19	11:44	PCBs-DX (Aroclors), OC-pesticides, RCRA Metals	No vacuum, picked up dust and dirt from floors Dioxins not analyzed due to insufficient sample volume
	NSH-115A	Outdoor Air	1/15/19	11:17	2/6/19	11:01	BTEX	Placed in hood on 4x4 post - backyard
	NSH-114A	Indoor Air	1/15/19	11:49	2/6/19	10:55	BTEX	1st floor kitchen table (unoccupied?)
	NSH-116S	Surface Soil	-	-	1/15/19	11:42	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	Backyard
	NSH-103S	Subsurface Soil	-	-	1/15/19	12:10	SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	4.0-5.5'-PID at/near backyard
	NSH-104S	Subsurface Soil	-	-	1/15/19	12:15	SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	5.5-7.0'
	NSH-146A	Indoor Air - Gore Sorber	2/6/19	11:12	2/27/19	8:30	BTEX + TICs (EPA 325)	1st floor kitchen, on light fixture
	NSH-147W	Groundwater	-	-	2/6/19	11:51	PCBs-DX (Congeners), TCL pesticides, TCL SVOCs, Metals	
	NSH-300D	Dust	-	-	2/27/19	8:45	SVOCs, RCRA Metals	No vacuum, picked up dust from floors, shelves, horizontal surfaces Pesticides, PCBs, and dioxins not analyzed due to insufficient sample volume

Sample Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Address	Sample ID	Matrix	Deployment Date	Deployment Time	Retrieval Date/ Sample Date	Retrieval Time/ Sample Time	Analysis	Location/Comments
1484 Forbes	NSH-208D	Dust	-	-	1/15/19	14:31	PCBs-DX (Aroclors), OC-pesticides, RCRA Metals	Contents of one vacuum
	NSH-207A	Indoor Air	1/15/19	14:18	2/6/19	12:33	BTEX	Basement, top of file cabinet
	NSH-107S	Surface Soil	-	-	1/15/19	13:45	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	Near corner of house and surface water runoff
	NSH-105S	Subsurface Soil	-	-	1/15/19	14:15	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	3.0-4.0'-PID at/near backyard
	NSH-106S	Subsurface Soil	-	-	1/15/19	14:30	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	4.0-5.5'-PID at/near backyard
	NSH-108S	Subsurface Soil	-	-	1/15/19	15:00	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	5-5.5'
	NSH-109S	Subsurface Soil	-	-	1/15/19	15:05	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	5-5.6'
	NSH-120S	Subsurface Soil	-	-	1/15/19	15:10	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	6.8-7.8'
	NSH-210A	Indoor Air - Gore Sorber	2/6/19	12:55	2/27/19	9:20	BTEX + TICs (EPA 325)	
	NSH-209A	Indoor Air	2/6/19	12:53	2/27/19	9:18	BTEX	SW corner of basement, on file cabinet
	NSH-208A	Indoor Air	2/6/19	12:51	2/27/19	9:16	BTEX	SW corner of basement, on file cabinet
	NSH-148W	Groundwater	-	-	2/7/19	8:45	PCBs(Congeners), TCL pesticides	MW-3, in backyard Dioxins not analyzed due to insufficient sample volume
	NSH-301D	Dust	-	-	2/27/19	9:40	SVOCs, OC-pesticides, RCRA Metals	Collected dust from one vaccum, ventilation ductwork, top of water heater PCBs and dioxins not analyzed due to insufficient sample volume
1597 Ruie Road	NSH-112D	Dust	-	-	1/15/19	10:38	PCBs (Aroclors), OC-pesticides, RCRA Metals	1 vacuum; Dioxins not analyzed due to insuffient sample volume
	NSH-110A	Indoor Air	1/15/19	10:37	2/6/19	13:55	BTEX	Basement Work Bench
	NSH-111A	Indoor Air	1/15/19	10:48	2/6/19	13:56	BTEX	Basement Work Bench
	NSH-113S	Surface Soil	-	-	1/15/19	10:55	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	Near swale in backyard
1625 Nash Road	NSH-136D	Dust	-	-	1/16/19	12:22	SVOCs, OC-pesticides, RCRA Metals	Contents of 2 vacuums, whole house built-in vacuum system
	NSH-137A	Indoor Air	1/16/19	12:30	2/6/19	14:14	BTEX	On fake mantel in basement near furnace
	NSH-138A	Indoor Air	1/16/19	12:30	2/6/19	14:18	BTEX	1st floor, left side of mantel in living room
	NSH-135S	Surface Soil	-	-	1/16/19	12:12	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	18' from garage, 5' from 3rd fence post

Sample Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Address	Sample ID	Matrix	Deployment Date	Deployment Time	Retrieval Date/ Sample Date	Retrieval Time/ Sample Time	Analysis	Location/Comments
3295 Evergreen Dr.	NSH-205D	Dust	-	-	1/15/19	13:10	RCRA Metals, PCBs (Aroclors)	Contents of 3 vacuums Dioxins and pesticides not analyzed due to insufficient sample volume
	NSH-203A	Indoor Air	1/15/19	13:07	2/6/19	14:28	BTEX	Basement, top of gun safe
	NSH-204A	Indoor Air	1/15/19	13:07	2/6/19	14:29	BTEX	Basement, top of gun safe
	NSH-206S	Surface Soil	-	-	1/15/19	13:12	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	Backyard, between deck and swing set
1619 Master St.	NSH-129D	Dust	-	-	1/16/19	11:00	PCBs-DX (Aroclors), OC-pesticides, Mercury	Contents of 3 vacuums Metals not analyzed due to insufficient sample volume
	NSH-127A	Indoor Air	1/16/19	10:50	2/6/19	15:03	BTEX	Basement, on shelf in utility room
	NSH-128A	Indoor Air	1/16/19	10:55	2/6/19	15:08	BTEX	1st floor, mantle in living room
	NSH-130S	Surface Soil	-	-	1/16/19	11:10	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	Backyard behind shed
1618 Moll St.	NSH-132D	Dust	-	-	1/16/19	11:40	PCBs-DX (Aroclors), OC-pesticides, RCRA Metals	Contents of 2 vacuums
	NSH-133A	Indoor Air	1/16/19	12:00	2/6/19	15:15	BTEX	Basement, small room to the left of stairs
	NSH-134A	Outdoor Air	1/16/19	12:10	2/6/19	15:19	BTEX	Outdoor, in roof of porch in rafters
	NSH-131S	Surface Soil	-	-	1/16/19	11:33	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	Side yard between hydrant and ornamental tree
1597 Moll St.	NSH-121D	Dust	-	-	1/16/19	9:30	PCBs-DX (Aroclors), OC-pesticides, RCRA Metals	Contents of 3 vacuums
	NSH-124A	Indoor Air	1/16/19	10:05	2/6/19	15:30	BTEX	Basement, on top of cabinet along east wall
	NSH-125A	Outdoor Air	1/16/19	10:10	2/6/19	15:33	BTEX	Garage, on top of white shelf
	NSH-122S	Surface Soil	-	-	1/16/19	9:50	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	Backyard, middle of back fence
	NSH-123S	Surface Soil	-	-	1/16/19	9:50	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	Backyard, middle of back fence
1727 Forbes St.	NSH-140D	Dust	-	-	1/16/19	13:08	PCBs-DX (Aroclors), OC-pesticides, RCRA Metals	Contents of 2 vacuums
	NSH-141A	Indoor Air	1/16/19	13:35	2/6/19	17:45	BTEX	Basement on mantel
	NSH-142A	Outdoor Air	1/16/19	13:40	2/6/19	17:48	BTEX	On shelf in enclosed breezeway
	NSH-139S	Surface Soil	-	-	1/16/19	12:54	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	Side yard near back left corner of house
1656 Ruie Road	NSH-202D	Dust	-	-	1/15/19	12:30	PCBs (Aroclors), OC-pesticides, RCRA Metals	Contents of 1 vacuum Dioxins not analyzed due to insufficient sample volume
	NSH-200S	Surface Soil	-	-	1/15/19	12:37	BTEX, SVOCs, PCBs-DX (Aroclors), RCRA Metals, OC-pesticides	Backyard, 20' from dead tree towars property line
	NSH-201A	Indoor Air	1/15/19	12:47	2/7/19	8:02	BTEX	Basement, shelf next to utility sink

Sample Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Address	Sample ID	Matrix	Deployment Date	Deployment Time	Retrieval Date/ Sample Date	Retrieval Time/ Sample Time	Analysis	Location/Comments
6 Southwind Trail	NSH-150A	Indoor Air	2/7/19	10:03	2/27/19	11:17	BTEX	Basement, on shelf in NW corner
	NSH-149A	Indoor Air	2/7/19	10:01	2/27/19	11:15	BTEX	Basement, on shelf in NW corner
	NSH-151A	Indoor Air - Gore Sorber	2/7/19	10:07	2/27/19	11:18	BTEX + TICs (EPA 325)	Basement, hanging from ceiling in NW corner
	NSH-152 S	Surface Soil	-	-	2/7/19	10:24	PCBs-DX (congeners), TCL pesticides, TCL SVOCs, Metals, TCL VOCs	7' east of garden in front yard
	NSH-153A	Outdoor Air	2/7/19	10:40	2/27/19	11:22	BTEX	Inside fence off of SW corner of house, under rain hood #05
	NSH-154A	Outdoor Air	2/7/19	10:44	2/27/19	11:25	BTEX	Inside fence off of SW corner of house, under rain hood #05
	NSH-155A	Outdoor Air - Gore Sorber	2/7/19	10:47	2/27/19	11:26	BTEX + TICs (EPA 325)	Inside fence off of SW corner of house, under rain hood #05
	NSH-156D	Dust			2/7/19	11:20	VOCs, SVOCs, OC-pesticides	Contents of 1 vacuum, ceiling fans, tops or air ducts PCBs, dioxins, pesticides, and metals (including mercury) not analyzed due to insufficient sample volume.
317 Patrice Terrace	NSH-157A	Indoor Air	2/7/19	11:50	2/27/19	10:48	BTEX	Basement, on windowsill in NW corner
	NSH-158A	Indoor Air	2/7/19	11:52	2/27/19	10:49	BTEX	Basement, on windowsill in NW corner
	NSH-159A	Indoor Air	2/7/19	11:54	2/27/19	10:50	BTEX	Basement, on windowsill in NW corner
	NSH-160A	Indoor Air	2/7/19	11:56	2/27/19	10:51	BTEX	Basement, on windowsill in NW corner
	NSH-161A	Indoor Air - Gore Sorber	2/7/19	12:00	2/27/19	10:52	BTEX + TICs (EPA 325)	Hanging from ceiling in NW corner of basement
	NSH-162A	Indoor Air - Gore Sorber	2/7/19	12:00	2/27/19	10:52	BTEX + TICs (EPA 325)	Hanging from ceiling in NW corner of basement
	NSH-163 S	Surface Soil	-	-	2/7/19	12:25	PCBs-DX (congeners), TCL pesticides, TCL SVOCs, Metals, TCL VOCs	Backyard, 9' west of back fence
	NSH-164 S	Surface Soil	-	-	2/7/19	12:25	PCBs-DX (congeners), TCL pesticides, TCL SVOCs, Metals, TCL VOCs	Backyard, 9' west of back fence
	NSH-165A	Indoor Air - Gore Sorber	2/7/19	12:30	2/27/19	10:46	BTEX + TICs (EPA 325)	Field Blank - not deployed
	NSH-166D	Dust	-	-	2/7/19	13:00	VOCs, SVOCs, PCBs-DX (Congeners), OC-pesticides, RCRA Metals	Contents of 2 vacuums, ceiling fans, tops or air ducts
	FB-11137465-020719-SM-001	Indoor Air	2/7/19	13:20	2/27/19	10:45	-	Field Blank - not deployed

Table 2

Groundwater Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:			**1389 Forbes**	**1430 Forbes**	**1484 Forbes**
Sample ID:			**NSH-144W**	**NSH-147W**	**NSH-148W**
Sample Date:			**2/6/2019**	**2/6/2019**	**2/7/2019**
Parameters	**Units**	**GA Standards[1]**			
Semi-volatile Organic Compounds					
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	5	5.2 U	5.2 U	-
2,4,5-Trichlorophenol	µg/L	1	5.2 U	5.2 U	-
2,4,6-Trichlorophenol	µg/L	1	5.2 U	5.2 U	-
2,4-Dichlorophenol	µg/L	5	5.2 U	5.2 U	-
2,4-Dimethylphenol	µg/L	1	5.2 U	5.2 U	-
2,4-Dinitrophenol	µg/L	1	10 U	10 U	-
2,4-Dinitrotoluene	µg/L	5	5.2 U	5.2 U	-
2,6-Dinitrotoluene	µg/L	5	5.2 U	5.2 U	-
2-Chloronaphthalene	µg/L		5.2 U	5.2 U	-
2-Chlorophenol	µg/L	1	5.2 U	5.2 U	-
2-Methylnaphthalene	µg/L		5.2 U	5.2 U	-
2-Methylphenol	µg/L	1	5.2 U	5.2 U	-
2-Nitroaniline	µg/L	5	10 U	10 U	-
2-Nitrophenol	µg/L	1	5.2 U	5.2 U	-
3,3'-Dichlorobenzidine	µg/L	5	5.2 U	5.2 U	-
3-Nitroaniline	µg/L	5	10 U	10 U	-
4,6-Dinitro-2-methylphenol	µg/L	1	10 U	10 U	-
4-Bromophenyl phenyl ether	µg/L		5.2 U	5.2 U	-
4-Chloro-3-methylphenol	µg/L	1	5.2 U	5.2 U	-
4-Chloroaniline	µg/L	5	5.2 U	5.2 U	-
4-Chlorophenyl phenyl ether	µg/L		5.2 U	5.2 U	-
4-Methylphenol	µg/L	1	10 U	10 U	-
4-Nitroaniline	µg/L	5	10 U	10 U	-
4-Nitrophenol	µg/L	1	10 U	10 U	-
Acenaphthene	µg/L		5.2 U	5.2 U	-
Acenaphthylene	µg/L		5.2 U	5.2 U	-
Acetophenone	µg/L		5.2 U	5.2 U	-
Anthracene	µg/L		5.2 U	5.2 U	-
Atrazine	µg/L	7.5	5.2 U	5.2 U	-
Benzaldehyde	µg/L		5.2 U	5.2 U	-
Benzo(a)anthracene	µg/L		5.2 U	5.2 U	-
Benzo(a)pyrene	µg/L	ND	5.2 U	5.2 U	-
Benzo(b)fluoranthene	µg/L		5.2 U	5.2 U	-
Benzo(g,h,i)perylene	µg/L		5.2 U	5.2 U	-
Benzo(k)fluoranthene	µg/L		5.2 U	5.2 U	-
Biphenyl (1,1-Biphenyl)	µg/L	5	5.2 U	5.2 U	-
bis(2-Chloroethoxy)methane	µg/L	5	5.2 U	5.2 U	-
bis(2-Chloroethyl)ether	µg/L	1	5.2 U	5.2 U	-
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	5	5.2 U	5.2 U	-
Butyl benzylphthalate (BBP)	µg/L		5.2 U	5.2 U	-
Caprolactam	µg/L		5.2 U	5.2 U	-
Carbazole	µg/L		5.2 U	5.2 U	-
Chrysene	µg/L		5.2 U	5.2 U	-
Dibenz(a,h)anthracene	µg/L		5.2 U	5.2 U	-
Dibenzofuran	µg/L		10 U	10 U	-
Diethyl phthalate	µg/L		5.2 U	5.2 U	-
Dimethyl phthalate	µg/L		5.2 U	5.2 U	-
Di-n-butylphthalate (DBP)	µg/L	50	0.38 J	0.53 J	-
Di-n-octyl phthalate (DnOP)	µg/L		5.2 U	5.2 U	-
Fluoranthene	µg/L		5.2 U	5.2 U	-
Fluorene	µg/L		5.2 U	5.2 U	-
Hexachlorobenzene	µg/L	0.04	5.2 U	5.2 U	-
Hexachlorobutadiene	µg/L	0.5	5.2 U	5.2 U	-
Hexachlorocyclopentadiene	µg/L	5	5.2 U	5.2 U	-
Hexachloroethane	µg/L	5	5.2 U	5.2 U	-
Indeno(1,2,3-cd)pyrene	µg/L		5.2 U	5.2 U	-
Isophorone	µg/L		5.2 U	5.2 U	-
Naphthalene	µg/L		5.2 U	5.2 U	-
Nitrobenzene	µg/L	0.4	5.2 U	5.2 U	-
N-Nitrosodi-n-propylamine	µg/L		5.2 U	5.2 U	-
N-Nitrosodiphenylamine	µg/L		5.2 U	5.2 U	-
Pentachlorophenol	µg/L	1	10 U	10 U	-
Phenanthrene	µg/L		5.2 U	5.2 U	-
Phenol	µg/L	1	5.2 U	5.2 U	-
Pyrene	µg/L		5.2 U	5.2 U	-

Groundwater Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:			**1389 Forbes**	**1430 Forbes**	**1484 Forbes**
Sample ID:			**NSH-144W**	**NSH-147W**	**NSH-148W**
Sample Date:			**2/6/2019**	**2/6/2019**	**2/7/2019**
Parameters	**Units**	**GA Standards[1]**			
Metals					
Antimony	µg/L	3	2.0 U	2.0 U	-
Arsenic	µg/L	25	0.39 J	1.0 U	-
Beryllium	µg/L		1.0 U	1.0 U	-
Cadmium	µg/L	5	1.0 U	1.0 U	-
Chromium	µg/L	50	2.0 U	1.9 J	-
Copper	µg/L	200	2.7 U	2.0 U	-
Lead	µg/L	25	0.18 J	1.0 U	-
Mercury	µg/L	0.7	0.2 U	0.2 U	-
Selenium	µg/L	10	5.0 U	5.0 U	-
Silver	µg/L	50	1.0 U	1.0 U	-
Thallium	µg/L		1.0 U	1.0 U	-
Zinc	µg/L		12.8	9.2	-
PCBs					
(PCB 1) 2-Chlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 10) 2,6-Dichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 103) 2,2',4,5',6-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 104) 2,2',4,6,6'-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 105) 2,3,3',4,4'-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.012 J
(PCB 106) 2,3,3',4,5-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 107) 2,3,3',4',5-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0016 J
(PCB 108/124) 2,3,3',4,5'-Pentachlorobiphenyl/2,3',4',5,5'-Pentachlorobiphenyl	ng/L		0.00061 J	0.080 U	0.078 U
(PCB 11) 3,3'-Dichlorobiphenyl	ng/L		0.060 U	0.060 U	0.058 U
(PCB 110/115) 2,3,3',4',6-Pentachlorobiphenyl/2,3,4,4',6-Pentachlorobiphenyl	ng/L		0.080 U	0.080 U	0.052 J
(PCB 111) 2,3,3',5,5'-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 112) 2,3,3',5,6-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 114) 2,3,4,4',5-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 118) 2,3',4,4',5-Pentachlorobiphenyl	ng/L		0.0016 J	0.0016 J	0.037 J
(PCB 12/13) 3,4-Dichlorobiphenyl/3,4'-Dichlorobiphenyl	ng/L		0.0039 J	0.080 U	0.0071 J
(PCB 120) 2,3',4,5,5'-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 121) 2,3',4,5',6-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 122) 2,3,3',4',5'-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 123) 2',3,4,4',5-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0014 J
(PCB 126) 3,3',4,4',5-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0026 J
(PCB 127) 3,3',4,5,5'-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 128/166) 2,2',3,3',4,4'-Hexachlorobiphenyl/2,3,4,4',5,6-Hexachlorobiphenyl	ng/L		0.080 U	0.080 U	0.078 U
(PCB 129/138/160/163) Hexachlorobiphenyl	ng/L		0.16 U	0.16 U	0.35
(PCB 130) 2,2',3,3',4,5'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.012 J
(PCB 131) 2,2',3,3',4,6-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 132) 2,2',3,3',4,6'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.063
(PCB 133) 2,2',3,3',5,5'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 134/143) 2,2',3,3',5,6-Hexachlorobiphenyl/2,2',3,4,5,6'-Hexachlorobiphenyl	ng/L		0.080 U	0.080 U	0.010 J
(PCB 135/151) 2,2',3,3',5,6'-Hexachlorobiphenyl/2,2',3,5,5',6-Hexachlorobiphenyl	ng/L		0.0017 J	0.0016 J	0.15
(PCB 136) 2,2',3,3',6,6'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.027 J
(PCB 137) 2,2',3,4,4',5-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 139/140) 2,2',3,4,4',6-Hexachlorobiphenyl/2,2',3,4,4',6'-Hexachlorobiphenyl	ng/L		0.080 U	0.080 U	0.078 U
(PCB 14) 3,5-Dichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 141) 2,2',3,4,5,5'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.10
(PCB 142) 2,2',3,4,5,6-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 144) 2,2',3,4,5',6-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.014 J
(PCB 145) 2,2',3,4,6,6'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 146) 2,2',3,4',5,5'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.049
(PCB 147/149) 2,2',3,4',5,6-Hexachlorobiphenyl/2,2',3,4',5',6-Hexachlorobiphenyl	ng/L		0.080 U	0.080 U	0.33
(PCB 148) 2,2',3,4',5,6'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 15) 4,4'-Dichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 150) 2,2',3,4',6,6'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 152) 2,2',3,5,6,6'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 153/168) 2,2',4,4',5,5'-Hexachlorobiphenyl/2,3',4,4',5',6-Hexachlorobiphenyl	ng/L		0.080 U	0.080 U	0.40
(PCB 154) 2,2',4,4',5,6'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.012 J
(PCB 155) 2,2',4,4',6,6'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 156/157) 2,3,3',4,4',5-Hexachlorobiphenyl/2,3,3',4,4',5'-Hexachlorobiphenyl	ng/L		0.080 U	0.080 U	0.010 J
(PCB 158) 2,3,3',4,4',6-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.027 J
(PCB 159) 2,3,3',4,5,5'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0031 J
(PCB 16) 2,2',3-Trichlorobiphenyl	ng/L		0.040 U	0.0029 J	0.039 U
(PCB 161) 2,3,3',4,5',6-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 162) 2,3,3',4',5,5'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U

Groundwater Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:			1389 Forbes	1430 Forbes	1484 Forbes
Sample ID:			NSH-144W	NSH-147W	NSH-148W
Sample Date:			2/6/2019	2/6/2019	2/7/2019
Parameters	**Units**	**GA Standards[1]**			
PCBs (cont'd)					
(PCB 164) 2,3,3',4',5',6-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.026 J
(PCB 165) 2,3,3',5,5',6-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 167) 2,3',4,4',5,5'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0073 J
(PCB 169) 3,3',4,4',5,5'-Hexachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 17) 2,2',4-Trichlorobiphenyl	ng/L		0.0053 J	0.040 U	0.0022 J
(PCB 170) 2,2',3,3',4,4',5-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.17
(PCB 171/173) 2,2',3,3',4,4',6-Heptachlorobiphenyl/2,2',3,3',4,5,6-Heptachlorobiphenyl	ng/L		0.080 U	0.080 U	0.050 J
(PCB 172) 2,2',3,3',4,5,5'-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.027 J
(PCB 174) 2,2',3,3',4,5,6'-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.23
(PCB 175) 2,2',3,3',4,5',6-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0055 J
(PCB 176) 2,2',3,3',4,6,6'-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.021 J
(PCB 177) 2,2',3,3',4',5,6-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.11
(PCB 178) 2,2',3,3',5,5',6-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.056
(PCB 179) 2,2',3,3',5,6,6'-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.10
(PCB 18/30) 2,2',5-Trichlorobiphenyl/2,4,6-Trichlorobiphenyl	ng/L		0.080 U	0.080 U	0.078 U
(PCB 180/193) 2,2',3,4,4',5,5'-Heptachlorobiphenyl/2,3,3',4',5,5',6-Heptachlorobiphenyl	ng/L		0.080 U	0.080 U	0.41
(PCB 181) 2,2',3,4,4',5,6-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 182) 2,2',3,4,4',5,6'-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 183/185) 2,2',3,4,4',5',6-Heptachlorobiphenyl/2,2',3,4,5,5',6-Heptachlorobiphenyl	ng/L		0.080 U	0.0019 J	0.13
(PCB 184) 2,2',3,4,4',6,6'-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 186) 2,2',3,4,5,6,6'-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 187) 2,2',3,4',5,5',6-Heptachlorobiphenyl	ng/L		0.00066 J	0.040 U	0.28
(PCB 188) 2,2',3,4',5,6,6'-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 189) 2,3,3',4,4',5,5'-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0037 J
(PCB 19) 2,2',6-Trichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 190) 2,3,3',4,4',5,6-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.036 J
(PCB 191) 2,3,3',4,4',5',6-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0053 J
(PCB 192) 2,3,3',4,5,5',6-Heptachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 194) 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	ng/L		0.040 U	0.040 U	0.10
(PCB 195) 2,2',3,3',4,4',5,6-Octachlorobiphenyl	ng/L		0.040 U	0.040 U	0.050
(PCB 196) 2,2',3,3',4,4',5,6'-Octachlorobiphenyl	ng/L		0.040 U	0.040 U	0.042 J
(PCB 197) 2,2',3,3',4,4',6,6'-Octachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0028 J
(PCB 198/199) 2,2',3,3',4,5,5',6-Octachlorobiphenyl/2,2',3,3',4,5,5',6'-Octachlorobiphenyl	ng/L		0.080 U	0.080 U	0.13
(PCB 2) 3-Chlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 20/28) 2,3,3'-Trichlorobiphenyl/2,4,4'-Trichlorobiphenyl	ng/L		0.080 U	0.080 U	0.078 U
(PCB 200) 2,2',3,3',4,5,6,6'-Octachlorobiphenyl	ng/L		0.040 U	0.040 U	0.014 J
(PCB 201) 2,2',3,3',4,5',6,6'-Octachlorobiphenyl	ng/L		0.040 U	0.040 U	0.012 J
(PCB 202) 2,2',3,3',5,5',6,6'-Octachlorobiphenyl	ng/L		0.040 U	0.040 U	0.026 J
(PCB 203) 2,2',3,4,4',5,5',6-Octachlorobiphenyl	ng/L		0.040 U	0.040 U	0.082
(PCB 204) 2,2',3,4,4',5,6,6'-Octachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 205) 2,3,3',4,4',5,5',6-Octachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0085 J
(PCB 206) 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	ng/L		0.040 U	0.040 U	0.035 J
(PCB 207) 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0019 J
(PCB 208) 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0057 J
(PCB 209) Decachlorobiphenyl	ng/L		0.040 U	0.0015 J	0.039 U
(PCB 21/33) 2,3,4-Trichlorobiphenyl/2',3,4-Trichlorobiphenyl	ng/L		0.080 U	0.080 U	0.078 U
(PCB 22) 2,3,4'-Trichlorobiphenyl	ng/L		0.0019 J	0.040 U	0.0026 J
(PCB 23) 2,3,5-Trichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 24) 2,3,6-Trichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 25) 2,3',4-Trichlorobiphenyl	ng/L		0.0035 J	0.0021 J	0.0012 J
(PCB 26/29) 2,3',5-Trichlorobipheny/2,4,5-Trichlorobiphenyl	ng/L		0.080 U	0.080 U	0.078 U
(PCB 27) 2,3',6-Trichlorobiphenyl	ng/L		0.00062 J	0.040 U	0.039 U
(PCB 3) 4-Monochlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 31) 2,4',5-Trichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 32) 2,4',6-Trichlorobiphenyl	ng/L		0.0027 J	0.0029 J	0.039 U
(PCB 34) 2,3',5'-Trichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 35) 3,3',4-Trichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 36) 3,3',5-Trichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 37) 3,4,4'-Trichlorobiphenyl	ng/L		0.0012 J	0.040 U	0.039 U
(PCB 38) 3,4,5-Trichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 39) 3,4',5-Trichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 4) 2,2'-Dichlorobiphenyl	ng/L		0.060 U	0.060 U	0.058 U
(PCB 40/41/71) 2,2',3,3'-TeCB/ 2,2',3,4-TeCB/2,3',4',6-TeCB	ng/L		0.12 U	0.12 U	0.12 U
(PCB 42) 2,2',3,4'-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 43/73) 2,2',3,5-Tetrachlorobiphenyl/2,3',5',6-Tetrachlorobiphenyl	ng/L		0.080 U	0.080 U	0.078 U
(PCB 44/47/65) 2,2',3,5'-Tetrachlorobiphenyl/2,2',4,4'-Tetrachlorobiphenyl/2,3,5,6-Tetrachlorobiphenyl	ng/L		0.25	0.12 U	0.12 U

Table 2

Groundwater Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:			**1389 Forbes**	**1430 Forbes**	**1484 Forbes**
Sample ID:			**NSH-144W**	**NSH-147W**	**NSH-148W**
Sample Date:			**2/6/2019**	**2/6/2019**	**2/7/2019**
Parameters	**Units**	**GA Standards[1]**			
PCBs (cont'd)					
(PCB 45/51) 2,2',3,6-Tetrachlorobiphenyl/2,2',4,6'-Tetrachlorobiphenyl	ng/L		0.042 J	0.0053 J	0.0089 J
(PCB 46) 2,2',3,6'-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 48) 2,2',4,5-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0017 J
(PCB 49/69) 2,2',4,5'-Tetrachlorobiphenyl/2,3',4,6-Tetrachlorobiphenyl	ng/L		0.0035 J	0.080 U	0.0032 J
(PCB 5) 2,3-Dichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 50/53) 2,2',4,6-Tetrachlorobipheny/2,2',5,6'-Tetrachlorobiphenyl	ng/L		0.080 U	0.080 U	0.078 U
(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 54) 2,2',6,6'-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 55) 2,3,3',4-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 56) 2,3,3',4'-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 57) 2,3,3',5-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 58) 2,3,3',5'-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 59/62/75) 2,3,3',6-Tetrachlorobiphenyl/2,3,4,6-Tetrachlorobiphenyl/ 2,4,4', 6-Tetrachlorobiphenyl	ng/L		0.0032 J	0.12 U	0.12 U
(PCB 6) 2,3'-Dichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 60) 2,3,4,4'-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 61/70/74/76) 2,3,4,5-Tetrachlorobiphenyl/2,3',4',5-Tetrachlorobiphenyl/2,4,4',5-Tetrachlorobiphenyl/2,3',4',5'-Tetrachlorobiphenyl	ng/L		0.16 U	0.16 U	0.012 J
(PCB 63) 2,3,4',5-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 64) 2,3,4',6-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.00065 J
(PCB 66) 2,3',4,4'-Tetrachlorobiphenyl	ng/L		0.0022 J	0.040 U	0.0041 J
(PCB 67) 2,3',4,5-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 68) 2,3',4,5'-Tetrachlorobiphenyl	ng/L		0.023 J	0.0036 J	0.0026 J
(PCB 7) 2,4-Dichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 72) 2,3',5,5'-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 77) 3,3',4,4'-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0018 J
(PCB 78) 3,3',4,5-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 79) 3,3',4,5'-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 8) 2,4'-Dichlorobiphenyl	ng/L		0.0036 J	0.060 U	0.058 U
(PCB 80) 3,3',5,5'-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 81) 3,4,4',5-Tetrachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 82) 2,2',3,3',4-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 83/99) 2,2',3,3',5-Pentachlorobiphenyl/2,2',4,4',5-Pentachlorobiphenyl	ng/L		0.080 U	0.080 U	0.017 J
(PCB 84) 2,2',3,3',6-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0029 J
(PCB 85/116/117) 2,2',3,4,4'-PeCB/2,3,4,5,6-PeCB/2,3,4',5,6-PeCB	ng/L		0.12 U	0.12 U	0.0018 J
(PCB 86/87/97/109/119/125) 2,2',3,4,5-PeCB/ 2,2',3,4,5'-PeCB/2,2',3',4,5-PeCB/2,3,3',4,6-PeCB/2,3',4,4',6-PeCB/2',3,4,5,6'-PeCB	ng/L		0.0034 J	0.0030 J	0.012 J
(PCB 88/91) 2,2',3,4,6-Pentachlorobiphenyl/2,2',3,4',6-Pentachlorobiphenyl	ng/L		0.080 U	0.080 U	0.078 U
(PCB 89) 2,2',3,4,6'-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 9) 2,5-Dichlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 90/101/113) 2,2',3,4',5-Pentachlorobiphenyl/2,2',4,5,5'-Pentachlorobiphenyl/2,3,3',5',6-Pentachlorobiphenyl	ng/L		0.12 U	0.12 U	0.045 J
(PCB 92) 2,2',3,5,5'-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.0076 J
(PCB 93/100) 2,2',3,5,6-Pentachlorobiphenyl/2,2',4,4',6-Pentachlorobiphenyl	ng/L		0.080 U	0.080 U	0.078 U
(PCB 94) 2,2',3,5,6'-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 95) 2,2',3,5',6-Pentachlorobiphenyl	ng/L		0.0019 J	0.0013 J	0.029 J
(PCB 96) 2,2',3,6,6'-Pentachlorobiphenyl	ng/L		0.040 U	0.040 U	0.039 U
(PCB 98/102) 2,2',3,4',6'-Pentachlorobiphenyl/2,2',4,5,6'-Pentachlorobiphenyl	ng/L		0.080 U	0.080 U	0.078 U
Pesticides					
4,4'-DDD	µg/L	0.3	0.050 U	0.050 U	0.052 U
4,4'-DDE	µg/L	0.2	0.050 U	0.050 U	0.052 U
4,4'-DDT	µg/L	0.2	0.050 U	0.050 U	0.052 U
Aldrin	µg/L	ND	0.050 U	0.050 U	0.052 U
alpha-BHC	µg/L	0.01	0.050 U	0.050 U	**0.012 J**
alpha-Chlordane	µg/L	0.05	0.050 U	0.050 U	0.052 U
beta-BHC	µg/L	0.04	0.050 U	0.050 U	0.052 U
delta-BHC	µg/L	0.04	0.050 U	0.050 U	0.052 U
Dieldrin	µg/L	0.004	0.050 U	0.050 U	0.052 U
Endosulfan I	µg/L		0.050 U	0.050 U	0.052 U
Endosulfan II	µg/L		0.050 U	0.050 U	0.052 U
Endosulfan sulfate	µg/L		0.050 U	0.050 U	0.052 U
Endrin	µg/L	ND	0.050 U	0.050 U	0.052 U
Endrin aldehyde	µg/L	5	0.050 U	0.050 U	0.052 U
Endrin ketone	µg/L	5	0.050 U	0.050 U	0.052 U
gamma-BHC (lindane)	µg/L	0.05	0.050 U	0.050 U	0.052 U

Table 2

Groundwater Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:			**1389 Forbes**	**1430 Forbes**	**1484 Forbes**
Sample ID:			**NSH-144W**	**NSH-147W**	**NSH-148W**
Sample Date:			**2/6/2019**	**2/6/2019**	**2/7/2019**
Parameters	**Units**	**GA Standards[1]**			
Pesticides (cont'd)					
gamma-Chlordane	µg/L	0.05	0.050 U	0.050 U	0.052 U
Heptachlor	µg/L	0.04	0.050 U	0.050 U	0.052 U
Heptachlor epoxide	µg/L	0.03	0.050 U	0.050 U	0.052 U
Methoxychlor	µg/L	35	0.050 U	0.050 U	0.052 U
Toxaphene	µg/L	0.06	0.50 U	0.50 U	0.52 U
Dioxin Furans					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	pg/L		100 U	96 U	-
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	pg/L		100 U	96 U	-
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	pg/L		50 U	0.53 J	-
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	pg/L		50 U	48 U	-
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	pg/L		50 U	48 U	-
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	pg/L		50 U	48 U	-
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/L		50 U	48 U	-
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/L		50 U	48 U	-
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/L		50 U	48 U	-
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	pg/L		50 U	48 U	-
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/L		50 U	48 U	-
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	pg/L		50 U	48 U	-
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	pg/L		50 U	48 U	-
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/L		50 U	48 U	-
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	pg/L		50 U	48 U	-
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	pg/L		10 U	9.6 U	-
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/L		10 U	9.6 U	-

Notes:

	Exceedes criteria
U	Not detected at the associated reporting limit
J	Estimated concentration
µg/L	micrograms per liter
ng/L	nanograms per liter
pg/L	picograms per liter

[1] Division of Water Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:				**1389 Forbes**	**1389 Forbes**	**1389 Forbes**	**1430 Forbes**	**1430 Forbes**	**1430 Forbes**	**1430 Forbes**	**1484 Forbes**	**1484 Forbes**	**1484 Forbes**
Sample ID:				**NSH099S**	**SO-11137465-011519-099S**	**NSH102S**	**NSH116S**	**SO-11137465-011519-116S**	**NSH103S**	**NSH104S**	**NSH107S**	**SO-11137465-011519-107S**	**NSH105S**
Sample Date:				**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**
Sample Depth:				**-**	**-**	**(6.8-7.8) ft BGS**	**-**	**-**	**(4-5.5) ft BGS**	**(5.5-7) ft BGS**	**-**	**-**	**(3-4) ft BGS**
Parameters	**Units**	**Residential[1]**	**Restricted Residential[1]**										
Volatile Organic Compounds													
1,1,1-Trichloroethane	mg/kg	100	100	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	35		-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg			-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	19	26	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	100	100	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg			-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg			-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg			-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	100	100	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	2.3	3.1	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg			-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	17	49	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	9.8	13	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	100	100	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg			-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg			-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	100	100	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	2.9	4.8	-	0.0092 U	-	-	0.0058 U	-	-	-	0.0049 U	-
Bromodichloromethane	mg/kg			-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg			-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg			-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	100		-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	1.4	2.4	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	100	100	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg			-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	10	49	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg			-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	59	100	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg			-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg			-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg			-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg			-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	30	41	-	0.0092 U	-	-	0.0058 U	-	-	-	0.0049 U	-
Isopropyl benzene	mg/kg	100		-	-	-	-	-	-	-	-	-	-
m&p-Xylenes	mg/kg			-	0.018 U	-	-	0.012 U	-	-	-	0.0099 U	-
Methyl acetate	mg/kg			-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg			-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	62	100	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	51	100	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg			-	0.0092 U	-	-	0.0058 U	-	-	-	0.0049 U	-
Styrene	mg/kg			-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	5.5	19	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	100	100	-	0.0092 U	-	-	0.0058 U	-	-	-	0.0049 U	-
Total BTEX	mg/kg			-	0.018 U	-	-	0.012 U	-	-	-	0.0099 U	-
trans-1,2-Dichloroethene	mg/kg	100	100	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg			-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	10	21	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg			-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	100		-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	0.21	0.9	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	100	100	-	0.018 U	-	-	0.012 U	-	-	-	0.0099 U	-
Semi-volatile Organic Compounds													
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
2,4,5-Trichlorophenol	mg/kg	100		0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
2,4,6-Trichlorophenol	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
2,4-Dichlorophenol	mg/kg	100		0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
2,4-Dimethylphenol	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
2,4-Dinitrophenol	mg/kg	100		2.5 U	-	1.9 U	2.3 U	-	1.9 U	2.1 U	5.1 U	-	2 U
2,4-Dinitrotoluene	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
2,6-Dinitrotoluene	mg/kg	1.03		0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
2-Chloronaphthalene	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
2-Chlorophenol	mg/kg	100		0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
2-Methylnaphthalene	mg/kg	0.41		0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
2-Methylphenol	mg/kg	100	100	0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
2-Nitroaniline	mg/kg			0.49 U	-	0.37 U	0.45 U	-	0.38 U	0.41 U	1 U	-	0.39 U
2-Nitrophenol	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
3,3'-Dichlorobenzidine	mg/kg			0.49 U	-	0.37 U	0.45 U	-	0.38 U	0.41 U	1 U	-	0.39 U
3-Nitroaniline	mg/kg			0.49 U	-	0.37 U	0.45 U	-	0.38 U	0.41 U	1 U	-	0.39 U
4,6-Dinitro-2-methylphenol	mg/kg			0.49 U	-	0.37 U	0.45 U	-	0.38 U	0.41 U	1 U	-	0.39 U
4-Bromophenyl phenyl ether	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
4-Chloro-3-methylphenol	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
4-Chloroaniline	mg/kg	100		0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:				**1389 Forbes**	**1389 Forbes**	**1389 Forbes**	**1430 Forbes**	**1430 Forbes**	**1430 Forbes**	**1430 Forbes**	**1484 Forbes**	**1484 Forbes**	**1484 Forbes**
Sample ID:				**NSH099S**	**SO-11137465-011519-099S**	**NSH102S**	**NSH116S**	**SO-11137465-011519-116S**	**NSH103S**	**NSH104S**	**NSH107S**	**SO-11137465-011519-107S**	**NSH105S**
Sample Date:				**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**
Sample Depth:				**-**	**-**	**(6.8-7.8) ft BGS**	**-**	**-**	**(4-5.5) ft BGS**	**(5.5-7) ft BGS**	**-**	**-**	**(3-4) ft BGS**
Parameters	**Units**	**Residential[1]**	**Restricted Residential[1]**										
Semi-volatile Organic Compounds (cont'd)													
4-Chlorophenyl phenyl ether	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
4-Methylphenol	mg/kg	34	100	0.49 U	-	0.37 U	0.45 U	-	0.38 U	0.41 U	1 U	-	0.39 U
4-Nitroaniline	mg/kg			0.49 U	-	0.37 U	0.45 U	-	0.38 U	0.41 U	1 U	-	0.39 U
4-Nitrophenol	mg/kg			0.49 U	-	0.37 U	0.45 U	-	0.38 U	0.41 U	1 U	-	0.39 U
Acenaphthene	mg/kg	100	100	0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Acenaphthylene	mg/kg	100	100	0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Acetophenone	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Anthracene	mg/kg	100	100	0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Atrazine	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Benzaldehyde	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Benzo(a)anthracene	mg/kg	1	1	0.25 U	-	0.19 U	0.051 J	-	0.2 U	0.21 U	0.093 J	-	0.2 U
Benzo(a)pyrene	mg/kg	1	1	0.25 U	-	0.19 U	0.07 J	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Benzo(b)fluoranthene	mg/kg	1	1	0.25 U	-	0.19 U	0.098 J	-	0.2 U	0.21 U	0.11 J	-	0.2 U
Benzo(g,h,i)perylene	mg/kg	100	100	0.25 U	-	0.19 U	0.063 J	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Benzo(k)fluoranthene	mg/kg	1	3.9	0.25 U	-	0.19 U	0.035 J	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Biphenyl (1,1-Biphenyl)	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
bis(2-Chloroethoxy)methane	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
bis(2-Chloroethyl)ether	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	50		0.25 U	-	0.19 U	1.6	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Butyl benzylphthalate (BBP)	mg/kg	100		0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Caprolactam	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Carbazole	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Chrysene	mg/kg	1	3.9	0.25 U	-	0.19 U	0.059 J	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Dibenz(a,h)anthracene	mg/kg	0.33	0.33	0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Dibenzofuran	mg/kg	14	59	0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Diethyl phthalate	mg/kg	100		0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Dimethyl phthalate	mg/kg	100		0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Di-n-butylphthalate (DBP)	mg/kg	100		0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Di-n-octyl phthalate (DnOP)	mg/kg	100		0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Fluoranthene	mg/kg	100	100	0.25 U	-	0.19 U	0.08 J	-	0.2 U	0.21 U	0.2 J	-	0.2 U
Fluorene	mg/kg	100	100	0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Hexachlorobenzene	mg/kg	0.41	1.2	0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Hexachlorobutadiene	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Hexachlorocyclopentadiene	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Hexachloroethane	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	0.5	0.25 U	-	0.19 U	0.055 J	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Isophorone	mg/kg	100		0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Naphthalene	mg/kg	100	100	0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Nitrobenzene	mg/kg	3.7	15	0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
N-Nitrosodi-n-propylamine	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
N-Nitrosodiphenylamine	mg/kg			0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Pentachlorophenol	mg/kg	2.4	6.7	0.49 U	-	0.37 U	0.45 U	-	0.38 U	0.41 U	1 U	-	0.39 U
Phenanthrene	mg/kg	100	100	0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.08 J	-	0.2 U
Phenol	mg/kg	100	100	0.25 U	-	0.19 U	0.23 U	-	0.2 U	0.21 U	0.53 U	-	0.2 U
Pyrene	mg/kg	100	100	0.25 U	-	0.19 U	0.074 J	-	0.2 U	0.21 U	0.18 J	-	0.2 U
Metals													
Antimony	mg/kg			-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	16	16	3.0	-	3.7	3.4	-	1.8 J	3.1	2.1 J	-	1.5 J
Barium	mg/kg	350	400	78.9	-	27.1	54.4	-	16.8	20.3	47.1	-	32.1
Beryllium	mg/kg	14	72	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	2.5	4.3	0.31	-	0.18 J	0.26 J	-	0.17 J	0.17 J	0.22 J	-	0.079 J
Chromium	mg/kg			30.9	-	6.6	14.6	-	7.3	6.3	10.4	-	10.6
Copper	mg/kg	270	270	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	400	400	29.4	-	7.1	18.4	-	5.8	6.4	12.1	-	6.7
Mercury	mg/kg	0.81	0.81	0.085	-	0.023 U	0.078	-	0.012 J	0.026 U	0.034	-	0.027
Selenium	mg/kg	36	180	0.92 J	-	4.6 U	5.6 U	-	4.6 U	4.9 U	6.5 U	-	4.7 U
Silver	mg/kg	36	180	0.87 U	-	0.70 U	0.84 U	-	0.69 U	0.74 U	0.97 U	-	0.71 U
Thallium	mg/kg			-	-	-	-	-	-	-	-	-	-
Titanium	mg/kg			-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	2200	10000	-	-	-	-	-	-	-	-	-	-
PCBs													
(PCB 1) 2-Chlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 10) 2,6-Dichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 103) 2,2',4,5',6-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 104) 2,2',4,6,6'-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 105) 2,3,3',4,4'-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 106) 2,3,3',4,5-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 107) 2,3,3',4',5-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 108/124) 2,3,3',4,5'-Pentachlorobiphenyl/2,3',4',5,5'-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 11) 3,3'-Dichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 110/115) 2,3,3',4',6-Pentachlorobiphenyl/2,3,4,4',6-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 111) 2,3,3',5,5'-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:				**1389 Forbes**	**1389 Forbes**	**1389 Forbes**	**1430 Forbes**	**1430 Forbes**	**1430 Forbes**	**1430 Forbes**	**1484 Forbes**	**1484 Forbes**	**1484 Forbes**
Sample ID:				**NSH099S**	**SO-11137465-011519-099S**	**NSH102S**	**NSH116S**	**SO-11137465-011519-116S**	**NSH103S**	**NSH104S**	**NSH107S**	**SO-11137465-011519-107S**	**NSH105S**
Sample Date:				**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**
Sample Depth:				**-**	**-**	**(6.8-7.8) ft BGS**	**-**	**-**	**(4-5.5) ft BGS**	**(5.5-7) ft BGS**	**-**	**-**	**(3-4) ft BGS**
Parameters	**Units**	**Residential[1]**	**Restricted Residential[1]**										
PCBs (cont'd)													
(PCB 112) 2,3,3',5,6-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 114) 2,3,4,4',5-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 118) 2,3',4,4',5-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 12/13) 3,4-Dichlorobiphenyl/3,4'-Dichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 120) 2,3',4,5,5'-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 121) 2,3',4,5',6-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 122) 2,3,3',4',5'-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 123) 2',3,4,4',5-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 126) 3,3',4,4',5-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 127) 3,3',4,5,5'-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 128/166) 2,2',3,3',4,4'-Hexachlorobiphenyl/2,3,4,4',5,6-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 129/138/160/163) Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 130) 2,2',3,3',4,5'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 131) 2,2',3,3',4,6-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 132) 2,2',3,3',4,6'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 133) 2,2',3,3',5,5'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 134/143) 2,2',3,3',5,6-Hexachlorobiphenyl/2,2',3,4,5,6'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 135/151) 2,2',3,3',5,6'-Hexachlorobiphenyl/2,2',3,5,5',6-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 136) 2,2',3,3',6,6'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 137) 2,2',3,4,4',5-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 139/140) 2,2',3,4,4',6-Hexachlorobiphenyl/2,2',3,4,4',6'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 14) 3,5-Dichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 141) 2,2',3,4,5,5'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 142) 2,2',3,4,5,6-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 144) 2,2',3,4,5',6-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 145) 2,2',3,4,6,6'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 146) 2,2',3,4',5,5'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 147/149) 2,2',3,4',5,6-Hexachlorobiphenyl/2,2',3,4',5',6-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 148) 2,2',3,4',5,6'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 15) 4,4'-Dichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 150) 2,2',3,4',6,6'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 152) 2,2',3,5,6,6'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 153/168) 2,2',4,4',5,5'-Hexachlorobiphenyl/2,3',4,4',5',6-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 154) 2,2',4,4',5,6'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 155) 2,2',4,4',6,6'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 156/157) 2,3,3',4,4',5-Hexachlorobiphenyl/2,3,3',4,4',5'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 158) 2,3,3',4,4',6-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 159) 2,3,3',4,5,5'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 16) 2,2',3-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 161) 2,3,3',4,5',6-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 162) 2,3,3',4',5,5'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 164) 2,3,3',4',5',6-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 165) 2,3,3',5,5',6-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 167) 2,3',4,4',5,5'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 169) 3,3',4,4',5,5'-Hexachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 17) 2,2',4-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 170) 2,2',3,3',4,4',5-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 171/173) 2,2',3,3',4,4',6-Heptachlorobiphenyl/2,2',3,3',4,5,6-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 172) 2,2',3,3',4,5,5'-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 174) 2,2',3,3',4,5,6'-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 175) 2,2',3,3',4,5',6-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 176) 2,2',3,3',4,6,6'-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 177) 2,2',3,3',4',5,6-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 178) 2,2',3,3',5,5',6-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 179) 2,2',3,3',5,6,6'-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 18/30) 2,2',5-Trichlorobiphenyl/2,4,6-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 180/193) 2,2',3,4,4',5,5'-Heptachlorobiphenyl/2,3,3',4',5,5',6-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 181) 2,2',3,4,4',5,6-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 182) 2,2',3,4,4',5,6'-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 183/185) 2,2',3,4,4',5',6-Heptachlorobiphenyl/2,2',3,4,5,5',6-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 184) 2,2',3,4,4',6,6'-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 186) 2,2',3,4,5,6,6'-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 187) 2,2',3,4',5,5',6-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 188) 2,2',3,4',5,6,6'-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 189) 2,3,3',4,4',5,5'-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 19) 2,2',6-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 190) 2,3,3',4,4',5,6-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 191) 2,3,3',4,4',5',6-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 192) 2,3,3',4,5,5',6-Heptachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 194) 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 195) 2,2',3,3',4,4',5,6-Octachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 196) 2,2',3,3',4,4',5,6'-Octachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 197) 2,2',3,3',4,4',6,6'-Octachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 198/199) 2,2',3,3',4,5,5',6-Octachlorobiphenyl/2,2',3,3',4,5,5',6'-Octachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:				1389 Forbes	1389 Forbes	1389 Forbes	1430 Forbes	1430 Forbes	1430 Forbes	1430 Forbes	1484 Forbes	1484 Forbes	1484 Forbes
Sample ID:				NSH099S	SO-11137465-011519-099S	NSH102S	NSH116S	SO-11137465-011519-116S	NSH103S	NSH104S	NSH107S	SO-11137465-011519-107S	NSH105S
Sample Date:				1/15/2019	1/15/2019	1/15/2019	1/15/2019	1/15/2019	1/15/2019	1/15/2019	1/15/2019	1/15/2019	1/15/2019
Sample Depth:				-	-	(6.8-7.8) ft BGS	-	-	(4-5.5) ft BGS	(5.5-7) ft BGS	-	-	(3-4) ft BGS
Parameters	**Units**	**Residential[1]**	**Restricted Residential[1]**										
PCBs (cont'd)													
(PCB 2) 3-Chlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 20/28) 2,3,3'-Trichlorobiphenyl/2,4,4'-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 200) 2,2',3,3',4,5,6,6'-Octachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 201) 2,2',3,3',4,5',6,6'-Octachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 202) 2,2',3,3',5,5',6,6'-Octachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 203) 2,2',3,4,4',5,5',6-Octachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 204) 2,2',3,4,4',5,6,6'-Octachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 205) 2,3,3',4,4',5,5',6-Octachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 206) 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 207) 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 208) 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 209) Decachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 21/33) 2,3,4-Trichlorobiphenyl/2',3,4-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 22) 2,3,4'-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 23) 2,3,5-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 24) 2,3,6-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 25) 2,3',4-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 26/29) 2,3',5-Trichlorobipheny/2,4,5-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 27) 2,3',6-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 3) 4-Monochlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 31) 2,4',5-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 32) 2,4',6-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 34) 2,3',5'-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 35) 3,3',4-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 36) 3,3',5-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 37) 3,4,4'-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 38) 3,4,5-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 39) 3,4',5-Trichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 4) 2,2'-Dichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 40/41/71) 2,2',3,3'-TeCB/ 2,2',3,4-TeCB/2,3',4',6-TeCB	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 42) 2,2',3,4'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 43/73) 2,2',3,5-Tetrachlorobiphenyl/2,3',5',6-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 44/47/65) 2,2',3,5'-Tetrachlorobiphenyl/2,2',4,4'-Tetrachlorobiphenyl/2,3,5,6-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 45/51) 2,2',3,6-Tetrachlorobiphenyl/2,2',4,6'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 46) 2,2',3,6'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 48) 2,2',4,5-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 49/69) 2,2',4,5'-Tetrachlorobiphenyl/2,3',4,6-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 5) 2,3-Dichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 50/53) 2,2',4,6-Tetrachlorobipheny/2,2',5,6'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 54) 2,2',6,6'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 55) 2,3,3',4-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 56) 2,3,3',4'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 57) 2,3,3',5-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 58) 2,3,3',5'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 59/62/75) 2,3,3',6-Tetrachlorobiphenyl/2,3,4,6-Tetrachlorobiphenyl/ 2,4,4',6-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 6) 2,3'-Dichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 60) 2,3,4,4'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 61/70/74/76) 2,3,4,5-Tetrachlorobiphenyl/2,3',4',5-Tetrachlorobiphenyl/2,4,4',5-Tetrachlorobiphenyl/2,3',4',5'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 63) 2,3,4',5-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 64) 2,3,4',6-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 66) 2,3',4,4'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 67) 2,3',4,5-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 68) 2,3',4,5'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 7) 2,4-Dichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 72) 2,3',5,5'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 77) 3,3',4,4'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 78) 3,3',4,5-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 79) 3,3',4,5'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 8) 2,4'-Dichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 80) 3,3',5,5'-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 81) 3,4,4',5-Tetrachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 82) 2,2',3,3',4-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 83/99) 2,2',3,3',5-Pentachlorobiphenyl/2,2',4,4',5-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 84) 2,2',3,3',6-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 85/116/117) 2,2',3,4,4'-PeCB/2,3,4,5,6-PeCB/2,3,4',5,6-PeCB	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 86/87/97/109/119/125) 2,2',3,4,5-PeCB/ 2,2',3,4,5'-PeCB/2,2',3',4,5-PeCB/2,3,3',4,6-PeCB/2,3',4,4',6-PeCB/2',3,4,5,6'-PeCB	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 88/91) 2,2',3,4,6-Pentachlorobiphenyl/2,2',3,4',6-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 89) 2,2',3,4,6'-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 9) 2,5-Dichlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 90/101/113) 2,2',3,4',5-Pentachlorobiphenyl/2,2',4,5,5'-Pentachlorobiphenyl/2,3,3',5',6-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 92) 2,2',3,5,5'-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 93/100) 2,2',3,5,6-Pentachlorobiphenyl/2,2',4,4',6-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 94) 2,2',3,5,6'-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:				1389 Forbes	1389 Forbes	1389 Forbes	1430 Forbes	1430 Forbes	1430 Forbes	1430 Forbes	1484 Forbes	1484 Forbes	1484 Forbes
Sample ID:				**NSH099S**	**SO-11137465-011519-099S**	**NSH102S**	**NSH116S**	**SO-11137465-011519-116S**	**NSH103S**	**NSH104S**	**NSH107S**	**SO-11137465-011519-107S**	**NSH105S**
Sample Date:				**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**
Sample Depth:				**-**	**-**	**(6.8-7.8) ft BGS**	**-**	**-**	**(4-5.5) ft BGS**	**(5.5-7) ft BGS**	**-**	**-**	**(3-4) ft BGS**
Parameters	**Units**	**Residential[1]**	**Restricted Residential[1]**										
PCBs (cont'd)													
(PCB 95) 2,2',3,5',6-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 96) 2,2',3,6,6'-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
(PCB 98/102) 2,2',3,4',6'-Pentachlorobiphenyl/2,2',4,5,6'-Pentachlorobiphenyl	ng/g			-	-	-	-	-	-	-	-	-	-
Aroclor-1016 (PCB-1016)	mg/kg			0.34 U	-	0.26 U	0.28 U	-	0.25 U	0.24 U	0.34 U	-	0.24 U
Aroclor-1221 (PCB-1221)	mg/kg			0.34 U	-	0.26 U	0.28 U	-	0.25 U	0.24 U	0.34 U	-	0.24 U
Aroclor-1232 (PCB-1232)	mg/kg			0.34 U	-	0.26 U	0.28 U	-	0.25 U	0.24 U	0.34 U	-	0.24 U
Aroclor-1242 (PCB-1242)	mg/kg			0.34 U	-	0.26 U	0.28 U	-	0.25 U	0.24 U	0.34 U	-	0.24 U
Aroclor-1248 (PCB-1248)	mg/kg			0.34 U	-	0.26 U	0.28 U	-	0.25 U	0.24 U	0.34 U	-	0.24 U
Aroclor-1254 (PCB-1254)	mg/kg			0.34 UJ	-	0.26 U	0.28 UJ	-	0.25 U	0.24 U	0.34 UJ	-	0.24 U
Aroclor-1260 (PCB-1260)	mg/kg			0.34 UJ	-	0.26 U	0.28 UJ	-	0.25 U	0.24 U	0.34 UJ	-	0.24 U
Pesticides													
4,4'-DDD	mg/kg	2.6	13	0.00057 J	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
4,4'-DDE	mg/kg	1.8	8.9	0.00083 J	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
4,4'-DDT	mg/kg	1.7	7.9	0.0025 U	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
Aldrin	mg/kg	0.019	0.097	0.0025 U	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
alpha-BHC	mg/kg	0.097	0.48	0.0025 U	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
alpha-Chlordane	mg/kg	0.91	4.2	0.0025 U	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
beta-BHC	mg/kg	0.072	0.36	0.0025 U	-	0.0036 U	0.0023 U	-	0.0012 J	0.0021 U	0.013 U	-	0.002 U
delta-BHC	mg/kg	100	100	0.0025 U	-	0.0011 J	0.00066 J	-	0.0019 U	0.0021 U	0.013 U	-	0.00051 J
Dieldrin	mg/kg	0.039	0.2	0.0025 U	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
Endosulfan I	mg/kg	4.8	24	0.0025 U	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
Endosulfan II	mg/kg	4.8	24	0.00065 J	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
Endosulfan sulfate	mg/kg	4.8	24	0.0025 U	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
Endrin	mg/kg	2.2	11	0.0025 U	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
Endrin aldehyde	mg/kg			0.0025 U	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
Endrin ketone	mg/kg			0.0025 U	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
gamma-BHC (lindane)	mg/kg	0.28	1.3	0.0025 U	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
gamma-Chlordane	mg/kg	0.54		0.0025 U	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
Heptachlor	mg/kg	0.42	2.1	0.0025 U	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
Heptachlor epoxide	mg/kg	0.077		0.0025 U	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
Methoxychlor	mg/kg	100		0.0025 U	-	0.0036 U	0.0023 U	-	0.0019 U	0.0021 U	0.013 U	-	0.002 U
Toxaphene	mg/kg			0.025 U	-	0.036 U	0.023 U	-	0.019 U	0.021 U	0.13 U	-	0.02 U
Dioxin Furans													
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	pg/g			5.8 J	-	-	350	-	3.1 J	12 U	3.0 J	-	12 U
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	pg/g			240	-	-	78	-	20	8.0 J	22	-	12 U
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	pg/g			4.2 J	-	-	260	-	2.5 J	6.1 U	1.8 J	-	5.9 U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	pg/g			21	-	-	21	-	1.6 J	6.1 U	3.0 J	-	5.9 U
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	pg/g			7.3 U	-	-	9.6	-	5.8 U	6.1 U	7.9 U	-	5.9 U
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g			0.84 J	-	-	72	-	0.72 J	6.1 U	0.43 J	-	5.9 U
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g			7.3 U	-	-	0.65 J	-	5.8 U	6.1 U	7.9 U	-	5.9 U
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g			0.44 J	-	-	15	-	0.19 J	6.1 U	0.23 J	-	5.9 U
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g			0.75 J	-	-	2.6 J	-	5.8 U	6.1 U	7.9 U	-	5.9 U
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	pg/g			7.3 U	-	-	6.9 U	-	5.8 U	6.1 U	7.9 U	-	5.9 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g			0.49 J	-	-	1.5 J	-	5.8 U	6.1 U	0.32 J	-	5.9 U
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g			0.15 J	-	-	1.8 J	-	5.8 U	6.1 U	7.9 U	-	5.9 U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	pg/g			7.3 U	-	-	0.73 J	-	5.8 U	6.1 U	7.9 U	-	5.9 U
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g			0.35 J	-	-	4.8 J	-	5.8 U	6.1 U	7.9 U	-	5.9 U
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g			7.3 U	-	-	6.6 J	-	5.8 U	6.1 U	7.9 U	-	5.9 U
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	pg/g			0.49 J	-	-	1.0 J	-	0.10 J	1.2 U	0.13 J	-	1.2 U
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/g			0.21 J	-	-	0.27 J	-	1.2 U	1.2 U	1.6 U	-	1.2 U

Notes:

-- - Not applicable
U - Not detected at the associated reporting limit
J - Estimated concentration
PCBs - Polychlorinated biphenyls
mg/kg - milligrams per kilogram
ng/g - nanograms per gram
pg/g - picograms per gram
[1] - New York State 6 NYCRR 375-6.8(b) Restricted Use Soil Cleanup Objectives

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		1484 Forbes	1484 Forbes	1484 Forbes	1484 Forbes	1597 Moll St	1597 Moll St	1597 Moll St	1597 Ruie Road	1597 Ruie Road	1618 Moll St	1618 Moll St	1619 Master St
Sample ID:		**NSH106S**	**NSH108S**	**NSH109S**	**NSH120S**	**NSH122S**	**NSH123S**	**SO-11137465-011619-122S**	**NSH113S**	**SO-11137465-011519-113S**	**NSH131S**	**SO-11137465-011619-131S**	**NSH130S**
Sample Date:		**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**1/16/2019**	**1/15/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**1/16/2019**
Sample Depth:		**(4-5.5) ft BGS**	**(5-5.5) ft BGS**	**(5-5.6) ft BGS**	**(6.8-7.8) ft BGS**	**-**	**- (Duplicate)**	**-**	**-**	**-**	**-**	**-**	**-**
Parameters	**Units**												
Volatile Organic Compounds													
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	0.007 U	-	0.011 U	-	0.007 U	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	0.007 U	-	0.011 U	-	0.007 U	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
m&p-Xylenes	mg/kg	-	-	-	-	-	-	0.014 U	-	0.022 U	-	0.014 U	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/kg	-	-	-	-	-	-	0.007 U	-	0.011 U	-	0.007 U	-
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	0.007 U	-	0.011 U	-	0.007 U	-
Total BTEX	mg/kg	-	-	-	-	-	-	0.014 U	-	0.022 U	-	0.014 U	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	0.014 U	-	0.022 U	-	0.014 U	-
Semi-volatile Organic Compounds													
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
2,4,5-Trichlorophenol	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
2,4,6-Trichlorophenol	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
2,4-Dichlorophenol	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
2,4-Dimethylphenol	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
2,4-Dinitrophenol	mg/kg	2 U	1.9 U	1.9 U	1.9 U	2.7 U	2.6 U	-	2.7 U	-	2.6 U	-	2.5 U
2,4-Dinitrotoluene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
2,6-Dinitrotoluene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
2-Chloronaphthalene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
2-Chlorophenol	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
2-Methylnaphthalene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
2-Methylphenol	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
2-Nitroaniline	mg/kg	0.4 U	0.38 U	0.38 U	0.38 U	0.54 U	0.52 U	-	0.54 U	-	0.52 U	-	0.5 U
2-Nitrophenol	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
3,3'-Dichlorobenzidine	mg/kg	0.4 U	0.38 U	0.38 U	0.38 U	0.54 U	0.52 U	-	0.54 U	-	0.52 U	-	0.5 U
3-Nitroaniline	mg/kg	0.4 U	0.38 U	0.38 U	0.38 U	0.54 U	0.52 U	-	0.54 U	-	0.52 U	-	0.5 U
4,6-Dinitro-2-methylphenol	mg/kg	0.4 U	0.38 U	0.38 U	0.38 U	0.54 U	0.52 U	-	0.54 U	-	0.52 U	-	0.5 U
4-Bromophenyl phenyl ether	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
4-Chloro-3-methylphenol	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
4-Chloroaniline	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		1484 Forbes	1484 Forbes	1484 Forbes	1484 Forbes	1597 Moll St	1597 Moll St	1597 Moll St	1597 Ruie Road	1597 Ruie Road	1618 Moll St	1618 Moll St	1619 Master St
Sample ID:		**NSH106S**	**NSH108S**	**NSH109S**	**NSH120S**	**NSH122S**	**NSH123S**	**SO-11137465-011619-122S**	**NSH113S**	**SO-11137465-011519-113S**	**NSH131S**	**SO-11137465-011619-131S**	**NSH130S**
Sample Date:		**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**1/16/2019**	**1/15/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**1/16/2019**
Sample Depth:		**(4-5.5) ft BGS**	**(5-5.5) ft BGS**	**(5-5.6) ft BGS**	**(6.8-7.8) ft BGS**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
							(Duplicate)						
Parameters	**Units**												
Semi-volatile Organic Compounds (cont'd)													
4-Chlorophenyl phenyl ether	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
4-Methylphenol	mg/kg	0.4 U	0.38 U	0.38 U	0.38 U	0.54 U	0.52 U	-	0.54 U	-	0.52 U	-	0.5 U
4-Nitroaniline	mg/kg	0.4 U	0.38 U	0.38 U	0.38 U	0.54 U	0.52 U	-	0.54 U	-	0.52 U	-	0.5 U
4-Nitrophenol	mg/kg	0.4 U	0.38 U	0.38 U	0.38 U	0.54 U	0.52 U	-	0.54 U	-	0.52 U	-	0.5 U
Acenaphthene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Acenaphthylene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Acetophenone	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Anthracene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Atrazine	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Benzaldehyde	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Benzo(a)anthracene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.17 J	0.14 J	-	0.28 U	-	0.14 J	-	0.26 U
Benzo(a)pyrene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.18 J	0.17 J	-	0.28 U	-	0.15 J	-	0.26 U
Benzo(b)fluoranthene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28	0.26 J	-	0.28 U	-	0.23 J	-	0.26 U
Benzo(g,h,i)perylene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.15 J	0.14 J	-	0.28 U	-	0.13 J	-	0.26 U
Benzo(k)fluoranthene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.11 J	0.1 J	-	0.28 U	-	0.097 J	-	0.26 U
Biphenyl (1,1-Biphenyl)	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
bis(2-Chloroethoxy)methane	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
bis(2-Chloroethyl)ether	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.11 J	0.14 J	-	0.28 U	-	0.27 U	-	0.26 U
Butyl benzylphthalate (BBP)	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.07 J	0.085 J	-	0.28 U	-	0.27 U	-	0.26 U
Caprolactam	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Carbazole	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Chrysene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.21 J	0.18 J	-	0.28 U	-	0.17 J	-	0.26 U
Dibenz(a,h)anthracene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Dibenzofuran	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Diethyl phthalate	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Dimethyl phthalate	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Di-n-butylphthalate (DBP)	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Di-n-octyl phthalate (DnOP)	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Fluoranthene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.56	0.32	-	0.048 J	-	0.31	-	0.027 J
Fluorene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Hexachlorobenzene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Hexachlorobutadiene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Hexachlorocyclopentadiene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Hexachloroethane	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.13 J	0.12 J	-	0.28 U	-	0.11 J	-	0.26 U
Isophorone	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Naphthalene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Nitrobenzene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
N-Nitrosodi-n-propylamine	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
N-Nitrosodiphenylamine	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Pentachlorophenol	mg/kg	0.4 U	0.38 U	0.38 U	0.38 U	0.54 U	0.52 U	-	0.54 U	-	0.52 U	-	0.5 U
Phenanthrene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.31	0.08 J	-	0.28 U	-	0.12 J	-	0.26 U
Phenol	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.28 U	0.27 U	-	0.28 U	-	0.27 U	-	0.26 U
Pyrene	mg/kg	0.21 U	0.2 U	0.2 U	0.2 U	0.43	0.26 J	-	0.042 J	-	0.23 J	-	0.26 U
Metals													
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	3.2	1.9 J	3.0	4.5	8.1	9.0	-	2.3 J	-	3.3	-	3.2
Barium	mg/kg	28.2	20.2	18.0	24.0	65.2	64.2	-	61.7	-	63.2	-	56.2
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	0.19 J	0.19 J	0.25	0.19 J	0.38	0.38	-	0.60	-	0.32 U	-	0.28 J
Chromium	mg/kg	8.8	5.4	5.5	6.4	15.6	16.3	-	15.4	-	14.1	-	18.7
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	5.9	6.7	6.9	7.1	25.1	25.3	-	17.6	-	19.6	-	16.2
Mercury	mg/kg	0.013 J	0.024 U	0.022 U	0.023 U	0.071	0.068	-	0.066	-	0.051	-	0.048
Selenium	mg/kg	4.8 U	4.7 U	4.5 U	4.7 U	0.73 J	6.3 U	-	6.7 U	-	6.3 U	-	6.0 U
Silver	mg/kg	0.72 U	0.70 U	0.68 U	0.71 U	0.99 U	0.95 U	-	1.0 U	-	0.95 U	-	0.89 U
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Titanium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
PCBs													
(PCB 1) 2-Chlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 10) 2,6-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 103) 2,2',4,5',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 104) 2,2',4,6,6'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 105) 2,3,3',4,4'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 106) 2,3,3',4,5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 107) 2,3,3',4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 108/124) 2,3,3',4,5'-Pentachlorobiphenyl/2,3',4',5,5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 11) 3,3'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 110/115) 2,3,3',4',6-Pentachlorobiphenyl/2,3,4,4',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 111) 2,3,3',5,5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		1484 Forbes	1484 Forbes	1484 Forbes	1484 Forbes	1597 Moll St	1597 Moll St	1597 Moll St	1597 Ruie Road	1597 Ruie Road	1618 Moll St	1618 Moll St	1619 Master St
Sample ID:		**NSH106S**	**NSH108S**	**NSH109S**	**NSH120S**	**NSH122S**	**NSH123S**	**SO-11137465-011619-122S**	**NSH113S**	**SO-11137465-011519-113S**	**NSH131S**	**SO-11137465-011619-131S**	**NSH130S**
Sample Date:		**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**1/16/2019**	**1/15/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**1/16/2019**
Sample Depth:		**(4-5.5) ft BGS**	**(5-5.5) ft BGS**	**(5-5.6) ft BGS**	**(6.8-7.8) ft BGS**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
							(Duplicate)						
Parameters	**Units**												
PCBs (cont'd)													
(PCB 112) 2,3,3',5,6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 114) 2,3,4,4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 118) 2,3',4,4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 12/13) 3,4-Dichlorobiphenyl/3,4'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 120) 2,3',4,5,5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 121) 2,3',4,5',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 122) 2,3,3',4',5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 123) 2',3,4,4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 126) 3,3',4,4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 127) 3,3',4,5,5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 128/166) 2,2',3,3',4,4'-Hexachlorobiphenyl/2,3,4,4',5,6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 129/138/160/163) Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 130) 2,2',3,3',4,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 131) 2,2',3,3',4,6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 132) 2,2',3,3',4,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 133) 2,2',3,3',5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 134/143) 2,2',3,3',5,6-Hexachlorobiphenyl/2,2',3,4,5,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 135/151) 2,2',3,3',5,6'-Hexachlorobiphenyl/2,2',3,5,5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 136) 2,2',3,3',6,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 137) 2,2',3,4,4',5-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 139/140) 2,2',3,4,4',6-Hexachlorobiphenyl/2,2',3,4,4',6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 14) 3,5-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 141) 2,2',3,4,5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 142) 2,2',3,4,5,6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 144) 2,2',3,4,5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 145) 2,2',3,4,6,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 146) 2,2',3,4',5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 147/149) 2,2',3,4',5,6-Hexachlorobiphenyl/2,2',3,4',5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 148) 2,2',3,4',5,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 15) 4,4'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 150) 2,2',3,4',6,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 152) 2,2',3,5,6,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 153/168) 2,2',4,4',5,5'-Hexachlorobiphenyl/2,3',4,4',5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 154) 2,2',4,4',5,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 155) 2,2',4,4',6,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 156/157) 2,3,3',4,4',5-Hexachlorobiphenyl/2,3,3',4,4',5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 158) 2,3,3',4,4',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 159) 2,3,3',4,5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 16) 2,2',3-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 161) 2,3,3',4,5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 162) 2,3,3',4',5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 164) 2,3,3',4',5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 165) 2,3,3',5,5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 167) 2,3',4,4',5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 169) 3,3',4,4',5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 17) 2,2',4-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 170) 2,2',3,3',4,4',5-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 171/173) 2,2',3,3',4,4',6-Heptachlorobiphenyl/2,2',3,3',4,5,6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 172) 2,2',3,3',4,5,5'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 174) 2,2',3,3',4,5,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 175) 2,2',3,3',4,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 176) 2,2',3,3',4,6,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 177) 2,2',3,3',4',5,6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 178) 2,2',3,3',5,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 179) 2,2',3,3',5,6,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 18/30) 2,2',5-Trichlorobiphenyl/2,4,6-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 180/193) 2,2',3,4,4',5,5'-Heptachlorobiphenyl/2,3,3',4',5,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 181) 2,2',3,4,4',5,6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 182) 2,2',3,4,4',5,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 183/185) 2,2',3,4,4',5',6-Heptachlorobiphenyl/2,2',3,4,5,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 184) 2,2',3,4,4',6,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 186) 2,2',3,4,5,6,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 187) 2,2',3,4',5,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 188) 2,2',3,4',5,6,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 189) 2,3,3',4,4',5,5'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 19) 2,2',6-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 190) 2,3,3',4,4',5,6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 191) 2,3,3',4,4',5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 192) 2,3,3',4,5,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 194) 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 195) 2,2',3,3',4,4',5,6-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 196) 2,2',3,3',4,4',5,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 197) 2,2',3,3',4,4',6,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 198/199) 2,2',3,3',4,5,5',6-Octachlorobiphenyl/2,2',3,3',4,5,5',6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		1484 Forbes	1484 Forbes	1484 Forbes	1484 Forbes	1597 Moll St	1597 Moll St	1597 Moll St	1597 Ruie Road	1597 Ruie Road	1618 Moll St	1618 Moll St	1619 Master St
Sample ID:		NSH106S	NSH108S	NSH109S	NSH120S	NSH122S	NSH123S	SO-11137465-011619-122S	NSH113S	SO-11137465-011519-113S	NSH131S	SO-11137465-011619-131S	NSH130S
Sample Date:		1/15/2019	1/15/2019	1/15/2019	1/15/2019	1/16/2019	1/16/2019	1/16/2019	1/15/2019	1/15/2019	1/16/2019	1/16/2019	1/16/2019
Sample Depth:		(4-5.5) ft BGS	(5-5.5) ft BGS	(5-5.6) ft BGS	(6.8-7.8) ft BGS	-	-	-	-	-	-	-	-
							(Duplicate)						
Parameters	**Units**												
PCBs (cont'd)													
(PCB 2) 3-Chlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 20/28) 2,3,3'-Trichlorobiphenyl/2,4,4'-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 200) 2,2',3,3',4,5,6,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 201) 2,2',3,3',4,5',6,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 202) 2,2',3,3',5,5',6,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 203) 2,2',3,4,4',5,5',6-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 204) 2,2',3,4,4',5,6,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 205) 2,3,3',4,4',5,5',6-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 206) 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 207) 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 208) 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 209) Decachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 21/33) 2,3,4-Trichlorobiphenyl/2',3,4-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 22) 2,3,4'-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 23) 2,3,5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 24) 2,3,6-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 25) 2,3',4-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 26/29) 2,3',5-Trichlorobiphenyl/2,4,5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 27) 2,3',6-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 3) 4-Monochlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 31) 2,4',5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 32) 2,4',6-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 34) 2,3',5'-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 35) 3,3',4-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 36) 3,3',5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 37) 3,4,4'-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 38) 3,4,5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 39) 3,4',5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 4) 2,2'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 40/41/71) 2,2',3,3'-TeCB/ 2,2',3,4-TeCB/2,3',4',6-TeCB	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 42) 2,2',3,4'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 43/73) 2,2',3,5-Tetrachlorobiphenyl/2,3',5',6-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 44/47/65) 2,2',3,5'-Tetrachlorobiphenyl/2,2',4,4'-Tetrachlorobiphenyl/2,3,5,6-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 45/51) 2,2',3,6-Tetrachlorobiphenyl/2,2',4,6'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 46) 2,2',3,6'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 48) 2,2',4,5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 49/69) 2,2',4,5'-Tetrachlorobiphenyl/2,3',4,6-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 5) 2,3-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 50/53) 2,2',4,6-Tetrachlorobiphenyl/2,2',5,6'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 54) 2,2',6,6'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 55) 2,3,3',4-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 56) 2,3,3',4'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 57) 2,3,3',5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 58) 2,3,3',5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 59/62/75) 2,3,3',6-Tetrachlorobiphenyl/2,3,4,6-Tetrachlorobiphenyl/ 2,4,4',6-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 6) 2,3'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 60) 2,3,4,4'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 61/70/74/76) 2,3,4,5-Tetrachlorobiphenyl/2,3',4',5-Tetrachlorobiphenyl/2,4,4',5-Tetrachlorobiphenyl/2,3',4',5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 63) 2,3,4',5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 64) 2,3,4',6-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 66) 2,3',4,4'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 67) 2,3',4,5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 68) 2,3',4,5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 7) 2,4-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 72) 2,3',5,5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 77) 3,3',4,4'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 78) 3,3',4,5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 79) 3,3',4,5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 8) 2,4'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 80) 3,3',5,5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 81) 3,4,4',5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 82) 2,2',3,3',4-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 83/99) 2,2',3,3',5-Pentachlorobiphenyl/2,2',4,4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 84) 2,2',3,3',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 85/116/117) 2,2',3,4,4'-PeCB/2,3,4,5,6-PeCB/2,3,4',5,6-PeCB	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 86/87/97/109/119/125) 2,2',3,4,5-PeCB/ 2,2',3,4,5'-PeCB/2,2',3',4,5-PeCB/2,3,3',4,6-PeCB/2,3',4,4',6-PeCB/2',3,4,5,6'-PeCB	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 88/91) 2,2',3,4,6-Pentachlorobiphenyl/2,2',3,4',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 89) 2,2',3,4,6'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 9) 2,5-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 90/101/113) 2,2',3,4',5-Pentachlorobiphenyl/2,2',4,5,5'-Pentachlorobiphenyl/2,3,3',5',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 92) 2,2',3,5,5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 93/100) 2,2',3,5,6-Pentachlorobiphenyl/2,2',4,4',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 94) 2,2',3,5,6'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		1484 Forbes	1484 Forbes	1484 Forbes	1484 Forbes	1597 Moll St	1597 Moll St	1597 Moll St	1597 Ruie Road	1597 Ruie Road	1618 Moll St	1618 Moll St	1619 Master St
Sample ID:		**NSH106S**	**NSH108S**	**NSH109S**	**NSH120S**	**NSH122S**	**NSH123S**	**SO-11137465-011619-122S**	**NSH113S**	**SO-11137465-011519-113S**	**NSH131S**	**SO-11137465-011619-131S**	**NSH130S**
Sample Date:		**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**1/16/2019**	**1/15/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**1/16/2019**
Sample Depth:		**(4-5.5) ft BGS**	**(5-5.5) ft BGS**	**(5-5.6) ft BGS**	**(6.8-7.8) ft BGS**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
							(Duplicate)						
Parameters	**Units**												
PCBs (cont'd)													
(PCB 95) 2,2',3,5',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 96) 2,2',3,6,6'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 98/102) 2,2',3,4',6'-Pentachlorobiphenyl/2,2',4,5,6'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1016 (PCB-1016)	mg/kg	0.22 U	0.24 U	0.26 U	0.21 U	0.34 U	0.39 U	-	0.34 U	-	0.35 U	-	0.38 U
Aroclor-1221 (PCB-1221)	mg/kg	0.22 U	0.24 U	0.26 U	0.21 U	0.34 U	0.39 U	-	0.34 U	-	0.35 U	-	0.38 U
Aroclor-1232 (PCB-1232)	mg/kg	0.22 U	0.24 U	0.26 U	0.21 U	0.34 U	0.39 U	-	0.34 U	-	0.35 U	-	0.38 U
Aroclor-1242 (PCB-1242)	mg/kg	0.22 U	0.24 U	0.26 U	0.21 U	0.34 U	0.39 U	-	0.34 U	-	0.35 U	-	0.38 U
Aroclor-1248 (PCB-1248)	mg/kg	0.22 U	0.24 U	0.26 U	0.21 U	0.34 U	0.39 U	-	0.34 U	-	0.35 U	-	0.38 U
Aroclor-1254 (PCB-1254)	mg/kg	0.22 U	0.24 U	0.26 U	0.21 U	0.34 U	0.39 U	-	0.34 UJ	-	0.35 UJ	-	0.38 UJ
Aroclor-1260 (PCB-1260)	mg/kg	0.22 U	0.24 U	0.26 U	0.21 U	0.34 U	0.39 U	-	0.34 UJ	-	0.35 UJ	-	0.38 UJ
Pesticides													
4,4'-DDD	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0025 U
4,4'-DDE	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0027	-	0.0025 U
4,4'-DDT	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0018 J	-	0.0025 U
Aldrin	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0025 U
alpha-BHC	mg/kg	0.0039 U	0.00066 J	0.0019 U	0.00079 J	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0009 J
alpha-Chlordane	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0025 U
beta-BHC	mg/kg	0.0039 U	0.0016 J	0.0019 U	0.0014 J	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0018 J
delta-BHC	mg/kg	0.0013 J	0.00052 J	0.0019 U	0.00056 J	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0025 U
Dieldrin	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0025 U
Endosulfan I	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0025 U
Endosulfan II	mg/kg	0.0039 U	0.0019 U	0.00066 J	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0025 U
Endosulfan sulfate	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0025 U
Endrin	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0025 U
Endrin aldehyde	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0025 U
Endrin ketone	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0025 U
gamma-BHC (lindane)	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0025 U
gamma-Chlordane	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0022 J	-	0.027 U	-	0.0026 U	-	0.0025 U
Heptachlor	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0025 U
Heptachlor epoxide	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0025 U
Methoxychlor	mg/kg	0.0039 U	0.0019 U	0.0019 U	0.0019 U	0.0027 U	0.0027 U	-	0.027 U	-	0.0026 U	-	0.0025 U
Toxaphene	mg/kg	0.039 U	0.019 U	0.019 U	0.019 U	0.027 U	0.027 U	-	0.27 U	-	0.026 U	-	0.025 U
Dioxin Furans													
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	pg/g	12 U	12 U	12 U	12 U	39	10 J	-	21	-	3.0 J	-	15 U
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	pg/g	12 U	12 U	12 U	12 U	38	74	-	49	-	24	-	17
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	pg/g	6.1 U	5.8 U	5.8 U	5.8 U	8.4	5.5 J	-	16	-	1.3 J	-	1.3 J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	pg/g	6.1 U	5.8 U	5.8 U	5.8 U	7.7 J	11	-	8.5	-	2.9 J	-	2.5 J
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	pg/g	6.1 U	5.8 U	5.8 U	5.8 U	8.3 U	8.1 U	-	0.75 J	-	7.9 U	-	7.4 U
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	6.1 U	5.8 U	5.8 U	5.8 U	8.3 U	8.1 U	-	4.3 J	-	7.9 U	-	7.4 U
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	6.1 U	5.8 U	5.8 U	5.8 U	8.3 U	8.1 U	-	0.59 J	-	7.9 U	-	7.4 U
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	6.1 U	5.8 U	5.8 U	5.8 U	8.3 U	0.80 J	-	1.2 J	-	7.9 U	-	7.4 U
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	6.1 U	5.8 U	5.8 U	5.8 U	0.89 J	0.59 J	-	0.83 J	-	0.20 J	-	0.24 J
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	pg/g	6.1 U	5.8 U	5.8 U	5.8 U	8.3 U	8.1 U	-	8.1 U	-	7.9 U	-	7.4 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	6.1 U	5.8 U	5.8 U	5.8 U	1.6 J	8.1 U	-	0.96 J	-	7.9 U	-	7.4 U
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	6.1 U	5.8 U	5.8 U	5.8 U	8.3 U	8.1 U	-	0.53 J	-	7.9 U	-	7.4 U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	pg/g	6.1 U	5.8 U	5.8 U	5.8 U	0.95 J	8.1 U	-	0.36 J	-	7.9 U	-	7.4 U
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	6.1 U	5.8 U	5.8 U	5.8 U	8.3 U	8.1 U	-	0.58 J	-	7.9 U	-	7.4 U
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	6.1 U	5.8 U	5.8 U	5.8 U	8.3 U	8.1 U	-	0.65 J	-	7.9 U	-	7.4 U
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	pg/g	1.2 U	1.2 U	1.2 U	1.2 U	0.34 J	0.84 J	-	0.69 J	-	0.093 J	-	0.15 J
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/g	1.2 U	1.2 U	1.2 U	1.2 U	0.30 J	0.11 J	-	0.22 J	-	1.6 U	-	1.5 U

Notes:

-- - Not applicable
U - Not detected at the associated reporting limit
J - Estimated concentration
PCBs - Polychlorinated biphenyls
mg/kg - milligrams per kilogram
ng/g - nanograms per gram
pg/g - picograms per gram
[1] - New York State 6 NYCRR 375-6.8(b) Restricted Use Soil Cleanup Objectives

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		**1619 Master St**	**1625 Nash Road**	**1625 Nash Road**	**1656 Ruie Road**	**1656 Ruie Road**	**1727 Forbes St**	**1727 Forbes St**	**317 Patrice Terrace**	**317 Patrice Terrace**
Sample ID:		**SO-11137465-011619-130S**	**NSH135S**	**SO-11137465-011619-135S**	**NSH200S**	**SO-11137465-011519-200S**	**NSH139S**	**SO-11137465-011619-139S**	**NSH-163S**	**NSH-163S 317 PATRICE TERRACE ALS SPLIT**
Sample Date:		**1/16/2019**	**1/16/2019**	**1/16/2019**	**1/15/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**2/7/2019**	**2/7/2019**
Sample Depth:		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Parameters	**Units**								**(Buffalo Sample)**	**(Buffalo Sample)**
Volatile Organic Compounds										
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	0.032 U	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	0.032 U	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	0.032 U	-
Acetone	mg/kg	-	-	-	-	-	-	-	0.032 U	-
Benzene	mg/kg	0.0062 U	-	0.0075 U	-	0.0058 U	-	0.002 U	0.0065 U	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Bromoform	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	0.0065 UJ	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Ethylbenzene	mg/kg	0.0062 U	-	0.0075 U	-	0.0058 U	-	0.002 U	0.0065 U	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
m&p-Xylenes	mg/kg	0.012 U	-	0.015 U	-	0.012 U	-	0.004 U	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	0.032 U	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
o-Xylene	mg/kg	0.0062 U	-	0.0075 U	-	0.0058 U	-	0.002 U	-	-
Styrene	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Toluene	mg/kg	0.00066 J	-	0.0075 U	-	0.0058 U	-	0.002 U	0.0065 U	-
Total BTEX	mg/kg	0.012 U	-	0.015 U	-	0.012 U	-	0.004 U	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	0.0065 U	-
Xylenes (total)	mg/kg	0.012 U	-	0.015 U	-	0.012 U	-	0.004 U	0.013 U	-
Semi-volatile Organic Compounds										
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
2,4,5-Trichlorophenol	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
2,4,6-Trichlorophenol	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
2,4-Dichlorophenol	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
2,4-Dimethylphenol	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
2,4-Dinitrophenol	mg/kg	-	4.7 U	-	2.4 U	-	2.3 U	-	2.7 U	2.6 U
2,4-Dinitrotoluene	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
2,6-Dinitrotoluene	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
2-Chloronaphthalene	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
2-Chlorophenol	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
2-Methylnaphthalene	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
2-Methylphenol	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
2-Nitroaniline	mg/kg	-	0.94 U	-	0.48 U	-	0.45 U	-	0.53 U	0.51 U
2-Nitrophenol	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
3,3'-Dichlorobenzidine	mg/kg	-	0.94 U	-	0.48 U	-	0.45 U	-	0.53 U	0.51 U
3-Nitroaniline	mg/kg	-	0.94 U	-	0.48 U	-	0.45 U	-	0.53 U	0.51 U
4,6-Dinitro-2-methylphenol	mg/kg	-	0.94 U	-	0.48 U	-	0.45 U	-	0.53 U	0.51 U
4-Bromophenyl phenyl ether	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
4-Chloro-3-methylphenol	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
4-Chloroaniline	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		**1619 Master St**	**1625 Nash Road**	**1625 Nash Road**	**1656 Ruie Road**	**1656 Ruie Road**	**1727 Forbes St**	**1727 Forbes St**	**317 Patrice Terrace**	**317 Patrice Terrace**
Sample ID:		**SO-11137465-011619-130S**	**NSH135S**	**SO-11137465-011619-135S**	**NSH200S**	**SO-11137465-011519-200S**	**NSH139S**	**SO-11137465-011619-139S**	**NSH-163S**	**NSH-163S 317 PATRICE TERRACE ALS SPLIT**
Sample Date:		**1/16/2019**	**1/16/2019**	**1/16/2019**	**1/15/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**2/7/2019**	**2/7/2019**
Sample Depth:		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Parameters	**Units**								**(Buffalo Sample)**	**(Buffalo Sample)**
Semi-volatile Organic Compounds (cont'd)										
4-Chlorophenyl phenyl ether	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
4-Methylphenol	mg/kg	-	0.94 U	-	0.48 U	-	0.45 U	-	0.53 U	0.51 U
4-Nitroaniline	mg/kg	-	0.94 U	-	0.48 U	-	0.45 U	-	0.53 U	0.51 U
4-Nitrophenol	mg/kg	-	0.94 U	-	0.48 U	-	0.45 U	-	0.53 U	0.51 U
Acenaphthene	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Acenaphthylene	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Acetophenone	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Anthracene	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Atrazine	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Benzaldehyde	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Benzo(a)anthracene	mg/kg	-	0.067 J	-	0.031 J	-	0.22 J	-	0.27 U	0.26 U
Benzo(a)pyrene	mg/kg	-	0.095 J	-	0.25 U	-	0.24	-	0.27 U	0.26 U
Benzo(b)fluoranthene	mg/kg	-	0.16 J	-	0.25 U	-	0.33	-	0.27 U	0.26 U
Benzo(g,h,i)perylene	mg/kg	-	0.089 J	-	0.25 U	-	0.19 J	-	0.27 U	0.034 J
Benzo(k)fluoranthene	mg/kg	-	0.49 U	-	0.25 U	-	0.14 J	-	0.27 U	0.26 U
Biphenyl (1,1-Biphenyl)	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
bis(2-Chloroethoxy)methane	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
bis(2-Chloroethyl)ether	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Butyl benzylphthalate (BBP)	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Caprolactam	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Carbazole	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Chrysene	mg/kg	-	0.49 U	-	0.25 U	-	0.26	-	0.27 U	0.26 U
Dibenz(a,h)anthracene	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Dibenzofuran	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Diethyl phthalate	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Dimethyl phthalate	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Di-n-butylphthalate (DBP)	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Di-n-octyl phthalate (DnOP)	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Fluoranthene	mg/kg	-	0.12 J	-	0.065 J	-	0.49	-	0.039 J	0.047 J
Fluorene	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Hexachlorobenzene	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Hexachlorobutadiene	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Hexachlorocyclopentadiene	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Hexachloroethane	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Indeno(1,2,3-cd)pyrene	mg/kg	-	0.076 J	-	0.25 U	-	0.15 J	-	0.27 U	0.26 U
Isophorone	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Naphthalene	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Nitrobenzene	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
N-Nitrosodi-n-propylamine	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
N-Nitrosodiphenylamine	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Pentachlorophenol	mg/kg	-	0.94 U	-	0.48 U	-	0.45 U	-	0.53 U	0.51 U
Phenanthrene	mg/kg	-	0.49 U	-	0.25 U	-	0.18 J	-	0.27 U	0.26 U
Phenol	mg/kg	-	0.49 U	-	0.25 U	-	0.23 U	-	0.27 U	0.26 U
Pyrene	mg/kg	-	0.1 J	-	0.063 J	-	0.4	-	0.04 J	0.041 J
Metals										
Antimony	mg/kg	-	-	-	-	-	-	-	0.26 J	0.28 J
Arsenic	mg/kg	-	3.3	-	2.8 J	-	3.7	-	4.7	4.4
Barium	mg/kg	-	54.8	-	52.3	-	44.5	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	0.63	0.59
Cadmium	mg/kg	-	0.34	-	0.30	-	0.28	-	0.46	0.45
Chromium	mg/kg	-	12.7	-	14.1	-	12.7	-	15.8	14.8
Copper	mg/kg	-	-	-	-	-	-	-	16.7	16.0
Lead	mg/kg	-	22.9	-	18.6	-	23.5	-	27.1	25.6
Mercury	mg/kg	-	0.060	-	0.041	-	0.056	-	0.062	0.061
Selenium	mg/kg	-	5.9 U	-	5.7 U	-	5.6 U	-	1.3	1.1
Silver	mg/kg	-	0.88 U	-	0.86 U	-	0.83 U	-	0.076 J	0.070 J
Thallium	mg/kg	-	-	-	-	-	-	-	0.16 J	0.16
Titanium	mg/kg	-	-	-	-	-	-	-	218	223
Zinc	mg/kg	-	-	-	-	-	-	-	86.2	87.2
PCBs										
(PCB 1) 2-Chlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.00092 J
(PCB 10) 2,6-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 103) 2,2',4,5',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 104) 2,2',4,6,6'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 105) 2,3,3',4,4'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.081	0.093
(PCB 106) 2,3,3',4,5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 107) 2,3,3',4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.018	0.020
(PCB 108/124) 2,3,3',4,5'-Pentachlorobiphenyl/2,3',4',5,5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0095 J	0.0086 J
(PCB 11) 3,3'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.032 U	0.032 U
(PCB 110/115) 2,3,3',4',6-Pentachlorobiphenyl/2,3,4,4',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.057 J	0.11
(PCB 111) 2,3,3',5,5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		1619 Master St	1625 Nash Road	1625 Nash Road	1656 Ruie Road	1656 Ruie Road	1727 Forbes St	1727 Forbes St	317 Patrice Terrace	317 Patrice Terrace
Sample ID:		**SO-11137465-011619-130S**	**NSH135S**	**SO-11137465-011619-135S**	**NSH200S**	**SO-11137465-011519-200S**	**NSH139S**	**SO-11137465-011619-139S**	**NSH-163S**	**NSH-163S 317 PATRICE TERRACE ALS SPLIT**
Sample Date:		**1/16/2019**	**1/16/2019**	**1/16/2019**	**1/15/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**2/7/2019**	**2/7/2019**
Sample Depth:		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Parameters	**Units**								**(Buffalo Sample)**	**(Buffalo Sample)**
PCBs (cont'd)										
(PCB 112) 2,3,3',5,6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 114) 2,3,4,4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.0065 J
(PCB 118) 2,3',4,4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.16	0.17
(PCB 12/13) 3,4-Dichlorobiphenyl/3,4'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.032 U	0.032 U
(PCB 120) 2,3',4,5,5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 121) 2,3',4,5',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 122) 2,3,3',4',5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 123) 2',3,4,4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0040 J	0.0092 J
(PCB 126) 3,3',4,4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0054 J	0.0094 J
(PCB 127) 3,3',4,5,5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 128/166) 2,2',3,3',4,4'-Hexachlorobiphenyl/2,3,4,4',5,6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.050	0.062
(PCB 129/138/160/163) Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.34	0.38
(PCB 130) 2,2',3,3',4,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.014 J	0.021 J
(PCB 131) 2,2',3,3',4,6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 132) 2,2',3,3',4,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.019 J	0.034
(PCB 133) 2,2',3,3',5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0048 J	0.0052 J
(PCB 134/143) 2,2',3,3',5,6-Hexachlorobiphenyl/2,2',3,4,5,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.032 U	0.0058 J
(PCB 135/151) 2,2',3,3',5,6'-Hexachlorobiphenyl/2,2',3,5,5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.034 J	0.046
(PCB 136) 2,2',3,3',6,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0026 J	0.011 J
(PCB 137) 2,2',3,4,4',5-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.018	0.019
(PCB 139/140) 2,2',3,4,4',6-Hexachlorobiphenyl/2,2',3,4,4',6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.032 U	0.032 U
(PCB 14) 3,5-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 141) 2,2',3,4,5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.031	0.043
(PCB 142) 2,2',3,4,5,6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 144) 2,2',3,4,5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0019 J	0.0077 J
(PCB 145) 2,2',3,4,6,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 146) 2,2',3,4',5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.039 J	0.048
(PCB 147/149) 2,2',3,4',5,6-Hexachlorobiphenyl/2,2',3,4',5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.065 J	0.11
(PCB 148) 2,2',3,4',5,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 15) 4,4'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0065 J	0.0058 J
(PCB 150) 2,2',3,4',6,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 152) 2,2',3,5,6,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 153/168) 2,2',4,4',5,5'-Hexachlorobiphenyl/2,3',4,4',5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.27	0.29
(PCB 154) 2,2',4,4',5,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0018 J	0.016 U
(PCB 155) 2,2',4,4',6,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 156/157) 2,3,3',4,4',5-Hexachlorobiphenyl/2,3,3',4,4',5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.039	0.054
(PCB 158) 2,3,3',4,4',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.024	0.028 J
(PCB 159) 2,3,3',4,5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 16) 2,2',3-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0039 J	0.0017 J
(PCB 161) 2,3,3',4,5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 162) 2,3,3',4',5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 164) 2,3,3',4',5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.015 J	0.020
(PCB 165) 2,3,3',5,5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 167) 2,3',4,4',5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.014 J	0.022
(PCB 169) 3,3',4,4',5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 17) 2,2',4-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 170) 2,2',3,3',4,4',5-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.082	0.084 J
(PCB 171/173) 2,2',3,3',4,4',6-Heptachlorobiphenyl/2,2',3,3',4,5,6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.012 J	0.015 J
(PCB 172) 2,2',3,3',4,5,5'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.011 J	0.022
(PCB 174) 2,2',3,3',4,5,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.064	0.070
(PCB 175) 2,2',3,3',4,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.0025 J
(PCB 176) 2,2',3,3',4,6,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0025 J	0.0037 J
(PCB 177) 2,2',3,3',4',5,6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.033	0.043
(PCB 178) 2,2',3,3',5,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.017 J	0.024
(PCB 179) 2,2',3,3',5,6,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.025	0.023
(PCB 18/30) 2,2',5-Trichlorobiphenyl/2,4,6-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0056 J	0.0051 J
(PCB 180/193) 2,2',3,4,4',5,5'-Heptachlorobiphenyl/2,3,3',4',5,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.16	0.17
(PCB 181) 2,2',3,4,4',5,6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 182) 2,2',3,4,4',5,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 183/185) 2,2',3,4,4',5',6-Heptachlorobiphenyl/2,2',3,4,5,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.032 J	0.038
(PCB 184) 2,2',3,4,4',6,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 186) 2,2',3,4,5,6,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 187) 2,2',3,4',5,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.12	0.13
(PCB 188) 2,2',3,4',5,6,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 189) 2,3,3',4,4',5,5'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0039 J	0.0070 J
(PCB 19) 2,2',6-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 190) 2,3,3',4,4',5,6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016	0.018
(PCB 191) 2,3,3',4,4',5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0021 J	0.0039 J
(PCB 192) 2,3,3',4,5,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 194) 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.056	0.054
(PCB 195) 2,2',3,3',4,4',5,6-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.017	0.017 J
(PCB 196) 2,2',3,3',4,4',5,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.019	0.018
(PCB 197) 2,2',3,3',4,4',6,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0014 J	0.0016 J
(PCB 198/199) 2,2',3,3',4,5,5',6-Octachlorobiphenyl/2,2',3,3',4,5,5',6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.11	0.11

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		1619 Master St	1625 Nash Road	1625 Nash Road	1656 Ruie Road	1656 Ruie Road	1727 Forbes St	1727 Forbes St	317 Patrice Terrace	317 Patrice Terrace
Sample ID:		**SO-11137465-011619-130S**	**NSH135S**	**SO-11137465-011619-135S**	**NSH200S**	**SO-11137465-011519-200S**	**NSH139S**	**SO-11137465-011619-139S**	**NSH-163S**	**NSH-163S 317 PATRICE TERRACE ALS SPLIT**
Sample Date:		**1/16/2019**	**1/16/2019**	**1/16/2019**	**1/15/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**2/7/2019**	**2/7/2019**
Sample Depth:		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Parameters	**Units**								**(Buffalo Sample)**	**(Buffalo Sample)**
PCBs (cont'd)										
(PCB 2) 3-Chlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 20/28) 2,3,3'-Trichlorobiphenyl/2,4,4'-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0096 J	0.0086 J
(PCB 200) 2,2',3,3',4,5,6,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0059 J	0.0046 J
(PCB 201) 2,2',3,3',4,5',6,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0057 J	0.0043 J
(PCB 202) 2,2',3,3',5,5',6,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.027 J	0.030
(PCB 203) 2,2',3,4,4',5,5',6-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.050	0.054
(PCB 204) 2,2',3,4,4',5,6,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 205) 2,3,3',4,4',5,5',6-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.0023 J
(PCB 206) 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.086	0.083
(PCB 207) 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.018	0.016
(PCB 208) 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.036 J	0.047
(PCB 209) Decachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.26	0.28
(PCB 21/33) 2,3,4-Trichlorobiphenyl/2',3,4-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0039 J	0.0029 J
(PCB 22) 2,3,4'-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0030 J	0.0028 J
(PCB 23) 2,3,5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 24) 2,3,6-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 25) 2,3',4-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 26/29) 2,3',5-Trichlorobiphenyl/2,4,5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0010 J	0.00039 J
(PCB 27) 2,3',6-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 3) 4-Monochlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 31) 2,4',5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.010 J	0.0073 J
(PCB 32) 2,4',6-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0015 J	0.016 U
(PCB 34) 2,3',5'-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 35) 3,3',4-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 36) 3,3',5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 37) 3,4,4'-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0076 J	0.0076 J
(PCB 38) 3,4,5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 39) 3,4',5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 4) 2,2'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.032 U	0.032 U
(PCB 40/41/71) 2,2',3,3'-TeCB/ 2,2',3,4-TeCB/2,3',4',6-TeCB	ng/g	-	-	-	-	-	-	-	0.0042 J	0.048 U
(PCB 42) 2,2',3,4'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0017 J	0.016 U
(PCB 43/73) 2,2',3,5-Tetrachlorobiphenyl/2,3',5',6-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.032 U	0.032 U
(PCB 44/47/65) 2,2',3,5'-Tetrachlorobiphenyl/2,2',4,4'-Tetrachlorobiphenyl/2,3,5,6-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.014 J	0.014 J
(PCB 45/51) 2,2',3,6-Tetrachlorobiphenyl/2,2',4,6'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.032 U	0.032 U
(PCB 46) 2,2',3,6'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 48) 2,2',4,5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0014 J	0.016 U
(PCB 49/69) 2,2',4,5'-Tetrachlorobiphenyl/2,3',4,6-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0070 J	0.011 J
(PCB 5) 2,3-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 50/53) 2,2',4,6-Tetrachlorobiphenyl/2,2',5,6'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0014 J	0.032 U
(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 J	0.025
(PCB 54) 2,2',6,6'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 55) 2,3,3',4-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 56) 2,3,3',4'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0058 J	0.0061 J
(PCB 57) 2,3,3',5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 58) 2,3,3',5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 59/62/75) 2,3,3',6-Tetrachlorobiphenyl/2,3,4,6-Tetrachlorobiphenyl/ 2,4,4',6-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.00065 J	0.048 U
(PCB 6) 2,3'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 60) 2,3,4,4'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0053 J	0.0082 J
(PCB 61/70/74/76) 2,3,4,5-Tetrachlorobiphenyl/2,3',4',5-Tetrachlorobiphenyl/2,4,4',5-Tetrachlorobiphenyl/2,3',4',5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.040 J	0.044 J
(PCB 63) 2,3,4',5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.00094 J	0.016 U
(PCB 64) 2,3,4',6-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0049 J	0.0061 J
(PCB 66) 2,3',4,4'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.020	0.020
(PCB 67) 2,3',4,5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 68) 2,3',4,5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0011 J	0.016 U
(PCB 7) 2,4-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 72) 2,3',5,5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 77) 3,3',4,4'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0075 J	0.014 J
(PCB 78) 3,3',4,5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 79) 3,3',4,5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 8) 2,4'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0039 J	0.0034 J
(PCB 80) 3,3',5,5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 81) 3,4,4',5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 82) 2,2',3,3',4-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0037 J	0.0084 J
(PCB 83/99) 2,2',3,3',5-Pentachlorobiphenyl/2,2',4,4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.059	0.079
(PCB 84) 2,2',3,3',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0036 J	0.019
(PCB 85/116/117) 2,2',3,4,4'-PeCB/2,3,4,5,6-PeCB/2,3,4',5,6-PeCB	ng/g	-	-	-	-	-	-	-	0.039 J	0.042 J
(PCB 86/87/97/109/119/125) 2,2',3,4,5-PeCB/ 2,2',3,4,5'-PeCB/2,2',3',4,5-PeCB/2,3,3',4,6-PeCB/2,3',4,4',6-PeCB/2',3,4,5,6'-PeCB	ng/g	-	-	-	-	-	-	-	0.032 J	0.060 J
(PCB 88/91) 2,2',3,4,6-Pentachlorobiphenyl/2,2',3,4',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0034 J	0.010 J
(PCB 89) 2,2',3,4,6'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 9) 2,5-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 90/101/113) 2,2',3,4',5-Pentachlorobiphenyl/2,2',4,5,5'-Pentachlorobiphenyl/2,3,3',5',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.055	0.10
(PCB 92) 2,2',3,5,5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.0087 J	0.019
(PCB 93/100) 2,2',3,5,6-Pentachlorobiphenyl/2,2',4,4',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.032 U	0.032 U
(PCB 94) 2,2',3,5,6'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		**1619 Master St**	**1625 Nash Road**	**1625 Nash Road**	**1656 Ruie Road**	**1656 Ruie Road**	**1727 Forbes St**	**1727 Forbes St**	**317 Patrice Terrace**	**317 Patrice Terrace**
Sample ID:		**SO-11137465-011619-130S**	**NSH135S**	**SO-11137465-011619-135S**	**NSH200S**	**SO-11137465-011519-200S**	**NSH139S**	**SO-11137465-011619-139S**	**NSH-163S**	**NSH-163S 317 PATRICE TERRACE ALS SPLIT**
Sample Date:		**1/16/2019**	**1/16/2019**	**1/16/2019**	**1/15/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**2/7/2019**	**2/7/2019**
Sample Depth:		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Parameters	**Units**								**(Buffalo Sample)**	**(Buffalo Sample)**
PCBs (cont'd)										
(PCB 95) 2,2',3,5',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.020 J	0.059
(PCB 96) 2,2',3,6,6'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.016 U	0.016 U
(PCB 98/102) 2,2',3,4',6'-Pentachlorobiphenyl/2,2',4,5,6'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	0.032 U	0.032 U
Aroclor-1016 (PCB-1016)	mg/kg	-	0.29 U	-	0.28 U	-	0.32 U	-	-	-
Aroclor-1221 (PCB-1221)	mg/kg	-	0.29 U	-	0.28 U	-	0.32 U	-	-	-
Aroclor-1232 (PCB-1232)	mg/kg	-	0.29 U	-	0.28 U	-	0.32 U	-	-	-
Aroclor-1242 (PCB-1242)	mg/kg	-	0.29 U	-	0.28 U	-	0.32 U	-	-	-
Aroclor-1248 (PCB-1248)	mg/kg	-	0.29 U	-	0.28 U	-	0.32 U	-	-	-
Aroclor-1254 (PCB-1254)	mg/kg	-	0.29 UJ	-	0.28 U	-	0.32 U	-	-	-
Aroclor-1260 (PCB-1260)	mg/kg	-	0.29 UJ	-	0.28 U	-	0.32 U	-	-	-
Pesticides										
4,4'-DDD	mg/kg	-	0.0025 U	-	0.012 U	-	0.0022 U	-	0.0054 U	0.0026 U
4,4'-DDE	mg/kg	-	0.0018 J	-	0.0057 J	-	0.0022 U	-	0.0054 U	0.0026 U
4,4'-DDT	mg/kg	-	0.0025 U	-	0.0067 J	-	0.0022 U	-	0.0031 J	0.0026 U
Aldrin	mg/kg	-	0.0025 U	-	0.012 U	-	0.0022 U	-	0.0054 U	0.0026 U
alpha-BHC	mg/kg	-	0.0025 U	-	0.012 U	-	0.0022 U	-	0.0054 U	0.0026 U
alpha-Chlordane	mg/kg	-	0.0022 J	-	0.012 U	-	0.0046	-	0.0054 U	0.0026 U
beta-BHC	mg/kg	-	0.0025 U	-	0.012 U	-	0.0023	-	0.0054 U	0.0026 U
delta-BHC	mg/kg	-	0.0025 U	-	0.012 U	-	0.0022 U	-	0.0054 U	0.0026 U
Dieldrin	mg/kg	-	0.0025 U	-	0.012 U	-	0.0022 U	-	0.0054 U	0.0026 U
Endosulfan I	mg/kg	-	0.0025 U	-	0.012 U	-	0.0022 U	-	0.0054 U	0.0026 U
Endosulfan II	mg/kg	-	0.0025 U	-	0.012 U	-	0.0022 U	-	0.0054 U	0.0026 U
Endosulfan sulfate	mg/kg	-	0.0025 U	-	0.012 U	-	0.0022 U	-	0.0054 U	0.0026 U
Endrin	mg/kg	-	0.0025 U	-	0.012 U	-	0.0022 U	-	0.0054 U	0.0026 U
Endrin aldehyde	mg/kg	-	0.0025 U	-	0.012 U	-	0.0022 U	-	0.0054 U	0.0026 U
Endrin ketone	mg/kg	-	0.0025 U	-	0.012 U	-	0.0022 U	-	0.0054 U	0.0026 U
gamma-BHC (lindane)	mg/kg	-	0.0025 U	-	0.012 U	-	0.0022 U	-	0.0054 U	0.0026 U
gamma-Chlordane	mg/kg	-	0.0025 U	-	0.012 U	-	0.0022 U	-	0.0054 U	0.0026 U
Heptachlor	mg/kg	-	0.0025 U	-	0.012 U	-	0.0022 U	-	0.0054 U	0.0026 U
Heptachlor epoxide	mg/kg	-	0.002 J	-	0.012 U	-	0.0022 U	-	0.0054 U	0.0026 U
Methoxychlor	mg/kg	-	0.0025 U	-	0.0045 J	-	0.0022 U	-	0.0054 U	0.0026 U
Toxaphene	mg/kg	-	0.025 U	-	0.12 U	-	0.022 U	-	0.054 U	0.026 U
Dioxin Furans										
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	pg/g	-	16	-	6.0 J	-	220	-	23	23
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	pg/g	-	110	-	19	-	100	-	210	200
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	pg/g	-	11	-	3.8 J	-	180	-	13	12 J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	pg/g	-	14	-	2.7 J	-	15	-	32	31
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	pg/g	-	7.1 U	-	7.0 U	-	5.0 J	-	0.67 J	0.90 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	-	2.8 J	-	0.88 J	-	15	-	2.6 J	2.4 J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	-	7.1 U	-	0.14 J	-	6.7 U	-	0.80 J	0.99 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	-	0.96 J	-	0.43 J	-	7.4	-	1.7 J	1.3 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	-	0.52 J	-	7.0 U	-	1.2 J	-	1.8 J	1.6 J
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	pg/g	-	7.1 U	-	7.0 U	-	6.7 U	-	4.0 U	4.8 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	-	7.1 U	-	0.27 J	-	6.7 U	-	1.9 J	1.9 J
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	-	7.1 U	-	7.0 U	-	6.7 U	-	4.0 U	0.41 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	pg/g	-	7.1 U	-	7.0 U	-	0.79 J	-	0.66 J	0.82 J
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	-	7.1 U	-	7.0 U	-	1.3 J	-	0.94 J	1.1 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	-	7.1 U	-	7.0 U	-	6.7 U	-	0.77 J	0.60 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	pg/g	-	1.4 U	-	0.19 J	-	0.47 J	-	0.79 J	0.92 J
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/g	-	1.4 U	-	1.4 U	-	0.17 J	-	0.28 J	0.24 J

Notes:

-- - Not applicable
U - Not detected at the associated reporting limit
J - Estimated concentration
PCBs - Polychlorinated biphenyls
mg/kg - milligrams per kilogram
ng/g - nanograms per gram
pg/g - picograms per gram
[1] - New York State 6 NYCRR 375-6.8(b) Restricted Use Soil Cleanup Objectives

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		317 Patrice Terrace	317 Patrice Terrace	3295 Evergreen Dr	3295 Evergreen Dr	6 Southwind Trail	6 Southwind Trail
Sample ID:		NSH-164S	NSH-164S 317 PATRICE TERRACE ALS SPLIT	NSH206S	SO-11137465-011519-206S	NSH-152S	NSH-152S 6 SOUTHWIND TRAIL ALS SPLIT
Sample Date:		2/7/2019	2/7/2019	1/15/2019	1/15/2019	2/7/2019	2/7/2019
Sample Depth:		-	-	-	-	-	-
		(Duplicate)	(Duplicate)				
Parameters	**Units**	**(Buffalo Sample)**	**(Buffalo Sample)**			**(Buffalo Sample)**	**(Buffalo Sample)**
Volatile Organic Compounds							
1,1,1-Trichloroethane	mg/kg	0.0093 U	-	-	-	0.0066 U	-
1,1,2,2-Tetrachloroethane	mg/kg	0.0093 U	-	-	-	0.0066 U	-
1,1,2-Trichloroethane	mg/kg	0.0093 U	-	-	-	0.0066 U	-
1,1-Dichloroethane	mg/kg	0.0093 U	-	-	-	0.0066 U	-
1,1-Dichloroethene	mg/kg	0.0093 U	-	-	-	0.0066 U	-
1,2,4-Trichlorobenzene	mg/kg	0.0093 U	-	-	-	0.0066 U	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.0093 U	-	-	-	0.0066 U	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	0.0093 U	-	-	-	0.0066 U	-
1,2-Dichlorobenzene	mg/kg	0.0093 U	-	-	-	0.0066 U	-
1,2-Dichloroethane	mg/kg	0.0093 U	-	-	-	0.0066 U	-
1,2-Dichloropropane	mg/kg	0.0093 U	-	-	-	0.0066 U	-
1,3-Dichlorobenzene	mg/kg	0.0093 U	-	-	-	0.0066 U	-
1,4-Dichlorobenzene	mg/kg	0.0093 U	-	-	-	0.0066 U	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	0.047 U	-	-	-	0.033 U	-
2-Hexanone	mg/kg	0.047 U	-	-	-	0.033 U	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	0.047 U	-	-	-	0.033 U	-
Acetone	mg/kg	0.047 U	-	-	-	0.033 U	-
Benzene	mg/kg	0.0093 U	-	-	0.011 U	0.0066 U	-
Bromodichloromethane	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Bromoform	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Bromomethane (Methyl bromide)	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Carbon disulfide	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Carbon tetrachloride	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Chlorobenzene	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Chloroethane	mg/kg	0.0093 UJ	-	-	-	0.0066 UJ	-
Chloroform (Trichloromethane)	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Chloromethane (Methyl chloride)	mg/kg	0.0093 U	-	-	-	0.0066 U	-
cis-1,2-Dichloroethene	mg/kg	0.0093 U	-	-	-	0.0066 U	-
cis-1,3-Dichloropropene	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Cyclohexane	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Dibromochloromethane	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Dichlorodifluoromethane (CFC-12)	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Ethylbenzene	mg/kg	0.0093 U	-	-	0.011 U	0.0066 U	-
Isopropyl benzene	mg/kg	0.0093 U	-	-	-	0.0066 U	-
m&p-Xylenes	mg/kg	-	-	-	0.022 U	-	-
Methyl acetate	mg/kg	0.047 U	-	-	-	0.017 J	-
Methyl cyclohexane	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Methyl tert butyl ether (MTBE)	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Methylene chloride	mg/kg	0.0093 U	-	-	-	0.0066 U	-
o-Xylene	mg/kg	-	-	-	0.011 U	-	-
Styrene	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Tetrachloroethene	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Toluene	mg/kg	0.0093 U	-	-	0.011 U	0.0066 U	-
Total BTEX	mg/kg	-	-	-	0.022 U	-	-
trans-1,2-Dichloroethene	mg/kg	0.0093 U	-	-	-	0.0066 U	-
trans-1,3-Dichloropropene	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Trichloroethene	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Trichlorofluoromethane (CFC-11)	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Trifluorotrichloroethane (CFC-113)	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Vinyl chloride	mg/kg	0.0093 U	-	-	-	0.0066 U	-
Xylenes (total)	mg/kg	0.019 U	-	-	0.022 U	0.013 U	-
Semi-volatile Organic Compounds							
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
2,4,5-Trichlorophenol	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
2,4,6-Trichlorophenol	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
2,4-Dichlorophenol	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
2,4-Dimethylphenol	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
2,4-Dinitrophenol	mg/kg	2.6 U	2.6 U	5.1 U	-	2.2 U	2.4 U
2,4-Dinitrotoluene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
2,6-Dinitrotoluene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
2-Chloronaphthalene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
2-Chlorophenol	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
2-Methylnaphthalene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
2-Methylphenol	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
2-Nitroaniline	mg/kg	0.52 U	0.51 U	1 U	-	0.44 U	0.47 U
2-Nitrophenol	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
3,3'-Dichlorobenzidine	mg/kg	0.52 U	0.51 U	1 U	-	0.44 U	0.47 U
3-Nitroaniline	mg/kg	0.52 U	0.51 U	1 U	-	0.44 U	0.47 U
4,6-Dinitro-2-methylphenol	mg/kg	0.52 U	0.51 U	1 U	-	0.44 U	0.47 U
4-Bromophenyl phenyl ether	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
4-Chloro-3-methylphenol	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
4-Chloroaniline	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		317 Patrice Terrace	317 Patrice Terrace	3295 Evergreen Dr	3295 Evergreen Dr	6 Southwind Trail	6 Southwind Trail
Sample ID:		NSH-164S	NSH-164S 317 PATRICE TERRACE ALS SPLIT	NSH206S	SO-11137465-011519-206S	NSH-152S	NSH-152S 6 SOUTHWIND TRAIL ALS SPLIT
Sample Date:		2/7/2019	2/7/2019	1/15/2019	1/15/2019	2/7/2019	2/7/2019
Sample Depth:		-	-	-	-	-	-
		(Duplicate)	(Duplicate)				
Parameters	**Units**	**(Buffalo Sample)**	**(Buffalo Sample)**			**(Buffalo Sample)**	**(Buffalo Sample)**
Semi-volatile Organic Compounds (cont'd)							
4-Chlorophenyl phenyl ether	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
4-Methylphenol	mg/kg	0.52 U	0.51 U	1 U	-	0.44 U	0.47 U
4-Nitroaniline	mg/kg	0.52 U	0.51 U	1 U	-	0.44 U	0.47 U
4-Nitrophenol	mg/kg	0.52 U	0.51 U	1 U	-	0.44 U	0.47 U
Acenaphthene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Acenaphthylene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Acetophenone	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Anthracene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Atrazine	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Benzaldehyde	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Benzo(a)anthracene	mg/kg	0.03 J	0.26 U	0.53 U	-	0.058 J	0.039 J
Benzo(a)pyrene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.062 J	0.049 J
Benzo(b)fluoranthene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.097 J	0.056 J
Benzo(g,h,i)perylene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.05 J	0.043 J
Benzo(k)fluoranthene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.039 J	0.24 U
Biphenyl (1,1-Biphenyl)	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
bis(2-Chloroethoxy)methane	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
bis(2-Chloroethyl)ether	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Butyl benzylphthalate (BBP)	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Caprolactam	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Carbazole	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Chrysene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Dibenz(a,h)anthracene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Dibenzofuran	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Diethyl phthalate	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Dimethyl phthalate	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Di-n-butylphthalate (DBP)	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Di-n-octyl phthalate (DnOP)	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Fluoranthene	mg/kg	0.047 J	0.037 J	0.53 U	-	0.1 J	0.086 J
Fluorene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Hexachlorobenzene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Hexachlorobutadiene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Hexachlorocyclopentadiene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Hexachloroethane	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.043 J	0.035 J
Isophorone	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Naphthalene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Nitrobenzene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
N-Nitrosodi-n-propylamine	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
N-Nitrosodiphenylamine	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Pentachlorophenol	mg/kg	0.52 U	0.51 U	1 U	-	0.44 U	0.47 U
Phenanthrene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.044 J	0.039 J
Phenol	mg/kg	0.27 U	0.26 U	0.53 U	-	0.23 U	0.24 U
Pyrene	mg/kg	0.27 U	0.26 U	0.53 U	-	0.11 J	0.066 J
Metals							
Antimony	mg/kg	0.24 J	0.19 J	-	-	0.24 J	0.23 J
Arsenic	mg/kg	4.4	3.7	3.7	-	3.6	3.8
Barium	mg/kg	-	-	49.1	-	-	-
Beryllium	mg/kg	0.58	0.46	-	-	0.54	0.52
Cadmium	mg/kg	0.43	0.38	0.19 J	-	0.42	0.41
Chromium	mg/kg	13.8	12.1	13.1	-	14.1	15.0
Copper	mg/kg	15.6	13.2	-	-	17.6	19.0
Lead	mg/kg	23.4	20.5	15.1	-	22.8	25.9
Mercury	mg/kg	0.057	0.062	0.048	-	0.050	0.057
Selenium	mg/kg	1.2	1.0	6.2 U	-	1.1	1.2
Silver	mg/kg	0.071 J	0.055 J	0.94 U	-	0.061 J	0.062 J
Thallium	mg/kg	0.14 J	0.12 J	-	-	0.17	0.19
Titanium	mg/kg	194	197	-	-	134	149
Zinc	mg/kg	77.3	70.0	-	-	68.5	75.0
PCBs							
(PCB 1) 2-Chlorobiphenyl	ng/g	0.0015 J	0.016 U	-	-	0.013 U	0.015 U
(PCB 10) 2,6-Dichlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 103) 2,2',4,5',6-Pentachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 104) 2,2',4,6,6'-Pentachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.0070 J
(PCB 105) 2,3,3',4,4'-Pentachlorobiphenyl	ng/g	0.11	0.089	-	-	0.19	0.15
(PCB 106) 2,3,3',4,5-Pentachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 107) 2,3,3',4',5-Pentachlorobiphenyl	ng/g	0.023	0.013 J	-	-	0.026 J	0.033
(PCB 108/124) 2,3,3',4,5'-Pentachlorobiphenyl/2,3',4',5,5'-Pentachlorobiphenyl	ng/g	0.013 J	0.0074 J	-	-	0.017 J	0.013 J
(PCB 11) 3,3'-Dichlorobiphenyl	ng/g	0.031 U	0.032 U	-	-	0.027 U	0.030 U
(PCB 110/115) 2,3,3',4',6-Pentachlorobiphenyl/2,3,4,4',6-Pentachlorobiphenyl	ng/g	0.14	0.070	-	-	0.37	0.28
(PCB 111) 2,3,3',5,5'-Pentachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		317 Patrice Terrace	317 Patrice Terrace	3295 Evergreen Dr	3295 Evergreen Dr	6 Southwind Trail	6 Southwind Trail
Sample ID:		NSH-164S	NSH-164S 317 PATRICE TERRACE ALS SPLIT	NSH206S	SO-11137465-011519-206S	NSH-152S	NSH-152S 6 SOUTHWIND TRAIL ALS SPLIT
Sample Date:		2/7/2019	2/7/2019	1/15/2019	1/15/2019	2/7/2019	2/7/2019
Sample Depth:		-	-	-	-	-	-
		(Duplicate)	(Duplicate)				
Parameters	**Units**	**(Buffalo Sample)**	**(Buffalo Sample)**			**(Buffalo Sample)**	**(Buffalo Sample)**
PCBs (cont'd)							
(PCB 112) 2,3,3',5,6-Pentachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 114) 2,3,4,4',5-Pentachlorobiphenyl	ng/g	0.0039 J	0.016 U	-	-	0.0064 J	0.0092 J
(PCB 118) 2,3',4,4',5-Pentachlorobiphenyl	ng/g	0.20	0.14	-	-	0.38	0.28
(PCB 12/13) 3,4-Dichlorobiphenyl/3,4'-Dichlorobiphenyl	ng/g	0.031 U	0.032 U	-	-	0.027 U	0.030 U
(PCB 120) 2,3',4,5,5'-Pentachlorobiphenyl	ng/g	0.015 U	0.0026 J	-	-	0.013 U	0.015 U
(PCB 121) 2,3',4,5',6-Pentachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 122) 2,3,3',4',5'-Pentachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.0065 J	0.0079 J
(PCB 123) 2',3,4,4',5-Pentachlorobiphenyl	ng/g	0.0082 J	0.0056 J	-	-	0.0084 J	0.0087 J
(PCB 126) 3,3',4,4',5-Pentachlorobiphenyl	ng/g	0.0055 J	0.0060 J	-	-	0.0036 J	0.015 U
(PCB 127) 3,3',4,5,5'-Pentachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 128/166) 2,2',3,3',4,4'-Hexachlorobiphenyl/2,3,4,4',5,6-Hexachlorobiphenyl	ng/g	0.055	0.050	-	-	0.11	0.086
(PCB 129/138/160/163) Hexachlorobiphenyl	ng/g	0.38	0.33	-	-	0.63	0.51
(PCB 130) 2,2',3,3',4,5'-Hexachlorobiphenyl	ng/g	0.024	0.017	-	-	0.035 J	0.026 J
(PCB 131) 2,2',3,3',4,6-Hexachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 132) 2,2',3,3',4,6'-Hexachlorobiphenyl	ng/g	0.037	0.015 J	-	-	0.11	0.086
(PCB 133) 2,2',3,3',5,5'-Hexachlorobiphenyl	ng/g	0.0040 J	0.0045 J	-	-	0.0068 J	0.0094 J
(PCB 134/143) 2,2',3,3',5,6-Hexachlorobiphenyl/2,2',3,4,5,6'-Hexachlorobiphenyl	ng/g	0.031 U	0.032 U	-	-	0.016 J	0.011 J
(PCB 135/151) 2,2',3,3',5,6'-Hexachlorobiphenyl/2,2',3,5,5',6-Hexachlorobiphenyl	ng/g	0.047	0.035 J	-	-	0.14	0.097 J
(PCB 136) 2,2',3,3',6,6'-Hexachlorobiphenyl	ng/g	0.013 J	0.0042 J	-	-	0.030	0.022
(PCB 137) 2,2',3,4,4',5-Hexachlorobiphenyl	ng/g	0.021	0.016	-	-	0.033	0.022
(PCB 139/140) 2,2',3,4,4',6-Hexachlorobiphenyl/2,2',3,4,4',6'-Hexachlorobiphenyl	ng/g	0.031 U	0.032 U	-	-	0.0081 J	0.0063 J
(PCB 14) 3,5-Dichlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 141) 2,2',3,4,5,5'-Hexachlorobiphenyl	ng/g	0.039	0.026	-	-	0.092	0.068 J
(PCB 142) 2,2',3,4,5,6-Hexachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 144) 2,2',3,4,5',6-Hexachlorobiphenyl	ng/g	0.0021 J	0.0036 J	-	-	0.014	0.015
(PCB 145) 2,2',3,4,6,6'-Hexachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 146) 2,2',3,4',5,5'-Hexachlorobiphenyl	ng/g	0.039 J	0.042	-	-	0.072	0.066
(PCB 147/149) 2,2',3,4',5,6-Hexachlorobiphenyl/2,2',3,4',5',6-Hexachlorobiphenyl	ng/g	0.10	0.069	-	-	0.33	0.25
(PCB 148) 2,2',3,4',5,6'-Hexachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 15) 4,4'-Dichlorobiphenyl	ng/g	0.015 U	0.0051 J	-	-	0.010 J	0.012 J
(PCB 150) 2,2',3,4',6,6'-Hexachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 152) 2,2',3,5,6,6'-Hexachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 153/168) 2,2',4,4',5,5'-Hexachlorobiphenyl/2,3',4,4',5',6-Hexachlorobiphenyl	ng/g	0.28	0.26	-	-	0.44	0.36
(PCB 154) 2,2',4,4',5,6'-Hexachlorobiphenyl	ng/g	0.0016 J	0.016 U	-	-	0.0054 J	0.012 J
(PCB 155) 2,2',4,4',6,6'-Hexachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 156/157) 2,3,3',4,4',5-Hexachlorobiphenyl/2,3,3',4,4',5'-Hexachlorobiphenyl	ng/g	0.036 J	0.042	-	-	0.064 J	0.064
(PCB 158) 2,3,3',4,4',6-Hexachlorobiphenyl	ng/g	0.026	0.027	-	-	0.055	0.043
(PCB 159) 2,3,3',4,5,5'-Hexachlorobiphenyl	ng/g	0.0025 J	0.016 U	-	-	0.0040 J	0.015 U
(PCB 16) 2,2',3-Trichlorobiphenyl	ng/g	0.0033 J	0.016 U	-	-	0.0019 J	0.041
(PCB 161) 2,3,3',4,5',6-Hexachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 162) 2,3,3',4',5,5'-Hexachlorobiphenyl	ng/g	0.0028 J	0.016 U	-	-	0.0014 J	0.015 U
(PCB 164) 2,3,3',4',5',6-Hexachlorobiphenyl	ng/g	0.020	0.016	-	-	0.040	0.034
(PCB 165) 2,3,3',5,5',6-Hexachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 167) 2,3',4,4',5,5'-Hexachlorobiphenyl	ng/g	0.015	0.019	-	-	0.026	0.020
(PCB 169) 3,3',4,4',5,5'-Hexachlorobiphenyl	ng/g	0.0014 J	0.0045 J	-	-	0.013 U	0.015 U
(PCB 17) 2,2',4-Trichlorobiphenyl	ng/g	0.015 U	0.0038 J	-	-	0.0029 J	0.033
(PCB 170) 2,2',3,3',4,4',5-Heptachlorobiphenyl	ng/g	0.073	0.080	-	-	0.14	0.13
(PCB 171/173) 2,2',3,3',4,4',6-Heptachlorobiphenyl/2,2',3,3',4,5,6-Heptachlorobiphenyl	ng/g	0.016 J	0.013 J	-	-	0.036	0.044
(PCB 172) 2,2',3,3',4,5,5'-Heptachlorobiphenyl	ng/g	0.014 J	0.021	-	-	0.027	0.030
(PCB 174) 2,2',3,3',4,5,6'-Heptachlorobiphenyl	ng/g	0.053	0.063	-	-	0.15	0.14
(PCB 175) 2,2',3,3',4,5',6-Heptachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.0047 J	0.015 U
(PCB 176) 2,2',3,3',4,6,6'-Heptachlorobiphenyl	ng/g	0.0032 J	0.0026 J	-	-	0.010 J	0.0090 J
(PCB 177) 2,2',3,3',4',5,6-Heptachlorobiphenyl	ng/g	0.040	0.043	-	-	0.083	0.082
(PCB 178) 2,2',3,3',5,5',6-Heptachlorobiphenyl	ng/g	0.019	0.020 J	-	-	0.035	0.038
(PCB 179) 2,2',3,3',5,6,6'-Heptachlorobiphenyl	ng/g	0.021	0.022	-	-	0.058	0.057
(PCB 18/30) 2,2',5-Trichlorobiphenyl/2,4,6-Trichlorobiphenyl	ng/g	0.0046 J	0.0062 J	-	-	0.0068 J	0.082
(PCB 180/193) 2,2',3,4,4',5,5'-Heptachlorobiphenyl/2,3,3',4',5,5',6-Heptachlorobiphenyl	ng/g	0.16	0.16	-	-	0.30	0.26
(PCB 181) 2,2',3,4,4',5,6-Heptachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 182) 2,2',3,4,4',5,6'-Heptachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 183/185) 2,2',3,4,4',5',6-Heptachlorobiphenyl/2,2',3,4,5,5',6-Heptachlorobiphenyl	ng/g	0.035	0.039	-	-	0.090	0.086
(PCB 184) 2,2',3,4,4',6,6'-Heptachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 186) 2,2',3,4,5,6,6'-Heptachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 187) 2,2',3,4',5,5',6-Heptachlorobiphenyl	ng/g	0.12	0.12	-	-	0.20	0.21
(PCB 188) 2,2',3,4',5,6,6'-Heptachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 189) 2,3,3',4,4',5,5'-Heptachlorobiphenyl	ng/g	0.0046 J	0.016 U	-	-	0.0065 J	0.015 U
(PCB 19) 2,2',6-Trichlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015
(PCB 190) 2,3,3',4,4',5,6-Heptachlorobiphenyl	ng/g	0.016	0.018	-	-	0.030	0.032
(PCB 191) 2,3,3',4,4',5',6-Heptachlorobiphenyl	ng/g	0.015 U	0.0027 J	-	-	0.0034 J	0.015 U
(PCB 192) 2,3,3',4,5,5',6-Heptachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 194) 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	ng/g	0.041 J	0.056	-	-	0.087	0.068
(PCB 195) 2,2',3,3',4,4',5,6-Octachlorobiphenyl	ng/g	0.015	0.017	-	-	0.032	0.033
(PCB 196) 2,2',3,3',4,4',5,6'-Octachlorobiphenyl	ng/g	0.018	0.018	-	-	0.034	0.039
(PCB 197) 2,2',3,3',4,4',6,6'-Octachlorobiphenyl	ng/g	0.0014 J	0.0024 J	-	-	0.0030 J	0.015 U
(PCB 198/199) 2,2',3,3',4,5,5',6-Octachlorobiphenyl/2,2',3,3',4,5,5',6'-Octachlorobiphenyl	ng/g	0.099	0.11	-	-	0.13	0.13 J

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		317 Patrice Terrace	317 Patrice Terrace	3295 Evergreen Dr	3295 Evergreen Dr	6 Southwind Trail	6 Southwind Trail
Sample ID:		NSH-164S	NSH-164S 317 PATRICE TERRACE ALS SPLIT	NSH206S	SO-11137465-011519-206S	NSH-152S	NSH-152S 6 SOUTHWIND TRAIL ALS SPLIT
Sample Date:		2/7/2019	2/7/2019	1/15/2019	1/15/2019	2/7/2019	2/7/2019
Sample Depth:		-	-	-	-	-	-
		(Duplicate)	(Duplicate)				
Parameters	**Units**	**(Buffalo Sample)**	**(Buffalo Sample)**			**(Buffalo Sample)**	**(Buffalo Sample)**
PCBs (cont'd)							
(PCB 2) 3-Chlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 20/28) 2,3,3'-Trichlorobiphenyl/2,4,4'-Trichlorobiphenyl	ng/g	0.0094 J	0.011 J	-	-	0.016 J	0.060
(PCB 200) 2,2',3,3',4,5,6,6'-Octachlorobiphenyl	ng/g	0.0043 J	0.0055 J	-	-	0.0083 J	0.015
(PCB 201) 2,2',3,3',4,5',6,6'-Octachlorobiphenyl	ng/g	0.0050 J	0.0062 J	-	-	0.0095 J	0.010 J
(PCB 202) 2,2',3,3',5,5',6,6'-Octachlorobiphenyl	ng/g	0.028	0.029	-	-	0.027 J	0.046
(PCB 203) 2,2',3,4,4',5,5',6-Octachlorobiphenyl	ng/g	0.048	0.055	-	-	0.075	0.065 J
(PCB 204) 2,2',3,4,4',5,6,6'-Octachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 205) 2,3,3',4,4',5,5',6-Octachlorobiphenyl	ng/g	0.0022 J	0.0027 J	-	-	0.0053 J	0.015 U
(PCB 206) 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	ng/g	0.078	0.088	-	-	0.091	0.082
(PCB 207) 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	ng/g	0.014 J	0.015 J	-	-	0.012 J	0.014 J
(PCB 208) 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	ng/g	0.037	0.048	-	-	0.039	0.038
(PCB 209) Decachlorobiphenyl	ng/g	0.25	0.29	-	-	0.14	0.15
(PCB 21/33) 2,3,4-Trichlorobiphenyl/2',3,4-Trichlorobiphenyl	ng/g	0.0050 J	0.0042 J	-	-	0.0064 J	0.038
(PCB 22) 2,3,4'-Trichlorobiphenyl	ng/g	0.0025 J	0.016 U	-	-	0.0045 J	0.025
(PCB 23) 2,3,5-Trichlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 24) 2,3,6-Trichlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.0022 J
(PCB 25) 2,3',4-Trichlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.0044 J
(PCB 26/29) 2,3',5-Trichlorobipheny/2,4,5-Trichlorobiphenyl	ng/g	0.031 U	0.032 U	-	-	0.0019 J	0.011 J
(PCB 27) 2,3',6-Trichlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.0054 J
(PCB 3) 4-Monochlorobiphenyl	ng/g	0.0012 J	0.0014 J	-	-	0.013 U	0.015 U
(PCB 31) 2,4',5-Trichlorobiphenyl	ng/g	0.011 J	0.0098 J	-	-	0.015 J	0.064
(PCB 32) 2,4',6-Trichlorobiphenyl	ng/g	0.015 U	0.00062 J	-	-	0.0013 J	0.024
(PCB 34) 2,3',5'-Trichlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 35) 3,3',4-Trichlorobiphenyl	ng/g	0.015 U	0.00064 J	-	-	0.0012 J	0.015 U
(PCB 36) 3,3',5-Trichlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 37) 3,4,4'-Trichlorobiphenyl	ng/g	0.0071 J	0.0068 J	-	-	0.013 J	0.021
(PCB 38) 3,4,5-Trichlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 39) 3,4',5-Trichlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 4) 2,2'-Dichlorobiphenyl	ng/g	0.031 U	0.032 U	-	-	0.027 U	0.015 J
(PCB 40/41/71) 2,2',3,3'-TeCB/ 2,2',3,4-TeCB/2,3',4',6-TeCB	ng/g	0.0050 J	0.048 U	-	-	0.015 J	0.037 J
(PCB 42) 2,2',3,4'-Tetrachlorobiphenyl	ng/g	0.015 U	0.0027 J	-	-	0.0066 J	0.016
(PCB 43/73) 2,2',3,5-Tetrachlorobiphenyl/2,3',5',6-Tetrachlorobiphenyl	ng/g	0.031 U	0.032 U	-	-	0.027 U	0.0032 J
(PCB 44/47/65) 2,2',3,5'-Tetrachlorobiphenyl/2,2',4,4'-Tetrachlorobiphenyl/2,3,5,6-Tetrachlorobiphenyl	ng/g	0.027 J	0.011 J	-	-	0.057	0.064
(PCB 45/51) 2,2',3,6-Tetrachlorobiphenyl/2,2',4,6'-Tetrachlorobiphenyl	ng/g	0.031 U	0.032 U	-	-	0.0053 J	0.017 J
(PCB 46) 2,2',3,6'-Tetrachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 48) 2,2',4,5-Tetrachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.0024 J	0.016
(PCB 49/69) 2,2',4,5'-Tetrachlorobiphenyl/2,3',4,6-Tetrachlorobiphenyl	ng/g	0.013 J	0.0089 J	-	-	0.026 J	0.043 J
(PCB 5) 2,3-Dichlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 50/53) 2,2',4,6-Tetrachlorobiphenyl/2,2',5,6'-Tetrachlorobiphenyl	ng/g	0.031 U	0.032 U	-	-	0.0023 J	0.014 J
(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	ng/g	0.054 J	0.015 J	-	-	0.075	0.087
(PCB 54) 2,2',6,6'-Tetrachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 55) 2,3,3',4-Tetrachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 56) 2,3,3',4'-Tetrachlorobiphenyl	ng/g	0.0093 J	0.0061 J	-	-	0.023 J	0.028
(PCB 57) 2,3,3',5-Tetrachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 58) 2,3,3',5'-Tetrachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 59/62/75) 2,3,3',6-Tetrachlorobiphenyl/2,3,4,6-Tetrachlorobiphenyl/ 2,4,4',6-Tetrachlorobiphenyl	ng/g	0.046 U	0.048 U	-	-	0.040 U	0.0078 J
(PCB 6) 2,3'-Dichlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.0059 J
(PCB 60) 2,3,4,4'-Tetrachlorobiphenyl	ng/g	0.0067 J	0.0067 J	-	-	0.014 J	0.020
(PCB 61/70/74/76) 2,3,4,5-Tetrachlorobiphenyl/2,3',4',5-Tetrachlorobiphenyl/2,4,4',5-Tetrachlorobiphenyl/2,3',4',5'-Tetrachlorobiphenyl	ng/g	0.064	0.042 J	-	-	0.12	0.12
(PCB 63) 2,3,4',5-Tetrachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.0023 J	0.0031 J
(PCB 64) 2,3,4',6-Tetrachlorobiphenyl	ng/g	0.0095 J	0.0049 J	-	-	0.023 J	0.038
(PCB 66) 2,3',4,4'-Tetrachlorobiphenyl	ng/g	0.028	0.020	-	-	0.056 J	0.065
(PCB 67) 2,3',4,5-Tetrachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 68) 2,3',4,5'-Tetrachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.0040 J	0.015 U
(PCB 7) 2,4-Dichlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 72) 2,3',5,5'-Tetrachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 77) 3,3',4,4'-Tetrachlorobiphenyl	ng/g	0.011 J	0.012 J	-	-	0.018 J	0.019 J
(PCB 78) 3,3',4,5-Tetrachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 79) 3,3',4,5'-Tetrachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.0015 J	0.015 U
(PCB 8) 2,4'-Dichlorobiphenyl	ng/g	0.0036 J	0.0029 J	-	-	0.027 U	0.023 J
(PCB 80) 3,3',5,5'-Tetrachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 81) 3,4,4',5-Tetrachlorobiphenyl	ng/g	0.015 U	0.0024 J	-	-	0.0033 J	0.015 U
(PCB 82) 2,2',3,3',4-Pentachlorobiphenyl	ng/g	0.0068 J	0.016 U	-	-	0.020 J	0.023
(PCB 83/99) 2,2',3,3',5-Pentachlorobiphenyl/2,2',4,4',5-Pentachlorobiphenyl	ng/g	0.090	0.056	-	-	0.22	0.18
(PCB 84) 2,2',3,3',6-Pentachlorobiphenyl	ng/g	0.025 J	0.016 U	-	-	0.039	0.023 J
(PCB 85/116/117) 2,2',3,4,4'-PeCB/2,3,4,5,6-PeCB/2,3,4',5,6-PeCB	ng/g	0.043 J	0.037 J	-	-	0.092	0.078
(PCB 86/87/97/109/119/125) 2,2',3,4,5-PeCB/ 2,2',3,4,5'-PeCB/2,2',3',4,5-PeCB/2,3,3',4,6-PeCB/2,3',4,4',6-PeCB/2',3,4,5,6'-PeCB	ng/g	0.076 J	0.033 J	-	-	0.15	0.11
(PCB 88/91) 2,2',3,4,6-Pentachlorobiphenyl/2,2',3,4',6-Pentachlorobiphenyl	ng/g	0.012 J	0.0050 J	-	-	0.029	0.016 J
(PCB 89) 2,2',3,4,6'-Pentachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 9) 2,5-Dichlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 90/101/113) 2,2',3,4',5-Pentachlorobiphenyl/2,2',4,5,5'-Pentachlorobiphenyl/2,3,3',5',6-Pentachlorobiphenyl	ng/g	0.13	0.060	-	-	0.26	0.20
(PCB 92) 2,2',3,5,5'-Pentachlorobiphenyl	ng/g	0.023	0.015 J	-	-	0.043	0.040
(PCB 93/100) 2,2',3,5,6-Pentachlorobiphenyl/2,2',4,4',6-Pentachlorobiphenyl	ng/g	0.031 U	0.032 U	-	-	0.027 U	0.030 U
(PCB 94) 2,2',3,5,6'-Pentachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U

Table 3a

Soil Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		317 Patrice Terrace	317 Patrice Terrace	3295 Evergreen Dr	3295 Evergreen Dr	6 Southwind Trail	6 Southwind Trail
Sample ID:		NSH-164S	NSH-164S 317 PATRICE TERRACE ALS SPLIT	NSH206S	SO-11137465-011519-206S	NSH-152S	NSH-152S 6 SOUTHWIND TRAIL ALS SPLIT
Sample Date:		2/7/2019	2/7/2019	1/15/2019	1/15/2019	2/7/2019	2/7/2019
Sample Depth:		-	-	-	-	-	-
		(Duplicate)	(Duplicate)				
Parameters	**Units**	**(Buffalo Sample)**	**(Buffalo Sample)**			**(Buffalo Sample)**	**(Buffalo Sample)**
PCBs (cont'd)							
(PCB 95) 2,2',3,5',6-Pentachlorobiphenyl	ng/g	0.084 J	0.020 J	-	-	0.15	0.086 J
(PCB 96) 2,2',3,6,6'-Pentachlorobiphenyl	ng/g	0.015 U	0.016 U	-	-	0.013 U	0.015 U
(PCB 98/102) 2,2',3,4',6'-Pentachlorobiphenyl/2,2',4,5,6'-Pentachlorobiphenyl	ng/g	0.031 U	0.032 U	-	-	0.0031 J	0.030 U
Aroclor-1016 (PCB-1016)	mg/kg	-	-	0.37 U	-	-	-
Aroclor-1221 (PCB-1221)	mg/kg	-	-	0.37 U	-	-	-
Aroclor-1232 (PCB-1232)	mg/kg	-	-	0.37 U	-	-	-
Aroclor-1242 (PCB-1242)	mg/kg	-	-	0.37 U	-	-	-
Aroclor-1248 (PCB-1248)	mg/kg	-	-	0.37 U	-	-	-
Aroclor-1254 (PCB-1254)	mg/kg	-	-	0.37 U	-	-	-
Aroclor-1260 (PCB-1260)	mg/kg	-	-	0.37 U	-	-	-
Pesticides							
4,4'-DDD	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.00052 J	0.0024 U
4,4'-DDE	mg/kg	0.0052 U	0.0026 U	0.044	-	0.0017 J	0.0027
4,4'-DDT	mg/kg	0.003 J	0.0026 U	0.011	-	0.0022	0.0024 U
Aldrin	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.0022 U	0.0024 U
alpha-BHC	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.00049 J	0.0024 U
alpha-Chlordane	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.0022 U	0.0024 U
beta-BHC	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.0022 U	0.0024 U
delta-BHC	mg/kg	0.0052 U	0.0026 U	0.0014 J	-	0.00064 J	0.0024 U
Dieldrin	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.0034	0.0016 J
Endosulfan I	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.0022 U	0.0024 U
Endosulfan II	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.0022 U	0.0024 U
Endosulfan sulfate	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.0022 U	0.0024 U
Endrin	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.0022 U	0.0024 U
Endrin aldehyde	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.0022 U	0.0024 U
Endrin ketone	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.0022 U	0.0024 U
gamma-BHC (lindane)	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.0022 U	0.0024 U
gamma-Chlordane	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.0022 U	0.0024 U
Heptachlor	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.0022 U	0.0024 U
Heptachlor epoxide	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.0022 U	0.0024 U
Methoxychlor	mg/kg	0.0052 U	0.0026 U	0.0051 U	-	0.0022 U	0.0024 U
Toxaphene	mg/kg	0.052 U	0.026 U	0.051 U	-	0.022 U	0.024 U
Dioxin Furans							
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	pg/g	20	23	5.3 J	-	14	18
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	pg/g	190	200	38	-	340	370
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	pg/g	12	13	3.4 J	-	9.4	12
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	pg/g	31	34	5.4 J	-	38	38
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	pg/g	0.78 J	0.56 J	0.23 J	-	0.72 J	1.1 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	2.5 J	2.0 J	0.91 J	-	2.3 J	3.1 J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.84 J	0.88 J	0.16 J	-	0.96 J	1.0 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	1.7 J	1.6 J	0.35 J	-	1.4 J	1.4 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	1.9 J	1.8 J	7.8 U	-	2.8 J	2.0 J
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	pg/g	4.0 U	5.0 U	7.8 U	-	3.4 U	5.0 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	2.1 J	2.0 J	0.40 J	-	2.7 J	2.3 J
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	0.61 J	5.0 U	0.15 J	-	0.68 J	0.79 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	pg/g	0.70 J	0.42 J	7.8 U	-	0.68 J	0.77 J
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	1.1 J	0.88 J	7.8 U	-	0.67 J	0.99 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	0.78 J	0.82 J	0.29 J	-	0.75 J	1.0 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	pg/g	0.55 J	0.64 J	0.31 J	-	0.71 J	0.73 J
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/g	0.79 U	1.0 U	1.0 J	-	0.61 J	0.19 J

Notes:

-- - Not applicable
U - Not detected at the associated reporting limit
J - Estimated concentration
PCBs - Polychlorinated biphenyls
mg/kg - milligrams per kilogram
ng/g - nanograms per gram
pg/g - picograms per gram
[1] - New York State 6 NYCRR 375-6.8(b) Restricted Use Soil Cleanup Objectives

Table 3b

Soil Sample Toxicity Equivalency Quotients
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

			1389 Forbes NSH099S 01/15/2019 --	1430 Forbes NSH103S 01/15/2019 4-5.5 ft BGS	1430 Forbes NSH104S 01/15/2019 5.5-7 ft BGS	1430 Forbes NSH116S 01/15/2019 --	1484 Forbes NSH105S 01/15/2019 3-4 ft BGS	1484 Forbes NSH106S 01/15/2019 4-5.5 ft BGS	1484 Forbes NSH108S 01/15/2019 5-5.5 ft BGS	1484 Forbes NSH109S 01/15/2019 5-5.6 ft BGS	1484 Forbes NSH120S 01/15/2019 6.8-7.8 ft BGS
Polychlorinated Dibenzodioxins (PCDDs) & Polychlorinated Dibenzofurans (PCDFs)		**Factor**									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	pg/g	0.0003	0.072	0.006	0.0024	0.0234	0	0	0	0	0
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	pg/g	0.0003	0.00174	0.00093	0	0.105	0	0	0	0	0
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	pg/g	0.01	0.21	0.016	0	0.21	0	0	0	0	0
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	pg/g	0.01	0.042	0.025	0	2.6	0	0	0	0	0
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	pg/g	0.01	0	0	0	0.096	0	0	0	0	0
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.1	0	0	0	0.065	0	0	0	0	0
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0.084	0.072	0	7.2	0	0	0	0	0
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.1	0.075	0	0	0.26	0	0	0	0	0
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0.044	0.019	0	1.5	0	0	0	0	0
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.1	0.049	0	0	0.15	0	0	0	0	0
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0	0	0	0	0	0	0	0	0
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	pg/g	1	0	0	0	0.73	0	0	0	0	0
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	0.03	0.0045	0	0	0.054	0	0	0	0	0
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0.035	0	0	0.48	0	0	0	0	0
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	0.3	0	0	0	1.98	0	0	0	0	0
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/g	1	0.21	0	0	0.27	0	0	0	0	0
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	pg/g	0.1	0.049	0.01	0	0.1	0	0	0	0	0

Notes:

pg/g - picograms per gram
TEQs are calculated to present relative concentrations of PCDDs and PCDFs in relation to TCDD toxicity.

Table 3b

Soil Sample Toxicity Equivalency Quotients
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

			1484 Forbes NSH107S 01/15/2019 --	1597 Moll St NSH122S 01/16/2019 --	1597 Moll St NSH123S 01/16/2019 -- Duplicate	1597 Ruie Road NSH113S 01/15/2019 --	1618 Moll St NSH131S 01/16/2019 --	1619 Master St NSH130S 01/16/2019 --	1625 Nash Road NSH135S 01/16/2019 --	1656 Ruie Road NSH200S 01/15/2019 --
Polychlorinated Dibenzodioxins (PCDDs) & Polychlorinated Dibenzofurans (PCDFs)		**Factor**								
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	pg/g	0.0003	0.0066	0.0114	0.0222	0.0147	0.0072	0.0051	0.033	0.0057
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	pg/g	0.0003	0.0009	0.0117	0.003	0.0063	0.0009	0	0.0048	0.0018
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	pg/g	0.01	0.03	0.077	0.11	0.085	0.029	0.025	0.14	0.027
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	pg/g	0.01	0.018	0.084	0.055	0.16	0.013	0.013	0.11	0.038
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	pg/g	0.01	0	0	0	0.0075	0	0	0	0
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.1	0	0	0	0.059	0	0	0	0.014
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0.043	0	0	0.43	0	0	0.28	0.088
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.1	0	0.089	0.059	0.083	0.02	0.024	0.052	0
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0.023	0	0.08	0.12	0	0	0.096	0.043
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.1	0.032	0.16	0	0.096	0	0	0	0.027
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0	0	0	0	0	0	0	0
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	pg/g	1	0	0.95	0	0.36	0	0	0	0
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	0.03	0	0	0	0.0159	0	0	0	0
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0	0	0	0.058	0	0	0	0
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	0.3	0	0	0	0.195	0	0	0	0
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/g	1	0	0.3	0.11	0.22	0	0	0	0
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	pg/g	0.1	0.013	0.034	0.084	0.069	0.0093	0.015	0	0.019

Notes:

pg/g - picograms per gram
TEQs are calculated to present relative concentrations of PCDDs and PCDFs in relation to TCDD toxicity.

Table 3b

Soil Sample Toxicity Equivalency Quotients
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Polychlorinated Dibenzodioxins (PCDDs) & Polychlorinated Dibenzofurans (PCDFs)		Factor	1727 Forbes St NSH139S 01/16/2019 --	317 Patrice Terrace NSH-163S 02/07/2019 -- (Buffalo Sample)	317 Patrice Terrace NSH-163S 317 PATRICE TERRACE ALS SPLIT 02/07/2019 -- (Buffalo Sample)	317 Patrice Terrace NSH-164S 02/07/2019 -- Duplicate (Buffalo Sample
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	pg/g	0.0003	0.03	0.063	0.06	0.057
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	pg/g	0.0003	0.066	0.0069	0.0069	0.006
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	pg/g	0.01	0.15	0.32	0.31	0.31
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	pg/g	0.01	1.8	0.13	0.12	0.12
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	pg/g	0.01	0.05	0.0067	0.009	0.0078
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.1	0	0.08	0.099	0.084
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	1.5	0.26	0.24	0.25
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.1	0.12	0.18	0.16	0.19
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0.74	0.17	0.13	0.17
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.1	0	0.19	0.19	0.21
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0	0	0	0
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	pg/g	1	0.79	0.66	0.82	0.7
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	0.03	0	0	0.0123	0.0183
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0.13	0.094	0.11	0.11
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	0.3	0	0.231	0.18	0.234
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/g	1	0.17	0.28	0.24	0
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	pg/g	0.1	0.047	0.079	0.092	0.055

Notes:

pg/g - picograms per gram
TEQs are calculated to present relative concentrations of PCDDs and PCDFs in relation to TCDD toxicity.

Table 3b

Soil Sample Toxicity Equivalency Quotients
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Polychlorinated Dibenzodioxins (PCDDs) & Polychlorinated Dibenzofurans (PCDFs)		Factor	317 Patrice Terrace NSH-164S 317 PATRICE TERRACE ALS SPLIT 02/07/2019 -- Duplicate (Buffalo Sample)	3295 Evergreen Dr NSH206S 01/15/2019 --	6 Southwind Trail NSH-152S 02/07/2019 -- (Buffalo Sample)	6 Southwind Trail NSH-152S 6 SOUTHWIND TRAIL ALS SPLIT 02/07/2019 -- (Buffalo Sample)
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	pg/g	0.0003	0.06	0.0114	0.102	0.111
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	pg/g	0.0003	0.0069	0.00159	0.0042	0.0054
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	pg/g	0.01	0.34	0.054	0.38	0.38
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	pg/g	0.01	0.13	0.034	0.094	0.12
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	pg/g	0.01	0.0056	0.0023	0.0072	0.011
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.1	0.088	0.016	0.096	0.1
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0.2	0.091	0.23	0.31
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.1	0.18	0	0.28	0.2
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0.16	0.035	0.14	0.14
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.1	0.2	0.04	0.27	0.23
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0	0	0	0
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	pg/g	1	0.42	0	0.68	0.77
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	0.03	0	0.0045	0.0204	0.0237
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0.088	0	0.067	0.099
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	0.3	0.246	0.087	0.225	0.3
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/g	1	0	1	0.61	0.19
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	pg/g	0.1	0.064	0.031	0.071	0.073

Notes:

pg/g - picograms per gram
TEQs are calculated to present relative concentrations of PCDDs and PCDFs in relation to TCDD toxicity.

Table 4a

Indoor Air Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		1389 Forbes	1389 Forbes	1389 Forbes	1389 Forbes	1430 Forbes	1430 Forbes	1430 Forbes	1484 Forbes	1484 Forbes	1484 Forbes	1484 Forbes	1484 Forbes	1484 Forbes
Sample ID:		**NSH-096A-418726**	**NSH-096A-418727**	**NSH-098A-404044**	**NSH-143A**	**NSH-114A-404043**	**NSH-114A-418730**	**NSH-146A**	**NSH-207A-404046**	**NSH-207A-404047**	**NSH-208A-B43097**	**NSH-208A-B43099**	**NSH-209A-B43090**	**NSH-209A-B43092**
Sample Date:		**2/6/2019**	**2/6/2019**	**2/6/2019**	**2/27/2019**	**2/6/2019**	**2/6/2019**	**2/27/2019**	**2/6/2019**	**2/6/2019**	**2/27/2019**	**2/27/2019**	**2/27/2019**	**2/27/2019**
Parameters	**Units**													
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane	µg/m^3	-	-	-	0.02 U	-	-	0.02 U	-	-	-	-	-	-
1,1,1-Trichloroethane	µg/m^3	-	-	-	1.32 U	-	-	1.32 U	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/m^3	-	-	-	0.02 U	-	-	0.02 U	-	-	-	-	-	-
1,1,2-Trichloroethane	µg/m^3	-	-	-	0.04 U	-	-	0.04 U	-	-	-	-	-	-
1,1-Dichloroethane	µg/m^3	-	-	-	7.29 U	-	-	7.30 U	-	-	-	-	-	-
1,2,4-Trimethylbenzene	µg/m^3	-	-	-	0.19	-	-	0.72	-	-	-	-	-	-
1,2-Dichlorobenzene	µg/m^3	-	-	-	0.02 U	-	-	0.02 U	-	-	-	-	-	-
1,2-Dichloroethane	µg/m^3	-	-	-	1.24 U	-	-	1.24 U	-	-	-	-	-	-
1,3,5-Trimethylbenzene	µg/m^3	-	-	-	0.07	-	-	0.23	-	-	-	-	-	-
1,3-Dichlorobenzene	µg/m^3	-	-	-	0.02 U	-	-	0.02 U	-	-	-	-	-	-
1,4-Dichlorobenzene	µg/m^3	-	-	-	0.03	-	-	0.02 U	-	-	-	-	-	-
2-Methylnaphthalene	µg/m^3	-	-	-	0.12	-	-	0.05	-	-	-	-	-	-
Acenaphthene	µg/m^3	-	-	-	0.05 U	-	-	0.05 U	-	-	-	-	-	-
Acenaphthylene	µg/m^3	-	-	-	0.05 U	-	-	0.05 U	-	-	-	-	-	-
Benzene	µg/m^3	0.58	0.59	0.59	1.15 U	0.25	0.59	2.01	0.71	0.68	0.70	0.58	0.46	0.50
Carbon tetrachloride	µg/m^3	-	-	-	1.14 U	-	-	1.14 U	-	-	-	-	-	-
Chlorobenzene	µg/m^3	-	-	-	0.03 U	-	-	0.03 U	-	-	-	-	-	-
Chloroform (Trichloromethane)	µg/m^3	-	-	-	3.20 U	-	-	3.21 U	-	-	-	-	-	-
cis-1,2-Dichloroethene	µg/m^3	-	-	-	6.12 U	-	-	6.13 U	-	-	-	-	-	-
Ethylbenzene	µg/m^3	0.14 J	0.15 J	0.15 J	0.07	0.070 J	0.34 J	0.42	0.28 J	0.28 J	0.33 J	0.28 J	0.24 J	0.25 J
Fluorene	µg/m^3	-	-	-	0.05 U	-	-	0.05 U	-	-	-	-	-	-
m&p-Xylenes	µg/m^3	0.40 J	0.42 J	0.41 J	0.20	0.14 J	1.1	1.37	0.84	0.82	0.75 J	0.63 J	0.53 J	0.56 J
Methyl tert butyl ether (MTBE)	µg/m^3	-	-	-	7.90 U	-	-	7.91 U	-	-	-	-	-	-
Naphthalene	µg/m^3	-	-	-	0.18	-	-	0.11	-	-	-	-	-	-
N-Tridecane	µg/m^3	-	-	-	0.76	-	-	0.50	-	-	-	-	-	-
N-Undecane	µg/m^3	-	-	-	0.32	-	-	0.73	-	-	-	-	-	-
Octadecane	µg/m^3	-	-	-	0.83	-	-	1.90	-	-	-	-	-	-
o-Xylene	µg/m^3	0.15 J	0.16 J	0.16 J	0.12	0.35 U	0.37	0.61	0.35 J	0.34 J	0.31 J	0.25 J	0.21 J	0.23 J
Pentadecane	µg/m^3	-	-	-	0.89	-	-	0.11	-	-	-	-	-	-
Tetrachloroethene	µg/m^3	-	-	-	0.05 U	-	-	0.05 U	-	-	-	-	-	-
Toluene	µg/m^3	1.1	1.1	1.1	0.21	0.59	2.0	1.44	1.4	1.4	1.3	1.1	0.98	1.0
Total Petroleum Hydrocarbons	µg/m^3	-	-	-	31.6	-	-	14.0	-	-	-	-	-	-
trans-1,2-Dichloroethene	µg/m^3	-	-	-	25.4 U	-	-	25.4 U	-	-	-	-	-	-
Trichloroethene	µg/m^3	-	-	-	0.40 U	-	-	0.40 U	-	-	-	-	-	-

Notes:

	Exceedes criteria
U	Not detected at the associated reporting limit
J	Estimated concentration
ug/m3	micrograms per cubic meter

Table 4a

Indoor Air Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		1484 Forbes	1597 Moll St	1597 Moll St	1597 Ruie Road	1597 Ruie Road	1618 Moll St	1618 Moll St	1619 Master St	1619 Master St	1619 Master St	1619 Master St	1625 Nash Road
Sample ID:		**NSH-210A**	**NSH-124A-404049**	**NSH-124A-404050**	**NSH-110A-B35081**	**NSH-111A-418723**	**NSH-133A-374337**	**NSH-133A-404654**	**NSH-127A-404652**	**NSH-127A-404660**	**NSH-128A-404653**	**NSH-128A-404659**	**NSH-137A-374339**
Sample Date:		**2/27/2019**	**2/6/2019**	**2/6/2019**	**2/6/2019**	**2/6/2019**	**2/6/2019**	**2/6/2019**	**2/6/2019**	**2/6/2019**	**2/6/2019**	**2/6/2019**	**2/6/2019**
Parameters	**Units**												
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	µg/m^3	0.02 U / 0.02 U	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	µg/m^3	1.32 U / 1.32 U	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/m^3	0.02 U / 0.02 U	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	µg/m^3	0.04 U / 0.04 U	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	µg/m^3	7.30 U / 7.30 U	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	µg/m^3	0.17 / 0.18	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	µg/m^3	0.02 U / 0.02 U	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	µg/m^3	1.24 U / 1.24 U	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	µg/m^3	0.06 / 0.06	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	µg/m^3	0.02 U / 0.02 U	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	µg/m^3	0.03 / 0.03	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	µg/m^3	0.12 / 0.12	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	µg/m^3	0.05 U / 0.05 U	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	µg/m^3	0.05 U / 0.05 U	-	-	-	-	-	-	-	-	-	-	-
Benzene	µg/m^3	1.15 U / 1.15 U	0.83	0.72	1.4	1.3	0.70	0.68	0.89	0.89	1.3	1.3	0.78
Carbon tetrachloride	µg/m^3	1.14 U / 1.14 U	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	µg/m^3	0.03 U / 0.03 U	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	µg/m^3	3.21 U / 3.21 U	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	µg/m^3	6.13 U / 6.13 U	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	µg/m^3	0.05 / 0.05	1.3	1.3	0.35	0.34 J	0.29 J	0.28 J	0.79	0.84	0.58	0.58	1.2
Fluorene	µg/m^3	0.05 U / 0.05 U	-	-	-	-	-	-	-	-	-	-	-
m&p-Xylenes	µg/m^3	0.14 / 0.14	5.0	5.0	0.92	0.90	0.89	0.84	3.8	4.0	2.2	2.2	4.8
Methyl tert butyl ether (MTBE)	µg/m^3	7.92 U / 7.92 U	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	µg/m^3	0.15 / 0.14	-	-	-	-	-	-	-	-	-	-	-
N-Tridecane	µg/m^3	0.62 / 0.54	-	-	-	-	-	-	-	-	-	-	-
N-Undecane	µg/m^3	0.21 / 0.23	-	-	-	-	-	-	-	-	-	-	-
Octadecane	µg/m^3	0.91 / 0.91	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	µg/m^3	0.10 / 0.10	1.3	1.3	0.37	0.35	0.36 J	0.33 J	1.1	1.2	0.70	0.70	2.2
Pentadecane	µg/m^3	0.85 / 0.76	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	µg/m^3	0.05 U / 0.05 U	-	-	-	-	-	-	-	-	-	-	-
Toluene	µg/m^3	0.11 / 0.11	2.6	2.5	3.0	2.8	2.2	2.2	1.1	1.1	2.4	2.4	3.8
Total Petroleum Hydrocarbons	µg/m^3	61.3 / 63.8	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	µg/m^3	25.4 U / 25.4 U	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	µg/m^3	0.40 U / 0.40 U	-	-	-	-	-	-	-	-	-	-	-

Notes:

	Exceedes criteria
U	Not detected at the associated reporting limit
J	Estimated concentration
ug/m3	micrograms per cubic meter

Table 4a

Indoor Air Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		**1625 Nash Road**	**1625 Nash Road**	**1625 Nash Road**	**1656 Ruie Road**	**1656 Ruie Road**	**1727 Forbes St**	**317 Patrice Terrace**	**317 Patrice Terrace**	**317 Patrice Terrace**	**317 Patrice Terrace**	**317 Patrice Terrace**	**317 Patrice Terrace**
Sample ID:		**NSH-137A-404657**	**NSH-138A-374340**	**NSH-138A-404656**	**NSH-201A-418728**	**NSH-201A-B18757**	**NSH-141A-404658**	**NSH-157A-B43178**	**NSH-157A-B43179**	**NSH-158A-B43660**	**NSH-158A-B43662**	**NSH-159A-B43674**	**NSH-159A-B43710**
Sample Date:		**2/6/2019**	**2/6/2019**	**2/6/2019**	**2/7/2019**	**2/7/2019**	**2/6/2019**	**2/27/2019**	**2/27/2019**	**2/27/2019**	**2/27/2019**	**2/27/2019**	**2/27/2019**
Parameters	**Units**							**(Buffalo Sample)**	**(Buffalo Sample)**	**(Buffalo Sample)**	**(Buffalo Sample)**	**(Buffalo Sample)**	**(Buffalo Sample)**
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	µg/m^3	0.80	0.78	0.77	1.4	1.2	3.6	2.0	2.1	1.5	1.5	1.8	1.9
Carbon tetrachloride	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	µg/m^3	1.1	0.74	0.74	4.5	4.3	5.3	3.5	3.6	2.5	2.5	2.9	3.2
Fluorene	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
m&p-Xylenes	µg/m^3	2.4	2.4	2.4	5.8	5.4	19	14	14	9.9	10	12	13
Methyl tert butyl ether (MTBE)	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
N-Tridecane	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
N-Undecane	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
Octadecane	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	µg/m^3	0.77	1.0	0.98	1.8	1.7	6.8	4.5	4.9	3.3	3.3	3.8	4.3
Pentadecane	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	µg/m^3	3.8	4.1	4.0	7.9	7.4	35	25	25	18	18	20	22
Total Petroleum Hydrocarbons	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	µg/m^3	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

	Exceedes criteria
U	Not detected at the associated reporting limit
J	Estimated concentration
ug/m3	micrograms per cubic meter

Table 4a

Indoor Air Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		317 Patrice Terrace	317 Patrice Terrace	317 Patrice Terrace	317 Patrice Terrace	317 Patrice Terrace	3295 Evergreen Dr	3295 Evergreen Dr	6 Southwind Trail	6 Southwind Trail	6 Southwind Trail	6 Southwind Trail	6 Southwind Trail
Sample ID:		NSH-160A-B43717	NSH-160A-B43730	NSH-161A	NSH-162A	NSH-165A	NSH-203A-418721	NSH-204A-418722	NSH-149A-B43135	NSH-149A-B43138	NSH-150A-B43119	NSH-150A-B43131	NSH-151A
Sample Date:		2/27/2019	2/27/2019	2/27/2019	2/27/2019 (Duplicate)	2/27/2019	2/6/2019	2/6/2019	2/27/2019	2/27/2019	2/27/2019	2/27/2019	2/27/2019
Parameters	**Units**	**(Buffalo Sample)**	**(Buffalo Sample)**	**(Buffalo Sample)**	**(Buffalo Sample)**	**(Buffalo Sample)**			**(Buffalo Sample)**	**(Buffalo Sample)**	**(Buffalo Sample)**	**(Buffalo Sample)**	**(Buffalo Sample)**
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	µg/m^3	-	-	0.02 U	0.02 U	0.02 U	-	-	-	-	-	-	0.02 U
1,1,1-Trichloroethane	µg/m^3	-	-	1.35 U	1.35 U	1.35 U	-	-	-	-	-	-	1.35 U
1,1,2,2-Tetrachloroethane	µg/m^3	-	-	0.02 U	0.02 U	0.02 U	-	-	-	-	-	-	0.02 U
1,1,2-Trichloroethane	µg/m^3	-	-	0.04 U	0.04 U	0.04 U	-	-	-	-	-	-	0.04 U
1,1-Dichloroethane	µg/m^3	-	-	7.38 U	7.38 U	7.39 U	-	-	-	-	-	-	7.38 U
1,2,4-Trimethylbenzene	µg/m^3	-	-	2.13	2.08	0.03 U	-	-	-	-	-	-	2.06
1,2-Dichlorobenzene	µg/m^3	-	-	0.02 U	0.02 U	0.02 U	-	-	-	-	-	-	0.02 U
1,2-Dichloroethane	µg/m^3	-	-	1.26 U	1.26 U	1.26 U	-	-	-	-	-	-	1.26 U
1,3,5-Trimethylbenzene	µg/m^3	-	-	0.68	0.67	0.04 U	-	-	-	-	-	-	0.64
1,3-Dichlorobenzene	µg/m^3	-	-	0.02 U	0.02 U	0.02 U	-	-	-	-	-	-	0.02 U
1,4-Dichlorobenzene	µg/m^3	-	-	0.02 U	0.02 U	0.02 U	-	-	-	-	-	-	0.02 U
2-Methylnaphthalene	µg/m^3	-	-	0.35	0.35	0.05 U	-	-	-	-	-	-	0.25
Acenaphthene	µg/m^3	-	-	0.05 U	0.05 U	0.05 U	-	-	-	-	-	-	0.05 U
Acenaphthylene	µg/m^3	-	-	0.05 U	0.05 U	0.05 U	-	-	-	-	-	-	0.05 U
Benzene	µg/m^3	1.6	1.6	1.18 U	1.18 U	1.18 U	2.0	5.6	4.0	3.4	2.8	3.1	1.36
Carbon tetrachloride	µg/m^3	-	-	1.17 U	1.17 U	1.17 U	-	-	-	-	-	-	1.17 U
Chlorobenzene	µg/m^3	-	-	0.03 U	0.03 U	0.03 U	-	-	-	-	-	-	0.03 U
Chloroform (Trichloromethane)	µg/m^3	-	-	3.26 U	3.26 U	3.26 U	-	-	-	-	-	-	3.25 U
cis-1,2-Dichloroethene	µg/m^3	-	-	6.21 U	6.21 U	6.21 U	-	-	-	-	-	-	6.20 U
Ethylbenzene	µg/m^3	2.7	2.9	0.37	0.35	0.03 U	0.74	2.5	3.5	2.9	2.5	2.6	0.49
Fluorene	µg/m^3	-	-	0.05 U	0.05 U	0.05 U	-	-	-	-	-	-	0.05 U
m&p-Xylenes	µg/m^3	11	11	1.53	1.46	0.02 U	2.3	9.5	13	11	9.5	9.7	2.00
Methyl tert butyl ether (MTBE)	µg/m^3	-	-	8.02 U	8.02 U	8.03 U	-	-	-	-	-	-	8.01 U
Naphthalene	µg/m^3	-	-	0.50	0.50	0.05 U	-	-	-	-	-	-	0.44
N-Tridecane	µg/m^3	-	-	1.36	1.41	0.05 U	-	-	-	-	-	-	0.51
N-Undecane	µg/m^3	-	-	0.58	0.54	0.05 U	-	-	-	-	-	-	0.72
Octadecane	µg/m^3	-	-	0.42	0.40	0.07 U	-	-	-	-	-	-	0.38
o-Xylene	µg/m^3	3.6	3.7	0.79	0.76	0.04 U	0.84	3.4	4.6	3.9	3.2	3.6	1.08
Pentadecane	µg/m^3	-	-	0.81	0.82	0.05 U	-	-	-	-	-	-	0.49
Tetrachloroethene	µg/m^3	-	-	0.05 U	0.05 U	0.05 U	-	-	-	-	-	-	0.25
Toluene	µg/m^3	19	20	1.66	1.58	0.07 U	8.1	24	22	19	16	16	1.53
Total Petroleum Hydrocarbons	µg/m^3	-	-	53.3	52.8	0.47 U	-	-	-	-	-	-	41.5
trans-1,2-Dichloroethene	µg/m^3	-	-	25.6 U	25.6 U	25.6 U	-	-	-	-	-	-	25.6 U
Trichloroethene	µg/m^3	-	-	0.41 U	0.41 U	0.41 U	-	-	-	-	-	-	0.41 U

Notes:

	Exceedes criteria
U	Not detected at the associated reporting limit
J	Estimated concentration
ug/m3	micrograms per cubic meter

Table 4b

Outdoor Air Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		1389 Forbes	1430 Forbes	1430 Forbes	1597 Moll St	1597 Moll St	1618 Moll St	1618 Moll St	1727 Forbes St	6 Southwind Trail	6 Southwind Trail	6 Southwind Trail	6 Southwind Trail	6 Southwind Trail
Sample ID:		**NSH-145A**	**NSH-115A-404041**	**NSH-115A-418724**	**NSH-125A-404045**	**NSH-125A-404651**	**NSH-134A-377338**	**NSH-134A-404655**	**NSH-142A-404048**	**NSH-153A-B43149**	**NSH-153A-B43156**	**NSH-154A-B43158**	**NSH-154A-B43177**	**NSH-155A**
Sample Date:		**2/27/2019**	**2/6/2019**	**2/6/2019**	**2/6/2019**	**2/6/2019**	**2/6/2019**	**2/6/2019**	**2/6/2019**	**2/27/2019**	**2/27/2019**	**2/27/2019**	**2/27/2019**	**2/27/2019**
Parameters	**Units**									**(Buffalo Sample)**	**(Buffalo Sample)**	**(Buffalo Sample)**	**(Buffalo Sample)**	**(Buffalo Sample)**
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane	µg/m^3	0.02 U	-	-	-	-	-	-	-	-	-	-	-	0.02 U
1,1,1-Trichloroethane	µg/m^3	1.32 U	-	-	-	-	-	-	-	-	-	-	-	1.35 U
1,1,2,2-Tetrachloroethane	µg/m^3	0.02 U	-	-	-	-	-	-	-	-	-	-	-	0.02 U
1,1,2-Trichloroethane	µg/m^3	0.04 U	-	-	-	-	-	-	-	-	-	-	-	0.04 U
1,1-Dichloroethane	µg/m^3	7.29 U	-	-	-	-	-	-	-	-	-	-	-	7.38 U
1,2,4-Trimethylbenzene	µg/m^3	0.03 U	-	-	-	-	-	-	-	-	-	-	-	0.45
1,2-Dichlorobenzene	µg/m^3	0.02 U	-	-	-	-	-	-	-	-	-	-	-	0.02 U
1,2-Dichloroethane	µg/m^3	1.24 U	-	-	-	-	-	-	-	-	-	-	-	1.26 U
1,3,5-Trimethylbenzene	µg/m^3	0.04 U	-	-	-	-	-	-	-	-	-	-	-	0.16
1,3-Dichlorobenzene	µg/m^3	0.02 U	-	-	-	-	-	-	-	-	-	-	-	0.02 U
1,4-Dichlorobenzene	µg/m^3	0.02 U	-	-	-	-	-	-	-	-	-	-	-	0.02 U
2-Methylnaphthalene	µg/m^3	0.05 U	-	-	-	-	-	-	-	-	-	-	-	0.05 U
Acenaphthene	µg/m^3	0.05 U	-	-	-	-	-	-	-	-	-	-	-	0.05 U
Acenaphthylene	µg/m^3	0.05 U	-	-	-	-	-	-	-	-	-	-	-	0.05 U
Benzene	µg/m^3	1.15 U	0.22 J	0.27	3.7	3.8	0.81	0.78	8.6	0.79	1.0	0.44	0.54	5.91
Carbon tetrachloride	µg/m^3	1.14 U	-	-	-	-	-	-	-	-	-	-	-	1.17 U
Chlorobenzene	µg/m^3	0.03 U	-	-	-	-	-	-	-	-	-	-	-	0.03 U
Chloroform (Trichloromethane)	µg/m^3	3.20 U	-	-	-	-	-	-	-	-	-	-	-	3.25 U
cis-1,2-Dichloroethene	µg/m^3	6.13 U	-	-	-	-	-	-	-	-	-	-	-	6.20 U
Ethylbenzene	µg/m^3	0.03 U	0.36 U	0.36 U	3.1	3.1	0.18 J	0.16 J	14	0.14 J	0.19 J	0.38 U	0.086 J	0.30
Fluorene	µg/m^3	0.05 U	-	-	-	-	-	-	-	-	-	-	-	0.05 U
m&p-Xylenes	µg/m^3	0.03	0.73 U	0.73 U	12	12	0.52 J	0.46 J	52	0.48 J	0.66 J	0.76 U	0.30 J	1.14
Methyl tert butyl ether (MTBE)	µg/m^3	7.91 U	-	-	-	-	-	-	-	-	-	-	-	8.01 U
Naphthalene	µg/m^3	0.05 U	-	-	-	-	-	-	-	-	-	-	-	0.14
N-Tridecane	µg/m^3	0.05 U	-	-	-	-	-	-	-	-	-	-	-	0.06
N-Undecane	µg/m^3	0.05 U	-	-	-	-	-	-	-	-	-	-	-	0.07
Octadecane	µg/m^3	0.07 U	-	-	-	-	-	-	-	-	-	-	-	0.29
o-Xylene	µg/m^3	0.03 U	0.36 U	0.36 U	4.2	4.2	0.21 J	0.18 J	18	0.19 J	0.25 J	0.38 U	0.11 J	0.50
Pentadecane	µg/m^3	0.05 U	-	-	-	-	-	-	-	-	-	-	-	0.05 U
Tetrachloroethene	µg/m^3	0.05 U	-	-	-	-	-	-	-	-	-	-	-	0.05
Toluene	µg/m^3	0.07	0.14 J	0.23 J	19	19	1.2	1.2	96	1.0	1.3	0.44	0.66	2.64
Total Petroleum Hydrocarbons	µg/m^3	2.60	-	-	-	-	-	-	-	-	-	-	-	3.27
trans-1,2-Dichloroethene	µg/m^3	25.4 U	-	-	-	-	-	-	-	-	-	-	-	25.6 U
Trichloroethene	µg/m^3	0.40 U	-	-	-	-	-	-	-	-	-	-	-	0.41 U

Notes:

	Exceedes criteria
U	Not detected at the associated reporting limit
J	Estimated concentration
ug/m3	micrograms per cubic meter

Table 5a

Dust Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		1389 Forbes	1430 Forbes	1430 Forbes	1484 Forbes	1484 Forbes	1597 Moll St	1597 Ruie Road	1618 Moll St	1619 Master St	1625 Nash Road	1656 Ruie Road	1727 Forbes St
Sample ID:		**NSH095D**	**NSH117D**	**NSH300D 1430 FORBES**	**NSH208D**	**NSH301D 1484 FORBES**	**NSH121D**	**NSH112D**	**NSH132D**	**NSH129D**	**NSH136D**	**NSH202D**	**NSH140D**
Sample Date:		**1/15/2019**	**1/15/2019**	**2/27/2019**	**1/15/2019**	**2/27/2019**	**1/16/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**1/16/2019**	**1/15/2019**	**1/16/2019**
Parameters	**Units**												
Volatile Organic Compounds													
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Semi-volatile Organic Compounds													
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	250 U	-	490 U	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-

Dust Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		1389 Forbes	1430 Forbes	1430 Forbes	1484 Forbes	1484 Forbes	1597 Moll St	1597 Ruie Road	1618 Moll St	1619 Master St	1625 Nash Road	1656 Ruie Road	1727 Forbes St
Sample ID:		NSH095D	NSH117D	NSH300D 1430 FORBES	NSH208D	NSH301D 1484 FORBES	NSH121D	NSH112D	NSH132D	NSH129D	NSH136D	NSH202D	NSH140D
Sample Date:		1/15/2019	1/15/2019	2/27/2019	1/15/2019	2/27/2019	1/16/2019	1/15/2019	1/16/2019	1/16/2019	1/16/2019	1/15/2019	1/16/2019
Parameters	**Units**												
Semi-volatile Organic Compounds (cont'd)													
2-Methylnaphthalene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	49 U	-	97 U	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	49 U	-	97 U	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	49 U	-	97 U	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	49 U	-	97 U	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	-	-	49 U	-	97 U	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	-	-	49 U	-	97 U	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	49 U	-	97 U	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	190	-	60	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	44	-	50 U	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	11 J	-	50 U	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	25 U	-	120	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	49 U	-	97 U	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	25 U	-	50 U	-	-	-	-	-	-	-
Metals													
Antimony	mg/kg	-	-	3.0	-	7.5	-	-	-	-	-	-	-
Arsenic	mg/kg	2.1	1.8 J	3.5	0.91 J	6.3	2.7	2.8	0.88 J	-	3.7 J	1.4 J	-
Barium	mg/kg	64.9	25.7	-	37.5	-	70.3	102	12.3	-	201	128	-
Beryllium	mg/kg	-	-	0.35	-	0.29	-	-	-	-	-	-	-

Table 5a

Dust Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		1389 Forbes	1430 Forbes	1430 Forbes	1484 Forbes	1484 Forbes	1597 Moll St	1597 Ruie Road	1618 Moll St	1619 Master St	1625 Nash Road	1656 Ruie Road	1727 Forbes St
Sample ID:		**NSH095D**	**NSH117D**	**NSH300D 1430 FORBES**	**NSH208D**	**NSH301D 1484 FORBES**	**NSH121D**	**NSH112D**	**NSH132D**	**NSH129D**	**NSH136D**	**NSH202D**	**NSH140D**
Sample Date:		**1/15/2019**	**1/15/2019**	**2/27/2019**	**1/15/2019**	**2/27/2019**	**1/16/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**1/16/2019**	**1/15/2019**	**1/16/2019**
Parameters	**Units**												
Metals (cont'd)													
Cadmium	mg/kg	1.7	3.3	50.9	0.34	5.0	1.4	1.6	0.24	-	8.2	1.2	-
Chromium	mg/kg	20.5	25.2	25.9	12.5	20.2	16.3	12.3	3.4	-	32.7	22.8	-
Copper	mg/kg	-	-	95.1	-	130	-	-	-	-	-	-	-
Lead	mg/kg	69.3	27.4	59.8	17.2	119	61.4	27.9	6.7	-	1580	170	-
Mercury	mg/kg	0.13	0.38	0.68	0.048	0.68	0.11	0.093	0.020 J	6.5	0.94	0.51	0.22
Selenium	mg/kg	0.94 J	2.5 J	1.2	1.1 J	0.56	0.72 J	4.1 U	0.99 J	-	1.3 J	4.1 U	-
Silver	mg/kg	0.94	1.1	1.7	2.2	0.94	0.95	0.36 J	0.20 J	-	2.5	0.61 U	-
Thallium	mg/kg	-	-	0.087 J	-	0.084 J	-	-	-	-	-	-	-
Titanium	mg/kg	-	-	73.7	-	204	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	9900	-	3420	-	-	-	-	-	-	-
PCBs													
(PCB 1) 2-Chlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 10) 2,6-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 103) 2,2',4,5',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 104) 2,2',4,6,6'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 105) 2,3,3',4,4'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 106) 2,3,3',4,5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 107) 2,3,3',4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 108/124) 2,3,3',4,5'-Pentachlorobiphenyl/2,3',4',5,5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 11) 3,3'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 110/115) 2,3,3',4',6-Pentachlorobiphenyl/2,3,4,4',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 111) 2,3,3',5,5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 112) 2,3,3',5,6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 114) 2,3,4,4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 118) 2,3',4,4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 12/13) 3,4-Dichlorobiphenyl/3,4'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 120) 2,3',4,5,5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 121) 2,3',4,5',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 122) 2,3,3',4',5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 123) 2',3,4,4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 126) 3,3',4,4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 127) 3,3',4,5,5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 128/166) 2,2',3,3',4,4'-Hexachlorobiphenyl/2,3,4,4',5,6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 129/138/160/163) Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 130) 2,2',3,3',4,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 131) 2,2',3,3',4,6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 132) 2,2',3,3',4,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 133) 2,2',3,3',5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 134/143) 2,2',3,3',5,6-Hexachlorobiphenyl/2,2',3,4,5,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 135/151) 2,2',3,3',5,6'-Hexachlorobiphenyl/2,2',3,5,5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 136) 2,2',3,3',6,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 137) 2,2',3,4,4',5-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 139/140) 2,2',3,4,4',6-Hexachlorobiphenyl/2,2',3,4,4',6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 14) 3,5-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 141) 2,2',3,4,5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 142) 2,2',3,4,5,6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 144) 2,2',3,4,5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 145) 2,2',3,4,6,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 146) 2,2',3,4',5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 147/149) 2,2',3,4',5,6-Hexachlorobiphenyl/2,2',3,4',5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 148) 2,2',3,4',5,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 15) 4,4'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 150) 2,2',3,4',6,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 152) 2,2',3,5,6,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 153/168) 2,2',4,4',5,5'-Hexachlorobiphenyl/2,3',4,4',5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 154) 2,2',4,4',5,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 155) 2,2',4,4',6,6'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 156/157) 2,3,3',4,4',5-Hexachlorobiphenyl/2,3,3',4,4',5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 158) 2,3,3',4,4',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 159) 2,3,3',4,5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-

Table 5a

Dust Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		1389 Forbes	1430 Forbes	1430 Forbes	1484 Forbes	1484 Forbes	1597 Moll St	1597 Ruie Road	1618 Moll St	1619 Master St	1625 Nash Road	1656 Ruie Road	1727 Forbes St
Sample ID:		NSH095D	NSH117D	NSH300D 1430 FORBES	NSH208D	NSH301D 1484 FORBES	NSH121D	NSH112D	NSH132D	NSH129D	NSH136D	NSH202D	NSH140D
Sample Date:		1/15/2019	1/15/2019	2/27/2019	1/15/2019	2/27/2019	1/16/2019	1/15/2019	1/16/2019	1/16/2019	1/16/2019	1/15/2019	1/16/2019
Parameters	**Units**												
PCBs (cont'd)													
(PCB 16) 2,2',3-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 161) 2,3,3',4,5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 162) 2,3,3',4',5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 164) 2,3,3',4',5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 165) 2,3,3',5,5',6-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 167) 2,3',4,4',5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 169) 3,3',4,4',5,5'-Hexachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 17) 2,2',4-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 170) 2,2',3,3',4,4',5-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 171/173) 2,2',3,3',4,4',6-Heptachlorobiphenyl/2,2',3,3',4,5,6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 172) 2,2',3,3',4,5,5'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 174) 2,2',3,3',4,5,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 175) 2,2',3,3',4,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 176) 2,2',3,3',4,6,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 177) 2,2',3,3',4',5,6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 178) 2,2',3,3',5,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 179) 2,2',3,3',5,6,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 18/30) 2,2',5-Trichlorobiphenyl/2,4,6-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 180/193) 2,2',3,4,4',5,5'-Heptachlorobiphenyl/2,3,3',4',5,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 181) 2,2',3,4,4',5,6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 182) 2,2',3,4,4',5,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 183/185) 2,2',3,4,4',5',6-Heptachlorobiphenyl/2,2',3,4,5,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 184) 2,2',3,4,4',6,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 186) 2,2',3,4,5,6,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 187) 2,2',3,4',5,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 188) 2,2',3,4',5,6,6'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 189) 2,3,3',4,4',5,5'-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 19) 2,2',6-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 190) 2,3,3',4,4',5,6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 191) 2,3,3',4,4',5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 192) 2,3,3',4,5,5',6-Heptachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 194) 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 195) 2,2',3,3',4,4',5,6-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 196) 2,2',3,3',4,4',5,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 197) 2,2',3,3',4,4',6,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 198/199) 2,2',3,3',4,5,5',6-Octachlorobiphenyl/2,2',3,3',4,5,5',6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 2) 3-Chlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 20/28) 2,3,3'-Trichlorobiphenyl/2,4,4'-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 200) 2,2',3,3',4,5,6,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 201) 2,2',3,3',4,5',6,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 202) 2,2',3,3',5,5',6,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 203) 2,2',3,4,4',5,5',6-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 204) 2,2',3,4,4',5,6,6'-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 205) 2,3,3',4,4',5,5',6-Octachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 206) 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 207) 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 208) 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 209) Decachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 21/33) 2,3,4-Trichlorobiphenyl/2',3,4-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 22) 2,3,4'-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 23) 2,3,5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 24) 2,3,6-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 25) 2,3',4-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 26/29) 2,3',5-Trichlorobipheny/2,4,5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 27) 2,3',6-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 3) 4-Monochlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 31) 2,4',5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 32) 2,4',6-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 34) 2,3',5'-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 35) 3,3',4-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 36) 3,3',5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-

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Dust Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

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Sample ID:		NSH095D	NSH117D	NSH300D 1430 FORBES	NSH208D	NSH301D 1484 FORBES	NSH121D	NSH112D	NSH132D	NSH129D	NSH136D	NSH202D	NSH140D
Sample Date:		1/15/2019	1/15/2019	2/27/2019	1/15/2019	2/27/2019	1/16/2019	1/15/2019	1/16/2019	1/16/2019	1/16/2019	1/15/2019	1/16/2019
Parameters	**Units**												
PCBs (cont'd)													
(PCB 37) 3,4,4'-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 38) 3,4,5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 39) 3,4',5-Trichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 4) 2,2'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 40/41/71) 2,2',3,3'-TeCB/ 2,2',3,4-TeCB/2,3',4',6-TeCB	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 42) 2,2',3,4'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 43/73) 2,2',3,5-Tetrachlorobiphenyl/2,3',5',6-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 44/47/65) 2,2',3,5'-Tetrachlorobiphenyl/2,2',4,4'-Tetrachlorobiphenyl/2,3,5,6-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 45/51) 2,2',3,6-Tetrachlorobiphenyl/2,2',4,6'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 46) 2,2',3,6'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 48) 2,2',4,5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 49/69) 2,2',4,5'-Tetrachlorobiphenyl/2,3',4,6-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 5) 2,3-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 50/53) 2,2',4,6-Tetrachlorobipheny/2,2',5,6'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 54) 2,2',6,6'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 55) 2,3,3',4-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 56) 2,3,3',4'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 57) 2,3,3',5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 58) 2,3,3',5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 59/62/75) 2,3,3',6-Tetrachlorobiphenyl/2,3,4,6-Tetrachlorobiphenyl/ 2,4,4',6-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 6) 2,3'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 60) 2,3,4,4'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 61/70/74/76) 2,3,4,5-Tetrachlorobiphenyl/2,3',4',5-Tetrachlorobiphenyl/2,4,4',5-Tetrachlorobiphenyl/2,3',4',5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 63) 2,3,4',5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 64) 2,3,4',6-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 66) 2,3',4,4'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 67) 2,3',4,5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 68) 2,3',4,5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 7) 2,4-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 72) 2,3',5,5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 77) 3,3',4,4'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 78) 3,3',4,5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 79) 3,3',4,5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 8) 2,4'-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 80) 3,3',5,5'-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 81) 3,4,4',5-Tetrachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 82) 2,2',3,3',4-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 83/99) 2,2',3,3',5-Pentachlorobiphenyl/2,2',4,4',5-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 84) 2,2',3,3',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 85/116/117) 2,2',3,4,4'-PeCB/2,3,4,5,6-PeCB/2,3,4',5,6-PeCB	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 86/87/97/109/119/125) 2,2',3,4,5-PeCB/ 2,2',3,4,5'-PeCB/2,2',3',4,5-PeCB/2,3,3',4,6-PeCB/2,3',4,4',6-PeCB/2',3,4,5,6'-PeCB	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 88/91) 2,2',3,4,6-Pentachlorobiphenyl/2,2',3,4',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 89) 2,2',3,4,6'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 9) 2,5-Dichlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 90/101/113) 2,2',3,4',5-Pentachlorobiphenyl/2,2',4,5,5'-Pentachlorobiphenyl/2,3,3',5',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 92) 2,2',3,5,5'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 93/100) 2,2',3,5,6-Pentachlorobiphenyl/2,2',4,4',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 94) 2,2',3,5,6'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 95) 2,2',3,5',6-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 96) 2,2',3,6,6'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
(PCB 98/102) 2,2',3,4',6'-Pentachlorobiphenyl/2,2',4,5,6'-Pentachlorobiphenyl	ng/g	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1016 (PCB-1016)	mg/kg	1.8 U	0.82 U	-	2.3 U	-	0.89 U	4.5 U	0.91 U	0.88 UJ	0.51 UJ	1.0 U	1.1 U
Aroclor-1221 (PCB-1221)	mg/kg	1.8 U	0.82 U	-	2.3 U	-	0.89 U	4.5 U	0.91 U	0.88 UJ	0.51 UJ	1.0 U	1.1 U
Aroclor-1232 (PCB-1232)	mg/kg	1.8 U	0.82 U	-	2.3 U	-	0.89 U	4.5 U	0.91 U	0.88 UJ	0.51 UJ	1.0 U	1.1 U
Aroclor-1242 (PCB-1242)	mg/kg	1.8 U	0.82 U	-	2.3 U	-	0.89 U	4.5 U	0.91 U	0.88 UJ	0.51 UJ	1.0 U	1.1 U

Table 5a

Dust Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		1389 Forbes	1430 Forbes	1430 Forbes	1484 Forbes	1484 Forbes	1597 Moll St	1597 Ruie Road	1618 Moll St	1619 Master St	1625 Nash Road	1656 Ruie Road	1727 Forbes St
Sample ID:		**NSH095D**	**NSH117D**	**NSH300D 1430 FORBES**	**NSH208D**	**NSH301D 1484 FORBES**	**NSH121D**	**NSH112D**	**NSH132D**	**NSH129D**	**NSH136D**	**NSH202D**	**NSH140D**
Sample Date:		**1/15/2019**	**1/15/2019**	**2/27/2019**	**1/15/2019**	**2/27/2019**	**1/16/2019**	**1/15/2019**	**1/16/2019**	**1/16/2019**	**1/16/2019**	**1/15/2019**	**1/16/2019**
Parameters	**Units**												
PCBs (cont'd)													
Aroclor-1248 (PCB-1248)	mg/kg	1.8 U	0.82 U	-	2.3 U	-	0.89 U	4.5 U	0.91 U	0.88 UJ	0.51 UJ	1.0 U	1.1 U
Aroclor-1254 (PCB-1254)	mg/kg	12	0.82 U	-	2.3 U	-	0.59 J	18	0.91 U	0.88 U	0.51 UJ	1.0 U	4.6 J
Aroclor-1260 (PCB-1260)	mg/kg	1.8 U	0.82 U	-	2.3 U	-	0.89 U	4.5 U	0.91 U	0.88 U	0.71 J	1.0 U	1.1 U
Pesticides													
4,4'-DDD	mg/kg	0.24 U	0.19 U	-	0.16 U	0.2 U	0.28	0.15 U	0.05 U	0.025 J	0.0051 J	0.099 U	0.19 J
4,4'-DDE	mg/kg	0.18 J	0.19 U	-	0.16 U	0.06 J	0.17 U	0.14 J	0.05 U	0.089 U	0.098	0.044 J	0.13 J
4,4'-DDT	mg/kg	0.24 U	0.26	-	0.062 J	0.2 U	0.11 J	0.15 U	0.05 U	0.089 U	0.02 U	0.2	0.21 J
Aldrin	mg/kg	0.24 U	0.19 U	-	0.16 U	0.2 U	0.17 U	0.15 U	0.05 U	0.089 U	0.02 U	0.099 U	0.04 J
alpha-BHC	mg/kg	0.24 U	0.19 U	-	0.16 U	0.2 U	0.072 J	0.15 U	0.05 U	0.026 J	0.02	0.099 U	0.016 J
alpha-Chlordane	mg/kg	0.24 U	0.19 U	-	0.16 U	0.2 U	0.17 U	0.15 U	0.05 U	0.089 U	0.02 U	0.099 U	0.049 UJ
beta-BHC	mg/kg	0.24 U	0.19 U	-	0.16 U	0.2 U	0.18	0.15 U	0.092	0.089 U	0.02 U	0.099 U	0.049 UJ
delta-BHC	mg/kg	0.067 J	0.19 U	-	0.054 J	0.2 U	0.091 J	0.03 J	0.013 J	0.022 J	0.02 U	0.039 J	0.022 J
Dieldrin	mg/kg	0.24 U	0.19 U	-	0.16 U	0.2 U	0.084 J	0.19 J	0.05 U	0.089 U	0.035	0.099 U	0.19 J
Endosulfan I	mg/kg	0.24 U	0.19 U	-	0.16 U	0.2 U	0.17 U	0.15 U	0.05 U	0.089 U	0.02 U	0.099 U	0.027 J
Endosulfan II	mg/kg	0.068 J	0.19 U	-	0.16 U	0.2 U	0.17 U	0.031 J	0.05 U	0.089 U	0.02 U	0.099 U	0.027 J
Endosulfan sulfate	mg/kg	0.24 U	0.19 U	-	0.16 U	0.2 U	0.17 U	0.15 U	0.05 U	0.16	0.02 U	0.077 J	0.049 UJ
Endrin	mg/kg	0.24 U	0.19 U	-	0.16 U	0.2 U	0.17 U	0.15 U	0.05 U	0.089 U	0.02 U	0.099 U	0.038 J
Endrin aldehyde	mg/kg	0.24 U	0.19 U	-	0.16 U	0.2 U	0.17 U	0.15 U	0.05 U	0.089 U	0.02 U	0.099 U	0.049 UJ
Endrin ketone	mg/kg	0.24 U	0.19 U	-	0.16 U	0.14 J	0.52	0.15 U	0.087	0.21	0.02 U	0.099 U	0.13 J
gamma-BHC (lindane)	mg/kg	0.24 U	0.19 U	-	0.64	2.9	0.046 J	0.15 U	0.0091 J	0.027 J	0.02 U	0.099 U	0.013 J
gamma-Chlordane	mg/kg	0.24 U	0.19 U	-	0.16 U	0.2 U	0.095 J	0.15 U	0.046 J	0.16	0.077	0.099 U	0.084 J
Heptachlor	mg/kg	0.24 U	0.19 U	-	0.16 U	0.2 U	0.17 U	0.15 U	0.035 J	0.023 J	0.02 U	0.099 U	0.033 J
Heptachlor epoxide	mg/kg	0.24 U	0.095 J	-	0.13 J	0.2 U	0.051 J	0.15 U	0.05 U	0.089 U	0.02 U	0.042 J	0.021 J
Methoxychlor	mg/kg	0.24 U	0.22	-	0.16 U	0.2 U	0.17 U	0.37 J	0.05 U	0.089 U	0.32	0.56	0.049 UJ
Toxaphene	mg/kg	2.4 U	1.9 U	-	1.6 U	2 U	1.7 U	1.5 U	0.5 U	0.89 U	0.2 U	0.99 U	0.49 UJ
Dioxin Furans													
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	pg/g	230	-	-	140	-	210	-	43 J	220	730	-	570
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	pg/g	6400 J	-	-	1100	-	4500 J	-	2000 J	5200 J	41000 J	-	9300 J
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	pg/g	150 J	-	-	60 J	-	94 J	-	32 J	75 J	290	-	170
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	pg/g	1300	-	-	250	-	870	-	160 J	860	7700	-	810
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	pg/g	8.7	-	-	6.8 U	-	4.8 U	-	8.7 UJ	21	18 J	-	7.8
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	35	-	-	15	-	7.8	-	4.1 J	13	27 J	-	28
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	4.9 U	-	-	1.2 J	-	4.8 U	-	2.4 J	5.1 U	50 U	-	3.2 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	16	-	-	3.9 J	-	4.1 J	-	2.5 J	4.3 J	13 J	-	8.6
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	50	-	-	9.4	-	18	-	5.9 J	44	250	-	19
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	pg/g	4.9 U	-	-	4.8 U	-	4.8 U	-	8.7 UJ	5.1 U	50 U	-	5.1 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	12	-	-	5.6	-	11	-	8.5 J	9.8	52	-	17
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	3.0 J	-	-	0.69 J	-	4.8 U	-	8.7 UJ	5.1 U	50 U	-	5.1 U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	pg/g	200 U	-	-	4.8 U	-	1.4 J	-	8.7 UJ	5.1 U	50 U	-	20 U
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	9.8	-	-	2.1 J	-	3.2 J	-	8.7 UJ	4.7 J	11 J	-	4.3 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	14	-	-	1.3 J	-	4.8 U	-	8.7 UJ	5.1 U	6.0 J	-	6.0
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	pg/g	9.4	-	-	0.70 J	-	1.5 J	-	1.2 J	1.5 J	3.7 J	-	11
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/g	0.37 J	-	-	0.44 J	-	0.45 J	-	0.38 J	0.27 J	10 U	-	3.8

Notes:

-- - Not applicable
U - Not detected at the associated reporting limit
J - Estimated concentration
PCBs - Polychlorinated biphenyls
mg/kg - milligrams per kilogram
ng/g - nanograms per gram
pg/g - picograms per gram

Table 5a

Dust Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		**317 Patrice Terrace**	**3295 Evergreen Dr**	**6 Southwind Trail**
Sample ID:		**NSH-166D 317 PATRICE TERRACE ALS SPLIT**	**NSH205D**	**NSH-156D 6 SOUTHWIND TRAIL ALS SPLIT**
Sample Date:		**2/7/2019**	**1/15/2019**	**2/7/2019**
Parameters	**Units**	**(Buffalo Sample)**		**(Buffalo Sample)**
Volatile Organic Compounds				
1,1,1-Trichloroethane	mg/kg	0.048 U	-	0.04 U
1,1,2,2-Tetrachloroethane	mg/kg	0.048 U	-	0.04 U
1,1,2-Trichloroethane	mg/kg	0.048 U	-	0.04 U
1,1-Dichloroethane	mg/kg	0.048 U	-	0.04 U
1,1-Dichloroethene	mg/kg	0.048 U	-	0.04 U
1,2,4-Trichlorobenzene	mg/kg	0.048 U	-	0.04 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.048 U	-	0.04 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	0.048 U	-	0.04 U
1,2-Dichlorobenzene	mg/kg	0.048 U	-	0.04 U
1,2-Dichloroethane	mg/kg	0.048 U	-	0.04 U
1,2-Dichloropropane	mg/kg	0.048 U	-	0.04 U
1,3-Dichlorobenzene	mg/kg	0.048 U	-	0.04 U
1,4-Dichlorobenzene	mg/kg	0.048 U	-	0.04 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	1.2 J	-	2 J
2-Hexanone	mg/kg	0.24 U	-	0.2 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	0.24 U	-	0.017 J
Acetone	mg/kg	1.8	-	2.8
Benzene	mg/kg	0.0046 J	-	0.0061 J
Bromodichloromethane	mg/kg	0.048 U	-	0.04 U
Bromoform	mg/kg	0.048 U	-	0.04 U
Bromomethane (Methyl bromide)	mg/kg	0.048 U	-	0.04 U
Carbon disulfide	mg/kg	0.048 U	-	0.04 U
Carbon tetrachloride	mg/kg	0.048 U	-	0.04 U
Chlorobenzene	mg/kg	0.048 U	-	0.04 U
Chloroethane	mg/kg	0.048 U	-	0.04 U
Chloroform (Trichloromethane)	mg/kg	0.0056 J	-	0.0063 J
Chloromethane (Methyl chloride)	mg/kg	0.048 U	-	0.04 U
cis-1,2-Dichloroethene	mg/kg	0.048 U	-	0.04 U
cis-1,3-Dichloropropene	mg/kg	0.048 U	-	0.04 U
Cyclohexane	mg/kg	0.048 U	-	0.04 U
Dibromochloromethane	mg/kg	0.048 U	-	0.04 U
Dichlorodifluoromethane (CFC-12)	mg/kg	0.048 U	-	0.04 U
Ethylbenzene	mg/kg	0.0048 J	-	0.0044 J
Isopropyl benzene	mg/kg	0.048 U	-	0.04 U
Methyl acetate	mg/kg	0.24 U	-	0.2 U
Methyl cyclohexane	mg/kg	0.048 U	-	0.04 U
Methyl tert butyl ether (MTBE)	mg/kg	0.048 U	-	0.04 U
Methylene chloride	mg/kg	0.18	-	0.18
Styrene	mg/kg	0.0092 J	-	0.01 J
Tetrachloroethene	mg/kg	0.048 U	-	0.04 U
Toluene	mg/kg	0.091	-	0.11
trans-1,2-Dichloroethene	mg/kg	0.048 U	-	0.04 U
trans-1,3-Dichloropropene	mg/kg	0.048 U	-	0.04 U
Trichloroethene	mg/kg	0.048 U	-	0.04 U
Trichlorofluoromethane (CFC-11)	mg/kg	0.048 U	-	0.04 U
Trifluorotrichloroethane (CFC-113)	mg/kg	0.048 U	-	0.04 U
Vinyl chloride	mg/kg	0.048 U	-	0.04 U
Xylenes (total)	mg/kg	0.024 J	-	0.023 J
Semi-volatile Organic Compounds				
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	50 U	-	81 U
2,4,5-Trichlorophenol	mg/kg	50 U	-	81 U
2,4,6-Trichlorophenol	mg/kg	50 U	-	81 U
2,4-Dichlorophenol	mg/kg	50 U	-	81 U
2,4-Dimethylphenol	mg/kg	50 U	-	81 U
2,4-Dinitrophenol	mg/kg	480 U	-	790 U
2,4-Dinitrotoluene	mg/kg	50 U	-	81 U
2,6-Dinitrotoluene	mg/kg	50 U	-	81 U
2-Chloronaphthalene	mg/kg	50 U	-	81 U
2-Chlorophenol	mg/kg	50 U	-	81 U

Table 5a

Dust Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		**317 Patrice Terrace**	**3295 Evergreen Dr**	**6 Southwind Trail**
Sample ID:		**NSH-166D 317 PATRICE TERRACE ALS SPLIT**	**NSH205D**	**NSH-156D 6 SOUTHWIND TRAIL ALS SPLIT**
Sample Date:		**2/7/2019**	**1/15/2019**	**2/7/2019**
Parameters	**Units**	**(Buffalo Sample)**		**(Buffalo Sample)**
Semi-volatile Organic Compounds (cont'd)				
2-Methylnaphthalene	mg/kg	50 U	-	81 U
2-Methylphenol	mg/kg	50 U	-	81 U
2-Nitroaniline	mg/kg	96 U	-	160 U
2-Nitrophenol	mg/kg	50 U	-	81 U
3,3'-Dichlorobenzidine	mg/kg	96 U	-	160 U
3-Nitroaniline	mg/kg	96 U	-	160 U
4,6-Dinitro-2-methylphenol	mg/kg	96 U	-	160 U
4-Bromophenyl phenyl ether	mg/kg	50 U	-	81 U
4-Chloro-3-methylphenol	mg/kg	50 U	-	81 U
4-Chloroaniline	mg/kg	50 U	-	81 U
4-Chlorophenyl phenyl ether	mg/kg	50 U	-	81 U
4-Methylphenol	mg/kg	96 U	-	160 U
4-Nitroaniline	mg/kg	96 U	-	160 U
4-Nitrophenol	mg/kg	96 U	-	160 U
Acenaphthene	mg/kg	50 U	-	81 U
Acenaphthylene	mg/kg	50 U	-	81 U
Acetophenone	mg/kg	50 U	-	81 U
Anthracene	mg/kg	50 U	-	81 U
Atrazine	mg/kg	50 U	-	81 U
Benzaldehyde	mg/kg	50 U	-	81 U
Benzo(a)anthracene	mg/kg	50 U	-	81 U
Benzo(a)pyrene	mg/kg	50 U	-	81 U
Benzo(b)fluoranthene	mg/kg	50 U	-	81 U
Benzo(g,h,i)perylene	mg/kg	50 U	-	81 U
Benzo(k)fluoranthene	mg/kg	50 U	-	81 U
Biphenyl (1,1-Biphenyl)	mg/kg	50 U	-	81 U
bis(2-Chloroethoxy)methane	mg/kg	50 U	-	81 U
bis(2-Chloroethyl)ether	mg/kg	50 U	-	81 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	390	-	130
Butyl benzylphthalate (BBP)	mg/kg	70	-	40 J
Caprolactam	mg/kg	50 U	-	81 U
Carbazole	mg/kg	50 U	-	81 U
Chrysene	mg/kg	50 U	-	81 U
Dibenz(a,h)anthracene	mg/kg	50 U	-	81 U
Dibenzofuran	mg/kg	50 U	-	81 U
Diethyl phthalate	mg/kg	50 U	-	81 U
Dimethyl phthalate	mg/kg	50 U	-	81 U
Di-n-butylphthalate (DBP)	mg/kg	17 J	-	81 U
Di-n-octyl phthalate (DnOP)	mg/kg	15 J	-	81 U
Fluoranthene	mg/kg	50 U	-	10 J
Fluorene	mg/kg	50 U	-	81 U
Hexachlorobenzene	mg/kg	50 U	-	81 U
Hexachlorobutadiene	mg/kg	50 U	-	81 U
Hexachlorocyclopentadiene	mg/kg	50 U	-	81 U
Hexachloroethane	mg/kg	50 U	-	81 U
Indeno(1,2,3-cd)pyrene	mg/kg	50 U	-	81 U
Isophorone	mg/kg	50 U	-	81 U
Naphthalene	mg/kg	50 U	-	81 U
Nitrobenzene	mg/kg	50 U	-	81 U
N-Nitrosodi-n-propylamine	mg/kg	50 U	-	81 U
N-Nitrosodiphenylamine	mg/kg	50 U	-	81 U
Pentachlorophenol	mg/kg	96 U	-	160 U
Phenanthrene	mg/kg	50 U	-	81 U
Phenol	mg/kg	50 U	-	81 U
Pyrene	mg/kg	50 U	-	81 U
Metals				
Antimony	mg/kg	11.3	-	-
Arsenic	mg/kg	1.1	12.8 U	-
Barium	mg/kg	-	108	-
Beryllium	mg/kg	0.051 J	-	-

Table 5a

Dust Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		**317 Patrice Terrace**	**3295 Evergreen Dr**	**6 Southwind Trail**
Sample ID:		**NSH-166D 317 PATRICE TERRACE ALS SPLIT**	**NSH205D**	**NSH-156D 6 SOUTHWIND TRAIL ALS SPLIT**
Sample Date:		**2/7/2019**	**1/15/2019**	**2/7/2019**
Parameters	**Units**	**(Buffalo Sample)**		**(Buffalo Sample)**
Metals (cont'd)				
Cadmium	mg/kg	0.44	29.0	-
Chromium	mg/kg	22.5	42.3	-
Copper	mg/kg	45.4	-	-
Lead	mg/kg	10.6	111	-
Mercury	mg/kg	0.061	0.59 U	-
Selenium	mg/kg	0.28 J	25.5 U	-
Silver	mg/kg	0.24	3.8 U	-
Thallium	mg/kg	0.10 U	-	-
Titanium	mg/kg	47.5	-	-
Zinc	mg/kg	365	-	-
PCBs				
(PCB 1) 2-Chlorobiphenyl	ng/g	0.069 J	-	-
(PCB 10) 2,6-Dichlorobiphenyl	ng/g	0.11 U	-	-
(PCB 103) 2,2',4,5',6-Pentachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 104) 2,2',4,6,6'-Pentachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 105) 2,3,3',4,4'-Pentachlorobiphenyl	ng/g	8.3	-	-
(PCB 106) 2,3,3',4,5-Pentachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 107) 2,3,3',4',5-Pentachlorobiphenyl	ng/g	1.4	-	-
(PCB 108/124) 2,3,3',4,5'-Pentachlorobiphenyl/2,3',4',5,5'-Pentachlorobiphenyl	ng/g	0.82	-	-
(PCB 11) 3,3'-Dichlorobiphenyl	ng/g	24	-	-
(PCB 110/115) 2,3,3',4',6-Pentachlorobiphenyl/2,3,4,4',6-Pentachlorobiphenyl	ng/g	32	-	-
(PCB 111) 2,3,3',5,5'-Pentachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 112) 2,3,3',5,6-Pentachlorobiphenyl	ng/g	0.085 J	-	-
(PCB 114) 2,3,4,4',5-Pentachlorobiphenyl	ng/g	0.69	-	-
(PCB 118) 2,3',4,4',5-Pentachlorobiphenyl	ng/g	19	-	-
(PCB 12/13) 3,4-Dichlorobiphenyl/3,4'-Dichlorobiphenyl	ng/g	0.17 J	-	-
(PCB 120) 2,3',4,5,5'-Pentachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 121) 2,3',4,5',6-Pentachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 122) 2,3,3',4',5'-Pentachlorobiphenyl	ng/g	0.28 J	-	-
(PCB 123) 2',3,4,4',5-Pentachlorobiphenyl	ng/g	0.54	-	-
(PCB 126) 3,3',4,4',5-Pentachlorobiphenyl	ng/g	1.0	-	-
(PCB 127) 3,3',4,5,5'-Pentachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 128/166) 2,2',3,3',4,4'-Hexachlorobiphenyl/2,3,4,4',5,6-Hexachlorobiphenyl	ng/g	4.2	-	-
(PCB 129/138/160/163) Hexachlorobiphenyl	ng/g	21	-	-
(PCB 130) 2,2',3,3',4,5'-Hexachlorobiphenyl	ng/g	1.5	-	-
(PCB 131) 2,2',3,3',4,6-Hexachlorobiphenyl	ng/g	0.44	-	-
(PCB 132) 2,2',3,3',4,6'-Hexachlorobiphenyl	ng/g	7.3	-	-
(PCB 133) 2,2',3,3',5,5'-Hexachlorobiphenyl	ng/g	0.25	-	-
(PCB 134/143) 2,2',3,3',5,6-Hexachlorobiphenyl/2,2',3,4,5,6'-Hexachlorobiphenyl	ng/g	1.4	-	-
(PCB 135/151) 2,2',3,3',5,6'-Hexachlorobiphenyl/2,2',3,5,5',6-Hexachlorobiphenyl	ng/g	5.4	-	-
(PCB 136) 2,2',3,3',6,6'-Hexachlorobiphenyl	ng/g	2.8	-	-
(PCB 137) 2,2',3,4,4',5-Hexachlorobiphenyl	ng/g	1.5	-	-
(PCB 139/140) 2,2',3,4,4',6-Hexachlorobiphenyl/2,2',3,4,4',6'-Hexachlorobiphenyl	ng/g	0.45	-	-
(PCB 14) 3,5-Dichlorobiphenyl	ng/g	0.11 U	-	-
(PCB 141) 2,2',3,4,5,5'-Hexachlorobiphenyl	ng/g	3.3	-	-
(PCB 142) 2,2',3,4,5,6-Hexachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 144) 2,2',3,4,5',6-Hexachlorobiphenyl	ng/g	0.92	-	-
(PCB 145) 2,2',3,4,6,6'-Hexachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 146) 2,2',3,4',5,5'-Hexachlorobiphenyl	ng/g	2.3	-	-
(PCB 147/149) 2,2',3,4',5,6-Hexachlorobiphenyl/2,2',3,4',5',6-Hexachlorobiphenyl	ng/g	15	-	-
(PCB 148) 2,2',3,4',5,6'-Hexachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 15) 4,4'-Dichlorobiphenyl	ng/g	0.38	-	-
(PCB 150) 2,2',3,4',6,6'-Hexachlorobiphenyl	ng/g	0.037 J	-	-
(PCB 152) 2,2',3,5,6,6'-Hexachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 153/168) 2,2',4,4',5,5'-Hexachlorobiphenyl/2,3',4,4',5',6-Hexachlorobiphenyl	ng/g	12	-	-
(PCB 154) 2,2',4,4',5,6'-Hexachlorobiphenyl	ng/g	0.16	-	-
(PCB 155) 2,2',4,4',6,6'-Hexachlorobiphenyl	ng/g	0.060 J	-	-
(PCB 156/157) 2,3,3',4,4',5-Hexachlorobiphenyl/2,3,3',4,4',5'-Hexachlorobiphenyl	ng/g	4.8	-	-
(PCB 158) 2,3,3',4,4',6-Hexachlorobiphenyl	ng/g	2.4	-	-
(PCB 159) 2,3,3',4,5,5'-Hexachlorobiphenyl	ng/g	0.11 U	-	-

Table 5a

Dust Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		**317 Patrice Terrace**	**3295 Evergreen Dr**	**6 Southwind Trail**
Sample ID:		**NSH-166D 317 PATRICE TERRACE ALS SPLIT**	**NSH205D**	**NSH-156D 6 SOUTHWIND TRAIL ALS SPLIT**
Sample Date:		**2/7/2019**	**1/15/2019**	**2/7/2019**
Parameters	**Units**	**(Buffalo Sample)**		**(Buffalo Sample)**
PCBs (cont'd)				
(PCB 16) 2,2',3-Trichlorobiphenyl	ng/g	0.42 J	-	-
(PCB 161) 2,3,3',4,5',6-Hexachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 162) 2,3,3',4',5,5'-Hexachlorobiphenyl	ng/g	0.092 J	-	-
(PCB 164) 2,3,3',4',5',6-Hexachlorobiphenyl	ng/g	1.3	-	-
(PCB 165) 2,3,3',5,5',6-Hexachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 167) 2,3',4,4',5,5'-Hexachlorobiphenyl	ng/g	1.7	-	-
(PCB 169) 3,3',4,4',5,5'-Hexachlorobiphenyl	ng/g	1.2	-	-
(PCB 17) 2,2',4-Trichlorobiphenyl	ng/g	0.39	-	-
(PCB 170) 2,2',3,3',4,4',5-Heptachlorobiphenyl	ng/g	2.4	-	-
(PCB 171/173) 2,2',3,3',4,4',6-Heptachlorobiphenyl/2,2',3,3',4,5,6-Heptachlorobiphenyl	ng/g	0.69	-	-
(PCB 172) 2,2',3,3',4,5,5'-Heptachlorobiphenyl	ng/g	0.31	-	-
(PCB 174) 2,2',3,3',4,5,6'-Heptachlorobiphenyl	ng/g	1.4	-	-
(PCB 175) 2,2',3,3',4,5',6-Heptachlorobiphenyl	ng/g	0.086 J	-	-
(PCB 176) 2,2',3,3',4,6,6'-Heptachlorobiphenyl	ng/g	0.24	-	-
(PCB 177) 2,2',3,3',4',5,6-Heptachlorobiphenyl	ng/g	0.86	-	-
(PCB 178) 2,2',3,3',5,5',6-Heptachlorobiphenyl	ng/g	0.25	-	-
(PCB 179) 2,2',3,3',5,6,6'-Heptachlorobiphenyl	ng/g	0.64	-	-
(PCB 18/30) 2,2',5-Trichlorobiphenyl/2,4,6-Trichlorobiphenyl	ng/g	0.98	-	-
(PCB 180/193) 2,2',3,4,4',5,5'-Heptachlorobiphenyl/2,3,3',4',5,5',6-Heptachlorobiphenyl	ng/g	3.9	-	-
(PCB 181) 2,2',3,4,4',5,6-Heptachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 182) 2,2',3,4,4',5,6'-Heptachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 183/185) 2,2',3,4,4',5',6-Heptachlorobiphenyl/2,2',3,4,5,5',6-Heptachlorobiphenyl	ng/g	0.99	-	-
(PCB 184) 2,2',3,4,4',6,6'-Heptachlorobiphenyl	ng/g	0.13	-	-
(PCB 186) 2,2',3,4,5,6,6'-Heptachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 187) 2,2',3,4',5,5',6-Heptachlorobiphenyl	ng/g	1.5	-	-
(PCB 188) 2,2',3,4',5,6,6'-Heptachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 189) 2,3,3',4,4',5,5'-Heptachlorobiphenyl	ng/g	1.5	-	-
(PCB 19) 2,2',6-Trichlorobiphenyl	ng/g	0.077 J	-	-
(PCB 190) 2,3,3',4,4',5,6-Heptachlorobiphenyl	ng/g	0.29	-	-
(PCB 191) 2,3,3',4,4',5',6-Heptachlorobiphenyl	ng/g	0.097 J	-	-
(PCB 192) 2,3,3',4,5,5',6-Heptachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 194) 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	ng/g	0.18	-	-
(PCB 195) 2,2',3,3',4,4',5,6-Octachlorobiphenyl	ng/g	0.094 J	-	-
(PCB 196) 2,2',3,3',4,4',5,6'-Octachlorobiphenyl	ng/g	0.16	-	-
(PCB 197) 2,2',3,3',4,4',6,6'-Octachlorobiphenyl	ng/g	0.0085 J	-	-
(PCB 198/199) 2,2',3,3',4,5,5',6-Octachlorobiphenyl/2,2',3,3',4,5,5',6'-Octachlorobiphenyl	ng/g	0.33	-	-
(PCB 2) 3-Chlorobiphenyl	ng/g	0.037 J	-	-
(PCB 20/28) 2,3,3'-Trichlorobiphenyl/2,4,4'-Trichlorobiphenyl	ng/g	1.7	-	-
(PCB 200) 2,2',3,3',4,5,6,6'-Octachlorobiphenyl	ng/g	0.045 J	-	-
(PCB 201) 2,2',3,3',4,5',6,6'-Octachlorobiphenyl	ng/g	0.049 J	-	-
(PCB 202) 2,2',3,3',5,5',6,6'-Octachlorobiphenyl	ng/g	0.088 J	-	-
(PCB 203) 2,2',3,4,4',5,5',6-Octachlorobiphenyl	ng/g	0.17	-	-
(PCB 204) 2,2',3,4,4',5,6,6'-Octachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 205) 2,3,3',4,4',5,5',6-Octachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 206) 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	ng/g	0.10 J	-	-
(PCB 207) 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	ng/g	0.028 J	-	-
(PCB 208) 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	ng/g	0.031 J	-	-
(PCB 209) Decachlorobiphenyl	ng/g	0.065 J	-	-
(PCB 21/33) 2,3,4-Trichlorobiphenyl/2',3,4-Trichlorobiphenyl	ng/g	1.0	-	-
(PCB 22) 2,3,4'-Trichlorobiphenyl	ng/g	0.69	-	-
(PCB 23) 2,3,5-Trichlorobiphenyl	ng/g	0.11 U	-	-
(PCB 24) 2,3,6-Trichlorobiphenyl	ng/g	0.0091 J	-	-
(PCB 25) 2,3',4-Trichlorobiphenyl	ng/g	0.079 J	-	-
(PCB 26/29) 2,3',5-Trichlorobipheny/2,4,5-Trichlorobiphenyl	ng/g	0.23	-	-
(PCB 27) 2,3',6-Trichlorobiphenyl	ng/g	0.057 J	-	-
(PCB 3) 4-Monochlorobiphenyl	ng/g	0.041 J	-	-
(PCB 31) 2,4',5-Trichlorobiphenyl	ng/g	1.7	-	-
(PCB 32) 2,4',6-Trichlorobiphenyl	ng/g	0.31	-	-
(PCB 34) 2,3',5'-Trichlorobiphenyl	ng/g	0.11 U	-	-
(PCB 35) 3,3',4-Trichlorobiphenyl	ng/g	0.19	-	-
(PCB 36) 3,3',5-Trichlorobiphenyl	ng/g	0.11 U	-	-

Table 5a

Dust Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		**317 Patrice Terrace**	**3295 Evergreen Dr**	**6 Southwind Trail**
Sample ID:		**NSH-166D 317 PATRICE TERRACE ALS SPLIT**	**NSH205D**	**NSH-156D 6 SOUTHWIND TRAIL ALS SPLIT**
Sample Date:		**2/7/2019**	**1/15/2019**	**2/7/2019**
Parameters	**Units**	**(Buffalo Sample)**		**(Buffalo Sample)**
PCBs (cont'd)				
(PCB 37) 3,4,4'-Trichlorobiphenyl	ng/g	0.76	-	-
(PCB 38) 3,4,5-Trichlorobiphenyl	ng/g	0.11 U	-	-
(PCB 39) 3,4',5-Trichlorobiphenyl	ng/g	0.11 U	-	-
(PCB 4) 2,2'-Dichlorobiphenyl	ng/g	0.15 J	-	-
(PCB 40/41/71) 2,2',3,3'-TeCB/ 2,2',3,4-TeCB/2,3',4',6-TeCB	ng/g	2.2	-	-
(PCB 42) 2,2',3,4'-Tetrachlorobiphenyl	ng/g	0.90	-	-
(PCB 43/73) 2,2',3,5-Tetrachlorobiphenyl/2,3',5',6-Tetrachlorobiphenyl	ng/g	0.21 U	-	-
(PCB 44/47/65) 2,2',3,5'-Tetrachlorobiphenyl/2,2',4,4'-Tetrachlorobiphenyl/2,3,5,6-Tetrachlorobiphenyl	ng/g	7.6	-	-
(PCB 45/51) 2,2',3,6-Tetrachlorobiphenyl/2,2',4,6'-Tetrachlorobiphenyl	ng/g	0.42	-	-
(PCB 46) 2,2',3,6'-Tetrachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 48) 2,2',4,5-Tetrachlorobiphenyl	ng/g	0.71	-	-
(PCB 49/69) 2,2',4,5'-Tetrachlorobiphenyl/2,3',4,6-Tetrachlorobiphenyl	ng/g	3.7	-	-
(PCB 5) 2,3-Dichlorobiphenyl	ng/g	0.11 U	-	-
(PCB 50/53) 2,2',4,6-Tetrachlorobipheny/2,2',5,6'-Tetrachlorobiphenyl	ng/g	0.32 J	-	-
(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	ng/g	18	-	-
(PCB 54) 2,2',6,6'-Tetrachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 55) 2,3,3',4-Tetrachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 56) 2,3,3',4'-Tetrachlorobiphenyl	ng/g	2.4	-	-
(PCB 57) 2,3,3',5-Tetrachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 58) 2,3,3',5'-Tetrachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 59/62/75) 2,3,3',6-Tetrachlorobiphenyl/2,3,4,6-Tetrachlorobiphenyl/ 2,4,4',6-Tetrachlorobiphenyl	ng/g	0.25 J	-	-
(PCB 6) 2,3'-Dichlorobiphenyl	ng/g	0.14 J	-	-
(PCB 60) 2,3,4,4'-Tetrachlorobiphenyl	ng/g	1.4	-	-
(PCB 61/70/74/76) 2,3,4,5-Tetrachlorobiphenyl/2,3',4',5-Tetrachlorobiphenyl/2,4,4',5-Tetrachlorobiphenyl/2,3',4',5'-Tetrachlorobiphenyl	ng/g	19	-	-
(PCB 63) 2,3,4',5-Tetrachlorobiphenyl	ng/g	0.22	-	-
(PCB 64) 2,3,4',6-Tetrachlorobiphenyl	ng/g	2.6	-	-
(PCB 66) 2,3',4,4'-Tetrachlorobiphenyl	ng/g	5.5	-	-
(PCB 67) 2,3',4,5-Tetrachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 68) 2,3',4,5'-Tetrachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 7) 2,4-Dichlorobiphenyl	ng/g	0.11 U	-	-
(PCB 72) 2,3',5,5'-Tetrachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 77) 3,3',4,4'-Tetrachlorobiphenyl	ng/g	0.83	-	-
(PCB 78) 3,3',4,5-Tetrachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 79) 3,3',4,5'-Tetrachlorobiphenyl	ng/g	0.13 J	-	-
(PCB 8) 2,4'-Dichlorobiphenyl	ng/g	0.47	-	-
(PCB 80) 3,3',5,5'-Tetrachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 81) 3,4,4',5-Tetrachlorobiphenyl	ng/g	0.28	-	-
(PCB 82) 2,2',3,3',4-Pentachlorobiphenyl	ng/g	3.5	-	-
(PCB 83/99) 2,2',3,3',5-Pentachlorobiphenyl/2,2',4,4',5-Pentachlorobiphenyl	ng/g	18	-	-
(PCB 84) 2,2',3,3',6-Pentachlorobiphenyl	ng/g	9.4	-	-
(PCB 85/116/117) 2,2',3,4,4'-PeCB/2,3,4,5,6-PeCB/2,3,4',5,6-PeCB	ng/g	5.1	-	-
(PCB 86/87/97/109/119/125) 2,2',3,4,5-PeCB/ 2,2',3,4,5'-PeCB/2,2',3',4,5-PeCB/2,3,3',4,6-PeCB/2,3',4,4',6-PeCB/2',3,4,5,6'-PeCB	ng/g	23	-	-
(PCB 88/91) 2,2',3,4,6-Pentachlorobiphenyl/2,2',3,4',6-Pentachlorobiphenyl	ng/g	4.5	-	-
(PCB 89) 2,2',3,4,6'-Pentachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 9) 2,5-Dichlorobiphenyl	ng/g	0.11 U	-	-
(PCB 90/101/113) 2,2',3,4',5-Pentachlorobiphenyl/2,2',4,5,5'-Pentachlorobiphenyl/2,3,3',5',6-Pentachlorobiphenyl	ng/g	35	-	-
(PCB 92) 2,2',3,5,5'-Pentachlorobiphenyl	ng/g	5.9	-	-
(PCB 93/100) 2,2',3,5,6-Pentachlorobiphenyl/2,2',4,4',6-Pentachlorobiphenyl	ng/g	0.21 U	-	-
(PCB 94) 2,2',3,5,6'-Pentachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 95) 2,2',3,5',6-Pentachlorobiphenyl	ng/g	32	-	-
(PCB 96) 2,2',3,6,6'-Pentachlorobiphenyl	ng/g	0.11 U	-	-
(PCB 98/102) 2,2',3,4',6'-Pentachlorobiphenyl/2,2',4,5,6'-Pentachlorobiphenyl	ng/g	0.89	-	-
Aroclor-1016 (PCB-1016)	mg/kg	-	3.3 U	-
Aroclor-1221 (PCB-1221)	mg/kg	-	3.3 U	-
Aroclor-1232 (PCB-1232)	mg/kg	-	3.3 U	-
Aroclor-1242 (PCB-1242)	mg/kg	-	3.3 U	-

Table 5a

Dust Analytical Results Summary
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

Sample Location:		**317 Patrice Terrace**	**3295 Evergreen Dr**	**6 Southwind Trail**
Sample ID:		**NSH-166D 317 PATRICE TERRACE ALS SPLIT**	**NSH205D**	**NSH-156D 6 SOUTHWIND TRAIL ALS SPLIT**
Sample Date:		**2/7/2019**	**1/15/2019**	**2/7/2019**
Parameters	**Units**	**(Buffalo Sample)**		**(Buffalo Sample)**
PCBs (cont'd)				
Aroclor-1248 (PCB-1248)	mg/kg	-	3.3 U	-
Aroclor-1254 (PCB-1254)	mg/kg	-	3.3 U	-
Aroclor-1260 (PCB-1260)	mg/kg	-	3.3 U	-
Pesticides				
4,4'-DDD	mg/kg	0.099 U	-	0.38 U
4,4'-DDE	mg/kg	0.099 U	-	0.38 U
4,4'-DDT	mg/kg	0.099 U	-	0.38 U
Aldrin	mg/kg	0.099 U	-	0.38 U
alpha-BHC	mg/kg	0.099 U	-	0.38 U
alpha-Chlordane	mg/kg	0.099 U	-	0.38 U
beta-BHC	mg/kg	0.099 U	-	0.38 U
delta-BHC	mg/kg	0.021 J	-	0.38 U
Dieldrin	mg/kg	0.099 U	-	0.38 U
Endosulfan I	mg/kg	0.099 U	-	0.38 U
Endosulfan II	mg/kg	0.099 U	-	0.38 U
Endosulfan sulfate	mg/kg	0.099 U	-	0.38 U
Endrin	mg/kg	0.099 U	-	0.38 U
Endrin aldehyde	mg/kg	0.099 U	-	0.38 U
Endrin ketone	mg/kg	0.099 U	-	0.15 J
gamma-BHC (lindane)	mg/kg	0.099 U	-	0.38 U
gamma-Chlordane	mg/kg	0.043 J	-	0.38 U
Heptachlor	mg/kg	0.099 U	-	0.38 U
Heptachlor epoxide	mg/kg	0.099 U	-	0.38 U
Methoxychlor	mg/kg	0.099 U	-	0.38 U
Toxaphene	mg/kg	0.99 U	-	3.8 U
Dioxin Furans				
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	pg/g	23	-	-
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	pg/g	1000	-	-
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	pg/g	8.9 J	-	-
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	pg/g	140	-	-
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	pg/g	2.0 J	-	-
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	2.3 J	-	-
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	1.0 J	-	-
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	1.5 J	-	-
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	3.5 J	-	-
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	pg/g	2.5 U	-	-
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	2.8	-	-
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	2.5 U	-	-
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	pg/g	2.5 U	-	-
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	1.4 J	-	-
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	2.5 U	-	-
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	pg/g	1.0 J	-	-
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/g	0.51 U	-	-

Notes:

-- - Not applicable
U - Not detected at the associated reporting limit
J - Estimated concentration
PCBs - Polychlorinated biphenyls
mg/kg - milligrams per kilogram
ng/g - nanograms per gram
pg/g - picograms per gram

Table 5b

Dust Toxicity Equivalency Quotients
2019 Split Sampling of Nearby Properties
Niagara Sanitation Site

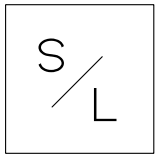
			1389 Forbes NSH095D 01/15/2019	1484 Forbes NSH208D 01/15/2019	1597 Moll St NSH121D 01/16/2019	1618 Moll St NSH132D 01/16/2019	1619 Master St NSH129D 01/16/2019	1625 Nash Road NSH136D 01/16/2019	1727 Forbes St NSH140D 01/16/2019	317 Patrice Terrace NSH-166D 317 PATRICE TERRACE ALS SPLIT 02/07/2019 (Buffalo Sample)
Polychlorinated Dibenzodioxins (PCDDs) & Polychlorinated Dibenzofurans (PCDFs)		**Factor**								
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	pg/g	0.0003	1.92	0.33	1.35	0.6	1.56	12.3	2.79	0.3
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	pg/g	0.0003	0.069	0.042	0.063	0.0129	0.066	0.219	0.171	0.0069
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	pg/g	0.01	13	2.5	8.7	1.6	8.6	77	8.1	1.4
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	pg/g	0.01	1.5	0.6	0.94	0.32	0.75	2.9	1.7	0.089
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	pg/g	0.01	0.087	0	0	0	0.21	0.18	0.078	0.02
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.1	0	0.12	0	0.24	0	0	0.32	0.1
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	3.5	1.5	0.78	0.41	1.3	2.7	2.8	0.23
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.1	5	0.94	1.8	0.59	4.4	25	1.9	0.35
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	1.6	0.39	0.41	0.25	0.43	1.3	0.86	0.15
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	pg/g	0.1	1.2	0.56	1.1	0.85	0.98	5.2	1.7	0.28
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0	0	0	0	0	0	0	0
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	pg/g	1	0	0	1.4	0	0	0	0	0
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	0.03	0.09	0.0207	0	0	0	0	0	0
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	pg/g	0.1	0.98	0.21	0.32	0	0.47	1.1	0.43	0.14
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	pg/g	0.3	4.2	0.39	0	0	0	1.8	1.8	0
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/g	1	0.37	0.44	0.45	0.38	0.27	0	3.8	0
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	pg/g	0.1	0.94	0.07	0.15	0.12	0.15	0.37	1.1	0.1

Notes:

pg/g - picograms per gram

TEQs are calculated to present relative concentrations of PCDDs and PCDFs in relation to TCDD toxicity.

Attachment A
Plaintiff's Notification Letters



STAG LIUZZA

January 10, 2018

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Washington, DC 20044

Re: ***Elizabeth Andres, et al. v. Town of Wheatfield, et al.***
USDC, Western District of NY, 1:17-cv-00377-CCR
Alicia Bellafaire, et al. v. Town of Wheatfield, et al.
USDC, Western District of NY, 1:18-cv-00560-CCR
Our File No.: 207108

Dear Counselors,

In accordance with the Order dated October 6, 2017 (which we have also attached to this letter), please allow this letter to advise that we intend to perform sampling beginning on Tuesday, January 15, 2019 at 7:00 am. The sampling and activities will continue until sampling and objectives are achieved depending on delays caused by participants, observers, weather conditions, and other field conditions.

CLIENT PROPERTY SAMPLING

The locations of the sampling will be as follows:

Susanne Bedworth
1389 Forbes Street
North Tonawanda, NY 14120

Mary DiPota
1430 Forbes Street
North Tonawanda, NY 14120

Michael Joyner
1484 Forbes Street
North Tonawanda, NY 14120

These samples will be tested for Dioxins, PCBs and organo-chlorine pesticides (with TICs), plus RCRA (8) metals including mercury. Soil and sediment samples will also be tested for BTEX (benzene, toluene, ethyl benzene and xylenes) and SVOCs (semivolatile organic compounds). Subsurface sampling will be via Geoprobe-installed well or similar. There will be four samples per home; one indoor dust, two subsurface soils and one composite surface soil per home. More samples may be necessary as determined in the field by Plaintiffs' team. Passive air sampling will also be conducted at these homes with air samplers being set up on Tuesday, January 15, 2019, and retrieved from client homes on Thursday, January 17, 2019, Friday January 18, 2019, or a future date to be determined, depending on whether there are delays in the initial set up.

Additionally, our team will sample between 6 to 10 other client properties depending on client availability. All of these samples will be tested for PCBs and organo-chlorine pesticides (no TICs), plus RCRA (8) metals including mercury. Some samples may also be tested for Dioxins. Soil and sediment samples will also be tested for BTEX (benzene, toluene, ethyl benzene and xylenes) and SVOCs (semivolatile organic compounds). Passive air sampling will

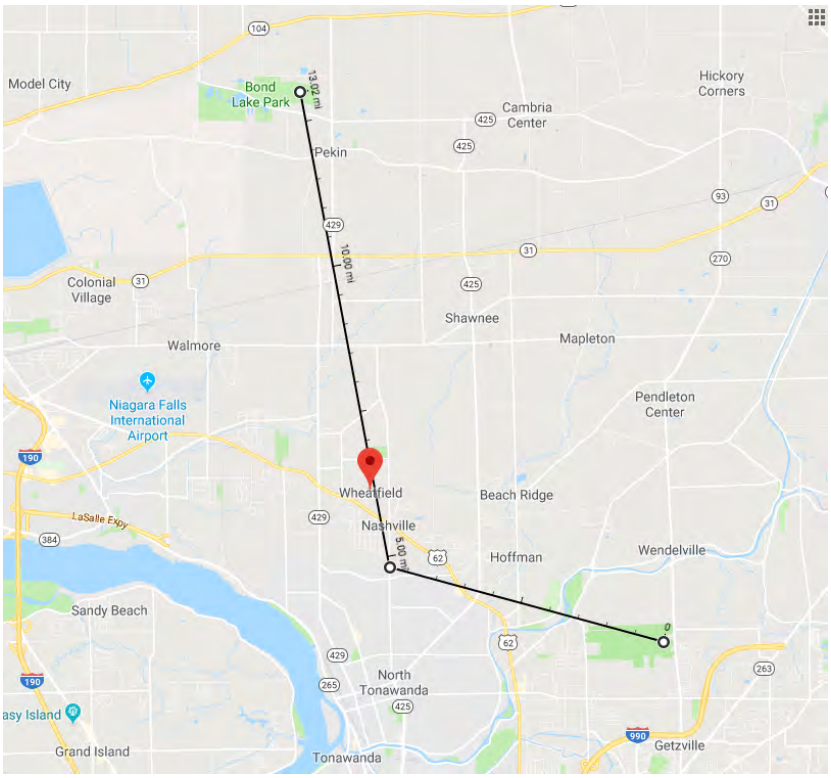
also be conducted at these homes with air samplers being set up on Tuesday, January 15, 2019, and retrieved from client homes on Thursday, January 17, 2019, or Friday January 18, 2019, or a future site to be determined, depending on whether there are delays in the initial set up.

The following properties are the 12 potential sites:

- Mark or Lisa Belstadt, 3295 Evergreen Drive North Tonawanda NY
- Robert Stefanski, 1597 Ruie Road North Tonawanda NY
- Marc or Tracey Homsi, 7345 Erica Lane North Tonawanda, NY
- Jamie W. Herman, 1656 Ruie Road North Tonawanda, NY
- Pino or Darleen Iacona, 7266 Norman Road North Tonawanda, NY
- Victoria Liberto, 1619 Master Street North Tonawanda NY
- Bob Snyder, 1618 Moll Street North Tonawanda, NY
- John Scozzafava, 1597 Moll St. North Tonawanda, NY
- Jonathan Peterson, 7403 Nash Road North Tonawanda NY
- Charles and Valerie Freeburg, 1640 Nash Rd North Tonawanda NY
- John and Kathleen See, 1625 Nash Rd North Tonawanda NY
- Sherry Warner, 1727 Forbes Street, North Tonawanda, NY

PUBLIC SAMPLING SITES

In addition to the above client properties, our team will also be sampling the public locations identified on the map below (two park properties plus two ROW samples in the general area of the residential sample sites).



All of these samples will be tested for PCBs and organo-chlorine pesticides (no TICs), plus RCRA (8) metals including mercury. Some samples may also be tested for dioxins. Soil and sediment samples will also be tested for BTEX (benzene, toluene, ethyl benzene and xylenes) and SVOCs (semivolatile organic compounds).

SPLIT SAMPLES, DUPLICATE SAMPLES, AND THE OPPORTUNITY FOR CONTEMPORANEOUS SAMPLING

As required by the Court's Order, we will also allow for the collection of split samples during this sampling event. Your opportunity to collect split or duplicate samples will depend on the type of sampling, the sample media, volume of sample material, and site conditions as determined by our team. In all cases, however, Defense representatives will have the opportunity to take a contemporary sample while our team is sampling

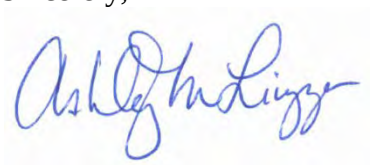
To the extent that your team is interested in split samples for certain media, the laboratory (ALS) will homogenize the sample collected, divide the sample, and send half of the sample to a representative appointed by the Defense team. If the sample is too small to homogenize, as in the case of dust on a surface, our team would take their sample and leave a portion available for defense representatives. To the extent that vacuum cleaner contents are retrieved for their materials, these would go to the lab for splitting before any analyses are done. These cannot be split in the field because of the potential spread of fine particles into the air. This split must be done in a fume hood. For some of the sampling, such as soil samples, to the extent that you would like to take your own sample of the same media contemporaneously, your representative may do so with their own tools and equipment.

Air sampling will be conducted using EPA method 325 Samplers. These samples cannot be split once retrieved. Our team will not provide any additional sample tubes, but has requested that the lab prepare a set of multiport air sampler, which will hold 4 samples (1 sample and 3 splits). In some cases, our team will need to use 2 ports, the other two will be reserved for the Defense equipment. I have attached the method description and sampler descriptions to make sure that your team has access to the information necessary for your opportunity to participate in this sampling event.

NOTICE OF ATTENDEES AND PARTICIPANTS

Pursuant to the Order each party is allowed to have one attorney, one party representative, and one expert present. Please let us know by 11:00 am EST on Monday, January 14, 2019, if you intend to have anyone present. Please include the name, title, and company for all persons who plan on attending at that time. **All participants will meet at 1389 Forbes Street North Tonawanda, NY for sampling activities to begin promptly at 7:00 am.**

Sincerely,



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Attachments

UNITED STATES DISTRICT COURT
FOR THE
WESTERN DISTRICT OF NEW YORK

ELIZABETH ANDRES, *et al.*,	)	
	)	
Plaintiffs,	)	
	)	
v.	)	Case No. 1:17-cv-00377
	)	
TOWN OF WHEATFIELD, OCCIDENTAL CHEMICAL CORPORATION, BELL HELICOPTER TEXTRON, INC., SAINT-GOBAIN ABRASIVES, INC., ROE CONSOLIDATED HOLDINGS, GRAPHITE SPECIALTIES, CROWN BEVERAGE PACKAGING, LLC, and GREIF, INC.,	)	
	)	
Defendants/ Third Party Plaintiffs,	)	
	)	
v.	)	
	)	
UNITED STATES OF AMERICA,	)	
	)	
Third-Party Defendant.	)	

OPINION AND ORDER GRANTING DEFENDANTS' MOTION FOR A PRELIMINARY INJUNCTION
(Doc. 39)

On March 26, 2017, current and former residents of North Tonawanda, New York, and surrounding areas (collectively, "Plaintiffs") filed this class action, asserting state law claims of negligence, strict liability for engaging in an abnormally dangerous activity, private nuisance, and trespass. They seek damages for property damage and personal injury, medical monitoring, as well as punitive damages arising from the alleged release of hazardous materials from the Nash Road Landfill ("the Site").

On September 25, 2017, this matter came before the court for oral argument on Defendants' motion for a preliminary injunction (Doc. 39). Defendants Town of Wheatfield, Occidental Chemical Corporation, Bell Helicopter Textron, Inc., Saint-Gobain Abrasives, Inc., and Crown Beverage Packaging, LLC (collectively, "Defendants")[1] ask the court to enjoin Plaintiffs from engaging in certain sampling activities without notice and the opportunity for split sampling. More specifically, they ask the court to order Plaintiffs to: (1) preserve and maintain records from previous environmental sampling[2] and (2) provide ninety-six hours' notice, contemporaneous access, and split sampling for all future environmental sampling.

Plaintiffs oppose the motion, arguing that the injunction would infringe on attorney work product, the non-testifying expert privilege, and the attorney-client privilege. Although they agree to split sampling, they contend that they can provide such samples to Defendants without allowing Defendants contemporaneous access to the sampling site. Defendants counter that this measure is inadequate to verify the location, chain of custody, and reliability of the samples taken.

In support of their request for preliminary injunctive relief, Defendants proceed solely by affidavit. In doing so, they agree that the court's findings of fact may be based solely on undisputed facts. Defendants consent to be bound in a reciprocal manner by any preliminary injunction the court orders.

I. Findings of Fact.

For the purposes of the pending motion, the court finds the following by a preponderance of the evidence:

---

[1] Roe Consolidated Holdings, Graphite Specialties and Greif, Inc. are both listed as Defendants in Plaintiffs' Complaint but do not join in the request for a preliminary injunction. The United States, a third-party defendant, did not join in the motion or consent to be bound by the proposed injunction.

[2] Defendants' motion requests that Plaintiffs "preserve and maintain all Environmental Sampling and Environmental Test Results that have already occurred, including but not limited to all related records, test results, chain of custody documentation, methodologies of preservation, documents, address keys, field notes, photographs, videos, and/or electronically stored information," (Doc. 39 at 1, ¶ 1.)

1. The Site extends over twenty-five acres, is currently owned by the Town of Wheatfield, and located on 7415 Nash Road, Wheatfield, New York 14120-1511, just north of the North Tonawanda city limits. From 1955-1969, the Site operated as a closed, unlined, and uncapped landfill. During this time, Plaintiffs allege that Defendants, as well as the Niagara Falls Air Force Base, disposed of hazardous waste at the Site, which leached into the soil, surface water, and groundwater of the surrounding area, causing the personal injuries and property damage allegedly suffered by Plaintiffs.

2. In addition to Plaintiffs, approximately two hundred other individuals with potential claims against Defendants have retained the law offices of Napoli Shkolnik PLLC, Smith Stag, LLC, and Christen Civiletto, Esq. to represent them ("non-party potential claimants").

3. "Environmental sampling" is defined as "any sampling associated with any air, soil, water, groundwater, sediment, waste or biological material . . . at any location at, or in the vicinity of, [the Site,] including Plaintiffs' residences and the surrounding neighborhood, whether indoors or outdoors, regardless of who owns the property[.]" (Doc. 39-1 at 1-2, ¶ 3.)

4. "Split samples" are defined as "equivalent portions of the same sample that are analyzed separately, typically by different parties using different laboratories, and is used to spot check the accuracy of data." (Doc. 39-8 at 2.) Split sampling is a routine practice in toxic tort litigation as it allows the parties to compare lab results. *See* 2 JAMES T. O'REILLY, TOXIC TORTS PRACTICE GUIDE § 17:13 (2d ed. 2017) ("Typically, a negotiated agreement will provide a time and manner of inspection and will provide for a split sample, one-half for each adversary, so that lab results can be fairly compared."). Without split sampling, it will be difficult to obtain nearly equivalent samples because environmental samples have a "hold time," defined as the period between extraction and preservation of the sample, of less than forty-eight hours to fourteen days, depending on the chemical compound tested.

5. Environmental conditions in the soil, surface water, and groundwater of the Site and surrounding properties are uncontrolled and subject to change due to manmade or natural influences, such as rainfall infiltration. As a result, samples taken from the same location but at different times are unlikely to be identical, potentially contributing to variations in testing results, and rendering it difficult to replicate testing results.

6. Proper expert evaluation of samples taken from the Site requires knowledge of the manner, location, and chain of custody of the sample, including the manner of storage, transportation, and preservation until testing occurs. Contemporary access to the sampling site is necessary to obtain this information, minimize the delay prior to transfer of the sample, as well as to ensure that the split samples are as equivalent as possible.

7. In March 2017, the New York State Department of Environmental Conservation ("NYSDEC") announced it will conduct environmental sampling near the Site. Plaintiffs requested and obtained split samples from NYSDEC's environmental sampling. On May 10 and 11, 2017, NYSDEC conducted soil sampling at properties adjacent to the Site and published the results of its testing on July 11, 2017.

8. Plaintiffs have conducted environmental sampling on Plaintiffs' real property and intend to perform further environmental sampling in connection with their claims in this lawsuit, including environmental sampling at the real property owned or occupied by non-party potential claimants.

9. Plaintiffs have made several statements to local media outlets regarding the results of Plaintiffs' environmental testing. For example, on July 11, 2017, the Buffalo News quoted Plaintiffs' counsel as stating that Plaintiffs' testing indicated twenty toxic chemicals were present on residents' properties and that "[w]e're finding it in the kitchens, in the bedrooms, not just in the basements[.]" (Doc. 43-3 at 5.) A July 12, 2017 article by the *Investigative Post* cites Plaintiffs' counsel statement that he advised "state authorities more than a month ago that his testing found dangerous levels of chemicals inside homes, not the soil." (Doc. 43-4 at 2.)

II. Conclusions of Law and Analysis.

A. Standard of Review.

A preliminary injunction "is an extraordinary remedy never awarded as of right." *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 24 (2008). "A plaintiff seeking a preliminary injunction must establish that he is likely to succeed on the merits, that he is likely to suffer irreparable harm in the absence of preliminary relief, that the balance of equities tips in his favor, and that an injunction is in the public interest." *Id.* at 20.

The Second Circuit has retained its own standard requiring a party seeking a preliminary injunction to show: "[(a)] irreparable harm and [(b)] either [(1)] likelihood of success on the merits or [(2)] sufficiently serious questions going to the merits to make them a fair ground for litigation and a balance of hardships tipping decidedly toward the party requesting the preliminary relief[.]" *Am. Civil Liberties Union v. Clapper*, 785 F.3d 787, 825 (2d Cir. 2015) (internal quotation marks omitted); *see also Citigroup Glob. Mkts., Inc. v. VCG Special Opportunities Master Fund Ltd.*, 598 F.3d 30, 38 (2d Cir. 2010) (ruling that the "serious questions" standard "remains valid" after *Winter*) (internal quotation marks omitted).

B. Likelihood of Success on the Merits/Sufficiently Serious Questions Going to the Merits.

In this case, neither party claims the merits of Plaintiffs' claims or Defendants' defenses are directly implicated by the proposed injunction. Instead, Defendants argue that a preliminary injunction is necessary to prevent the "spoliation of critical evidence[,]" because, in the absence of injunctive relief, it will be impossible for them to replicate Plaintiffs' sampling and confront it with their own expert analysis. (Doc. 39-17 at 25.) Plaintiffs oppose injunctive relief, claiming Defendants seek to intrude on Plaintiffs' privileged communications between their existing and potential clients, as well as their experts. They argue that the proposed injunction will reveal their litigation strategies and impact the privacy interests of non-parties

Defendants cite *Abbo-Bradley v. City of Niagara Falls*, 293 F.R.D. 401 (W.D.N.Y. 2013), while Plaintiffs cite *Abbo-Bradley v. City of Niagara Falls*, 3 N.Y.S.3d 842 (N.Y. App. Div. 2015), in support of their respective positions regarding injunctive relief. In *Abbo-Bradley*, homeowners residing near a landfill brought a Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") claim against the City of Niagara Falls and several corporate defendants, alleging hazardous waste deposited by those defendants had migrated from the landfill and caused Plaintiffs personal injury and property damage. Defendants sought a preliminary injunction from the Western District of New York, seeking (1) written notice ninety-six hours in advance of any environmental testing, (2) contemporaneous access to the sampling site, and (3) an opportunity to take split samples. The federal court granted the proposed injunction, reasoning that allowing plaintiffs to take environmental samples without a protocol for equal access would result in "spoliation of essential and relevant evidence[.]" 293 F.R.D. at 409. On remand to New York state court, however, the Fourth Department intermediate appellate court modified the preliminary injunction and denied the defendants contemporaneous access, finding that "[c]ommunications between plaintiffs' attorneys and their consultants is protected work product" and "communications with their clients is also protected by the attorney client privilege[.]" *Abbo-Bradley*, 3

N.Y.S.3d at 843-44. In narrowing the injunction in this manner, the Fourth Department did not explain how contemporaneous access to the sampling site infringed on confidential communications. Although both the federal and state court decisions provide guidance, neither is controlling precedent here.

A party has a duty to preserve environmental samples that will be relevant to litigation and discoverable by the opposing party. *See In re Terrorist Bombings of U.S. Embassies in E. Africa*, 552 F.3d 93, 148 (2d Cir. 2008) ("The obligation to preserve evidence arises when the party has notice that the evidence is relevant to litigation or when a party should have known that the evidence may be relevant to future litigation.") (internal quotation marks omitted); *see also Innis Arden Golf Club v. Pitney Bowes, Inc.*, 257 F.R.D. 334, 341 (D. Conn. 2009) (ruling because plaintiff "breached its duty to preserve its sampling evidence" from its property, plaintiff could not rely on such evidence at trial in support of its CERCLA and state law claims); *Silvestri v. Gen. Motors Corp.*, 271 F.3d 583, 592 (4th Cir. 2001) (dismissing plaintiff's products liability claim because plaintiff "failed to preserve material evidence" and "thus breach[ed] his duty not to spoliate evidence.").

Defendants assert that the failure to permit contemporaneous access to the sampling site and split sampling will amount to spoliation of essential evidence. They point out that split sampling is a routine practice in environmental litigation and presents a necessary intrusion into an opposing party's investigative work. *See, e.g.*, *United States v. Bridgeport United Recycling, Inc.*, 2008 WL 2073960, at *11 (D. Conn. May 2, 2008) (issuing consent decree in Resource Conservation and Recovery Act claim that provided the United States "upon request, splits of any samples taken by Defendants"); *Nashua Corp. v. Norton Co.*, 116 F. Supp. 2d 330, 344 (N.D.N.Y. 2000) (noting that defendant's consultant "gave [plaintiff's consultant] splits of their [groundwater] samples" in a CERCLA action); *see also Wickens v. Shell Oil Co.*, 569 F. Supp. 2d 770, 777-78 (S.D. Ind. 2008) (observing that magistrate judge permitted defendant contemporaneous access "to allow its environmental consultant to do independent testing."); O'REILLY, *supra*, (stating that "[t]ypically, a negotiated agreement will provide a time and manner of

inspection and will provide for a split sample"). Plaintiffs do not dispute that the environmental conditions where sampling will occur are uncontrolled and volatile, nor do they seriously contest that denying Defendants split samples would prevent Defendants' experts from obtaining a nearly identical sample to compare with Plaintiffs' experts' results. They nonetheless contend that contemporaneous access is not a necessary component of split sampling.

The presence of both parties at the sampling site ensures equal access to evidence and increases the likelihood that such evidence will be admissible at trial through an agreed upon chain of custody. At the same time, it will maintain the status quo in the face of a strong likelihood that both the samples and environmental conditions of the Site will degrade over time. *See, e.g.*, *Mirchandani v. Home Depot, U.S.A., Inc.*, 235 F.R.D. 611, 617 (D. Md. 2006) (stating that "[d]efendants will be able to attend the testing" as an "additional safeguard," minimizing "any potential prejudice to defendants resulting from the destructive testing"). Contemporaneous access thus furthers the court's interest in reliable evidence and enhances the likelihood that competing expert results will present an "apples to apples" comparison.

As for Defendants' request that "Plaintiffs and their attorneys [be enjoined] from engaging in any further Environmental Sampling . . . at property of nonparties where such sampling may be relevant to the claims or defenses in this lawsuit," (Doc. 39 at 1-2, ¶ 2), Plaintiffs argue that enjoining non-parties from testing their own property exceeds the proper scope of an injunction. While a preliminary injunction can only bind "(A) the parties; (B) the parties' officers, agents, servants, employees, and attorneys; and (C) other persons who are in active concert or participation" with individuals in subsections (A) or (B), Fed. R. Civ. P. 65(d)(2), the injunction here is not directed to non-parties, but solely to their counsel, who are within the proper scope of injunctive relief. The injunction will therefore not directly bind third-parties.[3]

[3] However, if third-party potential claimants perform environmental sampling on their own, without the aid or consent of Plaintiffs' counsel, they run the risk that their environmental sampling may be not inadmissible at trial. *See United States v. Vayner*, 769 F.3d 125, 132 (2d

Because Defendants have established a likelihood of success in establishing their entitlement to split sampling and contemporaneous access when the merits of the case are heard, they have satisfied the first prong for injunctive relief.

C. Whether Defendants Will Suffer Irreparable Harm.

"A showing of irreparable harm is the single most important prerequisite for the issuance of a preliminary injunction." *Faiveley Transp. Malmo AB v. Wabtec Corp.*, 559 F.3d 110, 118 (2d Cir. 2009) (internal quotation marks omitted). The party seeking an injunction "must demonstrate that absent a preliminary injunction [it] will suffer an injury that is neither remote nor speculative, but actual and imminent[.]" *Id.* (internal quotation marks omitted).

Without a nearly identical sample to the sample tested by Plaintiffs, Defendants will be unable to assess the validity of Plaintiffs' environmental testing and potentially rebut key evidence. If unable to contemporaneously access the sampling site when Plaintiffs' expert removes a sample, Defendants will be unable to observe the conditions in which a sample was removed and determine how such conditions affect testing results. Denying contemporaneous access while providing split samples after the fact does not address the issue that proper expert evaluation of environmental samples requires observing the precise method and location of extraction. It may also create a contested chain of custody. As a result, without contemporaneous access and split sampling, the potential harm suffered by Defendants will be actual and imminent, constituting irreparable harm in the form of spoliation of the evidence. *See United States v. Sum of $70,990,605*, 991 F. Supp. 2d 154, 163 (D.D.C. 2013) (finding that "[d]estruction of evidence may . . . rise to the level of irreparable harm[.]").

Cir. 2014) (citing Fed. R. Evid. 901 which states that a party seeking to admit evidence must provide "evidence sufficient to support a finding that the item is what the proponent claims it is" and vacating judgment where trial court admitted evidence that lacked proper authentication).

D. Whether the Proposed Injunction Will Violate Plaintiffs' Attorney Work Product, Non-Testifying Expert's Privilege, or Attorney-Client Privilege.

Plaintiffs assert that granting Defendants contemporaneous access to where, when, and whether Plaintiffs conduct environmental sampling will disclose (1) attorney work product, (2) facts known or opinions held by consulting or non-testifying experts, and (3) attorney-client communications. Defendants disagree and assert they are seeking facts, not opinions, and will not infringe upon Plaintiffs' confidential communications with their attorneys or their experts.

1. Attorney Work Product.

A party "may not discover the documents and tangible things that are prepared [by the opposing party or its representative] in anticipation of litigation[.]" Fed. R. Civ. P. 26(b)(3)(A). The work product doctrine preserves a "zone of privacy" where a lawyer can prepare and develop legal strategy for litigation without "unnecessary intrusion" by opposing counsel. *Schaeffler v. United States*, 806 F.3d 34, 43 (2d Cir. 2015). Work product protection may "encompass factual material, including the result of a factual investigation." *In re Grand Jury Subpoena Dated July 6, 2005*, 510 F.3d 180, 183 (2d Cir. 2007). If a court orders discovery of work product, it must protect against the disclosure of the "mental impressions, conclusions, opinions, or legal theories of a party's attorney or other representative[.]" Fed. R. Civ. P. 26(b)(3)(B). Whether an otherwise discoverable item is protected work product is a case-by-case determination. *In re Grand Jury Subpoena Dated Oct. 22, 2001*, 282 F.3d 156, 161 (2d Cir. 2002).

Although the Fourth Department expressed concern in *Abbo-Bradley* that allowing defendants contemporaneous access to the sampling site would infringe on "protected work product" by allowing access to "[c]ommunications between plaintiffs' attorneys and their consultants[,]" that conclusion did not identify or analyze how this would inexorably occur as the result of contemporaneous split sampling. *Abbo-Bradley*, 3 N.Y.S.3d at 843. There is nothing about the process of split sampling that requires a communication with counsel. The proposed injunction in this case would require

Plaintiffs to "preserve and maintain" records already taken. (Doc. 39 at 1, ¶ 1.) It would not require Plaintiffs to reveal the results of their experts' past factual investigations, their future investigations, or their experts' opinions. *See Strauss v. Credit Lyonnais, S.A.*, 242 F.R.D. 199, 230 (E.D.N.Y. 2007) (distinguishing "between matters revealing the thought processes of a party's representative and factual information obtained in anticipation of litigation" and observing that while "[s]ubstantial protection is afforded the first category [only] [l]imited protection is afforded the second.") (internal quotation marks omitted); *Salzer ex rel. Salzer v. Farm Family Life Ins. Co.*, 721 N.Y.S.2d 409, 411 (N.Y. App. Div. 2001) (stating that New York law "makes clear" that "the attorney work product exception" is "very narrowly construed" to include "only materials prepared by an attorney, acting as an attorney, which contain his analysis and trial strategy[.]") (internal quotation marks omitted). Contemporaneous access to the sampling site will also not give Defendants an "advance look into the deliberative processes by which Plaintiffs and their consultants analyze the merits of their case[,]" (Doc. 42 at 9), as Plaintiffs contend, but rather will reveal only the environmental conditions themselves which are not protected. *See Strauss*, 242 F.R.D. at 230 (stating that work product protection generally does not protect facts). The proposed injunction will therefore not require disclosure of Plaintiffs' attorney work product.[4]

2. Non-Testifying Expert Privilege.

Work product protection and the non-testifying expert privilege are distinct doctrines. *See, e.g., In re Methyl Tertiary Butyl Ether (MTBE) Prod. Liab. Litig.*, 293 F.R.D. 568, 575 n.36 (S.D.N.Y. 2013) (distinguishing "the work product privilege" from the "non-testifying expert privilege") (citing *QBE Ins. Corp. v. Interstate Fire & Safety Equip. Co.*, 2011 WL 692982, at *5 (D. Conn. Feb. 18, 2011)) (internal quotation marks

[4] In finding that contemporaneous access does not infringe on attorney work product protection, the court need not address whether Defendants have "substantial need" and would suffer "undue hardship" in obtaining equal access to the raw data of environmental sampling. *See* Fed. R. Civ. P. 26(b)(3)(A)(ii) (stating that protected work product is nevertheless discoverable if "the party shows it has substantial need for the materials to prepare its case and cannot, without undue hardship, obtain their substantial equivalent by other means.").

omitted). Plaintiffs assert that Defendants will receive an unfair advantage if they are permitted to obtain the facts known by Plaintiffs' consulting experts prior to Plaintiffs' determination whether they will call those experts at trial.

An opposing party generally may not discover the "facts known or opinions held by an expert who has been retained or specially employed" by the other party in "anticipation of litigation" when the expert "is not expected to be called as a witness at trial." Fed. R. Civ. P. 26(b)(4)(D). Facts or opinions may nonetheless be discoverable if the opposing party demonstrates "exceptional circumstances" where it is "impracticable for the party to obtain facts or opinions on the same subject by other means." *Id.* at 26(b)(4)(D)(ii). A party meets its burden of demonstrating "exceptional circumstances" when "the object or condition observed by the non-testifying expert is no longer observable by an expert of the party seeking discovery." *Bank Brussels Lambert v. Chase Manhattan Bank, N.A.*, 175 F.R.D. 34, 44 (S.D.N.Y. 1997) (finding "exceptional circumstances" compelled the deposition of a non-testifying expert accountant retained by a corporation investigated for fraud, because it would be impracticable to otherwise reconstruct the disputed financial condition of the corporation for the period at issue); *see also MTBE Prod. Liab. Litig.*, 293 F.R.D. at 575 (stating that "exceptional circumstances" are found "most commonly, in cases of spoliation.").

Because the proposed injunction will not reveal the results of Plaintiffs' experts' opinions or permit Defendants to question Plaintiffs' experts, the proposed injunction will not invade the non-testifying expert privilege.

3. Attorney-Client Privilege.

Asserting that the attorney-client privilege precludes Defendants' presence at environmental sampling sites, Plaintiffs point out that they will be unable to freely communicate with their clients and third-party potential claimants during testing if Defendants are present. Under New York law, the attorney-client privilege protects confidential communications between an attorney or his or her agent and the client for the purpose of facilitating legal advice in the course of a professional relationship. *See* N.Y. C.P.L.R. § 4503(a)(1); *Ambac Assurance Corp. v. Countrywide Home Loans, Inc.*, 57

N.E.3d 30, 34 (N.Y. 2016) ("The attorney-client privilege shields from disclosure any confidential communications between an attorney and his or her client made for the purpose of obtaining or facilitating legal advice in the course of a professional relationship[.]"); *see also* Fed. R. Evid. 501 ("[S]tate law governs privilege regarding a claim or defense for which state law supplies the rule of decision."). In New York, the privilege "must be narrowly construed" because it is "in '[o]bvious tension' with the policy of this State favoring liberal discovery[.]" *Ambac Assurance Corp.*, 57 N.E.3d at 34 (alteration in original).

In this case, access to the sampling site and split sampling will not invade attorney-client communications if certain safeguards are present. For example, if Defendants are ordered to excuse themselves when such communications take place, the likelihood that they will be privy to confidential communications is minimal. *See Electro-Methods, Inc. v. Adolf Meller Co.*, 2007 WL 470325, at *2 (D. Conn Jan. 11, 2007) (finding that "plaintiff's representatives may watch the testing process" but must "remain passive, and not question or otherwise disrupt" defendant's personnel). Plaintiffs present no evidence or argument to the contrary. The court therefore need not determine whether Plaintiffs waived the privilege by disclosing the results of their environmental testing to the press. *See Mfr. & Traders Tr. Co. v. Servotronics, Inc.*, 522 N.Y.S.2d 999, 1004 (N.Y. App. Div. 1987) (holding that "[i]ntent must be the primary component" in considering whether disclosure of materials waived attorney-client privilege). The attorney-client privilege therefore does not foreclose contemporaneous access and split sampling.

E. Whether the Balance of the Equities Tip in Defendants' Favor and Whether Injunctive Relief is in the Public Interest.

A party seeking a preliminary injunction must show that "the balance of equities tips in his favor" and "that an injunction is in the public interest[.]" *Clapper*, 785 F.3d at 825 (citing *Winter*, 555 U.S. at 20). Here, the proposed injunction strikes the appropriate balance between protecting Plaintiffs' litigation strategies and preventing the spoliation of evidence that will be critical to both parties' case at trial. Plaintiffs will still

control "all aspects of their environmental sampling activities." *Abbo-Bradley*, 293 F.R.D. at 410. Moreover, in order to minimize inconvenience and protect non-party potential claimants' privacy interests, only Defendants' attorney, a party representative, and an expert may be present at the sampling site. This will render the burden imposed by split sampling and contemporaneous access proportionate to the value of ensuring that reliable evidence will be presented at trial. *See* Fed. R. Civ. P. 26(b)(1) ("Parties may obtain discovery regarding any nonprivileged matter that is relevant to any party's claim or defense and proportional to the needs of the case[.]").

CONCLUSION

For the foregoing reasons, the court GRANTS Defendants' motion for a preliminary injunction. (Doc. 39.)

PRELIMINARY INJUNCTION

Plaintiffs and Defendants Town of Wheatfield, Occidental Chemical Corporation, Bell Helicopter Textron, Inc., Saint-Gobain Abrasives, Inc., and Crown Beverage Packaging, LLC, and their counsel of record ("the parties") are hereby ENJOINED as follows:

(1) The parties must preserve and maintain all environmental sampling relevant to any party's claims or defenses that has been previously conducted and any records related to such sampling, including test results, chain of custody, methodologies of preservation used, documents, address keys, field notes, photographs, videos, and electronically stored information.

(2) Each party must serve the opposing party with written notice at least ninety-six hours prior to conducting environmental sampling relevant to any party's claims or defenses or in any way connected with the Site.

(3) Upon service of notice, each party shall provide the other party with contemporaneous access to the sampling site and the opportunity to take split samples. During split sampling, each party may have one attorney, one party representative, and one expert present. The parties may not question the other party's expert or client, nor can a party be present for another party's

confidential communications with their attorney or expert. Each party shall act in good faith to absent themselves from such communications. The party engaged in such confidential communications shall act in good faith to minimize any inconvenience to the opposing party.

(4) Plaintiffs have not requested the posting of a bond or other security pursuant to Fed. R. Civ. P. 65(c). The court finds that security may be waived in this case as it is not necessary to prevent harm to the party opposing injunctive relief. *See Doctor's Assocs., Inc. v. Stuart*, 85 F.3d 975, 985 (2d Cir. 1996) (finding that a district court may dispense with the posting of security where the parties sought to be enjoined "have not shown that they will likely suffer harm absent the posting of a bond[.]").

SO ORDERED.

Dated at Burlington, Vermont, this 6th day of October, 2017.

Christina Reiss, District Judge
United States District Court

EnviroMail™ 04 *Canada*

Fenceline Monitoring of Volatile Organic Compound Emissions by EPA Method 325

Fugitive volatile organic compound (VOC) releases from facilities in the petroleum and petrochemical sectors may pose health and environmental risks to Canadians. As part of the Government of Canada's Chemical Management Plan (CMP), new requirements will be imposed upon petroleum refineries, upgraders and certain petrochemical facilities to reduce the risk of exposure to humans and the environment.

EPA 325 BACKGROUND

In May 2013, the US EPA released a proposed rule as an update to the current "national emission standards for hazardous air pollutants for petroleum refineries" which required all refineries to monitor volatile benzene concentrations around the fenceline (perimeter) of their facilities. Benzene was selected as a representative compound to evaluate overall refinery emissions. Originally implemented as part of the annual Risk and Technology Review (RTR), the proposed rule was designed to establish a fenceline concentration of benzene that would trigger required corrective action in the event of an exceedance. This was a combined effort to evaluate both risk and technology as required by the Clean Air Act (CAA) after the application of maximum achievable control technology (MACT) standards.

The proposed rule was posted to the US Federal Register on June 30, 2014 with the final rule being signed and published on September 29, 2015. Implementation of this rule is intended to result in reductions of hazardous air pollutants that affect public health directly (cancer risk and chronic health effects), as well as indirectly by contributing to the formation of ground-level ozone (smog).

EPA Method 325 "Volatile Organic Compounds from Fugitive and Area Sources" was developed to enable refineries to comply with the updated US federal regulation 40 CFR 63. EPA Method 325 includes two sub-parts: EPA 325A: Sampler Deployment and VOC Sample Collection, and EPA 325B: Sampler Preparation and Analysis. These complementary methods outline the design, deployment, preparation, and analysis of a series of passive sampling sorbent tubes suspended around the refinery property

line. After 2 weeks (14 days) of exposure, the passive sampling tubes are detached from the shelters, re-sealed and sent to a laboratory for thermal desorption (TD) gas chromatograph mass spectrometry (GCMS) analysis. Although benzene is the primary target compound, the sampling and analysis methodology can also be used to determine other VOCs, including 1,3-butadiene, toluene, ethylbenzene, xylenes and other hazardous air pollutants (HAPs).

SET-UP, APPLICATION AND VOC SCOPE

Samples are collected using a 3.5" long x ¼" OD stainless steel tube packed with a carbon-based adsorbent. One end of the tube is outfitted with an open mesh diffusion cap and the other end is sealed with a brass cap. The tube is positioned with the diffusion cap in a downward orientation under a protective non-VOC emitting shelter. Shelters are placed at a height of 1.5 to 2 meters above the ground on a secure pole or other suitable structure. At least one co-located duplicate sample is collected for every 10 field samples. A minimum of two unopened field

Continued on next page...

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blanks are collected in different shelters per sampling period to ensure sample integrity associated with shipment, collection and storage.

Monitoring points are determined using an equal radial or linear approach, eg. Radial: Less than 750 acres, samplers every 30 degrees based on a central emission source point (12 samples); Linear: Boundary less than 24,000 feet, a minimum of 12 sampling locations evenly spaced ±10%. Based on 26 two-week sampling events, a yearly rolling average is created which is then compared to a specified action level.

The preferred sorbent is Carbopack X, a medium/strong sorbent (n-C3/C4 to n-C8). It is optimal for passive adsorption of the target analytes listed including benzene and 1,3-butadiene; and is hydrophobic, minimizing moisture effects. The use of a diffusion cap and slow analyte diffusion rate (uptake rate) mitigate any extreme changes in wind vector.

New tubes are thermally conditioned, the base flow measured and then checked for desorption efficiency (DE). The tubes can be cleaned to low background levels enabling target analyte detection at ppb/ppt levels. Uptake rates are based on Fick's Law of Diffusion (*a compound will migrate to the surface of a sorbent at a rate dependent on: distance and area between sorbent and source, time of exposure, diffusion coefficient of the compound through air and ambient concentration*). Without an uptake rate no comparison can be made between the amount of analyte measured on the tube and concentration at the sampling point.

REGULATION

A recent publication (May 2017) in the Canada Gazette, indicates that a fenceline monitoring program for petroleum and petrochemical sectors will come into effect on January 1, 2018 and be applied across Canada effective July 1, 2018.
http://www.gazette.gc.ca/rp-pr/p1/2017/2017-05-27/html/reg2-eng.php.

This program will require 18 petroleum refineries, 6 upgraders and 2 petrochemical facilities to sample and analyze the concentrations of certain VOC's (benzene, 1,3-butadiene, as well as the total concentration of all retainable VOCs) around their respective facilities' perimeters as per U.S EPA Method 325A and 325B.

Table 1 – Validated Sorbents & Uptake Rates for Selected Clean Air Act Compounds
McClenny, W.A., et. al., J. Environ. Monit. 7:248-256.

Compound	Carbopack X uptake rate (ml/min)a
1,3-Butadiene	0.61±0.11
1,1-Dichloroethene	0.57±0.14
3-Chloropropene	0.51±0.3
1,1-Dichloroethane	0.57±0.1
1,2-Dichloroethane	0.57±0.08
1,1,1-Trichloroethane	0.51±0.1
Benzene	0.66±0.06
Carbon tetrachloride	0.51±0.06
1,2-Dichloropropane	0.52±0.1
Trichloroethene	0.5±0.05
1,1,2-Trichloroethane	0.49±0.13
Toluene	0.52±0.14
Tetrachloroethene	0.48±0.05
Chlorobenzene	0.51±0.06
Ethylbenzene	0.46±0.07
m,p-Xylene	0.46±0.09
Styrene	0.5±0.14
o-Xylene	0.46±0.12
p-Dichlorobenzene	0.45±0.05

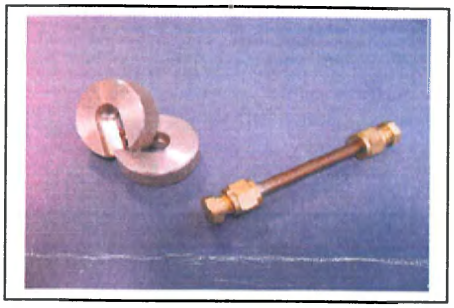
While regulations come into effect in the future, ALS has the capability and CALA accreditation for these methods to enable the industry to monitor their sites in advance of regulatory enforcement thereby allowing industry to perform any corrective action earlier if desired.

ALS will provide a standard suite of analytes (as per Table 1) unless requested otherwise and to request this service industry should as for the ALS ABC package and ALS can not cannot supply TD tubes as part of the cost.

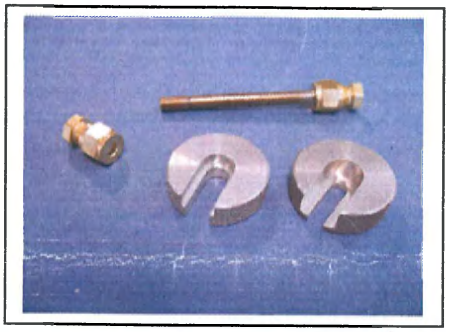
For more information, contact the ALS environmental laboratory in Waterloo, Ontario.

60 Northland Road, Unit 1
Waterloo, ON N2V 2B8
+1 519 886 6910

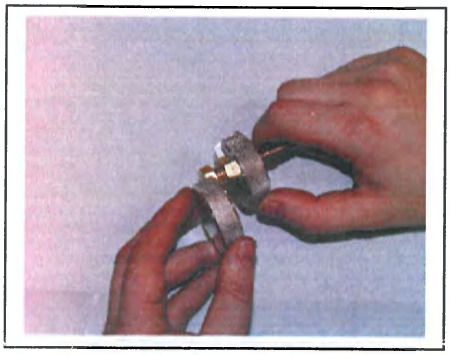
Using the CapLok™ Tool to Undo and Tighten ¼ inch Brass Long-Term Storage Caps



1. CapLok tool and sorbent tube capped with ¼ inch brass SwageLok type long-term



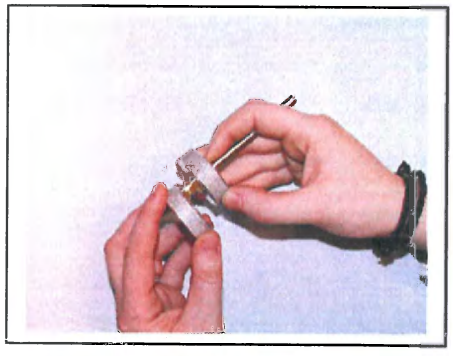
2. The two halves of the CapLok tool are slightly different. The disk etched with the Markes Logo should be used on the top of the cap and the other disk should be used over the tube on the nut end



3. Loosen the brass cap using the CapLok tool as shown (by twisting the two discs in opposing directions). Then pull the nuts from the end of the tubes.

4. Remove the caps from the end of the tubes.

ACTIVE: BOTH
PASSIVE: SAMPLING END ONLY !



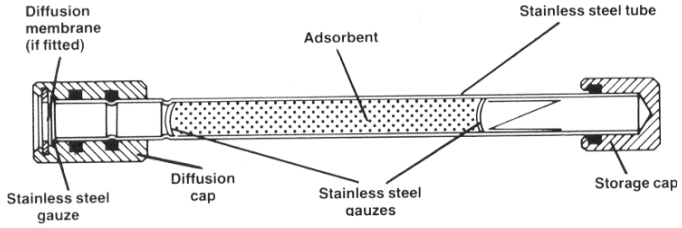
5. To replace the caps, push them onto the end of the tube and tigten until finger tight. Use the CapLok tool (by twisting the two discs in opposite directions) to tighten the nut a further quarter to half turn.

6, Gently pull the brass caps at each end to ensure they are secure.

Passive Sampling Instructions for Thermal Desorption Sorbent Tubes

These instructions provide guidance in the handling, air sampling & shipping of thermal desorption sorbent (TD) tubes. TD tubes offer the ability to determine a wide range of volatile organic compounds (VOCs) at very low detection limits. Because of this sensitivity, proper handling of TD tubes during air sampling is critical to prevent contamination of the sample. BEFORE HANDLING TD tubes WASH your hand with UNSCENTED SOAP to remove potential contaminant such as Creams, Perfumes, Oils, Solvents, Smoke & other residues or WEAR clean disposable gloves. DO NOT sample OUTSIDE during or immediately after wet weather.

1. Check for **Field Data Sampling Sheet, CapLok Tool Instructions Sheet, CapLok Tool Set, TD Air Sampling Tubes, Passive Sampler Caps & Metal Clips** included in this sampling kit.
2. Each **TD tube** has a unique serial number inscribed on it for identification (DO NOT mark or write on TD tubes). The TD tube number is included on the tube's shipping container.
3. The **Passive Sampler Caps** are included in a separate container.
4. DIRECTION OF AIR FLOW: The sampling end of the TD tube has two grooves. This is the end that the BRASS CAP will be removed from.
   Note: The TD tube has an arrow on it for air flow. The grooves will be found at the opposite end to the direction that the arrow is pointing
5. If possible, USE Clean Disposable Nitrile Gloves when handling the tubes. Remove the Brass Cap from the sampling end of the TD tube using the **CapLok Tool**. (See Point 4 above). Keep the brass end cap from each tube in their respective container. The cap will be put back on the TD tube after sampling is complete. DO NOT REMOVE THE BOTTOM CAP!
6. Carefully PUSH ON the **Passive Sampler Cap** until it bottoms out (See picture below). The **Metal Clip** can be attached to the visible groove below the Passive Sampler Cap for attachment to a pocket or other suitable location for sampling.

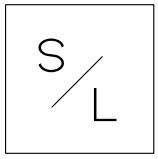


7. RECOMMENDED SAMPLING TIMES: These times are based on normal exposure levels expected for the particular air being sampled.
   a) Ambient Air – 24hrs to 2 weeks (Depends on air concentration)
   b) Indoor Air – 24 hrs (1 week maximum)
   c) Workplace Air – Low: 8 – 24hrs
      – Typical: 8 hrs
   d) Soil Gas – Typical: 24 hrs
      – High: 8 - 12 hrs
8. FIELD BLANK: The collection of a field blank is very important in proper interpretation of sampling results. Uncap a tube & immediately reseal it at the sampling site. The Field Blank should be transported to & from the monitoring site similar to the Sample Tubes.

9. RECORD the start time, end time, **total sampling time hours & minutes**, and other pertinent sampling data on the **Field Data Sampling Sheet**.
   DO NOT WRITE ON OR MARK the TD tube with any thing (pen marker, tape, etc).
10. AFTER SAMPLING, remove brass cap from the original storage container. REMOVE the Passive Sampler Cap from the TD tube & return to its container. PUSH the Brass Cap firmly unto the TD tube until it bottoms out. TIGHTEN brass cap **finger tight** until snug & then **¼ to maximum ½ turn more** with the CapLok Tool. Do not over tighten as this will damage the Teflon seal. LIGHTLY TUG CAP to ensure that it is secure.
11. Return TD tube to its original shipping container. ENSURE tube & shipping container numbers MATCH. If TD tube doesn't fit into the container properly (i.e. cap above top of container & lid doesn't tighten on), the brass cap may not be seated properly. Loosen the brass cap & push on more firmly & re-tighten.
12. RETURN ALL sampling supplies & completed sheets.
13. PACK TD tubes **securely** so that they do not bounce around in transit. Return to the laboratory immediately after sampling. Samples are stable at room temperature. Ship in a cooler with freezer packs if elevated temperatures are expected.
14. FILL OUT **Chain-of-custody Form** completely.
15. RETURN Chain-of-custody Form, Field Data Sampling Sheet, CapLok Tool, Samples & all other sampling supplies in the shipping cooler.
16. **ANY QUESTIONS** - Contact ALS Environmental at **1-519-886-6910x272**.

Cost To Replace Lost or Damaged Sampling Supplies

Thermal Desorption Tube	$140.00
CapLok Tool Set	$50.00
Passive Sampler Head	$20.00



STAG LIUZZA

February 1, 2019

VIA EMAIL ONLY:

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Re: ***Elizabeth Andres, et al. v. Town of Wheatfield, et al.***
USDC, Western District of NY, 1:17-cv-00377-CCR
Alicia Bellafaire, et al. v. Town of Wheatfield, et al.
USDC, Western District of NY, 1:18-cv-00560-CCR
Our File No.: 207108

Dear Counselors,

In accordance with the Order dated October 6, 2017 (which we have also attached to this letter), please allow this letter to advise that we intend to perform sampling and collect samples from items deployed at the January 2019 Sampling Event[1] beginning on Wednesday, February 6, 2019 at 8:30 am. The sampling and activities will continue until sampling and objectives are achieved depending on delays caused by participants, observers, weather conditions, and other field conditions.

CLIENT PROPERTY SAMPLING AND SAMPLE RETREIVAL

I. Air Samplers Deployed During the January 2019 Sampling Event

Air sample pickups from the samplers deployed on the January sampling trip will take place. These will be retrieved from the following locations:

Susanne Bedworth
1389 Forbes Street
North Tonawanda, NY 14120

Robert Stefanski
1597 Ruie Road
North Tonawanda NY

Mary DiPota
1430 Forbes Street
North Tonawanda, NY 14120

Jamie W. Herman
1656 Ruie Road
North Tonawanda, NY

Mark or Lisa Belstadt
3295 Evergreen Drive
North Tonawanda NY

Rebecca Grawe
1464 Forbes Street

[1] The Notice letter and attachments for that sampling event are included with this correspondence. Information relative to sampling methods was included with that notice and is relevant to this sampling event as well.

North Tonawanda, NY 14120

John Scozzafava
1597 Moll St.
North Tonawanda, NY

Victoria Liberto
1619 Master Street
North Tonawanda NY

Bob Snyder
1618 Moll Street
North Tonawanda, NY

John and Kathleen See
1625 Nash Rd
North Tonawanda NY

Sherry Warner
1727 Forbes Street
North Tonawanda, NY

II. Groundwater Sampling and Gore Sorber Deployment[2]

Additionally, groundwater sampling of the three previously-installed groundwater monitoring wells will be collected via a groundwater pump. Defense consultants will be permitted to take a groundwater sample immediately following retrieval of Plaintiffs' samples. Following the groundwater sampling activities, a Gore Sorber (for vapor monitoring/sampling) will be deployed in each well (total of three) for vapor/air sampling. Defense consultants are free to deploy their own sorbers. The analytical list is attached as Appendix 1. The list includes the added PAH and PCB analytes, as well as pesticides. The method reference is: ASTM D 5314-92 (Reapproved 2006) Standard Guide for Soil Gas Monitoring in the Vadose Zone. The list of homes relevant to this portion of the sampling are as follows:

Susanne Bedworth
1389 Forbes Street
North Tonawanda, NY 14120

Mary DiPota
1430 Forbes Street
North Tonawanda, NY 14120

Michael Joyner

[2] Additional information about this method is attached to this correspondence.

1484 Forbes Street
North Tonawanda, NY 14120

Any defense consultants wishing to participate in field sampling of the air and vapor sampling media as well as groundwater, should bring their own supplies for retrieval, collection, and transport of these samples.

III. Deployment of Additional Air Samplers at homes Sampled During the January 2019 Sampling Event

Additional air samplers will be deployed for use within the following homes:

Susanne Bedworth
1389 Forbes Street
North Tonawanda, NY 14120

Mary DiPota
1430 Forbes Street
North Tonawanda, NY 14120

Michael Joyner
1484 Forbes Street
North Tonawanda, NY 14120

Air samplers will be indoor Gore Sorbers as described for the GW well vadose zone samplers. The Joyner home at 1484 will also include a deployment of EPA method 325 samplers to run side by side with the indoor Gore Sorber (as laid out in the control home procedure below).

IV. Sampling at Homes not Included in the January 2019 Sampling Event

Two homes will be sampled in Williamsville, New York:

Mr. Paul Bedworth, II
317 Patrice Terrace, Williamsville, NY

Mr. Daniel Zatkos
6 Southwind Trail, Williamsville, NY

A set of (4) EPA 325 tubes (2 with diffusers, 2 without diffusers) and a Gore Sorber[3] will be deployed indoors in each home. A set of (4) EPA 325 tubes (2 with diffusers, 2 without diffusers) will be deployed outdoors at each home, in a rain bonnet. One home will get a second set of 2 EPA 325 tubes with diffusers and a duplicate Gore Sorber, to be left with the indoor set

[3] Additional information about this method is attached to this correspondence.

as a duplicate. The field blank (two EPA 325 tubes and a Gore Sorber) will be collected at this home.

Additionally, an outdoor surface soil and an indoor dust sample will be collected at each home, in 500 ml amber jars. The outdoor surface soil will include 2 MeOH preserved vials. One home will have a duplicate soil set collected. Soil and dust samples will be split at ALS Burlington, Ontario, Canada, and the split will be sent when ready to the defense team's designated address. If a new address is not sent to ALS in advance of the split being ready, the split samples will be sent to the address previously provided by Kevin Hogan and identified herein. Additionally, you should contact ALS directly and instruct them where to send any split samples as well as indicate if you require expedited splits. To the extent that there are additional costs for expedited requests by defense counsel or consultants, those costs must be paid by your team directly to the lab. Soil and dust analytes are 8270 SVOCs including PAHs, DX-PCBs, OC-Pesticides, metals (6020); MeOH soils are VOCs.

SPLIT SAMPLES, DUPLICATE SAMPLES, AND THE OPPORTUNITY FOR CONTEMPORANEOUS SAMPLING

As required by the Court's Order, we will also allow for the collection of split samples during this sampling event. Your opportunity to collect split or duplicate samples will depend on the type of sampling, the sample media, volume of sample material, and site conditions as determined by our team. In all cases, however, Defense representatives will have the opportunity to take a contemporary sample while our team is sampling.

To the extent that your team is interested in split samples for certain media that cannot reasonably be split in the field, the laboratory (ALS Burlington, Ontario, Canada) will homogenize the sample collected, divide the sample, and send half of the sample to a representative appointed by the defense team. You should contact ALS directly and instruct them where to send any split samples as well as indicate if you require expedited splits. To the extent that there are additional costs for expedited requests by defense counsel or consultants, those costs must be paid by your team directly to the lab. If the sample is too small to homogenize, as in the case of dust on a surface, our team would take their sample and leave a portion available for defense representatives. To the extent that vacuum cleaner contents are retrieved for their materials, these would go to the lab for splitting before any analyses are done. These cannot be split in the field because of the potential spread of fine particles into the air. This split must be done in a fume hood. For some of the sampling, such as soil samples, to the extent that you would like to take your own sample of the same media contemporaneously, your representative may do so with their own tools and equipment.

If the lab does not hear from a defense representative in a timely manner following sampling, they will mail all split samples overnight express with the chain of custody to:

Melissa Deyo, Project Manager,
TestAmerica,
10 Hazelwood Drive,
Amherst, NY 14228,

Tel 716.504.9874
All such samples should reference "Phillips Lytle, Nash Road."

Air sampling will be conducted using EPA method 325 Samplers. These samples cannot be split once retrieved. Our team will not provide any additional sample tubes, but has requested that the lab prepare a set of multiport air sampler, which will hold 4 to 8 samples (1 to 2 samples and 3 to 6 splits). In some cases, our team will need to use 2 ports, the other two will be reserved for the Defense equipment, or each team will have a 4-port sample holder. I have attached the method description and sampler descriptions to make sure that your team has access to the information necessary for your opportunity to participate in this sampling event.[4]

Additional air sampling will be conducted using Gore Sorbers.[5] These will not be provided to the defense team. To the extent that the defense team would like duplicate samples, they should bring and deploy their own Gore Sorbers. In total (10) ten Gore Sorbers will be needed for defense consultants wishing to participate in split/duplicate sampling.

In addition to the notice provided herein, we are happy to arrange a call between our environmental consultant and defendants' environmental consultant to address any questions your consultant believes are necessary prior to the beginning of the sampling event. If a call is necessary, please contact my office immediately and I will arrange a call with our consultant.

NOTICE OF ATTENDEES AND PARTICIPANTS

Pursuant to the Order each party is allowed to have one attorney, one party representative, and one expert present. Please let us know by 11:00 am EST on Tuesday, February 5, 2019, if you intend to have anyone present. Please include the name, title, and company for all persons who plan on attending at that time. **All participants will meet at 1389 Forbes Street North Tonawanda, NY for sampling activities to begin at 8:30 am on February 6, 2019.**

Feel free to contact me (with all counsel for Plaintiffs and my assistant Rachel Forest (rforest@stagliuzza.com in copy) if you have any questions or concerns.

Sincerely,

Michael G. Stag
Ashley M. Liuzza
Matthew D. Rogenes
Stag Liuzza, LLC
365 Canal Street, Suite 2850

[4] This is made part of the attachment providing notice for the January 2019 Sampling Event.
[5] Additional information about this method is also attached to this correspondence.

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AML/rdf
Attachments

UNITED STATES DISTRICT COURT
FOR THE
WESTERN DISTRICT OF NEW YORK

ELIZABETH ANDRES, *et al.*,	)	
	)	
Plaintiffs,	)	
	)	
v.	)	Case No. 1:17-cv-00377
	)	
TOWN OF WHEATFIELD, OCCIDENTAL CHEMICAL CORPORATION, BELL HELICOPTER TEXTRON, INC., SAINT-GOBAIN ABRASIVES, INC., ROE CONSOLIDATED HOLDINGS, GRAPHITE SPECIALTIES, CROWN BEVERAGE PACKAGING, LLC, and GREIF, INC.,	)	
	)	
Defendants/ Third Party Plaintiffs,	)	
	)	
v.	)	
	)	
UNITED STATES OF AMERICA,	)	
	)	
Third-Party Defendant.	)	

OPINION AND ORDER GRANTING DEFENDANTS' MOTION FOR A PRELIMINARY INJUNCTION
(Doc. 39)

On March 26, 2017, current and former residents of North Tonawanda, New York, and surrounding areas (collectively, "Plaintiffs") filed this class action, asserting state law claims of negligence, strict liability for engaging in an abnormally dangerous activity, private nuisance, and trespass. They seek damages for property damage and personal injury, medical monitoring, as well as punitive damages arising from the alleged release of hazardous materials from the Nash Road Landfill ("the Site").

On September 25, 2017, this matter came before the court for oral argument on Defendants' motion for a preliminary injunction (Doc. 39). Defendants Town of Wheatfield, Occidental Chemical Corporation, Bell Helicopter Textron, Inc., Saint-Gobain Abrasives, Inc., and Crown Beverage Packaging, LLC (collectively, "Defendants")[1] ask the court to enjoin Plaintiffs from engaging in certain sampling activities without notice and the opportunity for split sampling. More specifically, they ask the court to order Plaintiffs to: (1) preserve and maintain records from previous environmental sampling[2] and (2) provide ninety-six hours' notice, contemporaneous access, and split sampling for all future environmental sampling.

Plaintiffs oppose the motion, arguing that the injunction would infringe on attorney work product, the non-testifying expert privilege, and the attorney-client privilege. Although they agree to split sampling, they contend that they can provide such samples to Defendants without allowing Defendants contemporaneous access to the sampling site. Defendants counter that this measure is inadequate to verify the location, chain of custody, and reliability of the samples taken.

In support of their request for preliminary injunctive relief, Defendants proceed solely by affidavit. In doing so, they agree that the court's findings of fact may be based solely on undisputed facts. Defendants consent to be bound in a reciprocal manner by any preliminary injunction the court orders.

I. Findings of Fact.

For the purposes of the pending motion, the court finds the following by a preponderance of the evidence:

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[1] Roe Consolidated Holdings, Graphite Specialties and Greif, Inc. are both listed as Defendants in Plaintiffs' Complaint but do not join in the request for a preliminary injunction. The United States, a third-party defendant, did not join in the motion or consent to be bound by the proposed injunction.

[2] Defendants' motion requests that Plaintiffs "preserve and maintain all Environmental Sampling and Environmental Test Results that have already occurred, including but not limited to all related records, test results, chain of custody documentation, methodologies of preservation, documents, address keys, field notes, photographs, videos, and/or electronically stored information," (Doc. 39 at 1, ¶ 1.)

1. The Site extends over twenty-five acres, is currently owned by the Town of Wheatfield, and located on 7415 Nash Road, Wheatfield, New York 14120-1511, just north of the North Tonawanda city limits. From 1955-1969, the Site operated as a closed, unlined, and uncapped landfill. During this time, Plaintiffs allege that Defendants, as well as the Niagara Falls Air Force Base, disposed of hazardous waste at the Site, which leached into the soil, surface water, and groundwater of the surrounding area, causing the personal injuries and property damage allegedly suffered by Plaintiffs.

2. In addition to Plaintiffs, approximately two hundred other individuals with potential claims against Defendants have retained the law offices of Napoli Shkolnik PLLC, Smith Stag, LLC, and Christen Civiletto, Esq. to represent them ("non-party potential claimants").

3. "Environmental sampling" is defined as "any sampling associated with any air, soil, water, groundwater, sediment, waste or biological material . . . at any location at, or in the vicinity of, [the Site,] including Plaintiffs' residences and the surrounding neighborhood, whether indoors or outdoors, regardless of who owns the property[.]" (Doc. 39-1 at 1-2, ¶ 3.)

4. "Split samples" are defined as "equivalent portions of the same sample that are analyzed separately, typically by different parties using different laboratories, and is used to spot check the accuracy of data." (Doc. 39-8 at 2.) Split sampling is a routine practice in toxic tort litigation as it allows the parties to compare lab results. *See* 2 JAMES T. O'REILLY, TOXIC TORTS PRACTICE GUIDE § 17:13 (2d ed. 2017) ("Typically, a negotiated agreement will provide a time and manner of inspection and will provide for a split sample, one-half for each adversary, so that lab results can be fairly compared."). Without split sampling, it will be difficult to obtain nearly equivalent samples because environmental samples have a "hold time," defined as the period between extraction and preservation of the sample, of less than forty-eight hours to fourteen days, depending on the chemical compound tested.

5. Environmental conditions in the soil, surface water, and groundwater of the Site and surrounding properties are uncontrolled and subject to change due to manmade or natural influences, such as rainfall infiltration. As a result, samples taken from the same location but at different times are unlikely to be identical, potentially contributing to variations in testing results, and rendering it difficult to replicate testing results.

6. Proper expert evaluation of samples taken from the Site requires knowledge of the manner, location, and chain of custody of the sample, including the manner of storage, transportation, and preservation until testing occurs. Contemporary access to the sampling site is necessary to obtain this information, minimize the delay prior to transfer of the sample, as well as to ensure that the split samples are as equivalent as possible.

7. In March 2017, the New York State Department of Environmental Conservation ("NYSDEC") announced it will conduct environmental sampling near the Site. Plaintiffs requested and obtained split samples from NYSDEC's environmental sampling. On May 10 and 11, 2017, NYSDEC conducted soil sampling at properties adjacent to the Site and published the results of its testing on July 11, 2017.

8. Plaintiffs have conducted environmental sampling on Plaintiffs' real property and intend to perform further environmental sampling in connection with their claims in this lawsuit, including environmental sampling at the real property owned or occupied by non-party potential claimants.

9. Plaintiffs have made several statements to local media outlets regarding the results of Plaintiffs' environmental testing. For example, on July 11, 2017, the Buffalo News quoted Plaintiffs' counsel as stating that Plaintiffs' testing indicated twenty toxic chemicals were present on residents' properties and that "[w]e're finding it in the kitchens, in the bedrooms, not just in the basements[.]" (Doc. 43-3 at 5.) A July 12, 2017 article by the *Investigative Post* cites Plaintiffs' counsel statement that he advised "state authorities more than a month ago that his testing found dangerous levels of chemicals inside homes, not the soil." (Doc. 43-4 at 2.)

II. Conclusions of Law and Analysis.

A. Standard of Review.

A preliminary injunction "is an extraordinary remedy never awarded as of right." *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 24 (2008). "A plaintiff seeking a preliminary injunction must establish that he is likely to succeed on the merits, that he is likely to suffer irreparable harm in the absence of preliminary relief, that the balance of equities tips in his favor, and that an injunction is in the public interest." *Id.* at 20.

The Second Circuit has retained its own standard requiring a party seeking a preliminary injunction to show: "[(a)] irreparable harm and [(b)] either [(1)] likelihood of success on the merits or [(2)] sufficiently serious questions going to the merits to make them a fair ground for litigation and a balance of hardships tipping decidedly toward the party requesting the preliminary relief[.]" *Am. Civil Liberties Union v. Clapper*, 785 F.3d 787, 825 (2d Cir. 2015) (internal quotation marks omitted); *see also Citigroup Glob. Mkts., Inc. v. VCG Special Opportunities Master Fund Ltd.*, 598 F.3d 30, 38 (2d Cir. 2010) (ruling that the "serious questions" standard "remains valid" after *Winter*) (internal quotation marks omitted).

B. Likelihood of Success on the Merits/Sufficiently Serious Questions Going to the Merits.

In this case, neither party claims the merits of Plaintiffs' claims or Defendants' defenses are directly implicated by the proposed injunction. Instead, Defendants argue that a preliminary injunction is necessary to prevent the "spoliation of critical evidence[,]" because, in the absence of injunctive relief, it will be impossible for them to replicate Plaintiffs' sampling and confront it with their own expert analysis. (Doc. 39-17 at 25.) Plaintiffs oppose injunctive relief, claiming Defendants seek to intrude on Plaintiffs' privileged communications between their existing and potential clients, as well as their experts. They argue that the proposed injunction will reveal their litigation strategies and impact the privacy interests of non-parties

Defendants cite *Abbo-Bradley v. City of Niagara Falls*, 293 F.R.D. 401 (W.D.N.Y. 2013), while Plaintiffs cite *Abbo-Bradley v. City of Niagara Falls*, 3 N.Y.S.3d 842 (N.Y. App. Div. 2015), in support of their respective positions regarding injunctive relief. In *Abbo-Bradley*, homeowners residing near a landfill brought a Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") claim against the City of Niagara Falls and several corporate defendants, alleging hazardous waste deposited by those defendants had migrated from the landfill and caused Plaintiffs personal injury and property damage. Defendants sought a preliminary injunction from the Western District of New York, seeking (1) written notice ninety-six hours in advance of any environmental testing, (2) contemporaneous access to the sampling site, and (3) an opportunity to take split samples. The federal court granted the proposed injunction, reasoning that allowing plaintiffs to take environmental samples without a protocol for equal access would result in "spoliation of essential and relevant evidence[.]" 293 F.R.D. at 409. On remand to New York state court, however, the Fourth Department intermediate appellate court modified the preliminary injunction and denied the defendants contemporaneous access, finding that "[c]ommunications between plaintiffs' attorneys and their consultants is protected work product" and "communications with their clients is also protected by the attorney client privilege[.]" *Abbo-Bradley*, 3

N.Y.S.3d at 843-44. In narrowing the injunction in this manner, the Fourth Department did not explain how contemporaneous access to the sampling site infringed on confidential communications. Although both the federal and state court decisions provide guidance, neither is controlling precedent here.

A party has a duty to preserve environmental samples that will be relevant to litigation and discoverable by the opposing party. *See In re Terrorist Bombings of U.S. Embassies in E. Africa*, 552 F.3d 93, 148 (2d Cir. 2008) ("The obligation to preserve evidence arises when the party has notice that the evidence is relevant to litigation or when a party should have known that the evidence may be relevant to future litigation.") (internal quotation marks omitted); *see also Innis Arden Golf Club v. Pitney Bowes, Inc.*, 257 F.R.D. 334, 341 (D. Conn. 2009) (ruling because plaintiff "breached its duty to preserve its sampling evidence" from its property, plaintiff could not rely on such evidence at trial in support of its CERCLA and state law claims); *Silvestri v. Gen. Motors Corp.*, 271 F.3d 583, 592 (4th Cir. 2001) (dismissing plaintiff's products liability claim because plaintiff "failed to preserve material evidence" and "thus breach[ed] his duty not to spoliate evidence.").

Defendants assert that the failure to permit contemporaneous access to the sampling site and split sampling will amount to spoliation of essential evidence. They point out that split sampling is a routine practice in environmental litigation and presents a necessary intrusion into an opposing party's investigative work. *See, e.g.*, *United States v. Bridgeport United Recycling, Inc.*, 2008 WL 2073960, at *11 (D. Conn. May 2, 2008) (issuing consent decree in Resource Conservation and Recovery Act claim that provided the United States "upon request, splits of any samples taken by Defendants"); *Nashua Corp. v. Norton Co.*, 116 F. Supp. 2d 330, 344 (N.D.N.Y. 2000) (noting that defendant's consultant "gave [plaintiff's consultant] splits of their [groundwater] samples" in a CERCLA action); *see also Wickens v. Shell Oil Co.*, 569 F. Supp. 2d 770, 777-78 (S.D. Ind. 2008) (observing that magistrate judge permitted defendant contemporaneous access "to allow its environmental consultant to do independent testing."); O'REILLY, *supra*, (stating that "[t]ypically, a negotiated agreement will provide a time and manner of

inspection and will provide for a split sample"). Plaintiffs do not dispute that the environmental conditions where sampling will occur are uncontrolled and volatile, nor do they seriously contest that denying Defendants split samples would prevent Defendants' experts from obtaining a nearly identical sample to compare with Plaintiffs' experts' results. They nonetheless contend that contemporaneous access is not a necessary component of split sampling.

The presence of both parties at the sampling site ensures equal access to evidence and increases the likelihood that such evidence will be admissible at trial through an agreed upon chain of custody. At the same time, it will maintain the status quo in the face of a strong likelihood that both the samples and environmental conditions of the Site will degrade over time. *See, e.g.*, *Mirchandani v. Home Depot, U.S.A., Inc.*, 235 F.R.D. 611, 617 (D. Md. 2006) (stating that "[d]efendants will be able to attend the testing" as an "additional safeguard," minimizing "any potential prejudice to defendants resulting from the destructive testing"). Contemporaneous access thus furthers the court's interest in reliable evidence and enhances the likelihood that competing expert results will present an "apples to apples" comparison.

As for Defendants' request that "Plaintiffs and their attorneys [be enjoined] from engaging in any further Environmental Sampling . . . at property of nonparties where such sampling may be relevant to the claims or defenses in this lawsuit," (Doc. 39 at 1-2, ¶ 2), Plaintiffs argue that enjoining non-parties from testing their own property exceeds the proper scope of an injunction. While a preliminary injunction can only bind "(A) the parties; (B) the parties' officers, agents, servants, employees, and attorneys; and (C) other persons who are in active concert or participation" with individuals in subsections (A) or (B), Fed. R. Civ. P. 65(d)(2), the injunction here is not directed to non-parties, but solely to their counsel, who are within the proper scope of injunctive relief. The injunction will therefore not directly bind third-parties.[3]

[3] However, if third-party potential claimants perform environmental sampling on their own, without the aid or consent of Plaintiffs' counsel, they run the risk that their environmental sampling may be not inadmissible at trial. *See United States v. Vayner*, 769 F.3d 125, 132 (2d

Because Defendants have established a likelihood of success in establishing their entitlement to split sampling and contemporaneous access when the merits of the case are heard, they have satisfied the first prong for injunctive relief.

C. Whether Defendants Will Suffer Irreparable Harm.

"A showing of irreparable harm is the single most important prerequisite for the issuance of a preliminary injunction." *Faiveley Transp. Malmo AB v. Wabtec Corp.*, 559 F.3d 110, 118 (2d Cir. 2009) (internal quotation marks omitted). The party seeking an injunction "must demonstrate that absent a preliminary injunction [it] will suffer an injury that is neither remote nor speculative, but actual and imminent[.]" *Id.* (internal quotation marks omitted).

Without a nearly identical sample to the sample tested by Plaintiffs, Defendants will be unable to assess the validity of Plaintiffs' environmental testing and potentially rebut key evidence. If unable to contemporaneously access the sampling site when Plaintiffs' expert removes a sample, Defendants will be unable to observe the conditions in which a sample was removed and determine how such conditions affect testing results. Denying contemporaneous access while providing split samples after the fact does not address the issue that proper expert evaluation of environmental samples requires observing the precise method and location of extraction. It may also create a contested chain of custody. As a result, without contemporaneous access and split sampling, the potential harm suffered by Defendants will be actual and imminent, constituting irreparable harm in the form of spoliation of the evidence. *See United States v. Sum of $70,990,605*, 991 F. Supp. 2d 154, 163 (D.D.C. 2013) (finding that "[d]estruction of evidence may . . . rise to the level of irreparable harm[.]").

Cir. 2014) (citing Fed. R. Evid. 901 which states that a party seeking to admit evidence must provide "evidence sufficient to support a finding that the item is what the proponent claims it is" and vacating judgment where trial court admitted evidence that lacked proper authentication).

D. Whether the Proposed Injunction Will Violate Plaintiffs' Attorney Work Product, Non-Testifying Expert's Privilege, or Attorney-Client Privilege.

Plaintiffs assert that granting Defendants contemporaneous access to where, when, and whether Plaintiffs conduct environmental sampling will disclose (1) attorney work product, (2) facts known or opinions held by consulting or non-testifying experts, and (3) attorney-client communications. Defendants disagree and assert they are seeking facts, not opinions, and will not infringe upon Plaintiffs' confidential communications with their attorneys or their experts.

1. Attorney Work Product.

A party "may not discover the documents and tangible things that are prepared [by the opposing party or its representative] in anticipation of litigation[.]" Fed. R. Civ. P. 26(b)(3)(A). The work product doctrine preserves a "zone of privacy" where a lawyer can prepare and develop legal strategy for litigation without "unnecessary intrusion" by opposing counsel. *Schaeffler v. United States*, 806 F.3d 34, 43 (2d Cir. 2015). Work product protection may "encompass factual material, including the result of a factual investigation." *In re Grand Jury Subpoena Dated July 6, 2005*, 510 F.3d 180, 183 (2d Cir. 2007). If a court orders discovery of work product, it must protect against the disclosure of the "mental impressions, conclusions, opinions, or legal theories of a party's attorney or other representative[.]" Fed. R. Civ. P. 26(b)(3)(B). Whether an otherwise discoverable item is protected work product is a case-by-case determination. *In re Grand Jury Subpoena Dated Oct. 22, 2001*, 282 F.3d 156, 161 (2d Cir. 2002).

Although the Fourth Department expressed concern in *Abbo-Bradley* that allowing defendants contemporaneous access to the sampling site would infringe on "protected work product" by allowing access to "[c]ommunications between plaintiffs' attorneys and their consultants[,]" that conclusion did not identify or analyze how this would inexorably occur as the result of contemporaneous split sampling. *Abbo-Bradley*, 3 N.Y.S.3d at 843. There is nothing about the process of split sampling that requires a communication with counsel. The proposed injunction in this case would require

Plaintiffs to "preserve and maintain" records already taken. (Doc. 39 at 1, ¶ 1.) It would not require Plaintiffs to reveal the results of their experts' past factual investigations, their future investigations, or their experts' opinions. *See Strauss v. Credit Lyonnais, S.A.*, 242 F.R.D. 199, 230 (E.D.N.Y. 2007) (distinguishing "between matters revealing the thought processes of a party's representative and factual information obtained in anticipation of litigation" and observing that while "[s]ubstantial protection is afforded the first category [only] [l]imited protection is afforded the second.") (internal quotation marks omitted); *Salzer ex rel. Salzer v. Farm Family Life Ins. Co.*, 721 N.Y.S.2d 409, 411 (N.Y. App. Div. 2001) (stating that New York law "makes clear" that "the attorney work product exception" is "very narrowly construed" to include "only materials prepared by an attorney, acting as an attorney, which contain his analysis and trial strategy[.]") (internal quotation marks omitted). Contemporaneous access to the sampling site will also not give Defendants an "advance look into the deliberative processes by which Plaintiffs and their consultants analyze the merits of their case[,]" (Doc. 42 at 9), as Plaintiffs contend, but rather will reveal only the environmental conditions themselves which are not protected. *See Strauss*, 242 F.R.D. at 230 (stating that work product protection generally does not protect facts). The proposed injunction will therefore not require disclosure of Plaintiffs' attorney work product.[4]

2. Non-Testifying Expert Privilege.

Work product protection and the non-testifying expert privilege are distinct doctrines. *See, e.g., In re Methyl Tertiary Butyl Ether (MTBE) Prod. Liab. Litig.*, 293 F.R.D. 568, 575 n.36 (S.D.N.Y. 2013) (distinguishing "the work product privilege" from the "non-testifying expert privilege") (citing *QBE Ins. Corp. v. Interstate Fire & Safety Equip. Co.*, 2011 WL 692982, at *5 (D. Conn. Feb. 18, 2011)) (internal quotation marks

[4] In finding that contemporaneous access does not infringe on attorney work product protection, the court need not address whether Defendants have "substantial need" and would suffer "undue hardship" in obtaining equal access to the raw data of environmental sampling. *See* Fed. R. Civ. P. 26(b)(3)(A)(ii) (stating that protected work product is nevertheless discoverable if "the party shows it has substantial need for the materials to prepare its case and cannot, without undue hardship, obtain their substantial equivalent by other means.").

omitted). Plaintiffs assert that Defendants will receive an unfair advantage if they are permitted to obtain the facts known by Plaintiffs' consulting experts prior to Plaintiffs' determination whether they will call those experts at trial.

An opposing party generally may not discover the "facts known or opinions held by an expert who has been retained or specially employed" by the other party in "anticipation of litigation" when the expert "is not expected to be called as a witness at trial." Fed. R. Civ. P. 26(b)(4)(D). Facts or opinions may nonetheless be discoverable if the opposing party demonstrates "exceptional circumstances" where it is "impracticable for the party to obtain facts or opinions on the same subject by other means." *Id.* at 26(b)(4)(D)(ii). A party meets its burden of demonstrating "exceptional circumstances" when "the object or condition observed by the non-testifying expert is no longer observable by an expert of the party seeking discovery." *Bank Brussels Lambert v. Chase Manhattan Bank, N.A.*, 175 F.R.D. 34, 44 (S.D.N.Y. 1997) (finding "exceptional circumstances" compelled the deposition of a non-testifying expert accountant retained by a corporation investigated for fraud, because it would be impracticable to otherwise reconstruct the disputed financial condition of the corporation for the period at issue); *see also MTBE Prod. Liab. Litig.*, 293 F.R.D. at 575 (stating that "exceptional circumstances" are found "most commonly, in cases of spoliation.").

Because the proposed injunction will not reveal the results of Plaintiffs' experts' opinions or permit Defendants to question Plaintiffs' experts, the proposed injunction will not invade the non-testifying expert privilege.

3. Attorney-Client Privilege.

Asserting that the attorney-client privilege precludes Defendants' presence at environmental sampling sites, Plaintiffs point out that they will be unable to freely communicate with their clients and third-party potential claimants during testing if Defendants are present. Under New York law, the attorney-client privilege protects confidential communications between an attorney or his or her agent and the client for the purpose of facilitating legal advice in the course of a professional relationship. *See* N.Y. C.P.L.R. § 4503(a)(1); *Ambac Assurance Corp. v. Countrywide Home Loans, Inc.*, 57

N.E.3d 30, 34 (N.Y. 2016) ("The attorney-client privilege shields from disclosure any confidential communications between an attorney and his or her client made for the purpose of obtaining or facilitating legal advice in the course of a professional relationship[.]"); *see also* Fed. R. Evid. 501 ("[S]tate law governs privilege regarding a claim or defense for which state law supplies the rule of decision."). In New York, the privilege "must be narrowly construed" because it is "in '[o]bvious tension' with the policy of this State favoring liberal discovery[.]" *Ambac Assurance Corp.*, 57 N.E.3d at 34 (alteration in original).

In this case, access to the sampling site and split sampling will not invade attorney-client communications if certain safeguards are present. For example, if Defendants are ordered to excuse themselves when such communications take place, the likelihood that they will be privy to confidential communications is minimal. *See Electro-Methods, Inc. v. Adolf Meller Co.*, 2007 WL 470325, at *2 (D. Conn Jan. 11, 2007) (finding that "plaintiff's representatives may watch the testing process" but must "remain passive, and not question or otherwise disrupt" defendant's personnel). Plaintiffs present no evidence or argument to the contrary. The court therefore need not determine whether Plaintiffs waived the privilege by disclosing the results of their environmental testing to the press. *See Mfr. & Traders Tr. Co. v. Servotronics, Inc.*, 522 N.Y.S.2d 999, 1004 (N.Y. App. Div. 1987) (holding that "[i]ntent must be the primary component" in considering whether disclosure of materials waived attorney-client privilege). The attorney-client privilege therefore does not foreclose contemporaneous access and split sampling.

E. Whether the Balance of the Equities Tip in Defendants' Favor and Whether Injunctive Relief is in the Public Interest.

A party seeking a preliminary injunction must show that "the balance of equities tips in his favor" and "that an injunction is in the public interest[.]" *Clapper*, 785 F.3d at 825 (citing *Winter*, 555 U.S. at 20). Here, the proposed injunction strikes the appropriate balance between protecting Plaintiffs' litigation strategies and preventing the spoliation of evidence that will be critical to both parties' case at trial. Plaintiffs will still

control "all aspects of their environmental sampling activities." *Abbo-Bradley*, 293 F.R.D. at 410. Moreover, in order to minimize inconvenience and protect non-party potential claimants' privacy interests, only Defendants' attorney, a party representative, and an expert may be present at the sampling site. This will render the burden imposed by split sampling and contemporaneous access proportionate to the value of ensuring that reliable evidence will be presented at trial. *See* Fed. R. Civ. P. 26(b)(1) ("Parties may obtain discovery regarding any nonprivileged matter that is relevant to any party's claim or defense and proportional to the needs of the case[.]").

CONCLUSION

For the foregoing reasons, the court GRANTS Defendants' motion for a preliminary injunction. (Doc. 39.)

PRELIMINARY INJUNCTION

Plaintiffs and Defendants Town of Wheatfield, Occidental Chemical Corporation, Bell Helicopter Textron, Inc., Saint-Gobain Abrasives, Inc., and Crown Beverage Packaging, LLC, and their counsel of record ("the parties") are hereby ENJOINED as follows:

(1) The parties must preserve and maintain all environmental sampling relevant to any party's claims or defenses that has been previously conducted and any records related to such sampling, including test results, chain of custody, methodologies of preservation used, documents, address keys, field notes, photographs, videos, and electronically stored information.

(2) Each party must serve the opposing party with written notice at least ninety-six hours prior to conducting environmental sampling relevant to any party's claims or defenses or in any way connected with the Site.

(3) Upon service of notice, each party shall provide the other party with contemporaneous access to the sampling site and the opportunity to take split samples. During split sampling, each party may have one attorney, one party representative, and one expert present. The parties may not question the other party's expert or client, nor can a party be present for another party's

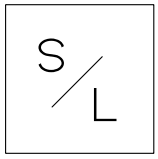
confidential communications with their attorney or expert. Each party shall act in good faith to absent themselves from such communications. The party engaged in such confidential communications shall act in good faith to minimize any inconvenience to the opposing party.

(4) Plaintiffs have not requested the posting of a bond or other security pursuant to Fed. R. Civ. P. 65(c). The court finds that security may be waived in this case as it is not necessary to prevent harm to the party opposing injunctive relief. *See Doctor's Assocs., Inc. v. Stuart*, 85 F.3d 975, 985 (2d Cir. 1996) (finding that a district court may dispense with the posting of security where the parties sought to be enjoined "have not shown that they will likely suffer harm absent the posting of a bond[.]").

SO ORDERED.

Dated at Burlington, Vermont, this 6th day of October, 2017.

Christina Reiss, District Judge
United States District Court



STAG LIUZZA

January 10, 2018

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Re: ***Elizabeth Andres, et al. v. Town of Wheatfield, et al.***
USDC, Western District of NY, 1:17-cv-00377-CCR
Alicia Bellafaire, et al. v. Town of Wheatfield, et al.
USDC, Western District of NY, 1:18-cv-00560-CCR
Our File No.: 207108

Dear Counselors,

In accordance with the Order dated October 6, 2017 (which we have also attached to this letter), please allow this letter to advise that we intend to perform sampling beginning on Tuesday, January 15, 2019 at 7:00 am. The sampling and activities will continue until sampling and objectives are achieved depending on delays caused by participants, observers, weather conditions, and other field conditions.

CLIENT PROPERTY SAMPLING

The locations of the sampling will be as follows:

Susanne Bedworth
1389 Forbes Street
North Tonawanda, NY 14120

Mary DiPota
1430 Forbes Street
North Tonawanda, NY 14120

Michael Joyner
1484 Forbes Street
North Tonawanda, NY 14120

These samples will be tested for Dioxins, PCBs and organo-chlorine pesticides (with TICs), plus RCRA (8) metals including mercury. Soil and sediment samples will also be tested for BTEX (benzene, toluene, ethyl benzene and xylenes) and SVOCs (semivolatile organic compounds). Subsurface sampling will be via Geoprobe-installed well or similar. There will be four samples per home; one indoor dust, two subsurface soils and one composite surface soil per home. More samples may be necessary as determined in the field by Plaintiffs' team. Passive air sampling will also be conducted at these homes with air samplers being set up on Tuesday, January 15, 2019, and retrieved from client homes on Thursday, January 17, 2019, Friday January 18, 2019, or a future date to be determined, depending on whether there are delays in the initial set up.

Additionally, our team will sample between 6 to 10 other client properties depending on client availability. All of these samples will be tested for PCBs and organo-chlorine pesticides (no TICs), plus RCRA (8) metals including mercury. Some samples may also be tested for Dioxins. Soil and sediment samples will also be tested for BTEX (benzene, toluene, ethyl benzene and xylenes) and SVOCs (semivolatile organic compounds). Passive air sampling will

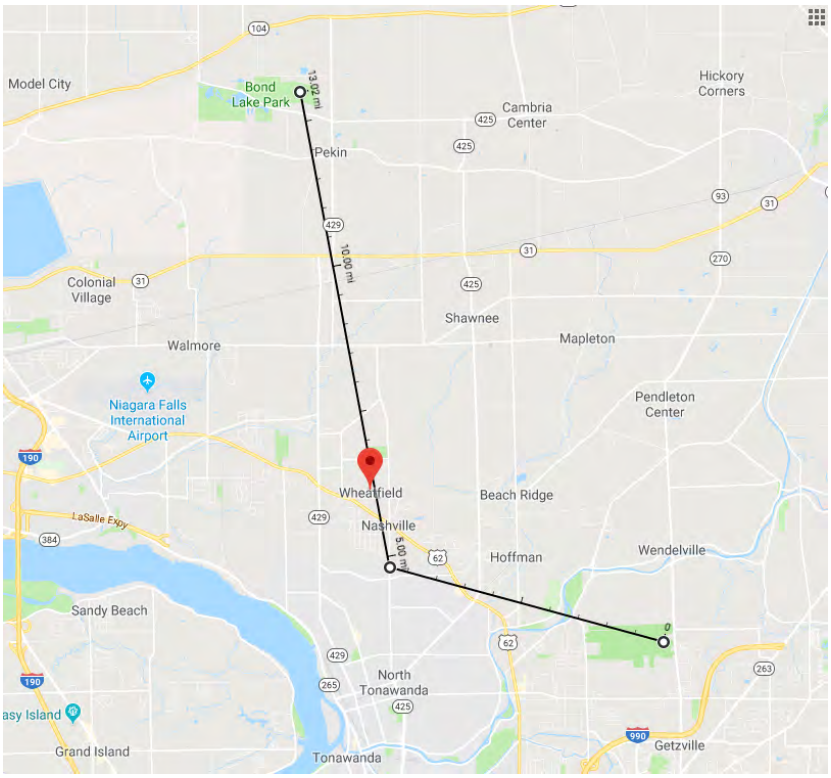
also be conducted at these homes with air samplers being set up on Tuesday, January 15, 2019, and retrieved from client homes on Thursday, January 17, 2019, or Friday January 18, 2019, or a future site to be determined, depending on whether there are delays in the initial set up.

The following properties are the 12 potential sites:

- Mark or Lisa Belstadt, 3295 Evergreen Drive North Tonawanda NY
- Robert Stefanski, 1597 Ruie Road North Tonawanda NY
- Marc or Tracey Homsi, 7345 Erica Lane North Tonawanda, NY
- Jamie W. Herman, 1656 Ruie Road North Tonawanda, NY
- Pino or Darleen Iacona, 7266 Norman Road North Tonawanda, NY
- Victoria Liberto, 1619 Master Street North Tonawanda NY
- Bob Snyder, 1618 Moll Street North Tonawanda, NY
- John Scozzafava, 1597 Moll St. North Tonawanda, NY
- Jonathan Peterson, 7403 Nash Road North Tonawanda NY
- Charles and Valerie Freeburg, 1640 Nash Rd North Tonawanda NY
- John and Kathleen See, 1625 Nash Rd North Tonawanda NY
- Sherry Warner, 1727 Forbes Street, North Tonawanda, NY

PUBLIC SAMPLING SITES

In addition to the above client properties, our team will also be sampling the public locations identified on the map below (two park properties plus two ROW samples in the general area of the residential sample sites).



All of these samples will be tested for PCBs and organo-chlorine pesticides (no TICs), plus RCRA (8) metals including mercury. Some samples may also be tested for dioxins. Soil and sediment samples will also be tested for BTEX (benzene, toluene, ethyl benzene and xylenes) and SVOCs (semivolatile organic compounds).

SPLIT SAMPLES, DUPLICATE SAMPLES, AND THE OPPORTUNITY FOR CONTEMPORANEOUS SAMPLING

As required by the Court's Order, we will also allow for the collection of split samples during this sampling event. Your opportunity to collect split or duplicate samples will depend on the type of sampling, the sample media, volume of sample material, and site conditions as determined by our team. In all cases, however, Defense representatives will have the opportunity to take a contemporary sample while our team is sampling

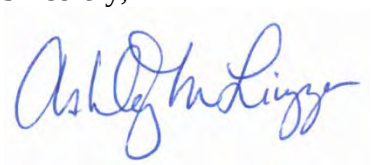
To the extent that your team is interested in split samples for certain media, the laboratory (ALS) will homogenize the sample collected, divide the sample, and send half of the sample to a representative appointed by the Defense team. If the sample is too small to homogenize, as in the case of dust on a surface, our team would take their sample and leave a portion available for defense representatives. To the extent that vacuum cleaner contents are retrieved for their materials, these would go to the lab for splitting before any analyses are done. These cannot be split in the field because of the potential spread of fine particles into the air. This split must be done in a fume hood. For some of the sampling, such as soil samples, to the extent that you would like to take your own sample of the same media contemporaneously, your representative may do so with their own tools and equipment.

Air sampling will be conducted using EPA method 325 Samplers. These samples cannot be split once retrieved. Our team will not provide any additional sample tubes, but has requested that the lab prepare a set of multiport air sampler, which will hold 4 samples (1 sample and 3 splits). In some cases, our team will need to use 2 ports, the other two will be reserved for the Defense equipment. I have attached the method description and sampler descriptions to make sure that your team has access to the information necessary for your opportunity to participate in this sampling event.

NOTICE OF ATTENDEES AND PARTICIPANTS

Pursuant to the Order each party is allowed to have one attorney, one party representative, and one expert present. Please let us know by 11:00 am EST on Monday, January 14, 2019, if you intend to have anyone present. Please include the name, title, and company for all persons who plan on attending at that time. **All participants will meet at 1389 Forbes Street North Tonawanda, NY for sampling activities to begin promptly at 7:00 am.**

Sincerely,



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Attachments

UNITED STATES DISTRICT COURT
FOR THE
WESTERN DISTRICT OF NEW YORK

ELIZABETH ANDRES, *et al.*,	)	
	)	
Plaintiffs,	)	
	)	
v.	)	Case No. 1:17-cv-00377
	)	
TOWN OF WHEATFIELD, OCCIDENTAL CHEMICAL CORPORATION, BELL HELICOPTER TEXTRON, INC., SAINT-GOBAIN ABRASIVES, INC., ROE CONSOLIDATED HOLDINGS, GRAPHITE SPECIALTIES, CROWN BEVERAGE PACKAGING, LLC, and GREIF, INC.,	)	
	)	
Defendants/ Third Party Plaintiffs,	)	
	)	
v.	)	
	)	
UNITED STATES OF AMERICA,	)	
	)	
Third-Party Defendant.	)	

OPINION AND ORDER GRANTING DEFENDANTS' MOTION FOR A PRELIMINARY INJUNCTION
(Doc. 39)

On March 26, 2017, current and former residents of North Tonawanda, New York, and surrounding areas (collectively, "Plaintiffs") filed this class action, asserting state law claims of negligence, strict liability for engaging in an abnormally dangerous activity, private nuisance, and trespass. They seek damages for property damage and personal injury, medical monitoring, as well as punitive damages arising from the alleged release of hazardous materials from the Nash Road Landfill ("the Site").

On September 25, 2017, this matter came before the court for oral argument on Defendants' motion for a preliminary injunction (Doc. 39). Defendants Town of Wheatfield, Occidental Chemical Corporation, Bell Helicopter Textron, Inc., Saint-Gobain Abrasives, Inc., and Crown Beverage Packaging, LLC (collectively, "Defendants")[1] ask the court to enjoin Plaintiffs from engaging in certain sampling activities without notice and the opportunity for split sampling. More specifically, they ask the court to order Plaintiffs to: (1) preserve and maintain records from previous environmental sampling[2] and (2) provide ninety-six hours' notice, contemporaneous access, and split sampling for all future environmental sampling.

Plaintiffs oppose the motion, arguing that the injunction would infringe on attorney work product, the non-testifying expert privilege, and the attorney-client privilege. Although they agree to split sampling, they contend that they can provide such samples to Defendants without allowing Defendants contemporaneous access to the sampling site. Defendants counter that this measure is inadequate to verify the location, chain of custody, and reliability of the samples taken.

In support of their request for preliminary injunctive relief, Defendants proceed solely by affidavit. In doing so, they agree that the court's findings of fact may be based solely on undisputed facts. Defendants consent to be bound in a reciprocal manner by any preliminary injunction the court orders.

I. Findings of Fact.

For the purposes of the pending motion, the court finds the following by a preponderance of the evidence:

---

[1] Roe Consolidated Holdings, Graphite Specialties and Greif, Inc. are both listed as Defendants in Plaintiffs' Complaint but do not join in the request for a preliminary injunction. The United States, a third-party defendant, did not join in the motion or consent to be bound by the proposed injunction.

[2] Defendants' motion requests that Plaintiffs "preserve and maintain all Environmental Sampling and Environmental Test Results that have already occurred, including but not limited to all related records, test results, chain of custody documentation, methodologies of preservation, documents, address keys, field notes, photographs, videos, and/or electronically stored information," (Doc. 39 at 1, ¶ 1.)

1. The Site extends over twenty-five acres, is currently owned by the Town of Wheatfield, and located on 7415 Nash Road, Wheatfield, New York 14120-1511, just north of the North Tonawanda city limits. From 1955-1969, the Site operated as a closed, unlined, and uncapped landfill. During this time, Plaintiffs allege that Defendants, as well as the Niagara Falls Air Force Base, disposed of hazardous waste at the Site, which leached into the soil, surface water, and groundwater of the surrounding area, causing the personal injuries and property damage allegedly suffered by Plaintiffs.

2. In addition to Plaintiffs, approximately two hundred other individuals with potential claims against Defendants have retained the law offices of Napoli Shkolnik PLLC, Smith Stag, LLC, and Christen Civiletto, Esq. to represent them ("non-party potential claimants").

3. "Environmental sampling" is defined as "any sampling associated with any air, soil, water, groundwater, sediment, waste or biological material . . . at any location at, or in the vicinity of, [the Site,] including Plaintiffs' residences and the surrounding neighborhood, whether indoors or outdoors, regardless of who owns the property[.]" (Doc. 39-1 at 1-2, ¶ 3.)

4. "Split samples" are defined as "equivalent portions of the same sample that are analyzed separately, typically by different parties using different laboratories, and is used to spot check the accuracy of data." (Doc. 39-8 at 2.) Split sampling is a routine practice in toxic tort litigation as it allows the parties to compare lab results. *See* 2 JAMES T. O'REILLY, TOXIC TORTS PRACTICE GUIDE § 17:13 (2d ed. 2017) ("Typically, a negotiated agreement will provide a time and manner of inspection and will provide for a split sample, one-half for each adversary, so that lab results can be fairly compared."). Without split sampling, it will be difficult to obtain nearly equivalent samples because environmental samples have a "hold time," defined as the period between extraction and preservation of the sample, of less than forty-eight hours to fourteen days, depending on the chemical compound tested.

5. Environmental conditions in the soil, surface water, and groundwater of the Site and surrounding properties are uncontrolled and subject to change due to manmade or natural influences, such as rainfall infiltration. As a result, samples taken from the same location but at different times are unlikely to be identical, potentially contributing to variations in testing results, and rendering it difficult to replicate testing results.

6. Proper expert evaluation of samples taken from the Site requires knowledge of the manner, location, and chain of custody of the sample, including the manner of storage, transportation, and preservation until testing occurs. Contemporary access to the sampling site is necessary to obtain this information, minimize the delay prior to transfer of the sample, as well as to ensure that the split samples are as equivalent as possible.

7. In March 2017, the New York State Department of Environmental Conservation ("NYSDEC") announced it will conduct environmental sampling near the Site. Plaintiffs requested and obtained split samples from NYSDEC's environmental sampling. On May 10 and 11, 2017, NYSDEC conducted soil sampling at properties adjacent to the Site and published the results of its testing on July 11, 2017.

8. Plaintiffs have conducted environmental sampling on Plaintiffs' real property and intend to perform further environmental sampling in connection with their claims in this lawsuit, including environmental sampling at the real property owned or occupied by non-party potential claimants.

9. Plaintiffs have made several statements to local media outlets regarding the results of Plaintiffs' environmental testing. For example, on July 11, 2017, the Buffalo News quoted Plaintiffs' counsel as stating that Plaintiffs' testing indicated twenty toxic chemicals were present on residents' properties and that "[w]e're finding it in the kitchens, in the bedrooms, not just in the basements[.]" (Doc. 43-3 at 5.) A July 12, 2017 article by the *Investigative Post* cites Plaintiffs' counsel statement that he advised "state authorities more than a month ago that his testing found dangerous levels of chemicals inside homes, not the soil." (Doc. 43-4 at 2.)

II. Conclusions of Law and Analysis.

A. Standard of Review.

A preliminary injunction "is an extraordinary remedy never awarded as of right." *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 24 (2008). "A plaintiff seeking a preliminary injunction must establish that he is likely to succeed on the merits, that he is likely to suffer irreparable harm in the absence of preliminary relief, that the balance of equities tips in his favor, and that an injunction is in the public interest." *Id.* at 20.

The Second Circuit has retained its own standard requiring a party seeking a preliminary injunction to show: "[(a)] irreparable harm and [(b)] either [(1)] likelihood of success on the merits or [(2)] sufficiently serious questions going to the merits to make them a fair ground for litigation and a balance of hardships tipping decidedly toward the party requesting the preliminary relief[.]" *Am. Civil Liberties Union v. Clapper*, 785 F.3d 787, 825 (2d Cir. 2015) (internal quotation marks omitted); *see also Citigroup Glob. Mkts., Inc. v. VCG Special Opportunities Master Fund Ltd.*, 598 F.3d 30, 38 (2d Cir. 2010) (ruling that the "serious questions" standard "remains valid" after *Winter*) (internal quotation marks omitted).

B. Likelihood of Success on the Merits/Sufficiently Serious Questions Going to the Merits.

In this case, neither party claims the merits of Plaintiffs' claims or Defendants' defenses are directly implicated by the proposed injunction. Instead, Defendants argue that a preliminary injunction is necessary to prevent the "spoliation of critical evidence[,]" because, in the absence of injunctive relief, it will be impossible for them to replicate Plaintiffs' sampling and confront it with their own expert analysis. (Doc. 39-17 at 25.) Plaintiffs oppose injunctive relief, claiming Defendants seek to intrude on Plaintiffs' privileged communications between their existing and potential clients, as well as their experts. They argue that the proposed injunction will reveal their litigation strategies and impact the privacy interests of non-parties

Defendants cite *Abbo-Bradley v. City of Niagara Falls*, 293 F.R.D. 401 (W.D.N.Y. 2013), while Plaintiffs cite *Abbo-Bradley v. City of Niagara Falls*, 3 N.Y.S.3d 842 (N.Y. App. Div. 2015), in support of their respective positions regarding injunctive relief. In *Abbo-Bradley*, homeowners residing near a landfill brought a Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") claim against the City of Niagara Falls and several corporate defendants, alleging hazardous waste deposited by those defendants had migrated from the landfill and caused Plaintiffs personal injury and property damage. Defendants sought a preliminary injunction from the Western District of New York, seeking (1) written notice ninety-six hours in advance of any environmental testing, (2) contemporaneous access to the sampling site, and (3) an opportunity to take split samples. The federal court granted the proposed injunction, reasoning that allowing plaintiffs to take environmental samples without a protocol for equal access would result in "spoliation of essential and relevant evidence[.]" 293 F.R.D. at 409. On remand to New York state court, however, the Fourth Department intermediate appellate court modified the preliminary injunction and denied the defendants contemporaneous access, finding that "[c]ommunications between plaintiffs' attorneys and their consultants is protected work product" and "communications with their clients is also protected by the attorney client privilege[.]" *Abbo-Bradley*, 3

N.Y.S.3d at 843-44. In narrowing the injunction in this manner, the Fourth Department did not explain how contemporaneous access to the sampling site infringed on confidential communications. Although both the federal and state court decisions provide guidance, neither is controlling precedent here.

A party has a duty to preserve environmental samples that will be relevant to litigation and discoverable by the opposing party. *See In re Terrorist Bombings of U.S. Embassies in E. Africa*, 552 F.3d 93, 148 (2d Cir. 2008) ("The obligation to preserve evidence arises when the party has notice that the evidence is relevant to litigation or when a party should have known that the evidence may be relevant to future litigation.") (internal quotation marks omitted); *see also Innis Arden Golf Club v. Pitney Bowes, Inc.*, 257 F.R.D. 334, 341 (D. Conn. 2009) (ruling because plaintiff "breached its duty to preserve its sampling evidence" from its property, plaintiff could not rely on such evidence at trial in support of its CERCLA and state law claims); *Silvestri v. Gen. Motors Corp.*, 271 F.3d 583, 592 (4th Cir. 2001) (dismissing plaintiff's products liability claim because plaintiff "failed to preserve material evidence" and "thus breach[ed] his duty not to spoliate evidence.").

Defendants assert that the failure to permit contemporaneous access to the sampling site and split sampling will amount to spoliation of essential evidence. They point out that split sampling is a routine practice in environmental litigation and presents a necessary intrusion into an opposing party's investigative work. *See, e.g.*, *United States v. Bridgeport United Recycling, Inc.*, 2008 WL 2073960, at *11 (D. Conn. May 2, 2008) (issuing consent decree in Resource Conservation and Recovery Act claim that provided the United States "upon request, splits of any samples taken by Defendants"); *Nashua Corp. v. Norton Co.*, 116 F. Supp. 2d 330, 344 (N.D.N.Y. 2000) (noting that defendant's consultant "gave [plaintiff's consultant] splits of their [groundwater] samples" in a CERCLA action); *see also Wickens v. Shell Oil Co.*, 569 F. Supp. 2d 770, 777-78 (S.D. Ind. 2008) (observing that magistrate judge permitted defendant contemporaneous access "to allow its environmental consultant to do independent testing."); O'REILLY, *supra*, (stating that "[t]ypically, a negotiated agreement will provide a time and manner of

inspection and will provide for a split sample"). Plaintiffs do not dispute that the environmental conditions where sampling will occur are uncontrolled and volatile, nor do they seriously contest that denying Defendants split samples would prevent Defendants' experts from obtaining a nearly identical sample to compare with Plaintiffs' experts' results. They nonetheless contend that contemporaneous access is not a necessary component of split sampling.

The presence of both parties at the sampling site ensures equal access to evidence and increases the likelihood that such evidence will be admissible at trial through an agreed upon chain of custody. At the same time, it will maintain the status quo in the face of a strong likelihood that both the samples and environmental conditions of the Site will degrade over time. *See, e.g.*, *Mirchandani v. Home Depot, U.S.A., Inc.*, 235 F.R.D. 611, 617 (D. Md. 2006) (stating that "[d]efendants will be able to attend the testing" as an "additional safeguard," minimizing "any potential prejudice to defendants resulting from the destructive testing"). Contemporaneous access thus furthers the court's interest in reliable evidence and enhances the likelihood that competing expert results will present an "apples to apples" comparison.

As for Defendants' request that "Plaintiffs and their attorneys [be enjoined] from engaging in any further Environmental Sampling . . . at property of nonparties where such sampling may be relevant to the claims or defenses in this lawsuit," (Doc. 39 at 1-2, ¶ 2), Plaintiffs argue that enjoining non-parties from testing their own property exceeds the proper scope of an injunction. While a preliminary injunction can only bind "(A) the parties; (B) the parties' officers, agents, servants, employees, and attorneys; and (C) other persons who are in active concert or participation" with individuals in subsections (A) or (B), Fed. R. Civ. P. 65(d)(2), the injunction here is not directed to non-parties, but solely to their counsel, who are within the proper scope of injunctive relief. The injunction will therefore not directly bind third-parties.[3]

[3] However, if third-party potential claimants perform environmental sampling on their own, without the aid or consent of Plaintiffs' counsel, they run the risk that their environmental sampling may be not inadmissible at trial. *See United States v. Vayner*, 769 F.3d 125, 132 (2d

Because Defendants have established a likelihood of success in establishing their entitlement to split sampling and contemporaneous access when the merits of the case are heard, they have satisfied the first prong for injunctive relief.

C. Whether Defendants Will Suffer Irreparable Harm.

"A showing of irreparable harm is the single most important prerequisite for the issuance of a preliminary injunction." *Faiveley Transp. Malmo AB v. Wabtec Corp.*, 559 F.3d 110, 118 (2d Cir. 2009) (internal quotation marks omitted). The party seeking an injunction "must demonstrate that absent a preliminary injunction [it] will suffer an injury that is neither remote nor speculative, but actual and imminent[.]" *Id.* (internal quotation marks omitted).

Without a nearly identical sample to the sample tested by Plaintiffs, Defendants will be unable to assess the validity of Plaintiffs' environmental testing and potentially rebut key evidence. If unable to contemporaneously access the sampling site when Plaintiffs' expert removes a sample, Defendants will be unable to observe the conditions in which a sample was removed and determine how such conditions affect testing results. Denying contemporaneous access while providing split samples after the fact does not address the issue that proper expert evaluation of environmental samples requires observing the precise method and location of extraction. It may also create a contested chain of custody. As a result, without contemporaneous access and split sampling, the potential harm suffered by Defendants will be actual and imminent, constituting irreparable harm in the form of spoliation of the evidence. *See United States v. Sum of $70,990,605*, 991 F. Supp. 2d 154, 163 (D.D.C. 2013) (finding that "[d]estruction of evidence may . . . rise to the level of irreparable harm[.]").

Cir. 2014) (citing Fed. R. Evid. 901 which states that a party seeking to admit evidence must provide "evidence sufficient to support a finding that the item is what the proponent claims it is" and vacating judgment where trial court admitted evidence that lacked proper authentication).

D. Whether the Proposed Injunction Will Violate Plaintiffs' Attorney Work Product, Non-Testifying Expert's Privilege, or Attorney-Client Privilege.

Plaintiffs assert that granting Defendants contemporaneous access to where, when, and whether Plaintiffs conduct environmental sampling will disclose (1) attorney work product, (2) facts known or opinions held by consulting or non-testifying experts, and (3) attorney-client communications. Defendants disagree and assert they are seeking facts, not opinions, and will not infringe upon Plaintiffs' confidential communications with their attorneys or their experts.

1. Attorney Work Product.

A party "may not discover the documents and tangible things that are prepared [by the opposing party or its representative] in anticipation of litigation[.]" Fed. R. Civ. P. 26(b)(3)(A). The work product doctrine preserves a "zone of privacy" where a lawyer can prepare and develop legal strategy for litigation without "unnecessary intrusion" by opposing counsel. *Schaeffler v. United States*, 806 F.3d 34, 43 (2d Cir. 2015). Work product protection may "encompass factual material, including the result of a factual investigation." *In re Grand Jury Subpoena Dated July 6, 2005*, 510 F.3d 180, 183 (2d Cir. 2007). If a court orders discovery of work product, it must protect against the disclosure of the "mental impressions, conclusions, opinions, or legal theories of a party's attorney or other representative[.]" Fed. R. Civ. P. 26(b)(3)(B). Whether an otherwise discoverable item is protected work product is a case-by-case determination. *In re Grand Jury Subpoena Dated Oct. 22, 2001*, 282 F.3d 156, 161 (2d Cir. 2002).

Although the Fourth Department expressed concern in *Abbo-Bradley* that allowing defendants contemporaneous access to the sampling site would infringe on "protected work product" by allowing access to "[c]ommunications between plaintiffs' attorneys and their consultants[,]" that conclusion did not identify or analyze how this would inexorably occur as the result of contemporaneous split sampling. *Abbo-Bradley*, 3 N.Y.S.3d at 843. There is nothing about the process of split sampling that requires a communication with counsel. The proposed injunction in this case would require

Plaintiffs to "preserve and maintain" records already taken. (Doc. 39 at 1, ¶ 1.) It would not require Plaintiffs to reveal the results of their experts' past factual investigations, their future investigations, or their experts' opinions. *See Strauss v. Credit Lyonnais, S.A.*, 242 F.R.D. 199, 230 (E.D.N.Y. 2007) (distinguishing "between matters revealing the thought processes of a party's representative and factual information obtained in anticipation of litigation" and observing that while "[s]ubstantial protection is afforded the first category [only] [l]imited protection is afforded the second.") (internal quotation marks omitted); *Salzer ex rel. Salzer v. Farm Family Life Ins. Co.*, 721 N.Y.S.2d 409, 411 (N.Y. App. Div. 2001) (stating that New York law "makes clear" that "the attorney work product exception" is "very narrowly construed" to include "only materials prepared by an attorney, acting as an attorney, which contain his analysis and trial strategy[.]") (internal quotation marks omitted). Contemporaneous access to the sampling site will also not give Defendants an "advance look into the deliberative processes by which Plaintiffs and their consultants analyze the merits of their case[,]" (Doc. 42 at 9), as Plaintiffs contend, but rather will reveal only the environmental conditions themselves which are not protected. *See Strauss*, 242 F.R.D. at 230 (stating that work product protection generally does not protect facts). The proposed injunction will therefore not require disclosure of Plaintiffs' attorney work product.[4]

2. Non-Testifying Expert Privilege.

Work product protection and the non-testifying expert privilege are distinct doctrines. *See, e.g., In re Methyl Tertiary Butyl Ether (MTBE) Prod. Liab. Litig.*, 293 F.R.D. 568, 575 n.36 (S.D.N.Y. 2013) (distinguishing "the work product privilege" from the "non-testifying expert privilege") (citing *QBE Ins. Corp. v. Interstate Fire & Safety Equip. Co.*, 2011 WL 692982, at *5 (D. Conn. Feb. 18, 2011)) (internal quotation marks

[4] In finding that contemporaneous access does not infringe on attorney work product protection, the court need not address whether Defendants have "substantial need" and would suffer "undue hardship" in obtaining equal access to the raw data of environmental sampling. *See* Fed. R. Civ. P. 26(b)(3)(A)(ii) (stating that protected work product is nevertheless discoverable if "the party shows it has substantial need for the materials to prepare its case and cannot, without undue hardship, obtain their substantial equivalent by other means.").

omitted). Plaintiffs assert that Defendants will receive an unfair advantage if they are permitted to obtain the facts known by Plaintiffs' consulting experts prior to Plaintiffs' determination whether they will call those experts at trial.

An opposing party generally may not discover the "facts known or opinions held by an expert who has been retained or specially employed" by the other party in "anticipation of litigation" when the expert "is not expected to be called as a witness at trial." Fed. R. Civ. P. 26(b)(4)(D). Facts or opinions may nonetheless be discoverable if the opposing party demonstrates "exceptional circumstances" where it is "impracticable for the party to obtain facts or opinions on the same subject by other means." *Id.* at 26(b)(4)(D)(ii). A party meets its burden of demonstrating "exceptional circumstances" when "the object or condition observed by the non-testifying expert is no longer observable by an expert of the party seeking discovery." *Bank Brussels Lambert v. Chase Manhattan Bank, N.A.*, 175 F.R.D. 34, 44 (S.D.N.Y. 1997) (finding "exceptional circumstances" compelled the deposition of a non-testifying expert accountant retained by a corporation investigated for fraud, because it would be impracticable to otherwise reconstruct the disputed financial condition of the corporation for the period at issue); *see also MTBE Prod. Liab. Litig.*, 293 F.R.D. at 575 (stating that "exceptional circumstances" are found "most commonly, in cases of spoliation.").

Because the proposed injunction will not reveal the results of Plaintiffs' experts' opinions or permit Defendants to question Plaintiffs' experts, the proposed injunction will not invade the non-testifying expert privilege.

3. Attorney-Client Privilege.

Asserting that the attorney-client privilege precludes Defendants' presence at environmental sampling sites, Plaintiffs point out that they will be unable to freely communicate with their clients and third-party potential claimants during testing if Defendants are present. Under New York law, the attorney-client privilege protects confidential communications between an attorney or his or her agent and the client for the purpose of facilitating legal advice in the course of a professional relationship. *See* N.Y. C.P.L.R. § 4503(a)(1); *Ambac Assurance Corp. v. Countrywide Home Loans, Inc.*, 57

N.E.3d 30, 34 (N.Y. 2016) ("The attorney-client privilege shields from disclosure any confidential communications between an attorney and his or her client made for the purpose of obtaining or facilitating legal advice in the course of a professional relationship[.]"); *see also* Fed. R. Evid. 501 ("[S]tate law governs privilege regarding a claim or defense for which state law supplies the rule of decision."). In New York, the privilege "must be narrowly construed" because it is "in '[o]bvious tension' with the policy of this State favoring liberal discovery[.]" *Ambac Assurance Corp.*, 57 N.E.3d at 34 (alteration in original).

In this case, access to the sampling site and split sampling will not invade attorney-client communications if certain safeguards are present. For example, if Defendants are ordered to excuse themselves when such communications take place, the likelihood that they will be privy to confidential communications is minimal. *See Electro-Methods, Inc. v. Adolf Meller Co.*, 2007 WL 470325, at *2 (D. Conn Jan. 11, 2007) (finding that "plaintiff's representatives may watch the testing process" but must "remain passive, and not question or otherwise disrupt" defendant's personnel). Plaintiffs present no evidence or argument to the contrary. The court therefore need not determine whether Plaintiffs waived the privilege by disclosing the results of their environmental testing to the press. *See Mfr. & Traders Tr. Co. v. Servotronics, Inc.*, 522 N.Y.S.2d 999, 1004 (N.Y. App. Div. 1987) (holding that "[i]ntent must be the primary component" in considering whether disclosure of materials waived attorney-client privilege). The attorney-client privilege therefore does not foreclose contemporaneous access and split sampling.

E. Whether the Balance of the Equities Tip in Defendants' Favor and Whether Injunctive Relief is in the Public Interest.

A party seeking a preliminary injunction must show that "the balance of equities tips in his favor" and "that an injunction is in the public interest[.]" *Clapper*, 785 F.3d at 825 (citing *Winter*, 555 U.S. at 20). Here, the proposed injunction strikes the appropriate balance between protecting Plaintiffs' litigation strategies and preventing the spoliation of evidence that will be critical to both parties' case at trial. Plaintiffs will still

control "all aspects of their environmental sampling activities." *Abbo-Bradley*, 293 F.R.D. at 410. Moreover, in order to minimize inconvenience and protect non-party potential claimants' privacy interests, only Defendants' attorney, a party representative, and an expert may be present at the sampling site. This will render the burden imposed by split sampling and contemporaneous access proportionate to the value of ensuring that reliable evidence will be presented at trial. *See* Fed. R. Civ. P. 26(b)(1) ("Parties may obtain discovery regarding any nonprivileged matter that is relevant to any party's claim or defense and proportional to the needs of the case[.]").

CONCLUSION

For the foregoing reasons, the court GRANTS Defendants' motion for a preliminary injunction. (Doc. 39.)

PRELIMINARY INJUNCTION

Plaintiffs and Defendants Town of Wheatfield, Occidental Chemical Corporation, Bell Helicopter Textron, Inc., Saint-Gobain Abrasives, Inc., and Crown Beverage Packaging, LLC, and their counsel of record ("the parties") are hereby ENJOINED as follows:

(1) The parties must preserve and maintain all environmental sampling relevant to any party's claims or defenses that has been previously conducted and any records related to such sampling, including test results, chain of custody, methodologies of preservation used, documents, address keys, field notes, photographs, videos, and electronically stored information.

(2) Each party must serve the opposing party with written notice at least ninety-six hours prior to conducting environmental sampling relevant to any party's claims or defenses or in any way connected with the Site.

(3) Upon service of notice, each party shall provide the other party with contemporaneous access to the sampling site and the opportunity to take split samples. During split sampling, each party may have one attorney, one party representative, and one expert present. The parties may not question the other party's expert or client, nor can a party be present for another party's

confidential communications with their attorney or expert. Each party shall act in good faith to absent themselves from such communications. The party engaged in such confidential communications shall act in good faith to minimize any inconvenience to the opposing party.

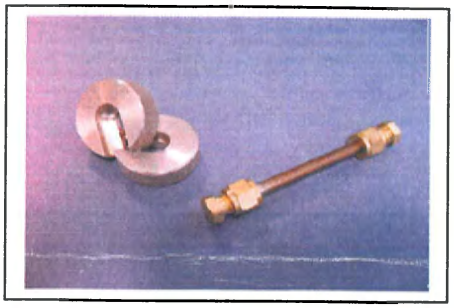
(4) Plaintiffs have not requested the posting of a bond or other security pursuant to Fed. R. Civ. P. 65(c). The court finds that security may be waived in this case as it is not necessary to prevent harm to the party opposing injunctive relief. *See Doctor's Assocs., Inc. v. Stuart*, 85 F.3d 975, 985 (2d Cir. 1996) (finding that a district court may dispense with the posting of security where the parties sought to be enjoined "have not shown that they will likely suffer harm absent the posting of a bond[.]").

SO ORDERED.

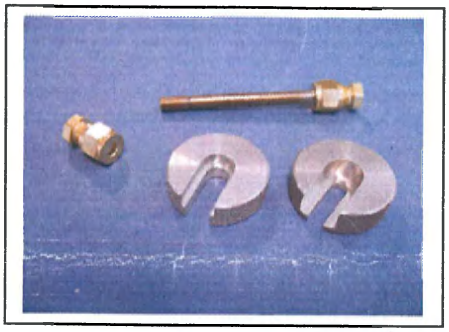
Dated at Burlington, Vermont, this 6th day of October, 2017.

Christina Reiss, District Judge
United States District Court

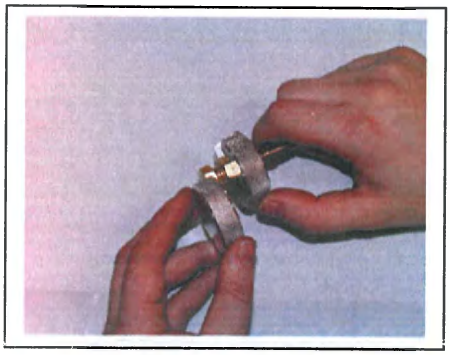
Using the CapLok™ Tool to Undo and Tighten ¼ inch Brass Long-Term Storage Caps



1. CapLok tool and sorbent tube capped with ¼ inch brass SwageLok type long-term



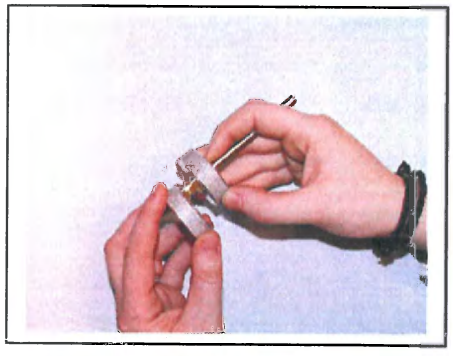
2. The two halves of the CapLok tool are slightly different. The disk etched with the Markes Logo should be used on the top of the cap and the other disk should be used over the tube on the nut end



3. Loosen the brass cap using the CapLok tool as shown (by twisting the two discs in opposing directions). Then pull the nuts from the end of the tubes.

4. Remove the caps from the end of the tubes.

ACTIVE: BOTH
PASSIVE: SAMPLING END ONLY !



5. To replace the caps, push them onto the end of the tube and tigten until finger tight. Use the CapLok tool (by twisting the two discs in opposite directions) to tighten the nut a further quarter to half turn.

6, Gently pull the brass caps at each end to ensure they are secure.

EnviroMail™ 04 *Canada*

Fenceline Monitoring of Volatile Organic Compound Emissions by EPA Method 325

Fugitive volatile organic compound (VOC) releases from facilities in the petroleum and petrochemical sectors may pose health and environmental risks to Canadians. As part of the Government of Canada's Chemical Management Plan (CMP), new requirements will be imposed upon petroleum refineries, upgraders and certain petrochemical facilities to reduce the risk of exposure to humans and the environment.

EPA 325 BACKGROUND

In May 2013, the US EPA released a proposed rule as an update to the current "national emission standards for hazardous air pollutants for petroleum refineries" which required all refineries to monitor volatile benzene concentrations around the fenceline (perimeter) of their facilities. Benzene was selected as a representative compound to evaluate overall refinery emissions. Originally implemented as part of the annual Risk and Technology Review (RTR), the proposed rule was designed to establish a fenceline concentration of benzene that would trigger required corrective action in the event of an exceedance. This was a combined effort to evaluate both risk and technology as required by the Clean Air Act (CAA) after the application of maximum achievable control technology (MACT) standards.

The proposed rule was posted to the US Federal Register on June 30, 2014 with the final rule being signed and published on September 29, 2015. Implementation of this rule is intended to result in reductions of hazardous air pollutants that affect public health directly (cancer risk and chronic health effects), as well as indirectly by contributing to the formation of ground-level ozone (smog).

EPA Method 325 "Volatile Organic Compounds from Fugitive and Area Sources" was developed to enable refineries to comply with the updated US federal regulation 40 CFR 63. EPA Method 325 includes two sub-parts: EPA 325A: Sampler Deployment and VOC Sample Collection, and EPA 325B: Sampler Preparation and Analysis. These complementary methods outline the design, deployment, preparation, and analysis of a series of passive sampling sorbent tubes suspended around the refinery property

line. After 2 weeks (14 days) of exposure, the passive sampling tubes are detached from the shelters, re-sealed and sent to a laboratory for thermal desorption (TD) gas chromatograph mass spectrometry (GCMS) analysis. Although benzene is the primary target compound, the sampling and analysis methodology can also be used to determine other VOCs, including 1,3-butadiene, toluene, ethylbenzene, xylenes and other hazardous air pollutants (HAPs).

SET-UP, APPLICATION AND VOC SCOPE

Samples are collected using a 3.5" long x ¼" OD stainless steel tube packed with a carbon-based adsorbent. One end of the tube is outfitted with an open mesh diffusion cap and the other end is sealed with a brass cap. The tube is positioned with the diffusion cap in a downward orientation under a protective non-VOC emitting shelter. Shelters are placed at a height of 1.5 to 2 meters above the ground on a secure pole or other suitable structure. At least one co-located duplicate sample is collected for every 10 field samples. A minimum of two unopened field

Continued on next page...

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blanks are collected in different shelters per sampling period to ensure sample integrity associated with shipment, collection and storage.

Monitoring points are determined using an equal radial or linear approach, eg. Radial: Less than 750 acres, samplers every 30 degrees based on a central emission source point (12 samples); Linear: Boundary less than 24,000 feet, a minimum of 12 sampling locations evenly spaced ±10%. Based on 26 two-week sampling events, a yearly rolling average is created which is then compared to a specified action level.

The preferred sorbent is Carbopack X, a medium/strong sorbent (n-C3/C4 to n-C8). It is optimal for passive adsorption of the target analytes listed including benzene and 1,3-butadiene; and is hydrophobic, minimizing moisture effects. The use of a diffusion cap and slow analyte diffusion rate (uptake rate) mitigate any extreme changes in wind vector.

New tubes are thermally conditioned, the base flow measured and then checked for desorption efficiency (DE). The tubes can be cleaned to low background levels enabling target analyte detection at ppb/ppt levels. Uptake rates are based on Fick's Law of Diffusion (*a compound will migrate to the surface of a sorbent at a rate dependent on: distance and area between sorbent and source, time of exposure, diffusion coefficient of the compound through air and ambient concentration*). Without an uptake rate no comparison can be made between the amount of analyte measured on the tube and concentration at the sampling point.

REGULATION

A recent publication (May 2017) in the Canada Gazette, indicates that a fenceline monitoring program for petroleum and petrochemical sectors will come into effect on January 1, 2018 and be applied across Canada effective July 1, 2018.
http://www.gazette.gc.ca/rp-pr/p1/2017/2017-05-27/html/reg2-eng.php.

This program will require 18 petroleum refineries, 6 upgraders and 2 petrochemical facilities to sample and analyze the concentrations of certain VOC's (benzene, 1,3-butadiene, as well as the total concentration of all retainable VOCs) around their respective facilities' perimeters as per U.S EPA Method 325A and 325B.

Table 1 – Validated Sorbents & Uptake Rates for Selected Clean Air Act Compounds
McClenny, W.A., et. al., J. Environ. Monit. 7:248-256.

Compound	Carbopack X uptake rate (ml/min)a
1,3-Butadiene	0.61±0.11
1,1-Dichloroethene	0.57±0.14
3-Chloropropene	0.51±0.3
1,1-Dichloroethane	0.57±0.1
1,2-Dichloroethane	0.57±0.08
1,1,1-Trichloroethane	0.51±0.1
Benzene	0.66±0.06
Carbon tetrachloride	0.51±0.06
1,2-Dichloropropane	0.52±0.1
Trichloroethene	0.5±0.05
1,1,2-Trichloroethane	0.49±0.13
Toluene	0.52±0.14
Tetrachloroethene	0.48±0.05
Chlorobenzene	0.51±0.06
Ethylbenzene	0.46±0.07
m,p-Xylene	0.46±0.09
Styrene	0.5±0.14
o-Xylene	0.46±0.12
p-Dichlorobenzene	0.45±0.05

While regulations come into effect in the future, ALS has the capability and CALA accreditation for these methods to enable the industry to monitor their sites in advance of regulatory enforcement thereby allowing industry to perform any corrective action earlier if desired.

ALS will provide a standard suite of analytes (as per Table 1) unless requested otherwise and to request this service industry should as for the ALS ABC package and ALS can not cannot supply TD tubes as part of the cost.

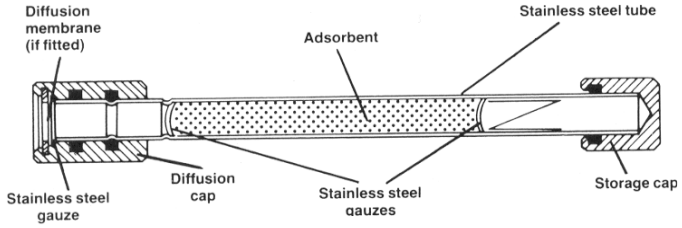
For more information, contact the ALS environmental laboratory in Waterloo, Ontario.

60 Northland Road, Unit 1
Waterloo, ON N2V 2B8
+1 519 886 6910

Passive Sampling Instructions for Thermal Desorption Sorbent Tubes

These instructions provide guidance in the handling, air sampling & shipping of thermal desorption sorbent (TD) tubes. TD tubes offer the ability to determine a wide range of volatile organic compounds (VOCs) at very low detection limits. Because of this sensitivity, proper handling of TD tubes during air sampling is critical to prevent contamination of the sample. BEFORE HANDLING TD tubes WASH your hand with UNSCENTED SOAP to remove potential contaminant such as Creams, Perfumes, Oils, Solvents, Smoke & other residues or WEAR clean disposable gloves. DO NOT sample OUTSIDE during or immediately after wet weather.

1. Check for **Field Data Sampling Sheet, CapLok Tool Instructions Sheet, CapLok Tool Set, TD Air Sampling Tubes, Passive Sampler Caps & Metal Clips** included in this sampling kit.
2. Each **TD tube** has a unique serial number inscribed on it for identification (DO NOT mark or write on TD tubes). The TD tube number is included on the tube's shipping container.
3. The **Passive Sampler Caps** are included in a separate container.
4. DIRECTION OF AIR FLOW: The sampling end of the TD tube has two grooves. This is the end that the BRASS CAP will be removed from.
   Note: The TD tube has an arrow on it for air flow. The grooves will be found at the opposite end to the direction that the arrow is pointing
5. If possible, USE Clean Disposable Nitrile Gloves when handling the tubes. Remove the Brass Cap from the sampling end of the TD tube using the **CapLok Tool**. (See Point 4 above). Keep the brass end cap from each tube in their respective container. The cap will be put back on the TD tube after sampling is complete. DO NOT REMOVE THE BOTTOM CAP!
6. Carefully PUSH ON the **Passive Sampler Cap** until it bottoms out (See picture below). The **Metal Clip** can be attached to the visible groove below the Passive Sampler Cap for attachment to a pocket or other suitable location for sampling.



7. RECOMMENDED SAMPLING TIMES: These times are based on normal exposure levels expected for the particular air being sampled.
   a) Ambient Air – 24hrs to 2 weeks (Depends on air concentration)
   b) Indoor Air – 24 hrs (1 week maximum)
   c) Workplace Air – Low: 8 – 24hrs
      – Typical: 8 hrs
   d) Soil Gas – Typical: 24 hrs
      – High: 8 - 12 hrs
8. FIELD BLANK: The collection of a field blank is very important in proper interpretation of sampling results. Uncap a tube & immediately reseal it at the sampling site. The Field Blank should be transported to & from the monitoring site similar to the Sample Tubes.

9. RECORD the start time, end time, **total sampling time hours & minutes**, and other pertinent sampling data on the **Field Data Sampling Sheet**.
   DO NOT WRITE ON OR MARK the TD tube with any thing (pen marker, tape, etc).
10. AFTER SAMPLING, remove brass cap from the original storage container. REMOVE the Passive Sampler Cap from the TD tube & return to its container. PUSH the Brass Cap firmly unto the TD tube until it bottoms out. TIGHTEN brass cap **finger tight** until snug & then **¼ to maximum ½ turn more** with the CapLok Tool. Do not over tighten as this will damage the Teflon seal. LIGHTLY TUG CAP to ensure that it is secure.
11. Return TD tube to its original shipping container. ENSURE tube & shipping container numbers MATCH. If TD tube doesn't fit into the container properly (i.e. cap above top of container & lid doesn't tighten on), the brass cap may not be seated properly. Loosen the brass cap & push on more firmly & re-tighten.
12. RETURN ALL sampling supplies & completed sheets.
13. PACK TD tubes **securely** so that they do not bounce around in transit. Return to the laboratory immediately after sampling. Samples are stable at room temperature. Ship in a cooler with freezer packs if elevated temperatures are expected.
14. FILL OUT **Chain-of-custody Form** completely.
15. RETURN Chain-of-custody Form, Field Data Sampling Sheet, CapLok Tool, Samples & all other sampling supplies in the shipping cooler.
16. **ANY QUESTIONS** - Contact ALS Environmental at **1-519-886-6910x272**.

Cost To Replace Lost or Damaged Sampling Supplies

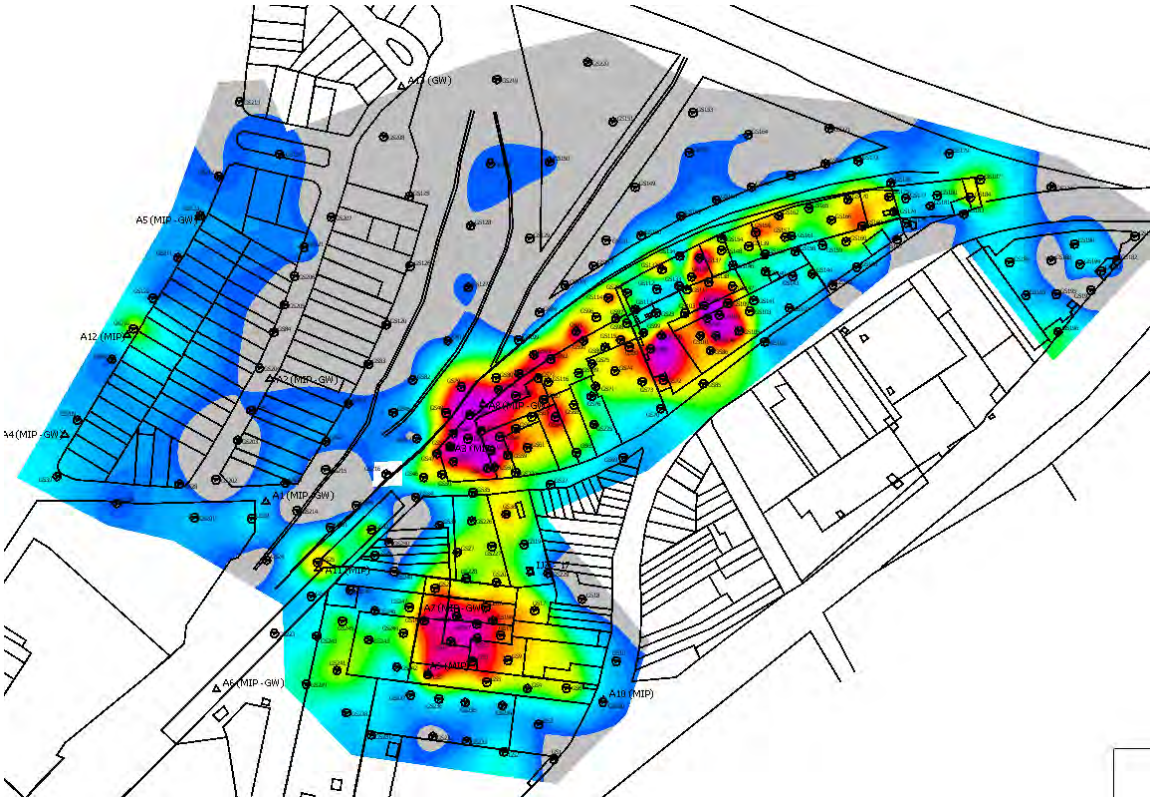
Thermal Desorption Tube	$140.00
CapLok Tool Set	$50.00
Passive Sampler Head	$20.00

AMPLIFIED GEOCHEMICAL IMAGING LLC

Amplified Geochemical Imaging, LLC.

Environmental Services

High Resolution Site Characterization (HRSC)
Vapor Intrusion Investigations
Long-Term & Remedial Monitoring
Groundwater & Sediment Porewater Sampling



AGI Environmental Services "snapshot"

AGI Environmental Service Options

Screening

- Type 1 Sampler
- AGI Screening method*
- Results as mass (µg)
- Applicable compounds

Concentration

- Type 8 Sampler
- AGI Screening method*
- Results as mass (µg) and concentrations (µg/m^3; µg/L)
- Applicable compounds

DoD ELAP

- Type 8 Sampler
- US EPA 8260C method** (modified)
- Results as mass (µg) and concentrations (µg/m^3; µg/L)
- Applicable compounds

Note: Target compounds associated with each Service Option are provided on page 4.

*US EPA 8260 modified for external standard calibration
**US EPA 8260C accredited by A2LA for meeting requirements of ISO17025, US DoD ELAP, and TNI.

AGI Universal Passive Sampler Capabilities

Type 1

- No measured uptake rates
- Volatility range C_2 to C_{20}
- Vinyl chloride, 11DCE are reported

Type 8

- Measured uptake rates
- Volatility range C_4 to C_{20}
- Vinyl chloride, 11DCE **cannot** be reported

1) Select the AGI Environmental Service Option and number of samplers to meet your project objectives.
2) AGI samplers are shipped to you for deployment and retrieval.
3) AGI samplers are returned to AGI's laboratory in Newark, Delaware, USA for analysis.
4) An AGI Laboratory Report is issued.
5) For soil gas surveys of 10 or more AGI field samplers, contour maps are prepared, and an AGI Mapping Report is issued.

- The service cost includes the AGI Universal Passive Samplers, sampler analysis, reports with data tables and contour maps (as needed), and shipping to you (some restrictions apply).
- A quotation can be prepared by completing the interactive questionnaire located on page 9.
- Additional detailed service information is contained in the following pages.

AGI Analytical Methods

1) AGI Screening Method[1][2]

a. Thermal desorption GC/MS
b. External standard calibration
c. Second source calibration checks/ reference standards
d. Method blanks, BFB tune checks

2) US EPA 8260C Method[3](modified; extended QC; accredited by A2LA)

a. Thermal desorption GC/MS
b. Internal standard calibration with surrogate spikes
c. BFB MS Tune checks, method blanks, LCS/ LCSD samples
d. Method has ISO 17025 DoD ELAP accreditation[3]
e. EPA 8260C QC criteria

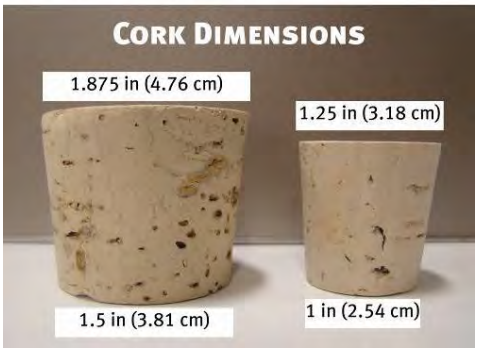
Testing Cert. #3062.01

[1]Method not listed on AGI's scope of accreditation
[2]Type 8 sampler is required for concentration reporting. Mass data only for compounds not having measured or estimated sampling rates
[3]Method listed on AGI's scope of accreditation for compounds listed

All Service Options Include:

- Survey design, pre- and post-survey consultation (as needed)
- AGI Universal Passive Samplers, trip blanks, outbound shipping (some restrictions apply)
- Chain of Custody and Installation/Retrieval e-Log
- Analysis, electronic data deliverable (EDD)[4], Laboratory Report[4]
- Soil gas contour maps[4] (up to five) and a Mapping Report[4] for projects having at least 10 AGI field samplers[5]
- Data, reports, and maps provided electronically via secure ftp site
- Corks (small, default, see photo at right) – as applicable
- String, insertion rod, weights (for groundwater sampling) - as applicable

[4]Standard EDD format; CSV for data tables, PDF for contour maps and reports. Other formats may be available upon request and may incur additional cost.
[5]For projects with <10 samplers, a fee is charged to provide contour maps and Mapping Report.



Turn around time (TAT):

- TAT is a function of the number of samplers and the current laboratory capacity. Normal TAT is approximately 10-12 working days (≤ 50 samplers). TAT increases by two days for every additional 50 samplers.

Not included:

- Sampler field installation and retrieval costs
- Return shipping costs
- Taxes, duties, or VAT

Terms:

- Project-specific pricing quotation valid for 90 days
- Paid in full 30 days from invoice date
- Credit approval required
- Soil gas surveys may be subject to a minimum order fee

CAS No.	Screening Option Units: micrograms, µg	Concentration Option Units: µg; µg/m^3 or µg/L	DoD ELAP Option Units: µg; µg/m^3 or µg/L (included on AGI's Scope of accreditation)
75-01-4	Vinyl chloride**		
1634-04-4	Methyl tert-Butyl Ether	Methyl tert-Butyl Ether	Methyl tert-Butyl Ether
	BTEX (summed)	BTEX (summed)	BTEX (summed)
71-43-2	Benzene	Benzene	Benzene
108-88-3	Toluene	Toluene	Toluene
100-41-4	Ethylbenzene	Ethylbenzene	Ethylbenzene
108-38-3/106-42-3	m,p-xylene	m,p-xylene	m,p-xylene
95-47-6	o-xylene	o-xylene	o-xylene
111-65-9	Octane	Octane*	Octane*
1120-21-4	Undecane	Undecane*	Undecane*
629-50-5	Tridecane	Tridecane*	Tridecane*
629-62-9	Pentadecane	Pentadecane*	
108-67-6	1,3,5-Trimethylbenzene	1,3,5-Trimethylbenzene	1,3,5-Trimethylbenzene
95-63-6	1,2,4-Trimethylbenzene	1,2,4-Trimethylbenzene	1,2,4-Trimethylbenzene
91-20-3	Naphthalene	Naphthalene	Naphthalene
91-57-6	2-Methylnaphthalene	2-Methylnaphthalene	2-Methylnaphthalene
86-73-7	Fluorene	Fluorene*	
83-32-9	Acenaphthene	Acenaphthene*	
208-96-8	Acenaphthylene	Acenaphthylene*	
156-60-5	trans-1,2-Dichloroethene	trans-1,2-Dichloroethene	trans-1,2-Dichloroethene
156-59-2	cis-1,2-Dichloroethene	cis-1,2-Dichloroethene	cis-1,2-Dichloroethene
79-01-6	Trichloroethene	Trichloroethene	Trichloroethene
127-18-4	Tetrachloroethene	Tetrachloroethene	Tetrachloroethene
75-35-4	1,1-Dichloroethene**		
75-35-3	1,1-Dichloroethane	1,1-Dichloroethane	1,1-Dichloroethane
107-06-2	1,2-Dichloroethane	1,2-Dichloroethane	1,2-Dichloroethane
79-00-5	1,1,2-Trichloroethane	1,1,2-Trichloroethane	1,1,2-Trichloroethane
71-55-6	1,1,1-Trichloroethane	1,1,1-Trichloroethane	1,1,1-Trichloroethane
79-34-5	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane
630-20-6	1,1,1,2-Tetrachloroethane	1,1,1,2-Tetrachloroethane*	1,1,1,2-Tetrachloroethane*
67-66-3	Chloroform	Chloroform	Chloroform
56-23-5	Carbon tetrachloride	Carbon tetrachloride	Carbon tetrachloride
108-90-7	Chlorobenzene	Chlorobenzene	Chlorobenzene
95-50-1	1,2-Dichlorobenzene	1,2-Dichlorobenzene	1,2-Dichlorobenzene
541-73-1	1,3-Dichlorobenzene	1,3-Dichlorobenzene	1,3-Dichlorobenzene
106-46-7	1,4-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dichlorobenzene
	TPH† GRPH††*optional* DRPH†*optional*	TPH*† GRPH*††*optional* DRPH*†*optional*	Note: Some compounds listed above may be accredited for relative mass reporting only (listed as screening only) – see AGI's scope of accreditation for details

* Concentrations based on estimated sampling rates

** Not reportable for water sampling

† Uses undecane response for quantification

†† Uses octane response for quantification

Note: Vinyl chloride response is determined using a single point calibration. All other compound responses are determined using a minimum of five calibration levels, except as noted.

Additional Analyte Groups

- Compounds below are not included on AGI's scope of accreditation
- Can be added to any of the three service options
- Additional fee per AGI Universal Sampler per group
- Single point calibration, mass (µg) data

Explosive Breakdown	PCBs	Chemical Agent Breakdown	Pesticides
Nitrobenzene	Monochlorobiphenyl	1,4-Dithiane	alpha BHC
2-Nitrotoluene	Dichlorobiphenyl	1,4-Oxathiane	beta BHC
3-Nitrotoluene	Trichlorobiphenyl	Thiodiglycol	gamma BHC
4-Nitrotoluene	Tetrachlorobiphenyl	Benzothiazole	delta BHC
1,3-Dinitrobenzene	Pentachlorobiphenyl	Dimethyldisulfide	Heptachlor
2,6-Dinitrotoluene		2-Chloroacetophenone	Aldrin
2,4-Dinitrotoluene	**PAHs**	4-Chloroacetophenone	Heptachlor Epoxide
1,3,5-Trinitrobenzene	Phenanthrene	p-Chlorophenylmethylsulfide	Endosulfan I
2,4,6-Trinitrotoluene	Anthracene	p-Chlorophenylmethylsulfone	4,4'-DDE
	Fluoranthene	p-Chlorophenylmethylsulfoxide	Dieldrin
	Pyrene	Diisopropylmethylphosphonate (DIMP)	Endrin
		Dimethylmethylphosphonate (DMMP)	4,4'-DDD
			Endosulfan II
			Endrin Aldehyde
			4,4'-DDT
			Endosulfan Sulfate
			Endrin Ketone
			Methoxychlor

Additional non-standard target compounds for which detection and reporting capabilities have been confirmed.

Additional charges apply; mass (µg) data

1,2,3-Trichlorobenzene	3-Methylphenol	Dichlorofluoromethane (F-21)	Tetrachlorodifluoroethane (F-112)
1,2,3-Trichloropropane	4,4-Dichlorobenzophenone	Dichlorotetrafluoroethane (F-114)	Trichlorofluoromethane (F-11)
1,2,4-Trichlorobenzene	4-Aminobiphenyl	Dicyclopentadiene	Trichlorotrifluoroethane (F-113)
1,2-Dibromo-3-Chloropropane	4-Chloroaniline	Freon 123	
1,2-Dibromoethane (EDB)	4-Isopropytoluene	Freon 123A	
1,2-Dichloropropane	4-Methyphenol	Hexachlorobutadiene	
1,4-Dioxane	Acetone	Hexane	
2,2,4-Trimethylpentane	Aniline	2-Hexanone	
2,2-Dichloropropane	Bromodichloromethane	Methyl Ethyl Ketone	
2,3,4,5-Tetrachlorophenol	Bromoform	Methyl Isobutyl Ketone	
2,3,4,6-Tetrachlorophenol	Carbon Tetrafluoride (F-14)	Methylene Chloride	
2,3,5,6-Tetrachorophenol	Chlorodifluoromethane (F-22)	Nitrobenzene	
2,4-Dichlorobenzophenone	Chlorotrifluoromethane (F-13)	o-Toluidine	
2,4-Dimethylphenol	Dibromochloromethane	Phenol	
2-Chlorotoluene	Dichlorodifluoromethane (F-12)	Styrene	

AdditionalServices (fees may apply)

- Single compound reporting (e.g., PCE only)
- Reporting a subset of the listed target compounds
- QA deliverables

  BFB tune reports, calibration data, individual quantitation reports (samples and QC) with mass spectral comparisons to reference spectra (samples and blanks)
- Expedited analytical results
  - ≤ 50 AGI Universal Samplers, five working day TAT, starting from the day after sampler receipt
    - For example: Samplers are received on a Tuesday, the Laboratory Report will be issued no later than the following Tuesday.
    - For weeks that do not include US holidays or closure due to inclement weather
- Supplemental services – billed at an hourly rate, two hour minimum
- **Non-standard target compounds (fees apply)**
  - Can be added to any of the three service options, mass (µg) data only
  - Up to five compounds by single point calibration (Dependent on availability of standards and method applicability)
  - Up to ten compounds, library search, estimated masses >0.1µg

Other Information

- AGI Universal Passive Samplers returned unused cannot be placed back into inventory. A per-sampler fee is assessed for samplers not returned, returned unused, lost or damaged.
- Please use samplers within three months of sampler receipt.
- To ensure accuracy and applicability of sample results, please do not retain samplers or transfer them to other projects without discussion with, and approval by AGI.

TECHNOLOGY REFERENCES

ASTM, *Standard Practice for Passive Soil Gas Sampling in the Vadose Zone for Source Identification, Spatial Variability Assessment, Monitoring, and Vapor Intrusion Evaluations*, ASTM D 7758-11.

ASTM, *Standard Guide for Deriving Equations for Calculating VOC and SVOC Concentrations in Soil Gas, Air, Water, and Porewater from the Mass Accumulated on Adsorbent-based Passive Samplers*, ASTM WK40037, in press.

Hewitt, Alan D., *Establishing a Relationship Between Passive Soil Vapor and Grab Sample Techniques for Determining Volatile Organic Compounds*, Special Report 96-14, US Army Corps of Engineers Cold Regions Research and Engineering Laboratory, Hanover, NH, September 1996.

Hodny, Jay W., Ph.D. and Teri A. Floyd, Ph.D. (2006) *"Down by the River: Assessing Organic Compounds in Saturated Soils,"* in: Bruce M. Sass (Conference Chair), Remediation of Chlorinated and Recalcitrant Compounds – 2006. Proceedings of the Fifth International Conference on Remediation of Chlorinated and Recalcitrant Compounds, May 22-25, 2006, Monterey, CA. ISBN 1-57477-157-4, published by Battelle Press, Columbus, OH, www.battelle.org/bookstore. Platform presentation.

Hodny, Jay W., Ph.D., James E. Whetzel, Jr., Harry S. Anderson, II, Dayna M. Cobb (2006) *"The Use of Passive Samplers in Vapor Intrusion Investigations,"* Air and Waste Management Association Specialty Conference – Vapor Intrusion, September 13-15, 2006, Los Angeles, CA. Platform presentation and Proceedings paper.

Hodny, J. and J. Whetzel, (2007) "*Soil Gas, Sub-slab Vapor and Air Sampling Using Passive Samplers*," AWMA Annual Conference, June, Pittsburgh, PA, June 26-29, 2007, Air and Waste Management Association, Pittsburgh, PA.

Hodny, Jay W., Ph.D., James E. Whetzel, and Harry S. Anderson (2007) *"Vapor Intrusion Investigations and Passive Sampling,"* AWMA Vapor Intrusion: Learning from the Challenges, September 26-28-2007, Providence, RI. Platform presentation.

Hodny, Jay W., Ph.D., Greg Schaefer, and Dennis Timmons (2008) *"Economical Site Characterization Using High-Resolution Passive Soil Gas Sampling,"* in: Bruce M. Sass (Conference Chair), Remediation of Chlorinated and Recalcitrant Compounds – 2008. Proceedings of the Sixth International Conference on Remediation of Chlorinated and Recalcitrant Compounds, May 19-21, 2008, Monterey, CA. ISBN 1-57477-163-9, published by Battelle, Columbus, OH, www.battelle.org.chlorcon. Platform presentation.

Hodny, Jay W., Ph.D., James E. Whetzel Jr., and Harry S. Anderson (2009) *"Quantitative Passive Soil Gas and Air Sampling in Vapor Intrusion Investigations,"* Vapor Intrusion 2009, Air and Waste Management Association, January 27-20, 2009, San Diego, CA, Platform presentation, Proceedings paper.

Hodny, Jay W., James E. Whetzel, and Harry S. Anderson, II (2013) *"Measuring Compound Concentrations Using Time-Integrated Passive Soil Gas Samplers,"* Continuous Soil Gas Measurements: Worst Case Risk Parameters, ASTM Symposium, Jacksonville, FL. Platform presentation.

Interstate Technology Regulatory Council, *Vapor Intrusion Pathway: A Practical Guideline*, 2007. Washington, DC.

Interstate Technology Regulatory Council, *Vapor Intrusion Pathway: Investigative Approaches for Typical Scenarios*, 2007. Washington, DC.

Parker, Louise, Richard Willey, Timothy McHale, William Major, Tommie Hall, Ron Bailey, Kelsey Gagnon, and Gordon Gooch, *Demonstration of the AGI Universal Samplers (F.K.A. the GORE® Modules) for Passive Sampling of Groundwater* (ERDC\CRREL TR-14-4), Environmental Security Technology Certification Program (ESTCP), Project ER-200921, US Army Corps of Engineers Cold Regions Research and Engineering Laboratory, Hanover, NH, March 2014.

USEPA, *Soil Gas Sampling Technology, W. L. Gore & Associates, Inc., GORE-SORBER Screening Survey*. US EPA Environmental Technology Verification Report, EPA/600/R-98/095, August 1998

Valle, Paulo, Pieter Dijkshoorn, and Jay W. Hodny, Ph.D. (2008) *"Combining Soil Gas Sampling and MIP Investigation to Optimize a Conceptual Site Model,"* in: Bruce M. Sass (Conference Chair), Remediation of Chlorinated and Recalcitrant Compounds – 2008. Proceedings of the Sixth International Conference on Remediation of Chlorinated and Recalcitrant Compounds, May 19-21, 2008, Monterey, CA. ISBN 1-57477-163-9, published by Battelle, Columbus, OH, www.battelle.org.chlorcon. Poster presentation by Pieter Dijkshoorn.

ADDITIONAL AMPLIFIED GEOCHEMICAL IMAGING, LLC'S REFERENCES
(available on request)

- Case Studies
- Concentration Method Summary for AGI Samplers
- Descriptions of Service
- General Guidelines for Survey Design and Sample Spacing - Soil Gas and Subslab Soil Gas Sampling
- How to Install AGI Universal Samplers for Soil Gas Sampling (includes sub-slab sampling)

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210 Executive Drive, Suite 1
Newark, Delaware 19702-3335 USA
Phone: +1-302-266-2428
Fax: +1-302-266-2429

German Sales Office:
Amplified Geochemical Imaging GmbH
Alte Landstraße 25,
D-85521 Ottobrunn GERMANY
Phone: +49 89 6387927-12
Fax: +49 89 6387927-10

Corporate Office:
7112 W. Jefferson Avenue, Suite 106
Lakewood, CO 80235 USA
Phone: +1-303-988-1968
Fax: +1-303-986-2898

www.agisurveys.net

To help us ensure its accuracy of the quote, please take a moment and provide information for the following.

Complete the form and email to:
orders@agisurveys.net

Contact Information (your name, company, phone, email)
Click here to enter text.

Date quote is needed: Click here to enter a date.
Anticipated field sampling start date: Click here to enter a date.

Address for sampler shipment (street address, city, state, zip code, country):
Click here to enter text.

Address for invoicing (street address, city, state, zip code, country):
Click here to enter text.

Project objective: *Indicate if the AGI Environmental Survey in support of site assessment, source identification, vapor intrusion, plume delineation, groundwater sampling, etc.*
Click here to enter text.

Project reference: *Name of site or project for referencing ☐on project related correspondence and reporting.*

Click here to enter text.

Project city, state, country:

Click here to enter text.

Service option *(check only one)*: ☐ Screening (relative mass reporting)

☐ Concentration (relative mass and concentration reporting)

☐ US DoD (relative mass and concentration reporting)

Additional compound lists ☐ Addt'l PAHs ☐ PCBs ☐ Pesticides

☐ Explosive Breakdown ☐ Chemical Agent Breakdown

Other Non-standard compounds (pending lab approval - relative mass value reporting only):

Click here to enter text.

Media *(check one only)*: ☐Air ☐Soil Gas ☐Ground water ☐Sediment porewater ☐Other
Complete a second form for additional matrices

Click here to enter text. **Enter AGI Universal Sampler count[1] for field deployment**

For soil gas surveys:

Click here to enter text. **Enter Cork** count:** Small, 1.0 inch (2.54cm)* (common for hard surfaces)

Click here to enter text. **Enter Cork** count:** Large, 1.5 inch (3.81cm)* (common for uncovered surfaces)

Click here to enter text. **Enter number of insertion rods needed (one per field crew)**

Optional - dependent on QAPP requirements

Click here to enter text. **Enter Laboratory duplicate count[2] *(analysis of second set of adsorbents)***

1 - AGI adds an appropriate number of samplers as trip blanks at no additional cost
2 – Client specifies which samplers will have the duplicate adsorbent analyzed, to be noted on the Installation and Retrieval e-Log
* - Diameter of narrow end of tapered cork
** - We are striving to reduce waste by sending only the cork sizes and counts required. If the cork size is unknown presently, we will ask at the time the order is placed, or ship small corks (default choice).

Guidelines for Soil Gas and Sub-Slab Sampling Using the AGI Universal Sampler

Tools and Supplies Provided by AGI

AGI Environmental Sampling Kit

AGI Universal Sampler

Numbered Vials

Corks

String

Insertion Rods

Also Included:
Chain of custody and installation and retrieval e-Log

Not Included in Kit:

- **Scissors**
- **Pen or Pencil**
- **Gloves**
- **Watch**
- **Hammer drill or slide hammer and tile probe (other tools for creating hole)**
- **Rubber Mallet (for sub-slab installation)**

Preparation for Installation

Site map & field notebook necessary to record sampling information

Locate and mark buried utilities and other obstacles

Lay out sampling grid prior to drilling holes

Guidelines for Soil Gas and Sub-Slab Sampling Using the AGI Universal Sampler

Advancing Installation Holes

Choose the best method for soil conditions

Slide hammer and tile probe

Rotary hammer drill with 36 inch long x 0.5 inch diameter carbide tipped bit

Hammer and 36 inch long, narrow diameter steel rod.

Hard surfaces - use a rotary hammer drill. Open ground - use rotary hammer drill, slam bar & tile probe, or hammer and steel rod

Make 0.5 to 1 inch hole 36 inches (1m) deep

Note: Augers, direct push equipment, etc. can also be used, but sealing holes will require something other than provided corks

Installing Samplers

Cut 72 inch length of string and tie ends together to create loop.

Loop string through eyelet of cork.

Remove sampler from vial.

Installing Samplers (Continued)

Match serial number of sampler with number on vial.

Loop string through looped end of sampler and secure.

Place insertion rod into pocket of sampler.

Insert rod and sampler into hole.

Push rod and sampler to depth in hole.

Push rod to the side and twist to detach sampler

Insert cork to seal hole. (Rubber mallet may be necessary in sub-slab installations

Record installation date and time on log.

Record serial number on site map.

Retrieving Samplers

Remove cork by hand or with screwdriver

Pull string to remove sampler from hole

Compare serial number to map location

Compare serial number to vial number

Cut and discard string and cork

Wipe sampler clean.

Return sampler to vial. Clean top of vial and threads and secure vial with cap.

Attach tamper seal across cap and vial.

Record retrieval time and data on log.

Return vial to box.

Guidelines for Soil Gas and Sub-Slab Sampling Using the AGI Universal Sampler

Storing and Shipping Samplers

STORAGE

AGI Samplers are carefully cleaned, sealed, and stored after manufacturing. They must remain sealed in their vials in the shipping boxes until deployment and after retrieval. DO NOT store near potential sources of organic vapors such as petroleum fuels and exhaust, solvents, adhesives, paints, etc.

TRIP BLANKS

An additional number (specified) of AGI Samplers are included as trip blanks. The customer selects which samplers to be used/treated as trip blanks, and notes this on the Chain of Custody and Installation/Retrieval Log. These samplers remain unopened, and travel to and from the site during installation and retrieval, while in storage away from AGI's facility, and in transit to/from AGI's facility.

PACKAGING FOR RETURN

- Place boxes with samplers back into outer shipping container using appropriate packing materials to protect fragile contents.
- **Do not** use Styrofoam "peanuts" as packing material. Bubble packing is acceptable.
- Label box to indicate fragile contents.
- There is no need to return the shipment in coolers with ice.
- **Return the AGI Samplers, insertion rod and paperwork (preferably by overnight courier) to**:

AGI Laboratory
210 Executive Drive, Suite 1
Newark, DE 19702-3335
Phone: (302) 266-2428
Attn: NOTIFY LAB IMMEDIATELY UPON DELIVERY!!

IMPORTANT: Samples should not be shipped for weekend or holiday delivery.

For questions concerning installation, retrieval, storage, or return of samplers contact:

Don D'Apolito, Kelly Stringham or Brenda Dudley

(302) 266-2428

Appendix 1

Appendix - Passive sampler analytes

Semiquantitative analytes

PCBs
Monochlorobiphenyl
Dichlorobiphenyl
Trichlorobiphenyl
Tetrachlorobiphenyl
Pentachlorobiphenyl

PAHs
Phenanthrene
Anthracene
Fluoranthene
Pyrene

Pesticides
alpha BHC
beta BHC
gamma BHC
delta BHC
Heptachlor
Aldrin
Heptachlor Epoxide
Endosulfan I & II
Dieldrin Endrin
4,4’-DDE, 4,4’-DDD, 4,4’-DDT
Endosulfan Sulfate
Endrin Aldehyde
Endrin Ketone Methoxychlor

Quantitative analytes

AMPLIFIED GEOCHEMICAL IMAGING LLC

ENVIRONMENTAL SERVICES

CAS No.	Screening Option Units: micrograms, µg	Concentration Option Units: µg; µg/m³ or µg/L	DoD ELAP Option Units: µg; µg/m³ or µg/L (included on AGI's Scope of accreditation)
75-01-4	Vinyl chloride**		
1634-04-4	Methyl tert-Butyl Ether	Methyl tert-Butyl Ether	Methyl tert-Butyl Ether
	BTEX (summed)	BTEX (summed)	BTEX (summed)
71-43-2	Benzene	Benzene	Benzene
108-88-3	Toluene	Toluene	Toluene
100-41-4	Ethylbenzene	Ethylbenzene	Ethylbenzene
108-38-3/106-42-3	m,p-xylene	m,p-xylene	m,p-xylene
95-47-6	o-xylene	o-xylene	o-xylene
111-65-9	Octane	Octane*	Octane*
1120-21-4	Undecane	Undecane*	Undecane*
629-50-5	Tridecane	Tridecane*	Tridecane*
629-62-9	Pentadecane	Pentadecane*	
108-67-6	1,3,5-Trimethylbenzene	1,3,5-Trimethylbenzene	1,3,5-Trimethylbenzene
95-63-6	1,2,4-Trimethylbenzene	1,2,4-Trimethylbenzene	1,2,4-Trimethylbenzene
91-20-3	Naphthalene	Naphthalene	Naphthalene
91-57-6	2-Methylnaphthalene	2-Methylnaphthalene	2-Methylnaphthalene
86-73-7	Fluorene	Fluorene*	
83-32-9	Acenaphthene	Acenaphthene*	
208-96-8	Acenaphthylene	Acenaphthylene*	
156-60-5	trans-1,2-Dichloroethene	trans-1,2-Dichloroethene	trans-1,2-Dichloroethene
156-59-2	cis-1,2-Dichloroethene	cis-1,2-Dichloroethene	cis-1,2-Dichloroethene
79-01-6	Trichloroethene	Trichloroethene	Trichloroethene
127-18-4	Tetrachloroethene	Tetrachloroethene	Tetrachloroethene
75-35-4	1,1-Dichloroethene**		
75-35-3	1,1-Dichloroethane	1,1-Dichloroethane	1,1-Dichloroethane
107-06-2	1,2-Dichloroethane	1,2-Dichloroethane	1,2-Dichloroethane
79-00-5	1,1,2-Trichloroethane	1,1,2-Trichloroethane	1,1,2-Trichloroethane
71-55-6	1,1,1-Trichloroethane	1,1,1-Trichloroethane	1,1,1-Trichloroethane
79-34-5	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane
630-20-6	1,1,1,2-Tetrachloroethane	1,1,1,2-Tetrachloroethane*	1,1,1,2-Tetrachloroethane*
67-66-3	Chloroform	Chloroform	Chloroform
56-23-5	Carbon tetrachloride	Carbon tetrachloride	Carbon tetrachloride
108-90-7	Chlorobenzene	Chlorobenzene	Chlorobenzene
95-50-1	1,2-Dichlorobenzene	1,2-Dichlorobenzene	1,2-Dichlorobenzene
541-73-1	1,3-Dichlorobenzene	1,3-Dichlorobenzene	1,3-Dichlorobenzene
106-46-7	1,4-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dichlorobenzene
	TPH† GRPH††*optional* DRPH†*optional*	TPH*† GRPH*††*optional* DRPH*†*optional*	Note: Some compounds listed above may be accredited for relative mass reporting only (listed as screening only) – see AGI's scope of accreditation for details

* Concentrations based on estimated sampling rates

** Not reportable for water sampling

† Uses undecane response for quantification

†† Uses octane response for quantification

Note: Vinyl chloride response is determined using a single point calibration. All other compound responses are determined using a minimum of five calibration levels, except as noted.

ALS Quote ALSEQ18-235 Soil and dust analyte list

Quoted by: Ron McLeod
Phone #: 905-331-3111 ext 222
Quote #: **ALSEQ18-235**
Date of Issue: 2018-Oct-22
Expiry Date: 2019-Jan-21

Project: Nash Road LF

Metals

Metals Package

Metals via ICPMS (6020)

Sb, As, Be, Cd, Cr, Cu, Pb, Se, Ag, Tl & Zn

Mercury via CVAA (7471B)

Conventional SVOC

OC Pesticides via

8270D SVOCs with TICs

SVOC via HRMS

PCB via 1668C (209 congener analysis)

via SPB-Octyl GC column

PCDD/F via 1613B

including the 17 Toxic congeners plus'

PCDD/PCDF/PCB WHO toxic congener Package

all 29 toxic congeners via mod. 1613B/1688C

Sample Pickup from Niagara Falls NY