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Date: January 22, 2021
Our Ref: 30052534
Subject: Sanitary Sewer Investigation Summary Report
10 Lincoln Park, Hartville, Stark County, Ohio
EPA# 068 901 610

Dear Mr. Nordine:

On behalf of TDY Industries LLC (TDY), Arcadis U.S, Inc. (Arcadis) prepared this Sanitary Sewer Investigation Summary Report (report) to summarize the activities performed during and the results of a subsurface investigation conducted at the former Monarch Rubber Plant #1 located in Hartville, Stark County, Ohio (Site; Figure 1). The work was completed in general accordance with the Proposed Soil Borings for Sanitary Sewer Replacement Notification (Arcadis 2020), approved by the United States Environmental Protection Agency (USEPA) by email dated September 10, 2020 (USEPA 2020).

As you know, the Village of Hartville is preparing to replace the sanitary sewer main that traverses the Site. This report summarizes the environmental field oversight of the recent geotechnical investigation conducted in the vicinity of the sanitary sewer by the Village of Hartville's engineer. Additionally, this report presents the results of the soil and groundwater samples collected to supplement the subsurface investigation work completed at the Site in 2015 by Arcadis (Arcadis 2016).

GEOTECHNICAL INVESTIGATION ENVIRONMENTAL FIELD OVERSIGHT

To prepare for the geotechnical investigation, the following documents were prepared by Professional Service Industries, Inc. (PSI) on July 21, 2020, for CT Consultants (City Engineer for the Village of Hartville):

- Proposed Soil Borings for Sanitary Sewer Replacement Work Plan (Work Plan; PSI 2020a).
- Proposed Soil Borings for Sanitary Sewer Replacement Health and Safety Plan (PSI 2020b).

Prior to the investigation activities, CT Consultants completed a site visit to evaluate the locations of the proposed borings. In addition, a third-party utility locator scanned each of the proposed boring locations for subsurface utilities. PSI's scope of work included the installation of three geotechnical soil borings onsite (SB-1, SB-2, and SB-6), under the direction of CT Consultants. Figure 2 presents the locations of the borings located onsite (and three additional offsite soil boring locations).

Arcadis provided environmental field oversight of the geotechnical investigation. The oversight was provided in accordance with Arcadis's Site Specific Health and Safety Plan (HASP) (Arcadis 2020a), which had been updated to identify potential hazards associated with the geotechnical investigation and to include performing air monitoring within the breathing zone during drilling activities.

PSI hand-augered each soil boring to a depth of 5 feet below ground surface (bgs) to confirm that no shallow utilities existed. Soil borings were drilled to an approximate depth of 15 feet bgs. No exceedances of the Site-specific HASP constituents of concern were observed during air monitoring of drilling activities.

All drilling equipment was decontaminated by PSI between drilling locations. The decontamination water was emptied into the onsite containment basin, consistent with historical practices at the Site. Upon completion, the soil borings were backfilled with bentonite chips and restored to original grade. All soil cuttings generated during implementation of the investigation were containerized in 55-gallon drums and labeled.

The Field Work Summary for Geotechnical Exploration Report (PSI 2020c) documents the investigation results and is provided in Attachment 1. Deviations to the Work Plan (Arcadis 2020a) consisted of the following:

- PSI did not provide 55-gallon drums for soil cutting containerization.
- PSI did not collect soil samples for VOC analysis.

However, Arcadis provided the 55-gallon drums and collected the soil samples for VOC analysis.

SUPPLEMENTAL SOIL AND GROUNDWATER INVESTIGATION

Arcadis collected soil samples from each soil boring installed onsite by PSI. Soil samples were screened with a photo ionization detector (PID) and select soil samples were collected using Encore® samplers and submitted to Eurofins TestAmerica in North Canton, Ohio for analysis of VOCs using USEPA Method 8260C. Soil samples from the interval exhibiting the highest PID reading and from the zone adjacent to the approximate sewer location were submitted for analysis.

In addition, Arcadis collected groundwater grab samples from each of the onsite borings. Groundwater samples were collected using downhole tubing and a peristaltic pump, and submitted to Eurofins TestAmerica for analysis of VOCs using USEPA Method 8260C. New tubing was used at each sample location. These samples were used for a qualitative (screening level) evaluation and are not considered representative of groundwater migrating through the formation under equilibrium conditions.

Arcadis also collected a soil sample from the 55-gallon drums containing the drill cuttings for waste characterization and submitted the sample to Eurofins TestAmerica for VOC analysis by USEPA Method 8260C for waste characterization purposes. Soil was found to meet the site-specific shallow soil media cleanup standards and will be spread onsite.

GEOLOGY

Based on the field observations made at the time of the investigation activities, general observations of the soil beneath the Site are typified by:

- Grass and topsoil to a depth of approximately 0.5 foot bgs over a mix of silts, sands, gravel, and clay.
- Peat ranging from 1 to 17 feet bgs (no peat was present at SB-6).

Saturation was encountered in all borings (7 to 15 feet bgs). PID readings collected from soil samples ranged from 0.5 to 15,000 parts per million (ppm). The highest PID reading was 15,000 ppm at SB-01 (13 to 15 feet bgs). The PID readings and sample intervals submitted for laboratory analysis were added to the PSI soil boring logs by Arcadis and are provided in Attachment 2.

LABORATORY ANALYTICAL RESULTS

Arcadis compared soil analytical results from the 2020 sanitary sewer investigation to the USEPA Regional Screening Levels (RSLs) for industrial exposures, the Ohio Environmental Protection Agency (Ohio EPA) Voluntary Action Program (VAP) generic numerical direct-contact soil standards for construction/excavation worker, and the site-specific shallow soil (0 to 2 feet bgs) Media Cleanup Standards (MCS). Analytical data from the 2020 soil samples indicate detections of some VOCs in all six samples. All concentrations were less than the RSLs, Ohio EPA VAP construction/excavation worker standards, and MCSs for the Site, with the exception of trichloroethene (TCE) in SB-01 (13 to 15 feet bgs; 11,000 micrograms per kilogram [mg/kg]), which exceeded all three standards.

Groundwater analytical results were compared to USEPA maximum contaminant levels (MCLs) for drinking water. This comparison was only made for reference and the MCLs are not considered applicable standards for exposure to construction/excavation workers. There are no generic standards established by the USEPA or Ohio EPA for construction worker exposure to chemicals in groundwater.

In summary, analytical data for the 2020 groundwater samples indicated detections of some VOCs in all six samples; however, all concentrations were less than the MCL, with the exception of the following, which exceeded the MCLs:

- cis-1,2-Dichloroethene in SB-2 (240 micrograms per liter [µg/L])
- TCE in SB-06 (630 µg/L)
- Vinyl chloride in SB-01 (20 J µg/L) and SB-03 (280 µg/L).

In 2016, Arcadis compared soil analytical results from the 2015 sanitary sewer investigation to the USEPA RSLs and the Ohio EPA VAP generic numerical direct-contact soil standards for construction/excavation workers. In addition, groundwater analytical results were compared to USEPA MCLs for drinking water. Analytical data for the 2015 soil samples indicated detections of some VOCs in all 10 samples; however, all concentrations were less than the RSLs for industrial exposures and the VAP generic numerical direct-contact soil standards for construction/excavation workers. Analytical data for 2015 groundwater samples indicated detections of some VOCs in all 10 samples; however, all concentrations were less than the MCL, with the exception of the following, which exceeded the MCLs:

- cis-1,2-Dichloroethene in SANSW-3 (2,600 µg/L) and SANSW-5 (20,000 µg/L)
- Vinyl chloride in SANSW-03 (5,600 µg/L), SANSW-04 (150 µg/L), SANSW-05 (520 µg/L), SANSW-06 (25 µg/L), and SANSW-09 (14 µg/L).

Tables 1 and 2 present soil and groundwater analytical data, respectively from the 2020 sanitary sewer investigation. Tables 3 and 4 present the soil and groundwater analytical data, respectively from the 2015 sanitary sewer investigations, as well as from other nearby historic borings. Soil and groundwater results from the 2015 and 2020 investigations and the additional historical data collected near the sanitary sewer are shown on Figures 3 and 4. The 2020 laboratory report is provided in Attachment 3.

Mr. John Nordine
USEPA, Region 5
January 22, 2021

CONCLUSION

Prior to implementation of the sanitary sewer replacement, a work plan will be submitted to the USEPA for approval. The work plan will detail health and safety practices, site monitoring, equipment decontamination, spoils management, site control, and oversight to be performed onsite during the sanitary sewer replacement.

If you have any questions about the information presented in this report, please contact Mark Thomasen (TDY Industries, LLC) at 302.368.7350 or Bill Golla (Arcadis) at 614.985.9138.

Sincerely,
Arcadis U.S., Inc.

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Enclosures:

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2 2020 Sanitary Sewer Investigation Groundwater Data
3 2015 Sanitary Sewer Investigation Soil Data
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Figures

1 Site Location Map
2 Site Map with Sanitary Sewer Geotechnical Investigation Borings
3 Site Map with Sanitary Sewer Investigation Borings and Soil Data
4 Site Map with Sanitary Sewer Investigation Borings and Grab Groundwater Data

Attachments

1 PSI Field Work Summary for Geotechnical Exploration Report
2 Soil Boring Construction Logs
3 Laboratory Report

References

Arcadis. 2016. Subsurface Investigation Adjacent to Sanitary Sewer Line, Former Monarch Rubber, Plant 1, 10 Lincoln Park, Hartville, Ohio. January 13.

Arcadis. 2020a. Site-Specific Health and Safety Plan, Former Monarch Rubber Plant #1, Hartville, Ohio. June 24.

Arcadis. 2020b. Proposed Soil Borings for Sanitary Sewer Replacement Notification, 10 Lincoln Park, Hartville, Stark County, Ohio, EPA# 068 901 610. August 12.

PSI. 2020a. Work Plan, Proposed Soil Borings for Sanitary Sewer Replacement, 10 Lincoln Park, Hartville, Stark County, Ohio. December 11.

PSI. 2020b. Health and Safety Plan, 10 Lincoln Park, Hartville, Stark County, Ohio. July 21.

PSI. 2020c. Field Work Summary Report, 10 Lincoln Park, Hartville, Stark County, Ohio. November 30.

USEPA. 2020. Email approval from John A. Nordine (USEPA) to Bill Golla (Arcadis U.S., Inc.) re: Sanitary Sewer Replacement Investigation. September 10.

Tables

Table 1
2020 Sanitary Sewer Investigation Soil Data
Former Monarch Rubber Plant #1
Hartville, Ohio

System ID Sample Name Sample Date Sample Depth Lab SDG #	Unit	Ohio VAP Construction/Excavation Worker Standard	USEPA RSL Commercial/Industrial Soil Standard THQ=1.0 (Nov 2020)	Media Cleanup Standards	SB-1 SB-1 (5-7)/100220 10/2/2020 5/7/2020 2401376521	SB-1 SB-1 (13-15)/100220 10/2/2020 13-15 2401376521	SB-2 SB-2 (4-6)/100220 10/2/2020 4/6/2020 2401376521	SB-2 SB-2 (8-10)/100220 10/2/2020 8/10/2020 2401376521	SB-6 SB-6 (6-8)/100220 10/2/2020 6/8/2020 2401376521	SB-6 SB-6 (10-12)/100220 10/2/2020 10/12/2020 2401376521
VOCs										
1,1,1-Trichloroethane	mg/kg	640	36,000	12,000	< 0.0057 J	< 75	0.042 J	< 0.03 J	< 0.0050 J	< 0.0055 J
1,1,2,2-Tetrachloroethane	mg/kg	670	2.7	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NE	28,000	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
1,1,2-Trichloroethane	mg/kg	1,200	5	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
1,1-Dichloroethane	mg/kg	1,700	16	17,000	0.037 J	< 75	0.95 J	0.056 J	< 0.0050 J	< 0.0055 J
1,1-Dichloroethene	mg/kg	360	1,000	410	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
1,2,4-Trichlorobenzene	mg/kg	400	110	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
1,2-Dibromo-3-chloropropane	mg/kg	15	0.064	--	< 0.011 J	< 150	< 0.076 J	< 0.061 J	< 0.01 J	< 0.011 J
1,2-Dibromoethane	mg/kg	39	0.16	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
1,2-Dichlorobenzene	mg/kg	380	9,300	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
1,2-Dichloroethane	mg/kg	480	2	1,500	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
1,2-Dichloropropane	mg/kg	180	11	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
1,3-Dichlorobenzene	mg/kg	NE	NE	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
1,4-Dichlorobenzene	mg/kg	2,600	11	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
2-Butanone (MEK)	mg/kg	28,000	190,000	--	0.0068 J	< 300	0.11 J	0.16 J	0.0036 J	0.0042 J
4-Methyl-2-Pentanone	mg/kg	3,400	140,000	--	< 0.023 J	< 300	< 0.15 J	< 0.12 J	< 0.02 J	< 0.022 J
Acetone	mg/kg	110,000	670,000	--	< 0.029 J	< 300	0.33 J	2.3 J	0.022 J	< 0.028 J
Benzene	mg/kg	1,200	5.1	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Bromodichloromethane	mg/kg	300	1.3	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Bromoform	mg/kg	910	86	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Bromomethane	mg/kg	550	30	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Carbon Disulfide	mg/kg	740	3,500	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Carbon Tetrachloride	mg/kg	460	2.9	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
CFC-11	mg/kg	1,200	350,000	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
CFC-12	mg/kg	850	370	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Chlorobenzene	mg/kg	760	1,300	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Chlorodibromomethane	mg/kg	800	39	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Chloroethane	mg/kg	2,100	57,000	--	< 0.0057 J	< 75	0.015 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Chloroform	mg/kg	320	1.4	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Chloromethane	mg/kg	1,300	460	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
cis-1,2-Dichloroethene	mg/kg	2,400	2,300	--	0.0042 J	440 J	2.4 J	0.068 J	< 0.0050 J	0.0012 J
cis-1,3-Dichloropropene	mg/kg	NE	NE	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Cyclohexane	mg/kg	120	27,000	--	< 0.011 J	< 150	< 0.076 J	< 0.061 J	< 0.01 J	< 0.011 J
Dichloromethane	mg/kg	3,300	1,000	--	< 0.029 J	< 150	< 0.19 J	< 0.15 J	< 0.025 J	< 0.028 J
Ethylbenzene	mg/kg	480	25	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Isopropylbenzene	mg/kg	270	9,900	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Methyl Acetate	mg/kg	NE	1,200,000	--	< 0.029 J	< 370	< 0.19 J	1.6 J	< 0.025 J	< 0.028 J
Methyl N-Butyl Ketone (2-Hexanone)	mg/kg	NE	1,300	--	< 0.023 J	< 300	< 0.15 J	< 0.12 J	< 0.02 J	< 0.022 J
Methylcyclohexane	mg/kg	NE	NE	--	< 0.011 J	< 150	< 0.076 J	< 0.061 J	< 0.01 J	< 0.011 J
Methyl-tert-butylether	mg/kg	8,900	210	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Styrene (Monomer)	mg/kg	870	35,000	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Tetrachloroethene	mg/kg	170	100	16	< 0.0057 J	< 75	< 0.038 J	0.013 J	< 0.0050 J	< 0.0055 J
Toluene	mg/kg	820	47,000	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Total Xylenes	mg/kg	260	2,500	--	< 0.011 J	< 150	< 0.076 J	0.022 J	< 0.01 J	< 0.011 J
trans-1,2-Dichloroethene	mg/kg	1,900	300	--	< 0.0057 J	< 75	0.04 J	< 0.03 J	< 0.0050 J	< 0.0055 J
trans-1,3-Dichloropropene	mg/kg	NE	NE	--	< 0.0057 J	< 75	< 0.038 J	< 0.03 J	< 0.0050 J	< 0.0055 J
Trichloroethene	mg/kg	17	*6*	84	0.0010 J	***11,000 J***	0.022 J	1.7 J	0.038 J	0.0022 J
Vinyl chloride	mg/kg	280	1.7	7.5	0.0098 J	< 75	0.29 J	0.058 J	< 0.0050 J	< 0.0055 J

Bolded - Ohio VAP Direct Contact Soil Standards for Construction/Excavation worker (2019)
Italics - Concentrations above the USEPA Regional Screening Level (RSL) for Industrial Soil THQ=1.0 (updated November 2020).
Ohio VAP - Ohio Voluntary Action Program.
mg/kg - milligrams per kilogram.
NE - Not established.
THQ - Target Hazard Quotient.
-- No Media Cleanup Standard established.
J - Result is less the reporting limit but greater than or equal to the MDL and the concentration is an approximate value.
Soil Media Cleanup Standards set forth in Attachment 1 of the 2008 Administrative Order on Consent.

Table 2
2020 Sanitary Sewer Investigation Groundwater Data
Former Monarch Rubber Plant #1
Hartville, Ohio

Sample ID Sample Name Sample Date Lab SDG #	Unit	USEPA MCL	SB-1 SB-1 (100220) 10/2/2020 2401376521	SB-2 SB-2 (100220) 10/2/2020 2401376521	SB-6 SB-6 (100220) 10/2/2020 2401376521	QAQC TRIP BLANKS (100220) 10/2/2020 2401376521
VOCs						
1,1,1-Trichloroethane	ug/l	200	< 5.0 J	< 10	< 20	< 1.0
1,1,2,2-Tetrachloroethane	ug/l	NE	< 5.0 J	< 10	< 20	< 1.0
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	NE	< 5.0 J	< 10	< 20	< 1.0
1,1,2-Trichloroethane	ug/l	5	< 5.0 J	< 10	< 20	< 1.0
1,1-Dichloroethane	ug/l	NE	170 J	210	< 20	< 1.0
1,1-Dichloroethene	ug/l	7	< 5.0 J	< 10	< 20	< 1.0
1,2,4-Trichlorobenzene	ug/l	70	< 5.0 J	< 10	< 20	< 1.0
1,2-Dibromo-3-chloropropane	ug/l	0.2	< 10 J	< 20	< 40	< 2.0
1,2-Dibromoethane	ug/l	0.05	< 5.0 J	< 10	< 20	< 1.0
1,2-Dichlorobenzene	ug/l	600	< 5.0 J	< 10	< 20	< 1.0
1,2-Dichloroethane	ug/l	5	< 5.0 J	< 10	< 20	< 1.0
1,2-Dichloropropane	ug/l	5	< 5.0 J	< 10	< 20	< 1.0
1,3-Dichlorobenzene	ug/l	NE	< 5.0 J	< 10	< 20	< 1.0
1,4-Dichlorobenzene	ug/l	75	< 5.0 J	< 10	< 20	< 1.0
2-Butanone (MEK)	ug/l	NE	< 50 J	15 J	< 200	< 10
4-Methyl-2-Pentanone	ug/l	NE	< 50 J	< 100	< 200	< 10
Acetone	ug/l	NE	< 50 J	< 100	< 200	< 10
Benzene	ug/l	5	< 5.0 J	< 10	< 20	< 1.0
Bromodichloromethane	ug/l	80	< 5.0 J	< 10	< 20	< 1.0
Bromoform	ug/l	80	< 5.0 J	< 10	< 20	< 1.0
Bromomethane	ug/l	NE	< 5.0 J	< 10	< 20	< 1.0
Carbon Disulfide	ug/l	NE	< 5.0 J	6.0 J	9.2 J	< 1.0
Carbon Tetrachloride	ug/l	5	< 5.0 J	< 10	< 20	< 1.0
CFC-11	ug/l	NE	< 5.0 J	< 10	< 20	< 1.0
CFC-12	ug/l	NE	< 5.0 J	< 10	< 20	< 1.0
Chlorobenzene	ug/l	100	< 5.0 J	< 10	< 20	< 1.0
Chlorodibromomethane	ug/l	80	< 5.0 J	< 10	< 20	< 1.0
Chloroethane	ug/l	NE	< 5.0 J	38	< 20	< 1.0
Chloroform	ug/l	80	< 5.0 J	< 10	< 20	< 1.0
Chloromethane	ug/l	NE	< 5.0 J	< 10	< 20	< 1.0
cis-1,2-Dichloroethene	ug/l	70	1.6 J	**240**	20	< 1.0
cis-1,3-Dichloropropene	ug/l	NE	< 5.0 J	< 10	< 20	< 1.0
Cyclohexane	ug/l	NE	< 5.0 J	< 10	< 20	< 1.0
Dichloromethane	ug/l	5	< 25 J	< 50	< 100	< 5.0
Ethylbenzene	ug/l	700	< 5.0 J	< 10	< 20	< 1.0
Isopropylbenzene	ug/l	NE	< 5.0 J	< 10	< 20	< 1.0
Methyl Acetate	ug/l	NE	< 50 J	< 100	< 200	< 10
Methyl N-Butyl Ketone (2-Hexanone)	ug/l	NE	< 50 J	< 100	< 200	< 10
Methylcyclohexane	ug/l	NE	< 5.0 J	< 10	< 20	< 1.0
Methyl-tert-butylether	ug/l	NE	< 5.0 J	< 10	< 20	< 1.0
Styrene (Monomer)	ug/l	100	< 5.0 J	< 10	< 20	< 1.0
Tetrachloroethene	ug/l	5	< 5.0 J	< 10	< 20	< 1.0
Toluene	ug/l	1,000	< 5.0 J	< 10	< 20	< 1.0
Total Xylenes	ug/l	10,000	< 10 J	< 20	< 40	< 2.0
trans-1,2-Dichloroethene	ug/l	100	< 5.0 J	< 10	< 20	< 1.0
trans-1,3-Dichloropropene	ug/l	NE	< 5.0 J	< 10	< 20	< 1.0
Trichloroethene	ug/l	5	< 5.0 J	4.5 J	**630**	< 1.0
Vinyl chloride	ug/l	2	**20 J**	**280**	< 20	< 1.0

Bold - Groundwater concentrations above the USEPA Maximum Contaminant Levels (MCLs), May 2020.
ug/l - micrograms per liter.
J - Result is less the reporting limit but greater than or equal to the MDL and the concentration is an approximate value.
NE - Not Established.
< - Indicates the analyte was analyzed for but not detected above the reporting limit.

Table 3
2015 Sanitary Sewer Soil Investigation Soil Data
Former Monarch Rubber Plant #1
Hartville, Ohio

System ID				SANSW-1	SANSW-2	SANSW-3	SANSW-4	SANSW-5	SANSW-6	SANSW-7	SANSW-8	SANSW-9	SANSW-10
Sample Name				SANSW-1 (6-8)	SANSW-2 (6-8)	SANSW-3 (6-8)	SANSW-4 (2-4)	SANSW-5 (2-4)	SANSW-6 (2-3.5)	SANSW-7 (2-4)	SANSW-8 (5-7)	SANSW-9 (0-2)	SANSW-10 (10-12)
Sample Depth (Feet)				6-8	6-8	6-8	2-4	2-4	2-3.5	2-4	5-7	0-2	10-12
Sample Date				11/10/2015	11/10/2015	11/10/2015	11/10/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015
Chemical Name	Unit	Ohio VAP Construction/Excavation Worker Standard (2019)	USEPA RSL Industrial Soil Standard THQ=0.1 Nov 2020										
1,1,1-Trichloroethane	mg/kg	640	36,000	< 0.016	< 0.026 *	< 0.089	< 0.049	0.016	< 0.022	< 0.0065 *	< 0.0048 *	0.0045 J	< 0.0059 *
1,1,2,2-Tetrachloroethane	mg/kg	670	2.7	< 0.016 *	< 0.026 *	< 0.089	< 0.049	< 0.013 *	< 0.022	< 0.0065 *	< 0.0048	< 0.0066 *	< 0.0059
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NE	28,000	< 0.016	< 0.026	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
1,1,2-Trichloroethane	mg/kg	1,200	5	< 0.016	< 0.026 *	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066 *	< 0.0059
1,1-Dichloroethane	mg/kg	1,700	16	< 0.016	< 0.026	0.033 J	< 0.049	0.019	0.019 J	< 0.0065	< 0.0048	0.0014 J	< 0.0059
1,1-Dichloroethene	mg/kg	360	1,000	< 0.016	< 0.026	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
1,2,4-Trichlorobenzene	mg/kg	400	110	< 0.016 *	< 0.026 *	< 0.089	< 0.049	< 0.013 *	< 0.022	< 0.0065 *	< 0.0048	< 0.0066 *	< 0.0059
1,2-Dibromo-3-chloropropane	mg/kg	15	0.064	< 0.032 *F2	< 0.053 *	< 0.18	< 0.097	< 0.025 *	< 0.043	< 0.013 *	< 0.0096	< 0.013 *	< 0.012
1,2-Dibromoethane	mg/kg	39	0.16	< 0.016 F1	< 0.026 *	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066 *	< 0.0059
1,2-Dichlorobenzene	mg/kg	380	9,300	< 0.016 *	< 0.026 *	< 0.089	< 0.049	< 0.013 *	< 0.022	< 0.0065 *	< 0.0048	< 0.0066 *	< 0.0059
1,2-Dichloroethane	mg/kg	480	2	< 0.016	< 0.026	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
1,2-Dichloropropane	mg/kg	180	11	< 0.016 F1	< 0.026	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
1,3-Dichlorobenzene	mg/kg	NE	NE	< 0.016 *	< 0.026 *	< 0.089	< 0.049	< 0.013 *	< 0.022	< 0.0065 *	< 0.0048	< 0.0066 *	< 0.0059
1,4-Dichlorobenzene	mg/kg	2,600	11	< 0.016 *	< 0.026 *	0.0093 J	< 0.049	< 0.013 *	< 0.022	< 0.0065 *	< 0.0048	< 0.0066 *	< 0.0059
2-Butanone (MEK)	mg/kg	28,000	190,000	0.049 J	0.48	< 0.36	< 0.19	0.0065 JB	< 0.087	0.0015 J	0.0028 JB	< 0.026	< 0.024
4-Methyl-2-Pentanone	mg/kg	3,400	140,000	< 0.065	< 0.11 *	< 0.36	< 0.19	< 0.05	< 0.087	< 0.026	< 0.019	< 0.026 *	< 0.024
Acetone	mg/kg	110,000	670,000	0.56 F1B	2.3	0.48 B	< 0.19	< 0.05	< 0.087	< 0.026	< 0.019	< 0.026	< 0.024
Benzene	mg/kg	1,200	5.1	< 0.016 F1	< 0.026	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
Bromodichloromethane	mg/kg	300	1.3	< 0.016	< 0.026	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
Bromoform	mg/kg	910	86	< 0.016	< 0.026 *	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066 *	< 0.0059
Bromomethane	mg/kg	550	30	< 0.016	< 0.026	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
Carbon Disulfide	mg/kg	740	3,500	< 0.016	< 0.026	0.011 J	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
Carbon Tetrachloride	mg/kg	460	2.9	< 0.016	< 0.026 *	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065 *	< 0.0048	< 0.0066	< 0.0059 *
CFC-11	mg/kg	1,200	350,000	< 0.016	< 0.026	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
CFC-12	mg/kg	850	370	< 0.016	< 0.026	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
Chlorobenzene	mg/kg	760	1,300	< 0.016 F1	< 0.026 *	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066 *	< 0.0059
Chlorodibromomethane	mg/kg	800	39	< 0.016	< 0.026 *	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066 *	< 0.0059
Chloroethane	mg/kg	2,100	57,000	< 0.016	< 0.026	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
Chloroform	mg/kg	320	1.4	< 0.016	< 0.026	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
Chloromethane	mg/kg	1,300	460	< 0.016	< 0.026	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
cis-1,2-Dichloroethene	mg/kg	2,400	2,300	< 0.016	< 0.026	1	1.3	0.075	0.047	< 0.0065	< 0.0048	< 0.0066	< 0.0059
cis-1,3-Dichloropropene	mg/kg	NE	NE	< 0.016 F1	< 0.026	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
Cyclohexane	mg/kg	120	27,000	< 0.032	< 0.053	< 0.18	< 0.097	< 0.025	< 0.043	< 0.013	< 0.0096	< 0.013	< 0.012
Dichloromethane	mg/kg	3,300	1,000	0.022	0.0062 J	0.025 J	0.0098 J	< 0.013	0.058	0.0051 J	< 0.0048	0.018	< 0.0059
Ethylbenzene	mg/kg	480	25	< 0.016	< 0.026 *	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066 *	< 0.0059
Isopropylbenzene	mg/kg	270	9,900	< 0.016	< 0.026 *	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066 *	< 0.0059
Methyl Acetate	mg/kg	NE	1,200,000	< 0.032	< 0.053	< 0.18	< 0.097	< 0.025	< 0.043	< 0.013	< 0.0096	< 0.013	< 0.012
Methyl N-Butyl Ketone (2-Hexanone)	mg/kg	NE	1,300	< 0.065	< 0.11 *	< 0.36	< 0.19	< 0.05	< 0.087	< 0.026	< 0.019	< 0.026 *	< 0.024
Methylcyclohexane	mg/kg	NE	NE	< 0.032	< 0.053	< 0.18	< 0.097	< 0.025	< 0.043	< 0.013	< 0.0096	< 0.013	< 0.012
Methyl-tert-butylether	mg/kg	8,900	210	< 0.016	< 0.026	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
Styrene (Monomer)	mg/kg	870	35,000	< 0.016 F1	< 0.026 *	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066 *	< 0.0059
Tetrachloroethene	mg/kg	170	100	< 0.016	< 0.026 *	< 0.089	0.17	0.42	< 0.022	< 0.0065	< 0.0048	0.0077 *	< 0.0059
Toluene	mg/kg	820	47,000	0.0018 J	0.0023 J*B	0.012 J	0.0088 J	0.0012 J	0.0019 J	0.00062 JB	< 0.0048	0.0010 J*	< 0.0059
Total Xylenes	mg/kg	260	2,500	< 0.032	< 0.053 *	< 0.18	< 0.097	< 0.025	< 0.043	< 0.013	< 0.0096	0.00074 J*	< 0.012
trans-1,2-Dichloroethene	mg/kg	1,900	300	< 0.016 F1	< 0.026	0.032 J	0.075	0.0035 J	< 0.022	< 0.0065	< 0.0048	< 0.0066	< 0.0059
trans-1,3-Dichloropropene	mg/kg	NE	NE	< 0.016 F1	< 0.026 *	< 0.089	< 0.049	< 0.013	< 0.022	< 0.0065	< 0.0048	< 0.0066 *	< 0.0059
Trichloroethene	mg/kg	17	6	< 0.016	< 0.026	< 0.089	1.7	0.2	0.0043 J	< 0.0065	< 0.0048	0.00058 J	< 0.0059
Vinyl chloride	mg/kg	280	1.7	< 0.016	< 0.026	< 0.089	< 0.049	< 0.013	0.0018 J	< 0.0065	< 0.0048	< 0.0066	< 0.0059

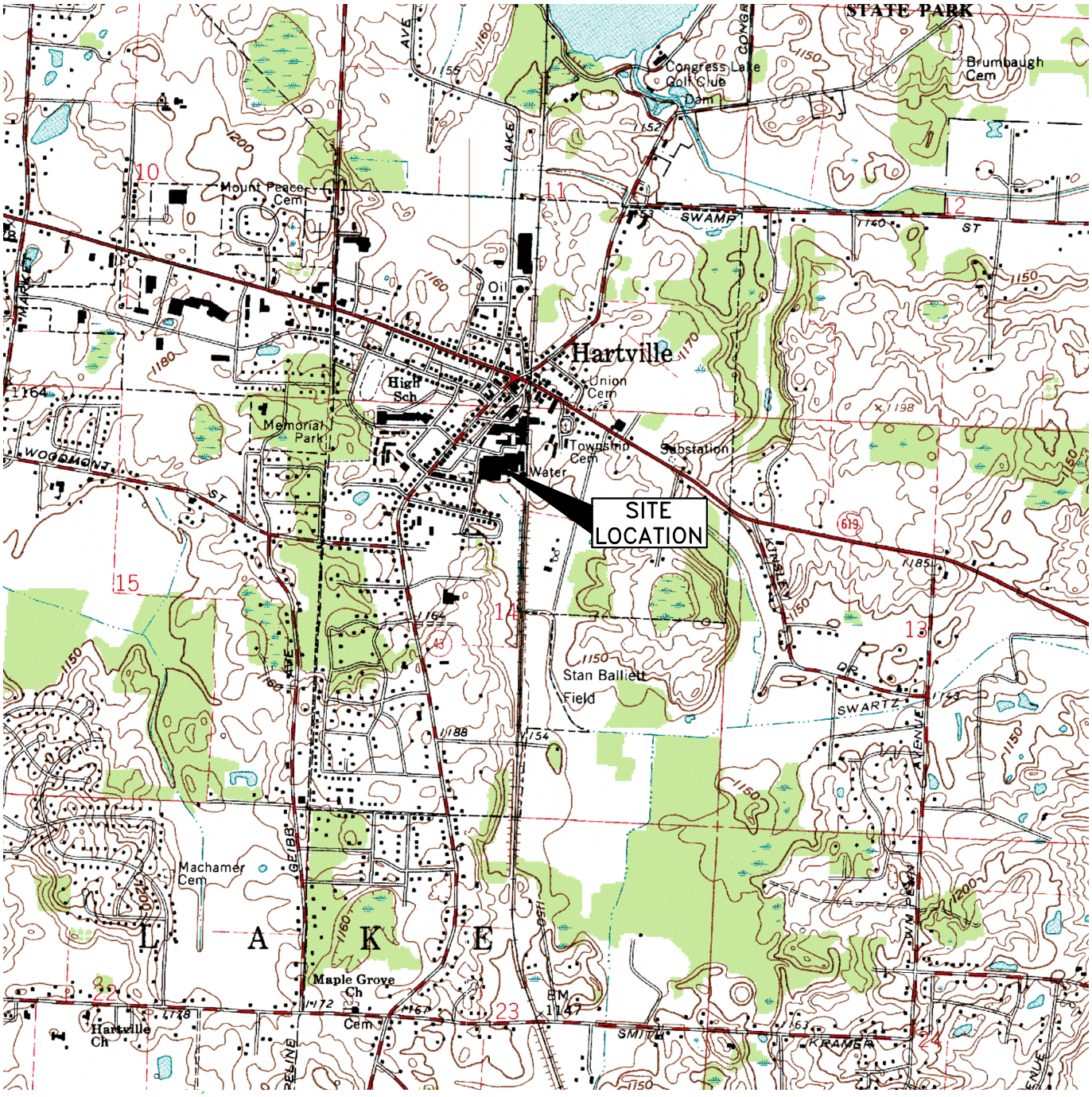
Bolded - Ohio VAP Direct Contact Soil Standards for Construction/Excavation worker (2019)
Italics - Concentrations above the USEPA Regional Screening Level (RSL) for Industrial Soil THQ=1.0 (updated November 2020).
mg/kg - milligrams per kilogram.
NE - Not established.
Ohio VAP - Ohio Voluntary Action Program.
THQ - Target Hazard Quotient.
J - Result is less the reporting limit but greater than or equal to the MDL and the concentration is an approximate value.
F1 - Matrix Spike and Matrix Spike Duplicate outside acceptance limits.
B - Compound was found in the blank and sample.
* - Laboratory Control Sample or Laboratory Control Sample Duplicate is outside acceptance limits.

Table 4
2015 Sanitary Sewer Investigation Groundwater Data
Former Monarch Rubber Plant #1
Hartville, Ohio

Sample ID			SANSW-01	SANSW-02	SANSW-03	SANSW-04	SANSW-05	SANSW-06	SANSW-07	SANSW-08	SANSW-09
Sample Name			SANSW-1 (11102015)	SANSW-2 (11102015)	SANSW-3 (11102015)	SANSW-4 (11102015)	SANSW-5 (11112015)	SANSW-6 (11112015)	SANSW-7 (11112015)	SANSW-8 (11112015)	SANSW-9 (11112015)
Sample Date			11/10/2015	11/10/2015	11/10/2015	11/10/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015
Chemical	Unit	USEPA MCL									
1,1,1-Trichloroethane	ug/l	200	< 1.0 *	< 1.0 *	< 330 *	< 10 *	< 500 *	< 1.0 *	< 1.0 *	< 1.0 *	< 33 *
1,1,2,2-Tetrachloroethane	ug/l	NE	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	NE	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
1,1,2-Trichloroethane	ug/l	5.0	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
1,1-Dichloroethane	ug/l	NE	0.68 J	< 1.0	< 330	16	< 500	12	< 1.0	0.86 J	1,000
1,1-Dichloroethene	ug/l	7.0	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
1,2,4-Trichlorobenzene	ug/l	70	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
1,2-Dibromo-3-chloropropane	ug/l	0.20	< 2.0	< 2.0	< 670	< 20	< 1,000	< 2.0	< 2.0	< 2.0	< 67
1,2-Dibromoethane	ug/l	0.050	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
1,2-Dichlorobenzene	ug/l	600	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
1,2-Dichloroethane	ug/l	5.0	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
1,2-Dichloropropane	ug/l	5.0	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
1,3-Dichlorobenzene	ug/l	NE	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
1,4-Dichlorobenzene	ug/l	75	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
2-Butanone (MEK)	ug/l	NE	2.6 J	2.3 J	< 3,300	< 100	< 5,000	2.0 J	0.72 J	5.4 J	< 330
4-Methyl-2-Pentanone	ug/l	NE	< 10	< 10	< 3,300	< 100	< 5,000	< 10	< 10	< 10	< 330
Acetone	ug/l	NE	7.3 J	7.6 J	< 3,300	< 100	< 5,000	8.5 J	2.3 J	2.3 J	< 330
Benzene	ug/l	5.0	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
Bromodichloromethane	ug/l	80	< 1.0	< 1.0	< 330	< 10	< 500	0.36 J	< 1.0	< 1.0	< 33
Bromoform	ug/l	80	< 1.0	< 1.0	< 330	< 10	< 500	0.77 J	< 1.0	< 1.0	< 33
Bromomethane	ug/l	NE	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
Carbon Disulfide	ug/l	NE	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
Carbon Tetrachloride	ug/l	5.0	< 1.0 *	< 1.0 *	< 330 *	< 10 *	< 500 *	< 1.0 *	< 1.0 *	< 1.0 *	< 33 *
CFC-11	ug/l	NE	< 1.0 *	< 1.0 *	< 330 *	< 10 *	< 500 *	< 1.0 *	< 1.0 *	< 1.0 *	< 33 *
CFC-12	ug/l	NE	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
Chlorobenzene	ug/l	100	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
Chlorodibromomethane	ug/l	80	< 1.0	0.65 J	< 330	< 10	< 500	0.83 J	< 1.0	< 1.0	< 33
Chloroethane	ug/l	NE	1.6	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	280
Chloroform	ug/l	80	< 1.0	< 1.0	< 330	< 10	< 500	0.36 J	< 1.0	< 1.0	< 33
Chloromethane	ug/l	NE	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
cis-1,2-Dichloroethene	ug/l	70	< 1.0	< 1.0	**2,600**	48	**20,000**	4.3	0.39 J	2.0	37
cis-1,3-Dichloropropene	ug/l	NE	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
Cyclohexane	ug/l	NE	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
Dichloromethane	ug/l	5.0	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
Ethylbenzene	ug/l	700	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
Isopropylbenzene	ug/l	NE	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
Methyl Acetate	ug/l	NE	< 10	< 10	< 3,300	< 100	< 5,000	< 10	< 10	< 10	< 330
Methyl N-Butyl Ketone (2-Hexanone)	ug/l	NE	< 10	< 10	< 3,300	< 100	< 5,000	< 10	< 10	0.50 J	< 330
Methylcyclohexane	ug/l	NE	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
Methyl-tert-butylether	ug/l	NE	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
Styrene (Monomer)	ug/l	100	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
Tetrachloroethene	ug/l	5.0	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
Toluene	ug/l	1000	0.25 J	0.27 J	< 330	< 10	< 500	< 1.0	< 1.0	0.26 J	< 33
Total Xylenes	ug/l	10000	< 2.0	< 2.0	< 670	< 20	< 1,000	< 2.0	< 2.0	< 2.0	< 67
trans-1,2-Dichloroethene	ug/l	100	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
trans-1,3-Dichloropropene	ug/l	NE	< 1.0	< 1.0	< 330	< 10	< 500	< 1.0	< 1.0	< 1.0	< 33
Trichloroethene	ug/l	5.0	< 1.0	< 1.0	< 330	< 10	< 500	0.53 J	< 1.0	< 1.0	< 33
Vinyl chloride	ug/l	2.0	< 1.0	< 1.0	**5,600**	**150**	**520**	**25**	< 1.0	0.33 J	**14 J**

Bold - Groundwater concentrations above the USEPA Maximum Contaminant Levels (MCLs), May 2020.
ug/l - micrograms per liter.
J - Result is less the reporting limit but greater than or equal to the MDL and the concentration is an approximate value.
F1 - Matrix Spike and Matrix Spike Duplicate outside acceptance limits.
* - Laboratory Control Sample or Laboratory Control Sample Duplicate is outside acceptance limits.
NE - Not Established.

Figures



SCALE 1:24 000

1 1/2 0 1

SCALE IN MILE

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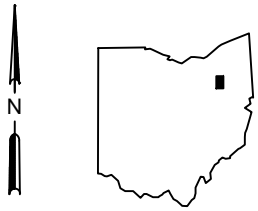
SCALE IN FEET: 1" = 2000'



OHIO QUADRANGLE LOCATION

REFERENCE: USGS 7.5 MINUTE QUADRANGLE; HARTVILLE, OHIO 1960, PHOTOREVISED 1992

TDY INDUSTRIES, LLC
FORMER MONARCH RUBBER PLANT #1
HARTVILLE, OHIO
SANITARY SEWER INVESTIGATION SUMMARY REPORT

SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1

Figure 2 - Site Map with Sanitary Sewer Geotechnical Investigation Borings
PSI Project No. 0142-2091

CITY:(COLUMBUS, OH) DIV/GROUP:(ENVCAD) DB:(R. SMITH) LD:(Opt) PIC:(Opt) PM:(B. GOLLA) TM:(T. TROMMER) LYR:(Opt)ON=*;OFF=*REF*
C:\Users\bsmith\BIM 360\Arcadis\ANA - ALLEGHENY TECHNOLOGIES\Project Files\TDY HARTVILLE OHIO\2021\01-DWG\TDY-SEWER INVESTIGATION.dwg LAYOUT: SS INVESTIGATION SOIL DATA SAVED: 1/21/2021 7:26 AM ACADVER: 23.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ACAD.CTB PLOTTED: 1/21/2021 7:39 AM BY: SMITH, BOB

SANSW–10 (11/11/2015)	
	10–12'
1,1,1–Trichloroethane	< 0.0059 *
cis–1,2–Dichloroethene	< 0.0059
Tetrachloroethene	< 0.0059
Trichloroethene	< 0.0059
Vinyl chloride	< 0.0059

SB–01 (10/2/2020)		
	5–7'	13–15'
1,1,1–Trichloroethane	< 0.0057 J	< 75
cis–1,2–Dichloroethene	0.0042 J	440 J
Tetrachloroethene	< 0.0057 J	< 75
Trichloroethene	0.0010 J	***11,000 J***
Vinyl chloride	0.0098 J	< 75

TP–100 (11/18/2003)	
	10–12'
1,1,1–Trichloroethane	<23
cis–1,2–Dichloroethene	340
Tetrachloroethene	<23
Trichloroethene	<23
Vinyl Chloride	7.9

SANSW–3 (11/10/2015)	
	6–8'
1,1,1–Trichloroethane	< 0.089
cis–1,2–Dichloroethene	1
Tetrachloroethene	< 0.089
Trichloroethene	< 0.089
Vinyl chloride	< 0.089

SB–108 (11/19/2003)	
	2–4'
1,1,1–Trichloroethane	<0.0045
cis–1,2–Dichloroethene	<0.0022
Tetrachloroethene	<0.0045
Trichloroethene	<0.0045
Vinyl Chloride	<0.0045

TP–117 (11/19/2003)	
	2–4'
1,1,1–Trichloroethane	<0.0045
cis–1,2–Dichloroethene	<0.0022
Tetrachloroethene	<0.0045
Trichloroethene	<0.0045
Vinyl Chloride	<0.0045

SANSW–5 (11/11/2015)	
	2–4'
1,1,1–Trichloroethane	0.016
cis–1,2–Dichloroethene	0.075
Tetrachloroethene	0.42
Trichloroethene	0.2
Vinyl chloride	< 0.013

SANSW–4 (11/10/2015)	
	2–4'
1,1,1–Trichloroethane	< 0.049
cis–1,2–Dichloroethene	1.3
Tetrachloroethene	0.17
Trichloroethene	1.7
Vinyl chloride	< 0.049

SANSW–2 (11/10/2015)	
	6–8'
1,1,1–Trichloroethane	< 0.026 *
cis–1,2–Dichloroethene	< 0.026
Tetrachloroethene	< 0.026 *
Trichloroethene	< 0.026
Vinyl chloride	< 0.026

SB–100 (11/19/2003)	
	2–4'
1,1,1–Trichloroethane	< 0.0055
cis–1,2–Dichloroethene	0.0012
Tetrachloroethene	<0.0055
Trichloroethene	<0.0055
Vinyl Chloride	<0.0055

SANSW–1 (11/10/2015)	
	6–8'
1,1,1–Trichloroethane	< 0.016
cis–1,2–Dichloroethene	< 0.016
Tetrachloroethene	< 0.016
Trichloroethene	< 0.016
Vinyl chloride	< 0.016

SANSW–6 (11/11/2015)	
	2–3.5'
1,1,1–Trichloroethane	< 0.022
cis–1,2–Dichloroethene	0.047
Tetrachloroethene	< 0.022
Trichloroethene	0.0043 J
Vinyl chloride	0.0018 J

SB–02 (10/2/2020)		
	4–6'	8–10'
1,1,1–Trichloroethane	0.042 J	< 0.03 J
cis–1,2–Dichloroethene	2.4 J	0.068 J
Tetrachloroethene	< 0.038 J	0.013 J
Trichloroethene	0.022 J	1.7 J
Vinyl chloride	0.29 J	0.058 J

SB–107 (11/19/2003)	
	4–6'
1,1,1–Trichloroethane	<0.016
cis–1,2–Dichloroethene	<0.0079
Tetrachloroethene	<0.016
Trichloroethene	<0.016
Vinyl Chloride	<0.016

SANSW–7 (11/11/2015)	
	2–4'
1,1,1–Trichloroethane	< 0.0065 *
cis–1,2–Dichloroethene	< 0.0065
Tetrachloroethene	< 0.0065
Trichloroethene	< 0.0065
Vinyl chloride	< 0.0065

SANSW–9 (11/11/2015)	
	0–2'
1,1,1–Trichloroethane	0.0045 J
cis–1,2–Dichloroethene	< 0.0066
Tetrachloroethene	0.0077 *
Trichloroethene	0.00058 J
Vinyl chloride	< 0.0066

SB–106 (11/19/2003)	
	2–4'
1,1,1–Trichloroethane	<0.0053
cis–1,2–Dichloroethene	0.0029
Tetrachloroethene	<0.0053
Trichloroethene	<0.0053
Vinyl Chloride	<0.0053

SANSW–8 (11/11/2015)	
	5–7'
1,1,1–Trichloroethane	< 0.0048 *
cis–1,2–Dichloroethene	< 0.0048
Tetrachloroethene	< 0.0048
Trichloroethene	< 0.0048
Vinyl chloride	< 0.0048

SB–06 (10/2/2020)		
	6–8'	10–12'
1,1,1–Trichloroethane	< 0.0050 J	< 0.0055 J
cis–1,2–Dichloroethene	< 0.0050 J	0.0012 J
Tetrachloroethene	< 0.0050 J	< 0.0055 J
Trichloroethene	0.038 J	0.0022 J
Vinyl chloride	< 0.0050 J	< 0.0055 J

PSI–SB–5 · SANSW–10 · #8 · #7A · STS–1 · SB–22 · SB–6 · SB–5 · PSI–SB–1 · TP–116 · SANSW–2 · TP–100 · SB–100 · ERD–5 · ERD–4 · RFI–15 · SANSW–1 · SANSW–3 · #7 · STS–3 · SB–108 · TP–117 · TP–109 · SANSW–5 · SANSW–4 · ERD–9 · ERD–7 · PSI–SB–3 · SANSW–6 · TP–112 · PSI–SB–2 · SB–107 · #6 · CB–2 · CB–1 · SANSW–7 · RFI–20 · SB–106 · SANSW–8 · RFI–27 · RFI–19 · RFI–18 · SANSW–9 · #5 · #4 · PSI–SB–6 · RFI–32 · PSI–SB–4

DENSE WOODS · PARKING AREA · DENSE WOODS AND SHADOWS · FORMER HAZARDOUS STORAGE AREA · RAMP · BUILDING · PUMP HOUSE · FIRE WATER TANK · TANK · MH · CB · PIPE · WEIR BASIN · AIR STRIPPER · HVDPE SYSTEM · APPROX. FORMER SOLID WASTE LANDFILL AREA · DITCH DISCHARGE · JEFFERSON STREET · DENSE BRUSH · BRUSH · FORMER SWARTZ DITCH

LEGEND:

- 2015 SEWER EASEMENT INVESTIGATION BORING
- 2020 SEWER EASEMENT INVESTIGATION BORING
- UNCONSOLIDATED MONITORING WELL (UPPER AQUIFER)
- PERCHED UNIT MONITORING WELL
- PERCHED UNIT PIEZOMETER
- APPROXIMATE PROPERTY BOUNDARY
- STORM SEWER
- STORM SEWER MANHOLE
- SANITARY SEWER
- SANITARY SEWER MANHOLE
- J — RESULT IS LESS THAN THE REPORTING LIMIT BUT GREATER THAN OR EQUAL TO THE MDL AND THE CONCENTRATION IS AN APPROXIMATE VALUE
- **BOLD** — CONCENTRATION EXCEEDS OHIO VAP DIRECT CONTACT SOIL STANDARDS FOR CONSTRUCTION/EXCAVATION WORKER
- *ITALICS* — CONCENTRATIONS ABOVE THE U.S. EPA REGIONAL SCREENING LEVEL (RSL) FOR INDUSTRIAL SOIL THQ=1.0 (UPDATED NOVEMBER 2020)
- * — LABORATORY CONTROL SAMPLE OR LABORATORY CONTROL SAMPLE DUPLICATE IS OUTSIDE ACCEPTANCE LIMITS

RESULTS REPORTED IN MILLIGRAMS PER KILOGRAM (mg/kg)

0 50 100 200 FT
For Illustration Purposes Only

TDY INDUSTRIES, LLC
FORMER MONARCH RUBBER PLANT #1
HARTVILLE, OHIO
SANITARY SEWER INVESTIGATION SUMMARY REPORT

SITE MAP WITH SANITARY SEWER INVESTIGATION BORINGS AND SOIL DATA

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3

CITY:(COLUMBUS, OH) DIV/GROUP:(ENVCAD) DB:(R. SMITH) LD:(Opt) PIC:(Opt) PM:(B. GOLLA) TM:(T. TROMMER) LYR:(Opt)ON=*;OFF=*REF*
C:\Users\bsmith\BIM 360\Arcadis\ANA - ALLEGHENY TECHNOLOGIES\Project Files\TDY HARTVILLE OHIO\2021\01-DWG\TDY-SEWER INVESTIGATION.dwg LAYOUT: SS INVESTIGATION GW DATA SAVED: 1/21/2021 7:26 AM ACADVER: 23.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ACAD.CTB PLOTTED: 1/21/2021 7:43 AM BY: SMITH, BOB

SB–01	
	10/2/2020
1,1,1–Trichloroethane	< 5.0 J
cis–1,2–Dichloroethene	1.6 J
Tetrachloroethene	< 5.0 J
Trichloroethene	< 5.0 J
Vinyl chloride	**20 J**

TP–100	
	5/24/2017
1,1,1–Trichloroethane	<1.0
Cis–1,2–Dichloroethene	2.3
Tetrachloroethene	<1.0
Trichloroethene	4.4
Vinyl Chloride	<1.0

ERD–4	
	11/5/2019
1,1,1–Trichloroethane	<1.0
Cis–1,2–Dichloroethene	<1.0
Tetrachloroethene	<1.0
Trichloroethene	0.32 J
Vinyl Chloride	<1.0

SANSW–3	
	11/10/2015
1,1,1–Trichloroethane	< 330 *
cis–1,2–Dichloroethene	**2,600**
Tetrachloroethene	< 330
Trichloroethene	< 330
Vinyl chloride	**5,600**

TP–117	
	11/11/2020
1,1,1–Trichloroethane	50
Cis–1,2–Dichloroethene	**120**
Tetrachloroethene	0.84 J
Trichloroethene	1.9
Vinyl Chloride	**31**

SANSW–2	
	11/10/2015
1,1,1–Trichloroethane	< 1.0 *
cis–1,2–Dichloroethene	< 1.0
Tetrachloroethene	< 1.0
Trichloroethene	< 1.0
Vinyl chloride	< 1.0

SANSW–5	
	11/11/2015
1,1,1–Trichloroethane	< 500 *
cis–1,2–Dichloroethene	**20,000**
Tetrachloroethene	< 500
Trichloroethene	< 500
Vinyl chloride	**520**

SANSW–1	
	11/10/2015
1,1,1–Trichloroethane	< 1.0 *
cis–1,2–Dichloroethene	< 1.0
Tetrachloroethene	< 1.0
Trichloroethene	< 1.0
Vinyl chloride	< 1.0

SANSW–4	
	11/10/2015
1,1,1–Trichloroethane	< 10 *
cis–1,2–Dichloroethene	48
Tetrachloroethene	< 10
Trichloroethene	< 10
Vinyl chloride	**150**

ERD–9	
	11/12/2015
1,1,1–Trichloroethane	<1.0
Cis–1,2–Dichloroethene	<1.0
Tetrachloroethene	<1.0
Trichloroethene	<1.0
Vinyl Chloride	1.8

ERD–7	
	5/12/2020
1,1,1–Trichloroethane	0.38 J
Cis–1,2–Dichloroethene	11
Tetrachloroethene	<1.0
Trichloroethene	0.72 J
Vinyl Chloride	22

SANSW–6	
	11/11/2015
1,1,1–Trichloroethane	< 1.0 *
cis–1,2–Dichloroethene	4.3
Tetrachloroethene	< 1.0
Trichloroethene	0.53 J
Vinyl chloride	**25**

SB–02	
	10/2/2020
1,1,1–Trichloroethane	< 10
cis–1,2–Dichloroethene	**240**
Tetrachloroethene	< 10
Trichloroethene	4.5 J
Vinyl chloride	**280**

TP–118	
	5/23/2017
1,1,1–Trichloroethane	<1.0
Cis–1,2–Dichloroethene	22
Tetrachloroethene	<1.0
Trichloroethene	<1.0
Vinyl Chloride	16

SANSW–9	
	11/11/2015
1,1,1–Trichloroethane	< 33 *
cis–1,2–Dichloroethene	37
Tetrachloroethene	< 33
Trichloroethene	< 33
Vinyl chloride	**14 J**

SANSW–7	
	11/11/2015
1,1,1–Trichloroethane	< 1.0 *
cis–1,2–Dichloroethene	0.39 J
Tetrachloroethene	< 1.0
Trichloroethene	< 1.0
Vinyl chloride	< 1.0

RFI–32	
	11/7/2019
1,1,1–Trichloroethane	<1.0
Cis–1,2–Dichloroethene	0.17 J
Tetrachloroethene	0.16 J
Trichloroethene	<1.0
Vinyl Chloride	<1.0

SANSW–8	
	11/11/2015
1,1,1–Trichloroethane	< 1.0 *
cis–1,2–Dichloroethene	2.0
Tetrachloroethene	< 1.0
Trichloroethene	< 1.0
Vinyl chloride	0.33 J

SB–06	
	10/2/2020
1,1,1–Trichloroethane	< 20
cis–1,2–Dichloroethene	20
Tetrachloroethene	< 20
Trichloroethene	**630**
Vinyl chloride	< 20

PSI–SB–5 #8 SANSW–10 #7A SB–22 SB–6 SB–5 STS–1 PARKING AREA DENSE WOODS AND SHADOWS FORMER HAZARDOUS STORAGE AREA PUMP HOUSE FIRE WATER TANK DENSE WOODS BUILDING

SANSW–2 TP–116 SB–100 PSI–SB–1 TP–100 ERD–5 ERD–4 RFI–15 SANSW–1 SANSW–3 #7 SB–108 TP–117 STS–3 TP–109 WEST BASIN AIR STRIPPER PIPE APPROX. FORMER SOLID WASTE LANDFILL AREA SANSW–5 SANSW–4 DITCH DISCHARGE

ERD–9 ERD–7 JEFFERSON STREET SANSW–6 PSI–SB–3 PSI–SB–2 TP–112 DENSE BRUSH SB–107 #6 CB–2 TP–118 SANSW–7 RFI–20 SB–106 SANSW–8 RFI–27 RFI–19 RFI–18 SANSW–9 #5 #4 PSI–SB–6 RFI–32 BRUSH

PSI–SB–4

LEGEND:

- 2015 SEWER EASEMENT INVESTIGATION BORING
- 2020 SEWER EASEMENT INVESTIGATION BORING
- UNCONSOLIDATED MONITORING WELL (UPPER AQUIFER)
- PERCHED UNIT MONITORING WELL
- PERCHED UNIT PIEZOMETER
- APPROXIMATE PROPERTY BOUNDARY
- STORM SEWER
- STORM SEWER MANHOLE
- SANITARY SEWER
- SANITARY SEWER MANHOLE
- J — RESULT IS LESS THAN THE REPORTING LIMIT BUT GREATER THAN OR EQUAL TO THE MDL AND THE CONCENTRATION IS AN APPROXIMATE VALUE
- **BOLD** — GROUNDWATER CONCENTRATIONS ABOVE THE U.S. EPA MAXIMUM CONTAMINANT LEVELS (MCLs)
- * — LABORATORY CONTROL SAMPLE OR LABORATORY CONTROL SAMPLE DUPLICATE IS OUTSIDE ACCEPTANCE LIMITS

RESULTS REPORTED IN MICROGRAMS PER LITER (ug/L)

0 50 100 200 FT
For Illustration Purposes Only

TDY INDUSTRIES, LLC
FORMER MONARCH RUBBER PLANT #1
HARTVILLE, OHIO
SANITARY SEWER INVESTIGATION SUMMARY REPORT

SITE MAP WITH SANITARY SEWER INVESTIGATION BORINGS AND GRAB GROUNDWATER DATA

ARCADIS Design & Consultancy for natural and built assets

FIGURE 4

Attachment 1

PSI Field Work Summary for Geotechnical Exploration Report

Professional Service Industries, Inc.
5555 Canal Rd., Cleveland, OH 44125
(216) 447-1335 (P) & (216) 642-7008 (F)

December 11, 2020

Mr. Eric Fallon, P.E.
Senior Project Engineer
CT Consultants, Inc.
3875 Embassy Parkway, Suite 200
Akron, OH 44333
efallon@ctconsultants.com

Re: Field Work Summary for Geotechnical Exploration Report
10 Lincoln Park
Hartville, Stark County, Ohio
PSI Project No.: 0142-2091

Dear Mr. Fallon:

Per your request, Professional Service Industries, Inc. (PSI) is pleased to submit this Field Work Summary for the above referenced project.

On October 2, 2020, PSI conducted a Geotechnical Investigation at 10 Lincoln Park, Hartville, Ohio, at the site of the former Monarch Rubber Company, Plant 1. The site is currently owned and managed by TDY Industries.

The Geotechnical Exploration within the site was conducted as part of a larger Geotechnical Investigation for CT Consultants, Inc. to aid in the design of an upcoming sanitary sewer replacement project for the Village of Hartville, Ohio. The existing sanitary trunk sewer traverses the site through a utility easement owned by the Village.

Three (3) soil borings were drilled within the property limits for this site; SB-1, SB-2 and SB-6. Please refer to the boring plan located within the July 21, 2020 approved Work Plan for the approximate boring locations.

On August 18, 2020 a site visit was conducted with representatives from Intertek-PSI, CT Consultants, Arcadis, and the Village in attendance to walk the site, stake soil borings, and discuss/coordinate site accessibility for the drilling rig. Underground scanning at the boring locations by a third-party utility locating service was performed on September 30, 2020 and October 1, 2020. All boring locations were cleared of any utility conflicts.

Based on the information provided, the contaminants of concern for this site included:

- Trichloroethylene
- 1,1,1-trichloroethane
- Tetrachloroethene
- Vinyl Chloride
- Ethylbenzene
- Xylenes

Based on the potential risk of exposure to the contaminants of concern listed above, which may be contained in the soils and/or ground water, Level D PPE and Modified Level D PPE were utilized during the field operations, per the requirements of Section 7.2 and Section 7.3 of the July 21, 2020 approved Health and Safety Plan (HASP).

The Level D and Modified Level D PPE was utilized based on the specific work tasks as defined in Section 7.5 of the HASP.

Additionally, air monitoring for the presence of airborne contaminants was conducted during the field work with the use of a portable photoionization detector and 10.6 eV lamp. Monitoring procedures and action levels were defined in Section 8 of the HASP.

Level C PPE, as defined in Section 7.4 of the HASP, was also available for use by the field crew if airborne concentrations of contaminants were encountered during the field investigations, and found to be above permissible limits. No such incidents occurred.

To mitigate the risk of transporting any contaminants from the individual bore sites, the following practices were utilized:

- Drilling equipment (augers and split spoons) decontamination between borings.
- Auger cuttings were containerized in a 55-gallon drum, and labeled accordingly for future analysis.
- Bores were backfilled with bentonite chips, and boreholes were restored to match adjacent grades
- Soil samples, in addition to those necessary to complete the Scope of Work for CT Consultants, were collected for VOC analysis.

Overall, drilling operations were conducted as detailed in Section 2.2 of the Work Plan.

It should be noted, during field operations, there were two (2) deviations from the Work Plan:

1. The Work Plan indicated that PSI was responsible for providing the 55-gallon drum for containerizing the auger cuttings. Instead, the 55-gallon drum was provided by Arcadis.
2. The Work Plan indicated that PSI was responsible for the collection of soil samples for VOC testing and submission of those samples to a testing facility. During the implementation of the fieldwork, due to a scheduling conflict, the PSI supplied/owned equipment needed to properly collect soil samples for VOC testing was not on-site, nor available on the scheduled work day. However, soil samples were collected by a representative from Arcadis for VOC analysis.

Finally, the field crew complied with all Covid-19 precautionary measures recommended by the WHO and CDC, as defined in both the Work Plan and HASP.

If you have any questions pertaining to this summary of the field work for PSI Project No. 0142-2091, please contact our office at (216) 447-1335. PSI would be pleased to continue providing geotechnical services throughout the implementation of the project, and we look forward to working with you and your organization on this and future projects.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Joseph Corrigan Surya Thapa, P.E.

Project Engineer Geotechnical Department Manager

Attachment 2

Soil Boring Construction Logs

Text in red added by Arcadis.

BORING B-1

DATE STARTED:	10/2/20	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	10/2/20	**DRILLER:** TS	**LOGGED BY:** JC
COMPLETION DEPTH	17.5 ft	**DRILL RIG:**	CME-55 ATV
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	1,144 ft	**SAMPLING METHOD:**	2-in SS
LATITUDE:		**HAMMER TYPE:**	Automatic
LONGITUDE:		**EFFICIENCY**	87%
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	AV

REMARKS: **Approximate elevation obtained from Stark County GIS

Water

While Drilling	3.5 feet
Upon Completion	None
Caved @	N/A

BORING LOCATION:

Elevation (feet)	Depth, (feet)	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	Additional Remarks
	0			12" Topsoil	Topsoil			
		1	18	Medium Dense, Moist, Dark Brown and Black SAND with Gravel, Trace Silt/Slag Fragments	Fill	7-7-7 N=14	17	0-2' PID=0.5
				Soft, Damp, Dark Brown Sandy SILT, Trace Gravel/Slag Fragments	Fill			2-4' PID=0.8
1140		2	13	Soft, Moist, Brown Sandy SILT	ML	1-1-2 N=3	16	4-5' PID=0.5
	5							5-7' PID=0.6
		3	11	Loose, Wet, Gray Silty GRAVEL with Sand	GM	5-2-2 N=4	35	Non-Plastic Fines=11.2%
				Very Soft to Soft, Saturated, Black PEAT			46	7-9' PID=0.9
1135		4	13			1-2-2-3 N=4	143	>>
	10							9-11' PID=242
		5	23			W-1-1-2 N=2	470	>>
								11-13' PID=6,543
		6	22		PT	W-1-1-1 N=2	396	>>
1130		7	15			1-1-1-2 N=2	421	>> 13-15' PID=15,000
	15							
		8	14			2-2-2 N=4	450	>>

Samples submitted for VOC 8260C analysis by Arcadis: SB-1(5-7') and SB-1 (13-15') and grab groundwater sample collected from open borehole.

STANDARD PENETRATION TEST DATA
N in blows/ft
Moisture PL LL
0 25 50
STRENGTH, tsf
Qu Qp
0 2.0 4.0

intertek psi

Professional Service Industries, Inc.
5555 Canal Road
Cleveland, OH 44125
Telephone: (216) 447-1335

PROJECT NO.: 0142-2091
PROJECT: Sanitary Sewer Replacement
LOCATION: Washington Street SE and Short Street
Hartville, Ohio

The stratification lines represent approximate boundaries. The transition may be gradual.

Text in red added by Arcadis.

BORING B-2

DATE STARTED:	10/2/20	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	10/2/20	**DRILLER:** TS	**LOGGED BY:** JC
COMPLETION DEPTH	16.0 ft	**DRILL RIG:**	CME-55 ATV
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	1,142 ft	**SAMPLING METHOD:**	2-in SS
LATITUDE:		**HAMMER TYPE:**	Automatic
LONGITUDE:		**EFFICIENCY**	87%
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	AV

Water

While Drilling	3.5 feet
Upon Completion	None
Caved @	N/A

BORING LOCATION:

REMARKS: **Approximate elevation obtained from Stark County GIS

Elevation (feet)	Depth, (feet)	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	Additional Remarks
	0			12" Topsoil	Topsoil			0-2' PID=3.2
1140		1	3	Very Soft, Saturated, Black PEAT		W/18" N=0	128	2-4' PID=6.3
		2	1	**Low Recovery, Auger Sample taken @3.5'-5'		W/18" N=0	358	4-6' PID=4.2
	5							
1135		3	2	**Low Recovery, Auger Sample taken @6'-7.5' **Organic Content: 46.7%		W/24" N=0	581	6-8' PID=4.8
		4	11		PT	W/24" N=0	287	8-10' PID=223
	10							
		5	11			W/24" N=0	238	10-12' PID=10
1130		6	11			W-1-1/12" N=1	178	12-14' PID=7.5
	15	7	17			W/24" N=0	95	14-16' PID=1.2

STANDARD PENETRATION TEST DATA
N in blows/ft ◎
Moisture ✕ 0 25 50
PL ◪
LL ✚
STRENGTH, tsf
Qu ▲ 0 2.0 4.0
Qp ✳

Samples submitted for VOC 8260C analysis by Arcadis: SB-2(4-6') and SB-2 (8-10') and grab groundwater sample collected from open borehole.

intertek psi

Professional Service Industries, Inc.
5555 Canal Road
Cleveland, OH 44125
Telephone: (216) 447-1335

PROJECT NO.: 0142-2091
PROJECT: Sanitary Sewer Replacement
LOCATION: Washington Street SE and Short Street
Hartville, Ohio

The stratification lines represent approximate boundaries. The transition may be gradual.

Text in red added by Arcadis.

BORING B-6

DATE STARTED:	10/2/20	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	10/2/20	**DRILLER:** TS	**LOGGED BY:** JC
COMPLETION DEPTH	16.0 ft	**DRILL RIG:**	CME-55 ATV
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	1,143 ft	**SAMPLING METHOD:**	2-in SS
LATITUDE:		**HAMMER TYPE:**	Automatic
LONGITUDE:		**EFFICIENCY**	87%
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	AV

REMARKS: **Approximate elevation obtained from Stark County GIS

Water

While Drilling	6.0 feet
Upon Completion	None
Caved @	N/A

BORING LOCATION:

Elevation (feet)	Depth, (feet)	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	Additional Remarks
	0			12" Topsoil	Topsoil			0-2' PID=0.1
		1	9	Medium Stiff, Wet, Black Lean CLAY, Trace Sand/Organics	Fill	2-2-3 N=5	80	>>
1140								2-4' PID=0.1
		2	11	Very Loose to Loose, Wet, Gray Silty SAND with Gravel		2-1-2 N=3	15	4-6' PID=0.2
	5				SM			
		3	16			3-4-5-5 N=9	12	6-8' PID=2.8
1135							21	Non-Plastic Fines=3.4%
		4	23	Medium Stiff to Very Soft, Moist to Wet, Black and Gray, Lean CLAY, Trace Organics		5-2-1-1 N=3	30	8-10' PID=0.2
	10							
		5	20			W/12"-2-3 N=2	21	10-12' PID=1.2
					CL			
1130		6	23			W-1-1-1 N=2	29	12-14' PID=0.6
	15							
		7	24			W/12"-2-1 N=2	25	

Samples submitted for VOC 8260C analysis by Arcadis: SB-6(6-8') and SB-6 (10-12') and grab groundwater sample collected from open borehole.

STANDARD PENETRATION TEST DATA
N in blows/ft ◎
× Moisture ◪ PL ✚ LL
0 25 50
STRENGTH, tsf
▲ Qu ✳ Qp
0 2.0 4.0

intertek psi
Professional Service Industries, Inc.
5555 Canal Road
Cleveland, OH 44125
Telephone: (216) 447-1335

PROJECT NO.: 0142-2091
PROJECT: Sanitary Sewer Replacement
LOCATION: Washington Street SE and Short Street
Hartville, Ohio

The stratification lines represent approximate boundaries. The transition may be gradual.

Attachment 3

Laboratory Report

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 240-137652-1
Client Project/Site: TDY Hartville

For:
ARCADIS U.S., Inc.
100 E. Campus View Blvd
Suite 200
Columbus, Ohio 43235

Attn: William Golla

Authorized for release by:
10/21/2020 3:00:09 PM

Michael DelMonico, Project Manager I
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Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*3	ISTD response or retention time outside acceptable limits.
E	Result exceeded calibration range.
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate recovery exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-137652-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: TDY Hartville

Report Number: 240-137652-1

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

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

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

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

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

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

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

RECEIPT

The samples were received on 10/5/2020 8:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples SB-1 (5-7)/100220 (240-137652-1), SB-1 (13-15)/100220 (240-137652-2), SB-2 (4-6)/100220 (240-137652-3), SB-2 (8-10)/100220 (240-137652-4), SB-6 (6-8)/100220 (240-137652-5), SB-6 (10-12)/100220 (240-137652-6) and WC-SS/100220 (240-137652-7) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were prepared on 10/06/2020 and analyzed on 10/13/2020, 10/14/2020 and 10/15/2020.

Methyl acetate failed the recovery criteria high for LCSD 240-455633/6. Refer to the QC report for details.

4-Bromofluorobenzene (Surr), 1,2-Dichloroethane-d4 (Surr), 4-Bromofluorobenzene (Surr), Dibromofluoromethane (Surr) and Toluene-d8 (Surr) failed the surrogate recovery criteria high for SB-1 (13-15)/100220 (240-137652-2). 4-Bromofluorobenzene (Surr) and Toluene-d8 (Surr) failed the surrogate recovery criteria low for SB-2 (4-6)/100220 (240-137652-3). 4-Bromofluorobenzene (Surr) failed the surrogate recovery criteria high for SB-2 (8-10)/100220 (240-137652-4). Refer to the QC report for details.

Samples SB-1 (13-15)/100220 (240-137652-2)[20X] and SB-1 (13-15)/100220 (240-137652-2)[200X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Job ID: 240-137652-1 (Continued)

Laboratory: Eurofins TestAmerica, Canton (Continued)

The continuing calibration verification (CCV) analyzed in batch 240-455767 was outside the method criteria for the following analyte: Dichloro-difluoromethane. An MRL standard at or below the reporting limit (RL) was analyzed with the affected samplesSB-1 (13-15)/100220 (240-137652-2), SB-6 (6-8)/100220 (240-137652-5), SB-6 (10-12)/100220 (240-137652-6), WC-SS/100220 (240-137652-7), (CCVIS 240-455767/3), (LCS 240-454686/2-A), (LCS 240-455767/4), (MB 240-454686/1-A) and (MB 240-455767/6) and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 240-454686 and analytical batch 240-455767 on this sample SB-1 (13-15)/100220 (240-137652-2).

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 240-454699 and analytical batch 240-455767 on these samples SB-6 (6-8)/100220 (240-137652-5), SB-6 (10-12)/100220 (240-137652-6) and WC-SS/100220 (240-137652-7).

The following samples were preserved via freezing on 10-6-2020 at 21:14: SB-6 (6-8)/100220 (240-137652-5), SB-6 (10-12)/100220 (240-137652-6) and WC-SS/100220 (240-137652-7) . This is outside the 48 hour time frame required by the method.

Internal standard (ISTD) response for the following sample was outside control limits: SB-2 (4-6)/100220 (240-137652-3). The sample was re-extracted and/or re-analyzed and ISTD response was outside control limits.

The continuing calibration verification (CCV) associated with batch 240-455633 recovered above the upper control limit for 1,1,2-Trichloro-1,2,2-trifluoroethane; Dichloro-difluoromethane and Tetrachloroethene . The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The continuing calibration verification (CCV) analyzed in batch 240-455633 was outside the method criteria for the following analyte: Methyl tert-butyl ether. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

The following samples were preserved via freezing on 10-6-20 at 21:14pm: SB-1 (5-7)/100220 (240-137652-1) and SB-2 (4-6)/100220 (240-137652-3). This is outside the 48 hour time frame required by the method.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-454699 and analytical batch 240-455633.

The laboratory control sample duplicate (LCSD) for preparation batch 240-454699 and analytical batch 240-455633 recovered outside control limits for the following analyte: Methyl acetate. This analyte was biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Two analyses were used to report the sample(s) SB-2 (8-10)/100220 (240-137652-4) due to high analyte concentrations.

Internal standard (ISTD) response for the following sample was outside control limits: SB-2 (8-10)/100220 (240-137652-4). The sample was re-extracted and/or re-analyzed and ISTD response was outside control limits.

Surrogate recovery for the following sample was outside control limits: SB-2 (8-10)/100220 (240-137652-4). Re-extraction and/or re-analysis was performed and surrogate recovery was outside control limits.

The following sample was preserved via freezing on 10-6-2020 at 21:14: SB-2 (8-10)/100220 (240-137652-4) . This is outside the 48 hour time frame required by the method.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 240-454699 and analytical batch 240-456006 on this sample: SB-2 (8-10)/100220 (240-137652-4).

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 240-454686 and analytical batch 240-456006 on these samples SB-1 (13-15)/100220 (240-137652-2) and SB-2

Job ID: 240-137652-1 (Continued)

Laboratory: Eurofins TestAmerica, Canton (Continued)

(8-10)/100220 (240-137652-4) .

The continuing calibration verification (CCV) associated with batch 240-456090 recovered above the upper control limit for 1,1,2-Trichloro-1,2,2-trifluoroethane: Chloromethane; Dichloro-difluoromethane; Tetrachloroethene; Trichlorofluoromethane AND Vinyl chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-454686 and analytical batch 240-456090.

Surrogate recovery for the following sample was outside of acceptance limits: SB-2 (4-6)/100220 (240-137652-3). There was insufficient sample to perform a re-extraction; therefore, the data have been reported.

Two analyses were used to report this sample due to high analyte concentrations: SB-2 (4-6)/100220 (240-137652-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples SB-1 (100220) (240-137652-8), SB-2 (100220) (240-137652-9), SB-6 (100220) (240-137652-10) and TRIP BLANKS (240-137652-11) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 10/15/2020.

Samples SB-1 (100220) (240-137652-8)[5X], SB-2 (100220) (240-137652-9)[10X] and SB-6 (100220) (240-137652-10)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) associated with batch 240-456259 recovered above the upper control limit for difluorodichloromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SB-1 (100220) (240-137652-8), TRIP BLANKS (240-137652-11) and (CCVIS 240-456259/4).

The pH of the sample was greater than 2. The sample was analyzed within the normal 14 day holding time; however, experimental evidence suggests that some aromatic compounds in wastewater samples, notably, Benzene, Toluene, and Ethylbenzene are susceptible to biological degradation if sample is not preserved to a pH of 2: SB-1 (100220) (240-137652-8).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples SB-1 (5-7)/100220 (240-137652-1), SB-1 (13-15)/100220 (240-137652-2), SB-2 (4-6)/100220 (240-137652-3), SB-2 (8-10)/100220 (240-137652-4), SB-6 (6-8)/100220 (240-137652-5), SB-6 (10-12)/100220 (240-137652-6) and WC-SS/100220 (240-137652-7) were analyzed for percent solids in accordance with ASTM Method D2216-80. The samples were analyzed on 10/08/2020.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN
5035	Closed System Purge and Trap	SW846	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-137652-1	SB-1 (5-7)/100220	Solid	10/02/20 09:00	10/05/20 08:00	
240-137652-2	SB-1 (13-15)/100220	Solid	10/02/20 09:30	10/05/20 08:00	
240-137652-3	SB-2 (4-6)/100220	Solid	10/02/20 11:00	10/05/20 08:00	
240-137652-4	SB-2 (8-10)/100220	Solid	10/02/20 11:15	10/05/20 08:00	
240-137652-5	SB-6 (6-8)/100220	Solid	10/02/20 16:00	10/05/20 08:00	
240-137652-6	SB-6 (10-12)/100220	Solid	10/02/20 16:15	10/05/20 08:00	
240-137652-7	WC-SS/100220	Solid	10/02/20 17:30	10/05/20 08:00	
240-137652-8	SB-1 (100220)	Water	10/02/20 09:45	10/05/20 08:00	
240-137652-9	SB-2 (100220)	Water	10/02/20 11:30	10/05/20 08:00	
240-137652-10	SB-6 (100220)	Water	10/02/20 16:30	10/05/20 08:00	
240-137652-11	TRIP BLANKS	Water	10/02/20 00:00	10/05/20 08:00	

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: SB-1 (5-7)/100220 — Lab Sample ID: 240-137652-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	37	H H3	5.7	0.80	ug/Kg	1	☼	8260C	Total/NA
2-Butanone (MEK)	6.8	J H H3	23	4.1	ug/Kg	1	☼	8260C	Total/NA
cis-1,2-Dichloroethene	4.2	J H H3	5.7	0.75	ug/Kg	1	☼	8260C	Total/NA
Trichloroethene	1.0	J H H3	5.7	0.73	ug/Kg	1	☼	8260C	Total/NA
Vinyl chloride	9.8	H H3	5.7	0.96	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: SB-1 (13-15)/100220 — Lab Sample ID: 240-137652-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	440000		75000	12000	ug/Kg	20	☼	8260C	Total/NA
Trichloroethene	11000000		750000	430000	ug/Kg	200	☼	8260C	Total/NA

Client Sample ID: SB-2 (4-6)/100220 — Lab Sample ID: 240-137652-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	42	H H3	38	6.2	ug/Kg	1	☼	8260C	Total/NA
1,1-Dichloroethane	950	H H3	38	5.3	ug/Kg	1	☼	8260C	Total/NA
2-Butanone (MEK)	110	J H H3	150	27	ug/Kg	1	☼	8260C	Total/NA
Acetone	330	H H3	190	160	ug/Kg	1	☼	8260C	Total/NA
Chloroethane	15	J H H3	38	9.2	ug/Kg	1	☼	8260C	Total/NA
cis-1,2-Dichloroethene	1900	E H H3	38	4.9	ug/Kg	1	☼	8260C	Total/NA
cis-1,2-Dichloroethene	2400	J	3000	480	ug/Kg	1	☼	8260C	Total/NA
trans-1,2-Dichloroethene	40	H H3	38	3.5	ug/Kg	1	☼	8260C	Total/NA
Trichloroethene	22	J H H3	38	4.8	ug/Kg	1	☼	8260C	Total/NA
Vinyl chloride	290	H H3	38	6.3	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: SB-2 (8-10)/100220 — Lab Sample ID: 240-137652-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	56	H H3	30	4.2	ug/Kg	1	☼	8260C	Total/NA
2-Butanone (MEK)	160	H H3	120	22	ug/Kg	1	☼	8260C	Total/NA
Acetone	2300	J	9200	2300	ug/Kg	1	☼	8260C	Total/NA
Acetone	520	H H3	150	130	ug/Kg	1	☼	8260C	Total/NA
cis-1,2-Dichloroethene	68	H H3	30	4.0	ug/Kg	1	☼	8260C	Total/NA
Methyl acetate	1600	J	12000	1600	ug/Kg	1	☼	8260C	Total/NA
Tetrachloroethene	13	J H H3	30	4.4	ug/Kg	1	☼	8260C	Total/NA
Trichloroethene	1700	J	2300	1300	ug/Kg	1	☼	8260C	Total/NA
Trichloroethene	2400	H E H3	30	3.9	ug/Kg	1	☼	8260C	Total/NA
Vinyl chloride	58	H H3	30	5.1	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	22	J H H3	61	9.6	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: SB-6 (6-8)/100220 — Lab Sample ID: 240-137652-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	3.6	J H H3	20	3.5	ug/Kg	1	☼	8260C	Total/NA
Acetone	22	J H H3	25	21	ug/Kg	1	☼	8260C	Total/NA
Trichloroethene	38	H H3	5.0	0.63	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: SB-6 (10-12)/100220 — Lab Sample ID: 240-137652-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	4.2	J H H3	22	3.9	ug/Kg	1	☼	8260C	Total/NA
cis-1,2-Dichloroethene	1.2	J H H3	5.5	0.72	ug/Kg	1	☼	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Client Sample ID: SB-6 (10-12)/100220 (Continued) — Lab Sample ID: 240-137652-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	2.2	J H H3	5.5	0.70	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: WC-SS/100220 — Lab Sample ID: 240-137652-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	3.5	J H H3	19	3.4	ug/Kg	1	☼	8260C	Total/NA
Tetrachloroethene	1.7	J H H3	4.8	0.70	ug/Kg	1	☼	8260C	Total/NA
Trichloroethene	2.9	J H H3	4.8	0.61	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: SB-1 (100220) — Lab Sample ID: 240-137652-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.6	J	5.0	0.80	ug/L	5		8260C	Total/NA
1,1-Dichloroethane	170		5.0	0.85	ug/L	5		8260C	Total/NA
Vinyl chloride	20		5.0	1.0	ug/L	5		8260C	Total/NA

Client Sample ID: SB-2 (100220) — Lab Sample ID: 240-137652-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	15	J	100	12	ug/L	10		8260C	Total/NA
Carbon disulfide	6.0	J	10	2.8	ug/L	10		8260C	Total/NA
Chloroethane	38		10	8.3	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	240		10	1.6	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	210		10	1.7	ug/L	10		8260C	Total/NA
Trichloroethene	4.5	J	10	1.0	ug/L	10		8260C	Total/NA
Vinyl chloride	280		10	2.0	ug/L	10		8260C	Total/NA

Client Sample ID: SB-6 (100220) — Lab Sample ID: 240-137652-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	9.2	J	20	5.6	ug/L	20		8260C	Total/NA
cis-1,2-Dichloroethene	20		20	3.2	ug/L	20		8260C	Total/NA
Trichloroethene	630		20	2.0	ug/L	20		8260C	Total/NA

Client Sample ID: TRIP BLANKS — Lab Sample ID: 240-137652-11

No Detections.

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: SB-1 (5-7)/100220
Date Collected: 10/02/20 09:00
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-1
Matrix: Solid
Percent Solids: 78.4

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5.7	U H H3	5.7	0.94	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
1,1,2,2-Tetrachloroethane	5.7	U H H3	5.7	1.6	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	5.7	U H H3	5.7	1.5	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
1,1,2-Trichloroethane	5.7	U H H3	5.7	1.3	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
1,1-Dichloroethane	**37**	**H H3**	5.7	0.80	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
1,1-Dichloroethene	5.7	U H H3	5.7	1.0	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
1,2,4-Trichlorobenzene	5.7	U H H3	5.7	0.66	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
1,2-Dibromo-3-Chloropropane	11	U H H3	11	4.1	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Ethylene Dibromide	5.7	U H H3	5.7	0.89	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
1,2-Dichlorobenzene	5.7	U H H3	5.7	1.3	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
1,2-Dichloroethane	5.7	U H H3	5.7	0.89	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
1,2-Dichloropropane	5.7	U H H3	5.7	0.98	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
1,3-Dichlorobenzene	5.7	U H H3	5.7	0.94	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
1,4-Dichlorobenzene	5.7	U H H3	5.7	1.0	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
2-Butanone (MEK)	**6.8**	**J H H3**	23	4.1	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
2-Hexanone	23	U H H3	23	4.7	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
4-Methyl-2-pentanone (MIBK)	23	U H H3	23	4.3	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Acetone	29	U H H3	29	24	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Benzene	5.7	U H H3	5.7	0.80	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Dichlorobromomethane	5.7	U H H3	5.7	0.78	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Bromoform	5.7	U H H3	5.7	2.8	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Bromomethane	5.7	U H H3	5.7	1.1	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Carbon disulfide	5.7	U H H3	5.7	1.3	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Carbon tetrachloride	5.7	U H H3	5.7	3.7	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Chlorobenzene	5.7	U H H3	5.7	1.1	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Chloroethane	5.7	U H H3	5.7	1.4	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Chloroform	5.7	U H H3	5.7	0.91	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Chloromethane	5.7	U H H3	5.7	1.2	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
cis-1,2-Dichloroethene	**4.2**	**J H H3**	5.7	0.75	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
cis-1,3-Dichloropropene	5.7	U H H3	5.7	1.7	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Cyclohexane	11	U H H3	11	1.6	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Chlorodibromomethane	5.7	U H H3	5.7	3.2	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Dichlorodifluoromethane	5.7	U H H3	5.7	1.1	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Ethylbenzene	5.7	U H H3	5.7	1.2	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Isopropylbenzene	5.7	U H H3	5.7	0.96	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Methyl acetate	29	U * H H3	29	3.9	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Methyl tert-butyl ether	5.7	U H H3	5.7	0.94	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Methylcyclohexane	11	U H H3	11	1.4	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Methylene Chloride	29	U H H3	29	14	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Styrene	5.7	U H H3	5.7	1.3	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Tetrachloroethene	5.7	U H H3	5.7	0.84	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Toluene	5.7	U H H3	5.7	0.89	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
trans-1,2-Dichloroethene	5.7	U H H3	5.7	0.53	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
trans-1,3-Dichloropropene	5.7	U H H3	5.7	1.2	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Trichloroethene	**1.0**	**J H H3**	5.7	0.73	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Trichlorofluoromethane	5.7	U H H3	5.7	1.2	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Vinyl chloride	**9.8**	**H H3**	5.7	0.96	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1
Xylenes, Total	11	U H H3	11	1.8	ug/Kg	☼	10/06/20 21:14	10/13/20 16:09	1

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: SB-1 (5-7)/100220
Date Collected: 10/02/20 09:00
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-1
Matrix: Solid
Percent Solids: 78.4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*64 - 124*	*10/06/20 21:14*	*10/13/20 16:09*	*1*
Dibromofluoromethane (Surr)	*95*		*56 - 122*	*10/06/20 21:14*	*10/13/20 16:09*	*1*
4-Bromofluorobenzene (Surr)	*86*		*51 - 127*	*10/06/20 21:14*	*10/13/20 16:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*59 - 120*	*10/06/20 21:14*	*10/13/20 16:09*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**78.4**		0.1	0.1	%			10/08/20 15:08	1
Percent Moisture	**21.6**		0.1	0.1	%			10/08/20 15:08	1

Client Sample ID: SB-1 (13-15)/100220
Date Collected: 10/02/20 09:30
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-2
Matrix: Solid
Percent Solids: 16.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	75000	U	75000	23000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
1,1,2,2-Tetrachloroethane	75000	U	75000	45000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
1,1,2-Trichloro-1,2,2-trifluoroethane	75000	U	75000	20000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
1,1,2-Trichloroethane	75000	U	75000	17000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
1,1-Dichloroethane	75000	U	75000	14000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
1,1-Dichloroethene	75000	U	75000	25000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
1,2,4-Trichlorobenzene	75000	U	75000	40000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
1,2-Dibromo-3-Chloropropane	150000	U	150000	66000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Ethylene Dibromide	75000	U	75000	24000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
1,2-Dichlorobenzene	75000	U	75000	36000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
1,2-Dichloroethane	75000	U	75000	14000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
1,2-Dichloropropane	75000	U	75000	11000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
1,3-Dichlorobenzene	75000	U	75000	14000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
1,4-Dichlorobenzene	75000	U	75000	16000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
2-Butanone (MEK)	300000	U	300000	47000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
2-Hexanone	300000	U	300000	79000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
4-Methyl-2-pentanone (MIBK)	300000	U	300000	71000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Acetone	300000	U	300000	73000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Benzene	75000	U	75000	13000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Dichlorobromomethane	75000	U	75000	8400	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Bromoform	75000	U	75000	68000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Bromomethane	75000	U	75000	50000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Carbon disulfide	75000	U	75000	32000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Carbon tetrachloride	75000	U	75000	30000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Chlorobenzene	75000	U	75000	10000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Chloroethane	75000	U	75000	45000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Chloroform	75000	U	75000	16000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Chloromethane	75000	U	75000	20000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
cis-1,2-Dichloroethene	**440000**		75000	12000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
cis-1,3-Dichloropropene	75000	U	75000	37000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Cyclohexane	150000	U	150000	49000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Chlorodibromomethane	75000	U	75000	35000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Dichlorodifluoromethane	75000	U	75000	16000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Ethylbenzene	75000	U	75000	14000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Isopropylbenzene	75000	U	75000	11000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Methyl acetate	370000	U	370000	50000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Methyl tert-butyl ether	75000	U	75000	11000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Methylcyclohexane	150000	U	150000	20000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Methylene Chloride	150000	U	150000	110000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Styrene	75000	U	75000	16000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Tetrachloroethene	75000	U	75000	29000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Toluene	75000	U	75000	72000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
trans-1,2-Dichloroethene	75000	U	75000	19000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
trans-1,3-Dichloropropene	75000	U	75000	31000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Trichloroethene	**11000000**		750000	430000	ug/Kg	☼	10/06/20 18:13	10/14/20 15:57	200
Trichlorofluoromethane	75000	U	75000	41000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Vinyl chloride	75000	U	75000	37000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20
Xylenes, Total	150000	U	150000	27000	ug/Kg	☼	10/06/20 18:13	10/13/20 17:24	20

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: SB-1 (13-15)/100220
Date Collected: 10/02/20 09:30
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-2
Matrix: Solid
Percent Solids: 16.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	120		55 - 123	10/06/20 18:13	10/13/20 17:24	20
Toluene-d8 (Surr)	401	X	55 - 123	10/06/20 18:13	10/14/20 15:57	200
Dibromofluoromethane (Surr)	96		49 - 122	10/06/20 18:13	10/13/20 17:24	20
Dibromofluoromethane (Surr)	288	X	49 - 122	10/06/20 18:13	10/14/20 15:57	200
4-Bromofluorobenzene (Surr)	131	X	51 - 124	10/06/20 18:13	10/13/20 17:24	20
4-Bromofluorobenzene (Surr)	593	X	51 - 124	10/06/20 18:13	10/14/20 15:57	200
1,2-Dichloroethane-d4 (Surr)	123		47 - 136	10/06/20 18:13	10/13/20 17:24	20
1,2-Dichloroethane-d4 (Surr)	408	X	47 - 136	10/06/20 18:13	10/14/20 15:57	200

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	16.9		0.1	0.1	%			10/08/20 15:08	1
Percent Moisture	83.1		0.1	0.1	%			10/08/20 15:08	1

Client Sample ID: SB-2 (4-6)/100220
Date Collected: 10/02/20 11:00
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-3
Matrix: Solid
Percent Solids: 20.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**42**	**H H3**	38	6.2	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
1,1,1-Trichloroethane	3000	U	3000	930	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
1,1,2,2-Tetrachloroethane	38	U H H3 *3	38	11	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
1,1,2,2-Tetrachloroethane	3000	U	3000	1800	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	38	U H H3	38	9.7	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	3000	U	3000	800	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
1,1,2-Trichloroethane	38	U H H3 *3	38	8.6	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
1,1,2-Trichloroethane	3000	U	3000	680	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
1,1-Dichloroethane	**950**	**H H3**	38	5.3	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
1,1-Dichloroethane	3000	U	3000	570	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
1,1-Dichloroethene	38	U H H3	38	6.8	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
1,1-Dichloroethene	3000	U	3000	980	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
1,2,4-Trichlorobenzene	38	U H H3 *3	38	4.3	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
1,2,4-Trichlorobenzene	3000	U	3000	1600	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
1,2-Dibromo-3-Chloropropane	76	U H H3 *3	76	27	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
1,2-Dibromo-3-Chloropropane	6000	U	6000	2600	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Ethylene Dibromide	38	U H H3 *3	38	5.8	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Ethylene Dibromide	3000	U	3000	950	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
1,2-Dichlorobenzene	38	U H H3 *3	38	8.4	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
1,2-Dichlorobenzene	3000	U	3000	1400	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
1,2-Dichloroethane	38	U H H3	38	5.8	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
1,2-Dichloroethane	3000	U	3000	560	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
1,2-Dichloropropane	38	U H H3	38	6.4	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
1,2-Dichloropropane	3000	U	3000	440	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
1,3-Dichlorobenzene	38	U H H3 *3	38	6.2	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
1,3-Dichlorobenzene	3000	U	3000	550	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
1,4-Dichlorobenzene	38	U H H3 *3	38	6.7	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
1,4-Dichlorobenzene	3000	U	3000	660	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
2-Butanone (MEK)	**110**	**J H H3**	150	27	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
2-Butanone (MEK)	12000	U	12000	1900	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
2-Hexanone	150	U H H3 *3	150	31	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
2-Hexanone	12000	U	12000	3100	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
4-Methyl-2-pentanone (MIBK)	150	U H H3 *3	150	28	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
4-Methyl-2-pentanone (MIBK)	12000	U	12000	2800	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Acetone	**330**	**H H3**	190	160	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Acetone	12000	U	12000	2900	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Benzene	38	U H H3	38	5.3	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Benzene	3000	U	3000	500	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Dichlorobromomethane	38	U H H3	38	5.1	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Dichlorobromomethane	3000	U	3000	340	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Bromoform	38	U H H3 *3	38	18	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Bromoform	3000	U	3000	2700	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Bromomethane	38	U H H3	38	7.5	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Bromomethane	3000	U	3000	2000	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Carbon disulfide	38	U H H3	38	8.8	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Carbon disulfide	3000	U	3000	1300	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Carbon tetrachloride	38	U H H3	38	25	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Carbon tetrachloride	3000	U	3000	1200	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Chlorobenzene	38	U H H3 *3	38	6.9	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1

Client Sample ID: SB-2 (4-6)/100220
Date Collected: 10/02/20 11:00
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-3
Matrix: Solid
Percent Solids: 20.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	3000	U	3000	420	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Chloroethane	**15**	**J H H3**	38	9.2	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Chloroethane	3000	U	3000	1800	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Chloroform	38	U H H3	38	6.0	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Chloroform	3000	U	3000	650	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Chloromethane	38	U H H3	38	7.9	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Chloromethane	3000	U	3000	790	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
cis-1,2-Dichloroethene	**1900**	**E H H3**	38	4.9	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
cis-1,2-Dichloroethene	**2400**	**J**	3000	480	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
cis-1,3-Dichloropropene	38	U H H3	38	11	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
cis-1,3-Dichloropropene	3000	U	3000	1500	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Cyclohexane	76	U H H3	76	10	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Cyclohexane	6000	U	6000	2000	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Chlorodibromomethane	38	U H H3 *3	38	21	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Chlorodibromomethane	3000	U	3000	1400	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Dichlorodifluoromethane	38	U H H3	38	7.1	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Dichlorodifluoromethane	3000	U	3000	630	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Ethylbenzene	38	U H H3 *3	38	7.9	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Ethylbenzene	3000	U	3000	560	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Isopropylbenzene	38	U H H3 *3	38	6.3	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Isopropylbenzene	3000	U	3000	450	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Methyl acetate	190	U H H3 *	190	26	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Methyl acetate	15000	U	15000	2000	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Methyl tert-butyl ether	38	U H H3	38	6.2	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Methyl tert-butyl ether	3000	U	3000	440	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Methylcyclohexane	76	U H H3	76	9.3	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Methylcyclohexane	6000	U	6000	790	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Methylene Chloride	190	U H H3	190	91	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Methylene Chloride	6000	U	6000	4600	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Styrene	38	U H H3 *3	38	8.8	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Styrene	3000	U	3000	620	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Tetrachloroethene	38	U H H3 *3	38	5.5	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Tetrachloroethene	3000	U	3000	1200	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Toluene	38	U H H3 *3	38	5.9	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Toluene	3000	U	3000	2900	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
trans-1,2-Dichloroethene	**40**	**H H3**	38	3.5	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
trans-1,2-Dichloroethene	3000	U	3000	740	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
trans-1,3-Dichloropropene	38	U H H3 *3	38	7.8	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
trans-1,3-Dichloropropene	3000	U	3000	1300	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Trichloroethene	**22**	**J H H3**	38	4.8	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Trichloroethene	3000	U	3000	1700	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Trichlorofluoromethane	38	U H H3	38	8.2	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Trichlorofluoromethane	3000	U	3000	1600	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Vinyl chloride	**290**	**H H3**	38	6.3	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Vinyl chloride	3000	U	3000	1500	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1
Xylenes, Total	76	U H H3 *3	76	12	ug/Kg	☼	10/06/20 21:14	10/13/20 16:35	1
Xylenes, Total	6000	U	6000	1100	ug/Kg	☼	10/06/20 18:13	10/15/20 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*124*	*3*	*64 - 124*	*10/06/20 21:14*	*10/13/20 16:35*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: SB-2 (4-6)/100220
Date Collected: 10/02/20 11:00
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-3
Matrix: Solid
Percent Solids: 20.6

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*49*	*X*	*55 - 123*	*10/06/20 18:13*	*10/15/20 14:31*	*1*
Dibromofluoromethane (Surr)	*95*		*56 - 122*	*10/06/20 21:14*	*10/13/20 16:35*	*1*
Dibromofluoromethane (Surr)	*52*		*49 - 122*	*10/06/20 18:13*	*10/15/20 14:31*	*1*
4-Bromofluorobenzene (Surr)	*120*	**3*	*51 - 127*	*10/06/20 21:14*	*10/13/20 16:35*	*1*
4-Bromofluorobenzene (Surr)	*48*	*X*	*51 - 124*	*10/06/20 18:13*	*10/15/20 14:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*59 - 120*	*10/06/20 21:14*	*10/13/20 16:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*73*		*47 - 136*	*10/06/20 18:13*	*10/15/20 14:31*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**20.6**		0.1	0.1	%			10/08/20 15:08	1
Percent Moisture	**79.4**		0.1	0.1	%			10/08/20 15:08	1

Client Sample ID: SB-2 (8-10)/100220
Date Collected: 10/02/20 11:15
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-4
Matrix: Solid
Percent Solids: 24.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2300	U	2300	720	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
1,1,1-Trichloroethane	30	U H H3	30	5.0	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
1,1,2,2-Tetrachloroethane	2300	U	2300	1400	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
1,1,2,2-Tetrachloroethane	30	U H H3 *3	30	8.7	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	2300	U	2300	620	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	30	U H H3	30	7.8	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
1,1,2-Trichloroethane	2300	U	2300	530	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
1,1,2-Trichloroethane	30	U H H3	30	6.9	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
1,1-Dichloroethane	2300	U	2300	440	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
1,1-Dichloroethane	**56**	**H H3**	30	4.2	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
1,1-Dichloroethene	2300	U	2300	760	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
1,1-Dichloroethene	30	U H H3	30	5.5	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
1,2,4-Trichlorobenzene	2300	U	2300	1200	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
1,2,4-Trichlorobenzene	30	U H H3 *3	30	3.5	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
1,2-Dibromo-3-Chloropropane	4600	U	4600	2000	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
1,2-Dibromo-3-Chloropropane	61	U H H3 *3	61	22	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Ethylene Dibromide	2300	U	2300	730	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Ethylene Dibromide	30	U H H3	30	4.7	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
1,2-Dichlorobenzene	2300	U	2300	1100	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
1,2-Dichlorobenzene	30	U H H3 *3	30	6.8	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
1,2-Dichloroethane	2300	U	2300	430	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
1,2-Dichloroethane	30	U H H3	30	4.7	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
1,2-Dichloropropane	2300	U	2300	340	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
1,2-Dichloropropane	30	U H H3	30	5.2	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
1,3-Dichlorobenzene	2300	U	2300	430	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
1,3-Dichlorobenzene	30	U H H3 *3	30	5.0	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
1,4-Dichlorobenzene	2300	U	2300	510	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
1,4-Dichlorobenzene	30	U H H3 *3	30	5.4	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
2-Butanone (MEK)	9200	U	9200	1500	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
2-Butanone (MEK)	**160**	**H H3**	120	22	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
2-Hexanone	9200	U	9200	2400	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
2-Hexanone	120	U H H3	120	25	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
4-Methyl-2-pentanone (MIBK)	9200	U	9200	2200	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
4-Methyl-2-pentanone (MIBK)	120	U H H3	120	23	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Acetone	**2300**	**J**	9200	2300	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Acetone	**520**	**H H3**	150	130	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Benzene	2300	U	2300	390	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Benzene	30	U H H3	30	4.2	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Dichlorobromomethane	2300	U	2300	260	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Dichlorobromomethane	30	U H H3	30	4.1	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Bromoform	2300	U	2300	2100	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Bromoform	30	U H H3	30	15	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Bromomethane	2300	U	2300	1500	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Bromomethane	30	U H H3	30	6.0	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Carbon disulfide	2300	U	2300	1000	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Carbon disulfide	30	U H H3	30	7.1	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Carbon tetrachloride	2300	U	2300	940	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Carbon tetrachloride	30	U H H3	30	20	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Chlorobenzene	2300	U	2300	320	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1

Client Sample ID: SB-2 (8-10)/100220
Date Collected: 10/02/20 11:15
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-4
Matrix: Solid
Percent Solids: 24.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	30	U H H3	30	5.6	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Chloroethane	2300	U	2300	1400	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Chloroethane	30	U H H3	30	7.4	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Chloroform	2300	U	2300	500	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Chloroform	30	U H H3	30	4.8	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Chloromethane	2300	U	2300	610	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Chloromethane	30	U H H3	30	6.3	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
cis-1,2-Dichloroethene	2300	U	2300	370	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
cis-1,2-Dichloroethene	**68**	**H H3**	30	4.0	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
cis-1,3-Dichloropropene	2300	U	2300	1100	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
cis-1,3-Dichloropropene	30	U H H3	30	8.7	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Cyclohexane	4600	U	4600	1500	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Cyclohexane	61	U H H3	61	8.4	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Chlorodibromomethane	2300	U	2300	1100	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Chlorodibromomethane	30	U H H3	30	17	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Dichlorodifluoromethane	2300	U	2300	490	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Dichlorodifluoromethane	30	U H H3	30	5.7	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Ethylbenzene	2300	U	2300	430	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Ethylbenzene	30	U H H3	30	6.4	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Isopropylbenzene	2300	U	2300	350	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Isopropylbenzene	30	U H H3	30	5.1	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Methyl acetate	**1600**	**J**	12000	1600	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Methyl acetate	150	U H H3	150	21	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Methyl tert-butyl ether	2300	U	2300	340	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Methyl tert-butyl ether	30	U H H3	30	5.0	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Methylcyclohexane	4600	U	4600	610	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Methylcyclohexane	61	U H H3	61	7.5	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Methylene Chloride	4600	U	4600	3500	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Methylene Chloride	150	U H H3	150	73	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Styrene	2300	U	2300	480	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Styrene	30	U H H3	30	7.0	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Tetrachloroethene	2300	U	2300	900	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Tetrachloroethene	**13**	**J H H3**	30	4.4	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Toluene	2300	U	2300	2200	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Toluene	30	U H H3	30	4.7	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
trans-1,2-Dichloroethene	2300	U	2300	570	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
trans-1,2-Dichloroethene	30	U H H3	30	2.8	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
trans-1,3-Dichloropropene	2300	U	2300	970	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
trans-1,3-Dichloropropene	30	U H H3	30	6.3	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Trichloroethene	**1700**	**J**	2300	1300	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Trichloroethene	**2400**	**H E H3**	30	3.9	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Trichlorofluoromethane	2300	U	2300	1300	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Trichlorofluoromethane	30	U H H3	30	6.6	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Vinyl chloride	2300	U	2300	1100	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Vinyl chloride	**58**	**H H3**	30	5.1	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1
Xylenes, Total	4600	U	4600	840	ug/Kg	☼	10/06/20 18:13	10/14/20 15:34	1
Xylenes, Total	**22**	**J H H3**	61	9.6	ug/Kg	☼	10/06/20 21:14	10/14/20 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*77*		*55 - 123*	*10/06/20 18:13*	*10/14/20 15:34*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: SB-2 (8-10)/100220
Date Collected: 10/02/20 11:15
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-4
Matrix: Solid
Percent Solids: 24.3

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*122*		*64 - 124*	*10/06/20 21:14*	*10/14/20 16:21*	*1*
Dibromofluoromethane (Surr)	*75*		*49 - 122*	*10/06/20 18:13*	*10/14/20 15:34*	*1*
Dibromofluoromethane (Surr)	*83*		*56 - 122*	*10/06/20 21:14*	*10/14/20 16:21*	*1*
4-Bromofluorobenzene (Surr)	*76*		*51 - 124*	*10/06/20 18:13*	*10/14/20 15:34*	*1*
4-Bromofluorobenzene (Surr)	*148*	**3 X*	*51 - 127*	*10/06/20 21:14*	*10/14/20 16:21*	*1*
1,2-Dichloroethane-d4 (Surr)	*82*		*47 - 136*	*10/06/20 18:13*	*10/14/20 15:34*	*1*
1,2-Dichloroethane-d4 (Surr)	*76*		*59 - 120*	*10/06/20 21:14*	*10/14/20 16:21*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**24.3**		0.1	0.1	%			10/08/20 15:08	1
Percent Moisture	**75.7**		0.1	0.1	%			10/08/20 15:08	1

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: SB-6 (6-8)/100220
Date Collected: 10/02/20 16:00
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-5
Matrix: Solid
Percent Solids: 83.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5.0	U H H3	5.0	0.82	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
1,1,2,2-Tetrachloroethane	5.0	U H H3	5.0	1.4	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U H H3	5.0	1.3	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
1,1,2-Trichloroethane	5.0	U H H3	5.0	1.1	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
1,1-Dichloroethane	5.0	U H H3	5.0	0.69	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
1,1-Dichloroethene	5.0	U H H3	5.0	0.90	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
1,2,4-Trichlorobenzene	5.0	U H H3	5.0	0.57	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
1,2-Dibromo-3-Chloropropane	10	U H H3	10	3.6	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Ethylene Dibromide	5.0	U H H3	5.0	0.77	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
1,2-Dichlorobenzene	5.0	U H H3	5.0	1.1	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
1,2-Dichloroethane	5.0	U H H3	5.0	0.77	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
1,2-Dichloropropane	5.0	U H H3	5.0	0.85	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
1,3-Dichlorobenzene	5.0	U H H3	5.0	0.81	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
1,4-Dichlorobenzene	5.0	U H H3	5.0	0.88	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
2-Butanone (MEK)	**3.6**	**J H H3**	20	3.5	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
2-Hexanone	20	U H H3	20	4.1	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
4-Methyl-2-pentanone (MIBK)	20	U H H3	20	3.7	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Acetone	**22**	**J H H3**	25	21	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Benzene	5.0	U H H3	5.0	0.70	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Dichlorobromomethane	5.0	U H H3	5.0	0.68	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Bromoform	5.0	U H H3	5.0	2.4	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Bromomethane	5.0	U H H3	5.0	0.99	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Carbon disulfide	5.0	U H H3	5.0	1.2	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Carbon tetrachloride	5.0	U H H3	5.0	3.2	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Chlorobenzene	5.0	U H H3	5.0	0.91	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Chloroethane	5.0	U H H3	5.0	1.2	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Chloroform	5.0	U H H3	5.0	0.79	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Chloromethane	5.0	U H H3	5.0	1.0	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
cis-1,2-Dichloroethene	5.0	U H H3	5.0	0.65	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
cis-1,3-Dichloropropene	5.0	U H H3	5.0	1.4	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Cyclohexane	10	U H H3	10	1.4	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Chlorodibromomethane	5.0	U H H3	5.0	2.8	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Dichlorodifluoromethane	5.0	U H H3	5.0	0.94	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Ethylbenzene	5.0	U H H3	5.0	1.0	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Isopropylbenzene	5.0	U H H3	5.0	0.83	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Methyl acetate	25	U H H3	25	3.4	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Methyl tert-butyl ether	5.0	U H H3	5.0	0.82	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Methylcyclohexane	10	U H H3	10	1.2	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Methylene Chloride	25	U H H3	25	12	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Styrene	5.0	U H H3	5.0	1.2	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Tetrachloroethene	5.0	U H H3	5.0	0.73	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Toluene	5.0	U H H3	5.0	0.77	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
trans-1,2-Dichloroethene	5.0	U H H3	5.0	0.46	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
trans-1,3-Dichloropropene	5.0	U H H3	5.0	1.0	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Trichloroethene	**38**	**H H3**	5.0	0.63	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Trichlorofluoromethane	5.0	U H H3	5.0	1.1	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Vinyl chloride	5.0	U H H3	5.0	0.84	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1
Xylenes, Total	10	U H H3	10	1.6	ug/Kg	☼	10/06/20 21:14	10/13/20 18:34	1

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: SB-6 (6-8)/100220
Date Collected: 10/02/20 16:00
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-5
Matrix: Solid
Percent Solids: 83.3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*64 - 124*	*10/06/20 21:14*	*10/13/20 18:34*	*1*
Dibromofluoromethane (Surr)	*83*		*56 - 122*	*10/06/20 21:14*	*10/13/20 18:34*	*1*
4-Bromofluorobenzene (Surr)	*99*		*51 - 127*	*10/06/20 21:14*	*10/13/20 18:34*	*1*
1,2-Dichloroethane-d4 (Surr)	*83*		*59 - 120*	*10/06/20 21:14*	*10/13/20 18:34*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**83.3**		0.1	0.1	%			10/08/20 15:08	1
Percent Moisture	**16.7**		0.1	0.1	%			10/08/20 15:08	1

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: SB-6 (10-12)/100220

Date Collected: 10/02/20 16:15
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-6

Matrix: Solid
Percent Solids: 80.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5.5	U H H3	5.5	0.90	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
1,1,2,2-Tetrachloroethane	5.5	U H H3	5.5	1.6	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	5.5	U H H3	5.5	1.4	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
1,1,2-Trichloroethane	5.5	U H H3	5.5	1.2	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
1,1-Dichloroethane	5.5	U H H3	5.5	0.76	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
1,1-Dichloroethene	5.5	U H H3	5.5	0.99	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
1,2,4-Trichlorobenzene	5.5	U H H3	5.5	0.63	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
1,2-Dibromo-3-Chloropropane	11	U H H3	11	4.0	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Ethylene Dibromide	5.5	U H H3	5.5	0.85	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
1,2-Dichlorobenzene	5.5	U H H3	5.5	1.2	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
1,2-Dichloroethane	5.5	U H H3	5.5	0.85	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
1,2-Dichloropropane	5.5	U H H3	5.5	0.94	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
1,3-Dichlorobenzene	5.5	U H H3	5.5	0.90	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
1,4-Dichlorobenzene	5.5	U H H3	5.5	0.97	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
2-Butanone (MEK)	**4.2**	**J H H3**	22	3.9	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
2-Hexanone	22	U H H3	22	4.5	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
4-Methyl-2-pentanone (MIBK)	22	U H H3	22	4.1	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Acetone	28	U H H3	28	23	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Benzene	5.5	U H H3	5.5	0.77	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Dichlorobromomethane	5.5	U H H3	5.5	0.75	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Bromoform	5.5	U H H3	5.5	2.6	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Bromomethane	5.5	U H H3	5.5	1.1	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Carbon disulfide	5.5	U H H3	5.5	1.3	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Carbon tetrachloride	5.5	U H H3	5.5	3.6	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Chlorobenzene	5.5	U H H3	5.5	1.0	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Chloroethane	5.5	U H H3	5.5	1.3	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Chloroform	5.5	U H H3	5.5	0.87	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Chloromethane	5.5	U H H3	5.5	1.1	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
cis-1,2-Dichloroethene	**1.2**	**J H H3**	5.5	0.72	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
cis-1,3-Dichloropropene	5.5	U H H3	5.5	1.6	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Cyclohexane	11	U H H3	11	1.5	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Chlorodibromomethane	5.5	U H H3	5.5	3.1	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Dichlorodifluoromethane	5.5	U H H3	5.5	1.0	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Ethylbenzene	5.5	U H H3	5.5	1.2	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Isopropylbenzene	5.5	U H H3	5.5	0.92	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Methyl acetate	28	U H H3	28	3.7	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Methyl tert-butyl ether	5.5	U H H3	5.5	0.90	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Methylcyclohexane	11	U H H3	11	1.4	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Methylene Chloride	28	U H H3	28	13	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Styrene	5.5	U H H3	5.5	1.3	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Tetrachloroethene	5.5	U H H3	5.5	0.80	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Toluene	5.5	U H H3	5.5	0.85	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
trans-1,2-Dichloroethene	5.5	U H H3	5.5	0.51	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
trans-1,3-Dichloropropene	5.5	U H H3	5.5	1.1	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Trichloroethene	**2.2**	**J H H3**	5.5	0.70	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Trichlorofluoromethane	5.5	U H H3	5.5	1.2	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Vinyl chloride	5.5	U H H3	5.5	0.92	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1
Xylenes, Total	11	U H H3	11	1.7	ug/Kg	☼	10/06/20 21:14	10/13/20 18:58	1

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: SB-6 (10-12)/100220
Date Collected: 10/02/20 16:15
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-6
Matrix: Solid
Percent Solids: 80.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*108*		*64 - 124*	*10/06/20 21:14*	*10/13/20 18:58*	*1*
Dibromofluoromethane (Surr)	*83*		*56 - 122*	*10/06/20 21:14*	*10/13/20 18:58*	*1*
4-Bromofluorobenzene (Surr)	*112*		*51 - 127*	*10/06/20 21:14*	*10/13/20 18:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*80*		*59 - 120*	*10/06/20 21:14*	*10/13/20 18:58*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**80.5**		0.1	0.1	%			10/08/20 15:08	1
Percent Moisture	**19.5**		0.1	0.1	%			10/08/20 15:08	1

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: WC-SS/100220

Date Collected: 10/02/20 17:30
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-7

Matrix: Solid
Percent Solids: 81.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	4.8	U H H3	4.8	0.79	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
1,1,2,2-Tetrachloroethane	4.8	U H H3	4.8	1.4	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	4.8	U H H3	4.8	1.2	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
1,1,2-Trichloroethane	4.8	U H H3	4.8	1.1	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
1,1-Dichloroethane	4.8	U H H3	4.8	0.67	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
1,1-Dichloroethene	4.8	U H H3	4.8	0.87	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
1,2,4-Trichlorobenzene	4.8	U H H3	4.8	0.55	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
1,2-Dibromo-3-Chloropropane	9.7	U H H3	9.7	3.5	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Ethylene Dibromide	4.8	U H H3	4.8	0.74	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
1,2-Dichlorobenzene	4.8	U H H3	4.8	1.1	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
1,2-Dichloroethane	4.8	U H H3	4.8	0.75	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
1,2-Dichloropropane	4.8	U H H3	4.8	0.82	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
1,3-Dichlorobenzene	4.8	U H H3	4.8	0.79	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
1,4-Dichlorobenzene	4.8	U H H3	4.8	0.85	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
2-Butanone (MEK)	**3.5**	**J H H3**	19	3.4	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
2-Hexanone	19	U H H3	19	3.9	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
4-Methyl-2-pentanone (MIBK)	19	U H H3	19	3.6	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Acetone	24	U H H3	24	20	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Benzene	4.8	U H H3	4.8	0.67	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Dichlorobromomethane	4.8	U H H3	4.8	0.66	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Bromoform	4.8	U H H3	4.8	2.3	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Bromomethane	4.8	U H H3	4.8	0.95	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Carbon disulfide	4.8	U H H3	4.8	1.1	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Carbon tetrachloride	4.8	U H H3	4.8	3.1	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Chlorobenzene	4.8	U H H3	4.8	0.88	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Chloroethane	4.8	U H H3	4.8	1.2	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Chloroform	4.8	U H H3	4.8	0.76	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Chloromethane	4.8	U H H3	4.8	1.0	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
cis-1,2-Dichloroethene	4.8	U H H3	4.8	0.63	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
cis-1,3-Dichloropropene	4.8	U H H3	4.8	1.4	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Cyclohexane	9.7	U H H3	9.7	1.3	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Chlorodibromomethane	4.8	U H H3	4.8	2.7	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Dichlorodifluoromethane	4.8	U H H3	4.8	0.91	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Ethylbenzene	4.8	U H H3	4.8	1.0	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Isopropylbenzene	4.8	U H H3	4.8	0.80	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Methyl acetate	24	U H H3	24	3.3	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Methyl tert-butyl ether	4.8	U H H3	4.8	0.79	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Methylcyclohexane	9.7	U H H3	9.7	1.2	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Methylene Chloride	24	U H H3	24	12	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Styrene	4.8	U H H3	4.8	1.1	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Tetrachloroethene	**1.7**	**J H H3**	4.8	0.70	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Toluene	4.8	U H H3	4.8	0.75	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
trans-1,2-Dichloroethene	4.8	U H H3	4.8	0.45	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
trans-1,3-Dichloropropene	4.8	U H H3	4.8	1.0	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Trichloroethene	**2.9**	**J H H3**	4.8	0.61	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Trichlorofluoromethane	4.8	U H H3	4.8	1.0	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Vinyl chloride	4.8	U H H3	4.8	0.81	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1
Xylenes, Total	9.7	U H H3	9.7	1.5	ug/Kg	☼	10/06/20 21:14	10/13/20 19:21	1

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: WC-SS/100220
Date Collected: 10/02/20 17:30
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-7
Matrix: Solid
Percent Solids: 81.7

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*64 - 124*	*10/06/20 21:14*	*10/13/20 19:21*	*1*
Dibromofluoromethane (Surr)	*86*		*56 - 122*	*10/06/20 21:14*	*10/13/20 19:21*	*1*
4-Bromofluorobenzene (Surr)	*98*		*51 - 127*	*10/06/20 21:14*	*10/13/20 19:21*	*1*
1,2-Dichloroethane-d4 (Surr)	*89*		*59 - 120*	*10/06/20 21:14*	*10/13/20 19:21*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**81.7**		0.1	0.1	%			10/08/20 15:08	1
Percent Moisture	**18.3**		0.1	0.1	%			10/08/20 15:08	1

Client Sample ID: SB-1 (100220)
Date Collected: 10/02/20 09:45
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	50	U	50	27	ug/L			10/15/20 20:42	5
Benzene	5.0	U	5.0	0.65	ug/L			10/15/20 20:42	5
Bromodichloromethane	5.0	U	5.0	0.85	ug/L			10/15/20 20:42	5
Bromoform	5.0	U	5.0	3.8	ug/L			10/15/20 20:42	5
Bromomethane	5.0	U	5.0	2.1	ug/L			10/15/20 20:42	5
2-Butanone (MEK)	50	U	50	5.8	ug/L			10/15/20 20:42	5
Carbon disulfide	5.0	U	5.0	1.4	ug/L			10/15/20 20:42	5
Carbon tetrachloride	5.0	U	5.0	1.3	ug/L			10/15/20 20:42	5
Chlorobenzene	5.0	U	5.0	0.70	ug/L			10/15/20 20:42	5
Chloroethane	5.0	U	5.0	4.2	ug/L			10/15/20 20:42	5
Chloroform	5.0	U	5.0	0.65	ug/L			10/15/20 20:42	5
Chloromethane	5.0	U	5.0	1.0	ug/L			10/15/20 20:42	5
cis-1,2-Dichloroethene	**1.6**	**J**	5.0	0.80	ug/L			10/15/20 20:42	5
cis-1,3-Dichloropropene	5.0	U	5.0	3.1	ug/L			10/15/20 20:42	5
Cyclohexane	5.0	U	5.0	1.2	ug/L			10/15/20 20:42	5
Dibromochloromethane	5.0	U	5.0	2.0	ug/L			10/15/20 20:42	5
1,2-Dibromo-3-Chloropropane	10	U	10	4.6	ug/L			10/15/20 20:42	5
1,2-Dibromoethane	5.0	U	5.0	0.60	ug/L			10/15/20 20:42	5
1,2-Dichlorobenzene	5.0	U	5.0	0.75	ug/L			10/15/20 20:42	5
1,3-Dichlorobenzene	5.0	U	5.0	0.75	ug/L			10/15/20 20:42	5
1,4-Dichlorobenzene	5.0	U	5.0	0.80	ug/L			10/15/20 20:42	5
Dichlorodifluoromethane	5.0	U	5.0	1.8	ug/L			10/15/20 20:42	5
1,1-Dichloroethane	**170**		5.0	0.85	ug/L			10/15/20 20:42	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			10/15/20 20:42	5
1,1-Dichloroethene	5.0	U	5.0	0.95	ug/L			10/15/20 20:42	5
1,2-Dichloropropane	5.0	U	5.0	0.75	ug/L			10/15/20 20:42	5
Ethylbenzene	5.0	U	5.0	0.55	ug/L			10/15/20 20:42	5
2-Hexanone	50	U	50	2.7	ug/L			10/15/20 20:42	5
Isopropylbenzene	5.0	U	5.0	0.45	ug/L			10/15/20 20:42	5
Methyl acetate	50	U	50	8.6	ug/L			10/15/20 20:42	5
Methylcyclohexane	5.0	U	5.0	1.7	ug/L			10/15/20 20:42	5
Methylene Chloride	25	U	25	13	ug/L			10/15/20 20:42	5
4-Methyl-2-pentanone (MIBK)	50	U	50	2.1	ug/L			10/15/20 20:42	5
Methyl tert-butyl ether	5.0	U	5.0	0.35	ug/L			10/15/20 20:42	5
Styrene	5.0	U	5.0	0.50	ug/L			10/15/20 20:42	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.65	ug/L			10/15/20 20:42	5
Tetrachloroethene	5.0	U	5.0	0.75	ug/L			10/15/20 20:42	5
Toluene	5.0	U	5.0	0.70	ug/L			10/15/20 20:42	5
trans-1,2-Dichloroethene	5.0	U	5.0	0.95	ug/L			10/15/20 20:42	5
trans-1,3-Dichloropropene	5.0	U	5.0	3.4	ug/L			10/15/20 20:42	5
1,2,4-Trichlorobenzene	5.0	U	5.0	1.3	ug/L			10/15/20 20:42	5
1,1,1-Trichloroethane	5.0	U	5.0	1.2	ug/L			10/15/20 20:42	5
1,1,2-Trichloroethane	5.0	U	5.0	0.45	ug/L			10/15/20 20:42	5
Trichloroethene	5.0	U	5.0	0.50	ug/L			10/15/20 20:42	5
Trichlorofluoromethane	5.0	U	5.0	2.3	ug/L			10/15/20 20:42	5
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	2.1	ug/L			10/15/20 20:42	5
Vinyl chloride	**20**		5.0	1.0	ug/L			10/15/20 20:42	5
Xylenes, Total	10	U	10	0.75	ug/L			10/15/20 20:42	5

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: SB-1 (100220)
Date Collected: 10/02/20 09:45
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-8
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		47 - 134		10/15/20 20:42	5
Dibromofluoromethane (Surr)	91		78 - 129		10/15/20 20:42	5
1,2-Dichloroethane-d4 (Surr)	93		75 - 130		10/15/20 20:42	5
Toluene-d8 (Surr)	100		69 - 122		10/15/20 20:42	5

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: SB-2 (100220)
Date Collected: 10/02/20 11:30
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	100	U	100	54	ug/L			10/15/20 01:09	10
Benzene	10	U	10	1.3	ug/L			10/15/20 01:09	10
Bromodichloromethane	10	U	10	1.7	ug/L			10/15/20 01:09	10
Bromoform	10	U	10	7.6	ug/L			10/15/20 01:09	10
Bromomethane	10	U	10	4.2	ug/L			10/15/20 01:09	10
2-Butanone (MEK)	**15**	**J**	100	12	ug/L			10/15/20 01:09	10
Carbon disulfide	**6.0**	**J**	10	2.8	ug/L			10/15/20 01:09	10
Carbon tetrachloride	10	U	10	2.6	ug/L			10/15/20 01:09	10
Chlorobenzene	10	U	10	1.4	ug/L			10/15/20 01:09	10
Chloroethane	**38**		10	8.3	ug/L			10/15/20 01:09	10
Chloroform	10	U	10	1.3	ug/L			10/15/20 01:09	10
Chloromethane	10	U	10	2.0	ug/L			10/15/20 01:09	10
cis-1,2-Dichloroethene	**240**		10	1.6	ug/L			10/15/20 01:09	10
cis-1,3-Dichloropropene	10	U	10	6.1	ug/L			10/15/20 01:09	10
Cyclohexane	10	U	10	2.4	ug/L			10/15/20 01:09	10
Dibromochloromethane	10	U	10	3.9	ug/L			10/15/20 01:09	10
1,2-Dibromo-3-Chloropropane	20	U	20	9.1	ug/L			10/15/20 01:09	10
1,2-Dibromoethane	10	U	10	1.2	ug/L			10/15/20 01:09	10
1,2-Dichlorobenzene	10	U	10	1.5	ug/L			10/15/20 01:09	10
1,3-Dichlorobenzene	10	U	10	1.5	ug/L			10/15/20 01:09	10
1,4-Dichlorobenzene	10	U	10	1.6	ug/L			10/15/20 01:09	10
Dichlorodifluoromethane	10	U	10	3.5	ug/L			10/15/20 01:09	10
1,1-Dichloroethane	**210**		10	1.7	ug/L			10/15/20 01:09	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			10/15/20 01:09	10
1,1-Dichloroethene	10	U	10	1.9	ug/L			10/15/20 01:09	10
1,2-Dichloropropane	10	U	10	1.5	ug/L			10/15/20 01:09	10
Ethylbenzene	10	U	10	1.1	ug/L			10/15/20 01:09	10
2-Hexanone	100	U	100	5.4	ug/L			10/15/20 01:09	10
Isopropylbenzene	10	U	10	0.90	ug/L			10/15/20 01:09	10
Methyl acetate	100	U	100	17	ug/L			10/15/20 01:09	10
Methylcyclohexane	10	U	10	3.3	ug/L			10/15/20 01:09	10
Methylene Chloride	50	U	50	26	ug/L			10/15/20 01:09	10
4-Methyl-2-pentanone (MIBK)	100	U	100	4.2	ug/L			10/15/20 01:09	10
Methyl tert-butyl ether	10	U	10	0.70	ug/L			10/15/20 01:09	10
Styrene	10	U	10	1.0	ug/L			10/15/20 01:09	10
1,1,2,2-Tetrachloroethane	10	U	10	1.3	ug/L			10/15/20 01:09	10
Tetrachloroethene	10	U	10	1.5	ug/L			10/15/20 01:09	10
Toluene	10	U	10	1.4	ug/L			10/15/20 01:09	10
trans-1,2-Dichloroethene	10	U	10	1.9	ug/L			10/15/20 01:09	10
trans-1,3-Dichloropropene	10	U	10	6.7	ug/L			10/15/20 01:09	10
1,2,4-Trichlorobenzene	10	U	10	2.6	ug/L			10/15/20 01:09	10
1,1,1-Trichloroethane	10	U	10	2.4	ug/L			10/15/20 01:09	10
1,1,2-Trichloroethane	10	U	10	0.90	ug/L			10/15/20 01:09	10
Trichloroethene	**4.5**	**J**	10	1.0	ug/L			10/15/20 01:09	10
Trichlorofluoromethane	10	U	10	4.5	ug/L			10/15/20 01:09	10
1,1,2-Trichloro-1,2,2-trifluoroethane	10	U	10	4.1	ug/L			10/15/20 01:09	10
Vinyl chloride	**280**		10	2.0	ug/L			10/15/20 01:09	10
Xylenes, Total	20	U	20	1.5	ug/L			10/15/20 01:09	10

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: SB-2 (100220)
Date Collected: 10/02/20 11:30
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-9
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		47 - 134		10/15/20 01:09	10
Dibromofluoromethane (Surr)	103		78 - 129		10/15/20 01:09	10
1,2-Dichloroethane-d4 (Surr)	99		75 - 130		10/15/20 01:09	10
Toluene-d8 (Surr)	102		69 - 122		10/15/20 01:09	10

Client Sample ID: SB-6 (100220)
Date Collected: 10/02/20 16:30
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-10
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	200	U	200	110	ug/L			10/15/20 01:31	20
Benzene	20	U	20	2.6	ug/L			10/15/20 01:31	20
Bromodichloromethane	20	U	20	3.4	ug/L			10/15/20 01:31	20
Bromoform	20	U	20	15	ug/L			10/15/20 01:31	20
Bromomethane	20	U	20	8.4	ug/L			10/15/20 01:31	20
2-Butanone (MEK)	200	U	200	23	ug/L			10/15/20 01:31	20
Carbon disulfide	**9.2**	**J**	20	5.6	ug/L			10/15/20 01:31	20
Carbon tetrachloride	20	U	20	5.2	ug/L			10/15/20 01:31	20
Chlorobenzene	20	U	20	2.8	ug/L			10/15/20 01:31	20
Chloroethane	20	U	20	17	ug/L			10/15/20 01:31	20
Chloroform	20	U	20	2.6	ug/L			10/15/20 01:31	20
Chloromethane	20	U	20	4.0	ug/L			10/15/20 01:31	20
cis-1,2-Dichloroethene	**20**		20	3.2	ug/L			10/15/20 01:31	20
cis-1,3-Dichloropropene	20	U	20	12	ug/L			10/15/20 01:31	20
Cyclohexane	20	U	20	4.8	ug/L			10/15/20 01:31	20
Dibromochloromethane	20	U	20	7.8	ug/L			10/15/20 01:31	20
1,2-Dibromo-3-Chloropropane	40	U	40	18	ug/L			10/15/20 01:31	20
1,2-Dibromoethane	20	U	20	2.4	ug/L			10/15/20 01:31	20
1,2-Dichlorobenzene	20	U	20	3.0	ug/L			10/15/20 01:31	20
1,3-Dichlorobenzene	20	U	20	3.0	ug/L			10/15/20 01:31	20
1,4-Dichlorobenzene	20	U	20	3.2	ug/L			10/15/20 01:31	20
Dichlorodifluoromethane	20	U	20	7.0	ug/L			10/15/20 01:31	20
1,1-Dichloroethane	20	U	20	3.4	ug/L			10/15/20 01:31	20
1,2-Dichloroethane	20	U	20	4.2	ug/L			10/15/20 01:31	20
1,1-Dichloroethene	20	U	20	3.8	ug/L			10/15/20 01:31	20
1,2-Dichloropropane	20	U	20	3.0	ug/L			10/15/20 01:31	20
Ethylbenzene	20	U	20	2.2	ug/L			10/15/20 01:31	20
2-Hexanone	200	U	200	11	ug/L			10/15/20 01:31	20
Isopropylbenzene	20	U	20	1.8	ug/L			10/15/20 01:31	20
Methyl acetate	200	U	200	34	ug/L			10/15/20 01:31	20
Methylcyclohexane	20	U	20	6.6	ug/L			10/15/20 01:31	20
Methylene Chloride	100	U	100	52	ug/L			10/15/20 01:31	20
4-Methyl-2-pentanone (MIBK)	200	U	200	8.4	ug/L			10/15/20 01:31	20
Methyl tert-butyl ether	20	U	20	1.4	ug/L			10/15/20 01:31	20
Styrene	20	U	20	2.0	ug/L			10/15/20 01:31	20
1,1,2,2-Tetrachloroethane	20	U	20	2.6	ug/L			10/15/20 01:31	20
Tetrachloroethene	20	U	20	3.0	ug/L			10/15/20 01:31	20
Toluene	20	U	20	2.8	ug/L			10/15/20 01:31	20
trans-1,2-Dichloroethene	20	U	20	3.8	ug/L			10/15/20 01:31	20
trans-1,3-Dichloropropene	20	U	20	13	ug/L			10/15/20 01:31	20
1,2,4-Trichlorobenzene	20	U	20	5.2	ug/L			10/15/20 01:31	20
1,1,1-Trichloroethane	20	U	20	4.8	ug/L			10/15/20 01:31	20
1,1,2-Trichloroethane	20	U	20	1.8	ug/L			10/15/20 01:31	20
Trichloroethene	**630**		20	2.0	ug/L			10/15/20 01:31	20
Trichlorofluoromethane	20	U	20	9.0	ug/L			10/15/20 01:31	20
1,1,2-Trichloro-1,2,2-trifluoroethane	20	U	20	8.2	ug/L			10/15/20 01:31	20
Vinyl chloride	20	U	20	4.0	ug/L			10/15/20 01:31	20
Xylenes, Total	40	U	40	3.0	ug/L			10/15/20 01:31	20

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: SB-6 (100220)
Date Collected: 10/02/20 16:30
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-10
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		47 - 134		10/15/20 01:31	20
Dibromofluoromethane (Surr)	103		78 - 129		10/15/20 01:31	20
1,2-Dichloroethane-d4 (Surr)	99		75 - 130		10/15/20 01:31	20
Toluene-d8 (Surr)	102		69 - 122		10/15/20 01:31	20

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: TRIP BLANKS

Date Collected: 10/02/20 00:00
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-11

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/15/20 20:19	1
Benzene	1.0	U	1.0	0.13	ug/L			10/15/20 20:19	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/15/20 20:19	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/15/20 20:19	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/15/20 20:19	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/15/20 20:19	1
Carbon disulfide	1.0	U	1.0	0.28	ug/L			10/15/20 20:19	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/15/20 20:19	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/15/20 20:19	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/15/20 20:19	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/15/20 20:19	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/15/20 20:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/15/20 20:19	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/15/20 20:19	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/15/20 20:19	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/15/20 20:19	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			10/15/20 20:19	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/15/20 20:19	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/15/20 20:19	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/15/20 20:19	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/15/20 20:19	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/15/20 20:19	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/15/20 20:19	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/15/20 20:19	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/15/20 20:19	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/15/20 20:19	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/15/20 20:19	1
2-Hexanone	10	U	10	0.54	ug/L			10/15/20 20:19	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/15/20 20:19	1
Methyl acetate	10	U	10	1.7	ug/L			10/15/20 20:19	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/15/20 20:19	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/15/20 20:19	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/15/20 20:19	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/15/20 20:19	1
Styrene	1.0	U	1.0	0.10	ug/L			10/15/20 20:19	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/15/20 20:19	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/15/20 20:19	1
Toluene	1.0	U	1.0	0.14	ug/L			10/15/20 20:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/15/20 20:19	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/15/20 20:19	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/15/20 20:19	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/15/20 20:19	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/15/20 20:19	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/15/20 20:19	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/15/20 20:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/15/20 20:19	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/15/20 20:19	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/15/20 20:19	1

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: TRIP BLANKS
Date Collected: 10/02/20 00:00
Date Received: 10/05/20 08:00

Lab Sample ID: 240-137652-11
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		47 - 134		10/15/20 20:19	1
Dibromofluoromethane (Surr)	90		78 - 129		10/15/20 20:19	1
1,2-Dichloroethane-d4 (Surr)	93		75 - 130		10/15/20 20:19	1
Toluene-d8 (Surr)	101		69 - 122		10/15/20 20:19	1

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Method: 8260C - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DBFM	BFB	DCA
Lab Sample ID	Client Sample ID	(64-124)	(56-122)	(51-127)	(59-120)
240-137652-1	SB-1 (5-7)/100220	94	95	86	104
240-137652-3	SB-2 (4-6)/100220	124 *3	95	120 *3	94
240-137652-4	SB-2 (8-10)/100220	122	83	148 *3 X	76
240-137652-5	SB-6 (6-8)/100220	101	83	99	83
240-137652-6	SB-6 (10-12)/100220	108	83	112	80
240-137652-7	WC-SS/100220	99	86	98	89
LCS 240-455633/5	Lab Control Sample	99	92	90	93
LCS 240-455767/4	Lab Control Sample	98	84	94	80
LCS 240-456006/4	Lab Control Sample	96	85	93	80
LCSD 240-455633/6	Lab Control Sample Dup	98	92	89	94
MB 240-454699/1-A	Method Blank	94	89	86	95
MB 240-455767/6	Method Blank	98	85	93	83
MB 240-456006/6	Method Blank	98	85	95	84

Surrogate Legend

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

Method: 8260C - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DBFM	BFB	DCA
Lab Sample ID	Client Sample ID	(55-123)	(49-122)	(51-124)	(47-136)
240-137652-2	SB-1 (13-15)/100220	120	96	131 X	123
240-137652-2	SB-1 (13-15)/100220	401 X	288 X	593 X	408 X
240-137652-3	SB-2 (4-6)/100220	49 X	52	48 X	73
240-137652-4	SB-2 (8-10)/100220	77	75	76	82
LCS 240-454686/2-A	Lab Control Sample	84	80	85	81
MB 240-454686/1-A	Method Blank	89	78	84	86

Surrogate Legend

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

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	DCA	TOL
Lab Sample ID	Client Sample ID	(47-134)	(78-129)	(75-130)	(69-122)
240-137652-8	SB-1 (100220)	106	91	93	100
240-137652-9	SB-2 (100220)	96	103	99	102
240-137652-10	SB-6 (100220)	96	103	99	102
240-137652-10 MS	SB-6 (100220)	105	99	91	106
240-137652-10 MSD	SB-6 (100220)	103	99	93	108
240-137652-11	TRIP BLANKS	108	90	93	101

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	DCA	TOL
Lab Sample ID	Client Sample ID	(47-134)	(78-129)	(75-130)	(69-122)
LCS 240-456042/5	Lab Control Sample	101	97	90	104
LCS 240-456259/5	Lab Control Sample	104	88	88	98
MB 240-456042/8	Method Blank	96	102	98	103
MB 240-456259/8	Method Blank	107	90	95	100

Surrogate Legend

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

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 240-454686/1-A
Matrix: Solid
Analysis Batch: 455767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454686

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	500	U	500	220	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
2-Butanone (MEK)	1000	U	1000	160	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Ethylene Dibromide	250	U	250	79	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
1,2-Dichlorobenzene	250	U	250	120	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
1,3-Dichlorobenzene	250	U	250	46	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Acetone	1000	U	1000	240	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
1,4-Dichlorobenzene	250	U	250	55	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Benzene	250	U	250	42	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Dichlorobromomethane	250	U	250	28	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
1,1-Dichloroethane	250	U	250	48	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Bromoform	250	U	250	230	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
1,2-Dichloroethane	250	U	250	47	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Bromomethane	250	U	250	170	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Carbon disulfide	250	U	250	110	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
1,1-Dichloroethene	250	U	250	82	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Carbon tetrachloride	250	U	250	100	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
1,2-Dichloropropane	250	U	250	37	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Chlorobenzene	250	U	250	35	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Chloroethane	250	U	250	150	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
2-Hexanone	1000	U	1000	260	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Chloroform	250	U	250	54	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Chloromethane	250	U	250	66	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
cis-1,2-Dichloroethene	250	U	250	40	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
cis-1,3-Dichloropropene	250	U	250	120	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Cyclohexane	500	U	500	160	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
4-Methyl-2-pentanone (MIBK)	1000	U	1000	240	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Chlorodibromomethane	250	U	250	120	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Dichlorodifluoromethane	250	U	250	53	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Ethylbenzene	250	U	250	47	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Isopropylbenzene	250	U	250	38	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Methyl acetate	1300	U	1300	170	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
1,1,2,2-Tetrachloroethane	250	U	250	150	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Methyl tert-butyl ether	250	U	250	37	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Methylcyclohexane	500	U	500	66	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Methylene Chloride	500	U	500	380	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Styrene	250	U	250	52	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Tetrachloroethene	250	U	250	97	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Toluene	250	U	250	240	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
1,2,4-Trichlorobenzene	250	U	250	130	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
trans-1,2-Dichloroethene	250	U	250	62	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
1,1,1-Trichloroethane	250	U	250	78	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
trans-1,3-Dichloropropene	250	U	250	110	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
1,1,2-Trichloroethane	250	U	250	57	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Trichloroethene	250	U	250	140	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Trichlorofluoromethane	250	U	250	140	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	250	U	250	67	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Vinyl chloride	250	U	250	120	ug/Kg		10/06/20 18:13	10/13/20 17:00	1
Xylenes, Total	500	U	500	91	ug/Kg		10/06/20 18:13	10/13/20 17:00	1

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

Lab Sample ID: MB 240-454686/1-A
Matrix: Solid
Analysis Batch: 455767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454686

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*84*		*51 - 124*	*10/06/20 18:13*	*10/13/20 17:00*	*1*
Dibromofluoromethane (Surr)	*78*		*49 - 122*	*10/06/20 18:13*	*10/13/20 17:00*	*1*
1,2-Dichloroethane-d4 (Surr)	*86*		*47 - 136*	*10/06/20 18:13*	*10/13/20 17:00*	*1*
Toluene-d8 (Surr)	*89*		*55 - 123*	*10/06/20 18:13*	*10/13/20 17:00*	*1*

Lab Sample ID: LCS 240-454686/2-A
Matrix: Solid
Analysis Batch: 455767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 454686

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	1000	792		ug/Kg		79	35 - 137
2-Butanone (MEK)	2000	1860		ug/Kg		93	61 - 131
Ethylene Dibromide	1000	952		ug/Kg		95	73 - 126
1,2-Dichlorobenzene	1000	1000		ug/Kg		100	74 - 120
1,3-Dichlorobenzene	1000	1020		ug/Kg		102	74 - 120
Acetone	2000	1750		ug/Kg		87	47 - 157
1,4-Dichlorobenzene	1000	1030		ug/Kg		103	74 - 120
Benzene	1000	921		ug/Kg		92	75 - 120
Dichlorobromomethane	1000	922		ug/Kg		92	63 - 121
1,1-Dichloroethane	1000	934		ug/Kg		93	69 - 120
Bromoform	1000	776		ug/Kg		78	44 - 131
1,2-Dichloroethane	1000	944		ug/Kg		94	66 - 120
Bromomethane	1000	366		ug/Kg		37	10 - 158
Carbon disulfide	1000	559		ug/Kg		56	33 - 144
1,1-Dichloroethene	1000	830		ug/Kg		83	48 - 140
Carbon tetrachloride	1000	790		ug/Kg		79	54 - 130
1,2-Dichloropropane	1000	984		ug/Kg		98	77 - 120
Chlorobenzene	1000	1010		ug/Kg		101	79 - 120
Chloroethane	1000	356		ug/Kg		36	10 - 159
2-Hexanone	2000	2040		ug/Kg		102	54 - 135
Chloroform	1000	887		ug/Kg		89	74 - 120
Chloromethane	1000	704		ug/Kg		70	40 - 127
cis-1,2-Dichloroethene	1000	938		ug/Kg		94	76 - 120
cis-1,3-Dichloropropene	1000	968		ug/Kg		97	62 - 124
Cyclohexane	1000	870		ug/Kg		87	57 - 126
4-Methyl-2-pentanone (MIBK)	2000	2120		ug/Kg		106	56 - 124
Chlorodibromomethane	1000	894		ug/Kg		89	60 - 121
Dichlorodifluoromethane	1000	639		ug/Kg		64	18 - 137
Ethylbenzene	1000	1060		ug/Kg		106	75 - 120
Isopropylbenzene	1000	1140		ug/Kg		114	74 - 120
Methyl acetate	2000	1960		ug/Kg		98	63 - 120
1,1,2,2-Tetrachloroethane	1000	1020		ug/Kg		102	61 - 134
Methyl tert-butyl ether	1000	965		ug/Kg		97	66 - 120
Methylcyclohexane	1000	866		ug/Kg		87	62 - 124
Methylene Chloride	1000	750		ug/Kg		75	48 - 142
Styrene	1000	1070		ug/Kg		107	70 - 120
Tetrachloroethene	1000	982		ug/Kg		98	75 - 124
Toluene	1000	1030		ug/Kg		103	76 - 120

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

Lab Sample ID: LCS 240-454686/2-A
Matrix: Solid
Analysis Batch: 455767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 454686

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	1000	983		ug/Kg		98	56 - 120
trans-1,2-Dichloroethene	1000	879		ug/Kg		88	74 - 125
1,1,1-Trichloroethane	1000	893		ug/Kg		89	60 - 126
trans-1,3-Dichloropropene	1000	855		ug/Kg		86	58 - 120
1,1,2-Trichloroethane	1000	995		ug/Kg		99	78 - 120
Trichloroethene	1000	916		ug/Kg		92	75 - 123
Trichlorofluoromethane	1000	707		ug/Kg		71	33 - 152
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	844		ug/Kg		84	58 - 144
m-Xylene & p-Xylene	1000	1080		ug/Kg		108	76 - 120
Vinyl chloride	1000	735		ug/Kg		73	39 - 140
o-Xylene	1000	1070		ug/Kg		107	76 - 120
Xylenes, Total	2000	2150		ug/Kg		108	77 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*51 - 124*
Dibromofluoromethane (Surr)	*80*		*49 - 122*
1,2-Dichloroethane-d4 (Surr)	*81*		*47 - 136*
Toluene-d8 (Surr)	*84*		*55 - 123*

Lab Sample ID: MB 240-454699/1-A
Matrix: Solid
Analysis Batch: 455633

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454699

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	10	U	10	3.6	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
2-Butanone (MEK)	20	U	20	3.6	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Ethylene Dibromide	5.0	U	5.0	0.77	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
1,2-Dichlorobenzene	5.0	U	5.0	1.1	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
1,3-Dichlorobenzene	5.0	U	5.0	0.82	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Acetone	25	U	25	21	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
1,4-Dichlorobenzene	5.0	U	5.0	0.88	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Benzene	5.0	U	5.0	0.70	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Dichlorobromomethane	5.0	U	5.0	0.68	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
1,1-Dichloroethane	5.0	U	5.0	0.69	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Bromoform	5.0	U	5.0	2.4	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
1,2-Dichloroethane	5.0	U	5.0	0.77	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Bromomethane	5.0	U	5.0	0.99	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Carbon disulfide	5.0	U	5.0	1.2	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
1,1-Dichloroethene	5.0	U	5.0	0.90	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Carbon tetrachloride	5.0	U	5.0	3.3	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
1,2-Dichloropropane	5.0	U	5.0	0.85	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Chlorobenzene	5.0	U	5.0	0.92	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Chloroethane	5.0	U	5.0	1.2	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
2-Hexanone	20	U	20	4.1	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Chloroform	5.0	U	5.0	0.79	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Chloromethane	5.0	U	5.0	1.0	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
cis-1,2-Dichloroethene	5.0	U	5.0	0.65	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
cis-1,3-Dichloropropene	5.0	U	5.0	1.4	ug/Kg		10/06/20 21:14	10/13/20 08:02	1

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

Lab Sample ID: MB 240-454699/1-A
Matrix: Solid
Analysis Batch: 455633

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454699

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	10	U	10	1.4	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
4-Methyl-2-pentanone (MIBK)	20	U	20	3.7	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Chlorodibromomethane	5.0	U	5.0	2.8	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Dichlorodifluoromethane	5.0	U	5.0	0.94	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Ethylbenzene	5.0	U	5.0	1.0	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Isopropylbenzene	5.0	U	5.0	0.83	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Methyl acetate	25	U	25	3.4	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.4	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Methyl tert-butyl ether	5.0	U	5.0	0.82	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Methylcyclohexane	10	U	10	1.2	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Methylene Chloride	25	U	25	12	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Styrene	5.0	U	5.0	1.2	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Tetrachloroethene	5.0	U	5.0	0.73	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Toluene	5.0	U	5.0	0.77	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
1,2,4-Trichlorobenzene	5.0	U	5.0	0.57	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
trans-1,2-Dichloroethene	5.0	U	5.0	0.47	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
1,1,1-Trichloroethane	5.0	U	5.0	0.82	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
trans-1,3-Dichloropropene	5.0	U	5.0	1.0	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
1,1,2-Trichloroethane	5.0	U	5.0	1.1	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Trichloroethene	5.0	U	5.0	0.63	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Trichlorofluoromethane	5.0	U	5.0	1.1	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	1.3	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Vinyl chloride	5.0	U	5.0	0.84	ug/Kg		10/06/20 21:14	10/13/20 08:02	1
Xylenes, Total	10	U	10	1.6	ug/Kg		10/06/20 21:14	10/13/20 08:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*51 - 127*	*10/06/20 21:14*	*10/13/20 08:02*	*1*
Dibromofluoromethane (Surr)	*89*		*56 - 122*	*10/06/20 21:14*	*10/13/20 08:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*59 - 120*	*10/06/20 21:14*	*10/13/20 08:02*	*1*
Toluene-d8 (Surr)	*94*		*64 - 124*	*10/06/20 21:14*	*10/13/20 08:02*	*1*

Lab Sample ID: LCS 240-455633/5
Matrix: Solid
Analysis Batch: 455633

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	50.0	44.5		ug/Kg		89	35 - 137
2-Butanone (MEK)	100	117		ug/Kg		117	61 - 131
Ethylene Dibromide	50.0	55.2		ug/Kg		110	73 - 126
1,2-Dichlorobenzene	50.0	51.1		ug/Kg		102	74 - 120
1,3-Dichlorobenzene	50.0	51.4		ug/Kg		103	74 - 120
Acetone	100	129		ug/Kg		129	47 - 157
1,4-Dichlorobenzene	50.0	50.9		ug/Kg		102	74 - 120
Benzene	50.0	49.8		ug/Kg		100	75 - 120
Dichlorobromomethane	50.0	50.5		ug/Kg		101	63 - 121
1,1-Dichloroethane	50.0	46.9		ug/Kg		94	69 - 120
Bromoform	50.0	56.0		ug/Kg		112	44 - 131
1,2-Dichloroethane	50.0	57.8		ug/Kg		116	66 - 120

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

Lab Sample ID: LCS 240-455633/5
Matrix: Solid
Analysis Batch: 455633

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	20.0	17.1		ug/Kg		86	10 - 158
Carbon disulfide	50.0	43.0		ug/Kg		86	33 - 144
1,1-Dichloroethene	50.0	47.9		ug/Kg		96	48 - 140
Carbon tetrachloride	50.0	48.7		ug/Kg		97	54 - 130
1,2-Dichloropropane	50.0	50.4		ug/Kg		101	77 - 120
Chlorobenzene	50.0	52.6		ug/Kg		105	79 - 120
Chloroethane	20.0	19.1		ug/Kg		96	10 - 159
2-Hexanone	100	113		ug/Kg		113	54 - 135
Chloroform	50.0	51.9		ug/Kg		104	74 - 120
Chloromethane	20.0	17.7		ug/Kg		88	40 - 127
cis-1,2-Dichloroethene	50.0	50.0		ug/Kg		100	76 - 120
cis-1,3-Dichloropropene	50.0	44.8		ug/Kg		90	62 - 124
Cyclohexane	50.0	45.2		ug/Kg		90	57 - 126
4-Methyl-2-pentanone (MIBK)	100	114		ug/Kg		114	56 - 124
Chlorodibromomethane	50.0	54.1		ug/Kg		108	60 - 121
Dichlorodifluoromethane	20.0	21.1		ug/Kg		106	18 - 137
Ethylbenzene	50.0	50.5		ug/Kg		101	75 - 120
Isopropylbenzene	50.0	53.3		ug/Kg		107	74 - 120
Methyl acetate	100	116		ug/Kg		116	63 - 120
1,1,2,2-Tetrachloroethane	50.0	50.7		ug/Kg		101	61 - 134
Methyl tert-butyl ether	50.0	44.0		ug/Kg		88	66 - 120
Methylcyclohexane	50.0	45.9		ug/Kg		92	62 - 124
Methylene Chloride	50.0	45.7		ug/Kg		91	48 - 142
Styrene	50.0	50.2		ug/Kg		100	70 - 120
Tetrachloroethene	50.0	57.2		ug/Kg		114	75 - 124
Toluene	50.0	50.8		ug/Kg		102	76 - 120
1,2,4-Trichlorobenzene	50.0	50.8		ug/Kg		102	56 - 120
trans-1,2-Dichloroethene	50.0	50.5		ug/Kg		101	74 - 125
1,1,1-Trichloroethane	50.0	46.3		ug/Kg		93	60 - 126
trans-1,3-Dichloropropene	50.0	44.1		ug/Kg		88	58 - 120
1,1,2-Trichloroethane	50.0	55.2		ug/Kg		110	78 - 120
Trichloroethene	50.0	53.6		ug/Kg		107	75 - 123
Trichlorofluoromethane	20.0	20.7		ug/Kg		104	33 - 152
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	50.4		ug/Kg		101	58 - 144
m-Xylene & p-Xylene	50.0	50.8		ug/Kg		102	76 - 120
Vinyl chloride	20.0	21.3		ug/Kg		107	39 - 140
o-Xylene	50.0	51.7		ug/Kg		103	76 - 120
Xylenes, Total	100	103		ug/Kg		103	77 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*51 - 127*
Dibromofluoromethane (Surr)	*92*		*56 - 122*
1,2-Dichloroethane-d4 (Surr)	*93*		*59 - 120*
Toluene-d8 (Surr)	*99*		*64 - 124*

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

Lab Sample ID: LCSD 240-455633/6
Matrix: Solid
Analysis Batch: 455633

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			50.0	46.5		ug/Kg		93	35 - 137	4	40
2-Butanone (MEK)			100	120		ug/Kg		120	61 - 131	2	40
Ethylene Dibromide			50.0	57.3		ug/Kg		115	73 - 126	4	40
1,2-Dichlorobenzene			50.0	51.4		ug/Kg		103	74 - 120	1	40
1,3-Dichlorobenzene			50.0	50.5		ug/Kg		101	74 - 120	2	40
Acetone			100	138		ug/Kg		138	47 - 157	7	40
1,4-Dichlorobenzene			50.0	51.0		ug/Kg		102	74 - 120	0	40
Benzene			50.0	48.6		ug/Kg		97	75 - 120	2	40
Dichlorobromomethane			50.0	50.2		ug/Kg		100	63 - 121	1	40
1,1-Dichloroethane			50.0	46.5		ug/Kg		93	69 - 120	1	40
Bromoform			50.0	55.4		ug/Kg		111	44 - 131	1	40
1,2-Dichloroethane			50.0	58.3		ug/Kg		117	66 - 120	1	40
Bromomethane			20.0	17.2		ug/Kg		86	10 - 158	1	40
Carbon disulfide			50.0	42.0		ug/Kg		84	33 - 144	3	40
1,1-Dichloroethene			50.0	46.5		ug/Kg		93	48 - 140	3	40
Carbon tetrachloride			50.0	46.6		ug/Kg		93	54 - 130	4	40
1,2-Dichloropropane			50.0	50.3		ug/Kg		101	77 - 120	0	40
Chlorobenzene			50.0	51.9		ug/Kg		104	79 - 120	1	40
Chloroethane			20.0	20.1		ug/Kg		100	10 - 159	5	40
2-Hexanone			100	120		ug/Kg		120	54 - 135	6	40
Chloroform			50.0	50.5		ug/Kg		101	74 - 120	3	40
Chloromethane			20.0	17.5		ug/Kg		87	40 - 127	1	40
cis-1,2-Dichloroethene			50.0	49.4		ug/Kg		99	76 - 120	1	40
cis-1,3-Dichloropropene			50.0	45.8		ug/Kg		92	62 - 124	2	40
Cyclohexane			50.0	43.6		ug/Kg		87	57 - 126	4	40
4-Methyl-2-pentanone (MIBK)			100	118		ug/Kg		118	56 - 124	3	40
Chlorodibromomethane			50.0	54.5		ug/Kg		109	60 - 121	1	40
Dichlorodifluoromethane			20.0	20.8		ug/Kg		104	18 - 137	2	40
Ethylbenzene			50.0	49.2		ug/Kg		98	75 - 120	3	40
Isopropylbenzene			50.0	52.0		ug/Kg		104	74 - 120	3	40
Methyl acetate			100	121	*	ug/Kg		121	63 - 120	5	40
1,1,2,2-Tetrachloroethane			50.0	52.4		ug/Kg		105	61 - 134	3	40
Methyl tert-butyl ether			50.0	46.0		ug/Kg		92	66 - 120	4	40
Methylcyclohexane			50.0	44.0		ug/Kg		88	62 - 124	4	40
Methylene Chloride			50.0	46.4		ug/Kg		93	48 - 142	2	40
Styrene			50.0	49.6		ug/Kg		99	70 - 120	1	40
Tetrachloroethene			50.0	55.0		ug/Kg		110	75 - 124	4	40
Toluene			50.0	49.7		ug/Kg		99	76 - 120	2	40
1,2,4-Trichlorobenzene			50.0	51.7		ug/Kg		103	56 - 120	2	40
trans-1,2-Dichloroethene			50.0	49.2		ug/Kg		98	74 - 125	3	40
1,1,1-Trichloroethane			50.0	45.1		ug/Kg		90	60 - 126	3	40
trans-1,3-Dichloropropene			50.0	45.1		ug/Kg		90	58 - 120	2	40
1,1,2-Trichloroethane			50.0	55.6		ug/Kg		111	78 - 120	1	40
Trichloroethene			50.0	51.4		ug/Kg		103	75 - 123	4	40
Trichlorofluoromethane			20.0	20.0		ug/Kg		100	33 - 152	4	40
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	48.0		ug/Kg		96	58 - 144	5	40
m-Xylene & p-Xylene			50.0	49.6		ug/Kg		99	76 - 120	2	40
Vinyl chloride			20.0	20.4		ug/Kg		102	39 - 140	4	40

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

Lab Sample ID: LCSD 240-455633/6
Matrix: Solid
Analysis Batch: 455633

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
o-Xylene			50.0	50.1		ug/Kg		100	76 - 120	3	40
Xylenes, Total			100	99.7		ug/Kg		100	77 - 120	3	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*51 - 127*
Dibromofluoromethane (Surr)	*92*		*56 - 122*
1,2-Dichloroethane-d4 (Surr)	*94*		*59 - 120*
Toluene-d8 (Surr)	*98*		*64 - 124*

Lab Sample ID: MB 240-455767/6
Matrix: Solid
Analysis Batch: 455767

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	10	U	10	3.6	ug/Kg			10/13/20 13:52	1
2-Butanone (MEK)	20	U	20	3.6	ug/Kg			10/13/20 13:52	1
Ethylene Dibromide	5.0	U	5.0	0.77	ug/Kg			10/13/20 13:52	1
1,2-Dichlorobenzene	5.0	U	5.0	1.1	ug/Kg			10/13/20 13:52	1
1,3-Dichlorobenzene	5.0	U	5.0	0.82	ug/Kg			10/13/20 13:52	1
Acetone	25	U	25	21	ug/Kg			10/13/20 13:52	1
1,4-Dichlorobenzene	5.0	U	5.0	0.88	ug/Kg			10/13/20 13:52	1
Benzene	5.0	U	5.0	0.70	ug/Kg			10/13/20 13:52	1
Dichlorobromomethane	5.0	U	5.0	0.68	ug/Kg			10/13/20 13:52	1
1,1-Dichloroethane	5.0	U	5.0	0.69	ug/Kg			10/13/20 13:52	1
Bromoform	5.0	U	5.0	2.4	ug/Kg			10/13/20 13:52	1
1,2-Dichloroethane	5.0	U	5.0	0.77	ug/Kg			10/13/20 13:52	1
Bromomethane	5.0	U	5.0	0.99	ug/Kg			10/13/20 13:52	1
Carbon disulfide	5.0	U	5.0	1.2	ug/Kg			10/13/20 13:52	1
1,1-Dichloroethene	5.0	U	5.0	0.90	ug/Kg			10/13/20 13:52	1
Carbon tetrachloride	5.0	U	5.0	3.3	ug/Kg			10/13/20 13:52	1
1,2-Dichloropropane	5.0	U	5.0	0.85	ug/Kg			10/13/20 13:52	1
Chlorobenzene	5.0	U	5.0	0.92	ug/Kg			10/13/20 13:52	1
Chloroethane	5.0	U	5.0	1.2	ug/Kg			10/13/20 13:52	1
2-Hexanone	20	U	20	4.1	ug/Kg			10/13/20 13:52	1
Chloroform	5.0	U	5.0	0.79	ug/Kg			10/13/20 13:52	1
Chloromethane	5.0	U	5.0	1.0	ug/Kg			10/13/20 13:52	1
cis-1,2-Dichloroethene	5.0	U	5.0	0.65	ug/Kg			10/13/20 13:52	1
cis-1,3-Dichloropropene	5.0	U	5.0	1.4	ug/Kg			10/13/20 13:52	1
Cyclohexane	10	U	10	1.4	ug/Kg			10/13/20 13:52	1
4-Methyl-2-pentanone (MIBK)	20	U	20	3.7	ug/Kg			10/13/20 13:52	1
Chlorodibromomethane	5.0	U	5.0	2.8	ug/Kg			10/13/20 13:52	1
Dichlorodifluoromethane	5.0	U	5.0	0.94	ug/Kg			10/13/20 13:52	1
Ethylbenzene	5.0	U	5.0	1.0	ug/Kg			10/13/20 13:52	1
Isopropylbenzene	5.0	U	5.0	0.83	ug/Kg			10/13/20 13:52	1
Methyl acetate	25	U	25	3.4	ug/Kg			10/13/20 13:52	1
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.4	ug/Kg			10/13/20 13:52	1
Methyl tert-butyl ether	5.0	U	5.0	0.82	ug/Kg			10/13/20 13:52	1
Methylcyclohexane	10	U	10	1.2	ug/Kg			10/13/20 13:52	1

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

Lab Sample ID: MB 240-455767/6
Matrix: Solid
Analysis Batch: 455767

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	25	U	25	12	ug/Kg			10/13/20 13:52	1
Styrene	5.0	U	5.0	1.2	ug/Kg			10/13/20 13:52	1
Tetrachloroethene	5.0	U	5.0	0.73	ug/Kg			10/13/20 13:52	1
Toluene	5.0	U	5.0	0.77	ug/Kg			10/13/20 13:52	1
1,2,4-Trichlorobenzene	5.0	U	5.0	0.57	ug/Kg			10/13/20 13:52	1
trans-1,2-Dichloroethene	5.0	U	5.0	0.47	ug/Kg			10/13/20 13:52	1
1,1,1-Trichloroethane	5.0	U	5.0	0.82	ug/Kg			10/13/20 13:52	1
trans-1,3-Dichloropropene	5.0	U	5.0	1.0	ug/Kg			10/13/20 13:52	1
1,1,2-Trichloroethane	5.0	U	5.0	1.1	ug/Kg			10/13/20 13:52	1
Trichloroethene	5.0	U	5.0	0.63	ug/Kg			10/13/20 13:52	1
Trichlorofluoromethane	5.0	U	5.0	1.1	ug/Kg			10/13/20 13:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	1.3	ug/Kg			10/13/20 13:52	1
Vinyl chloride	5.0	U	5.0	0.84	ug/Kg			10/13/20 13:52	1
Xylenes, Total	10	U	10	1.6	ug/Kg			10/13/20 13:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*51 - 127*		*10/13/20 13:52*	*1*
Dibromofluoromethane (Surr)	*85*		*56 - 122*		*10/13/20 13:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*83*		*59 - 120*		*10/13/20 13:52*	*1*
Toluene-d8 (Surr)	*98*		*64 - 124*		*10/13/20 13:52*	*1*

Lab Sample ID: LCS 240-455767/4
Matrix: Solid
Analysis Batch: 455767

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	50.0	53.7		ug/Kg		107	35 - 137
2-Butanone (MEK)	100	90.1		ug/Kg		90	61 - 131
Ethylene Dibromide	50.0	52.3		ug/Kg		105	73 - 126
1,2-Dichlorobenzene	50.0	50.7		ug/Kg		101	74 - 120
1,3-Dichlorobenzene	50.0	54.0		ug/Kg		108	74 - 120
Acetone	100	88.9		ug/Kg		89	47 - 157
1,4-Dichlorobenzene	50.0	53.9		ug/Kg		108	74 - 120
Benzene	50.0	51.0		ug/Kg		102	75 - 120
Dichlorobromomethane	50.0	55.6		ug/Kg		111	63 - 121
1,1-Dichloroethane	50.0	51.7		ug/Kg		103	69 - 120
Bromoform	50.0	54.3		ug/Kg		109	44 - 131
1,2-Dichloroethane	50.0	50.0		ug/Kg		100	66 - 120
Bromomethane	20.0	20.4		ug/Kg		102	10 - 158
Carbon disulfide	50.0	55.9		ug/Kg		112	33 - 144
1,1-Dichloroethene	50.0	54.4		ug/Kg		109	48 - 140
Carbon tetrachloride	50.0	54.9		ug/Kg		110	54 - 130
1,2-Dichloropropane	50.0	52.3		ug/Kg		105	77 - 120
Chlorobenzene	50.0	53.5		ug/Kg		107	79 - 120
Chloroethane	20.0	20.7		ug/Kg		104	10 - 159
2-Hexanone	100	103		ug/Kg		103	54 - 135
Chloroform	50.0	47.4		ug/Kg		95	74 - 120
Chloromethane	20.0	20.2		ug/Kg		101	40 - 127

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

Lab Sample ID: LCS 240-455767/4
Matrix: Solid
Analysis Batch: 455767

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	50.0	51.7		ug/Kg		103	76 - 120
cis-1,3-Dichloropropene	50.0	55.4		ug/Kg		111	62 - 124
Cyclohexane	50.0	55.4		ug/Kg		111	57 - 126
4-Methyl-2-pentanone (MIBK)	100	109		ug/Kg		109	56 - 124
Chlorodibromomethane	50.0	57.2		ug/Kg		114	60 - 121
Dichlorodifluoromethane	20.0	20.9		ug/Kg		104	18 - 137
Ethylbenzene	50.0	57.1		ug/Kg		114	75 - 120
Isopropylbenzene	50.0	59.3		ug/Kg		119	74 - 120
Methyl acetate	100	96.5		ug/Kg		96	63 - 120
1,1,2,2-Tetrachloroethane	50.0	52.7		ug/Kg		105	61 - 134
Methyl tert-butyl ether	50.0	49.6		ug/Kg		99	66 - 120
Methylcyclohexane	50.0	53.5		ug/Kg		107	62 - 124
Methylene Chloride	50.0	46.0		ug/Kg		92	48 - 142
Styrene	50.0	56.6		ug/Kg		113	70 - 120
Tetrachloroethene	50.0	59.3		ug/Kg		119	75 - 124
Toluene	50.0	54.2		ug/Kg		108	76 - 120
1,2,4-Trichlorobenzene	50.0	52.2		ug/Kg		104	56 - 120
trans-1,2-Dichloroethene	50.0	53.4		ug/Kg		107	74 - 125
1,1,1-Trichloroethane	50.0	55.5		ug/Kg		111	60 - 126
trans-1,3-Dichloropropene	50.0	51.2		ug/Kg		102	58 - 120
1,1,2-Trichloroethane	50.0	53.2		ug/Kg		106	78 - 120
Trichloroethene	50.0	54.0		ug/Kg		108	75 - 123
Trichlorofluoromethane	20.0	22.0		ug/Kg		110	33 - 152
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	51.7		ug/Kg		103	58 - 144
m-Xylene & p-Xylene	50.0	55.7		ug/Kg		111	76 - 120
Vinyl chloride	20.0	20.9		ug/Kg		105	39 - 140
o-Xylene	50.0	56.4		ug/Kg		113	76 - 120
Xylenes, Total	100	112		ug/Kg		112	77 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*51 - 127*
Dibromofluoromethane (Surr)	*84*		*56 - 122*
1,2-Dichloroethane-d4 (Surr)	*80*		*59 - 120*
Toluene-d8 (Surr)	*98*		*64 - 124*

Lab Sample ID: MB 240-456006/6
Matrix: Solid
Analysis Batch: 456006

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	10	U	10	3.6	ug/Kg			10/14/20 15:10	1
2-Butanone (MEK)	20	U	20	3.6	ug/Kg			10/14/20 15:10	1
Ethylene Dibromide	5.0	U	5.0	0.77	ug/Kg			10/14/20 15:10	1
1,2-Dichlorobenzene	5.0	U	5.0	1.1	ug/Kg			10/14/20 15:10	1
1,3-Dichlorobenzene	5.0	U	5.0	0.82	ug/Kg			10/14/20 15:10	1
Acetone	25	U	25	21	ug/Kg			10/14/20 15:10	1
1,4-Dichlorobenzene	5.0	U	5.0	0.88	ug/Kg			10/14/20 15:10	1
Benzene	5.0	U	5.0	0.70	ug/Kg			10/14/20 15:10	1

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

Lab Sample ID: MB 240-456006/6
Matrix: Solid
Analysis Batch: 456006

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	5.0	U	5.0	0.68	ug/Kg			10/14/20 15:10	1
1,1-Dichloroethane	5.0	U	5.0	0.69	ug/Kg			10/14/20 15:10	1
Bromoform	5.0	U	5.0	2.4	ug/Kg			10/14/20 15:10	1
1,2-Dichloroethane	5.0	U	5.0	0.77	ug/Kg			10/14/20 15:10	1
Bromomethane	5.0	U	5.0	0.99	ug/Kg			10/14/20 15:10	1
Carbon disulfide	5.0	U	5.0	1.2	ug/Kg			10/14/20 15:10	1
1,1-Dichloroethene	5.0	U	5.0	0.90	ug/Kg			10/14/20 15:10	1
Carbon tetrachloride	5.0	U	5.0	3.3	ug/Kg			10/14/20 15:10	1
1,2-Dichloropropane	5.0	U	5.0	0.85	ug/Kg			10/14/20 15:10	1
Chlorobenzene	5.0	U	5.0	0.92	ug/Kg			10/14/20 15:10	1
Chloroethane	5.0	U	5.0	1.2	ug/Kg			10/14/20 15:10	1
2-Hexanone	20	U	20	4.1	ug/Kg			10/14/20 15:10	1
Chloroform	5.0	U	5.0	0.79	ug/Kg			10/14/20 15:10	1
Chloromethane	5.0	U	5.0	1.0	ug/Kg			10/14/20 15:10	1
cis-1,2-Dichloroethene	5.0	U	5.0	0.65	ug/Kg			10/14/20 15:10	1
cis-1,3-Dichloropropene	5.0	U	5.0	1.4	ug/Kg			10/14/20 15:10	1
Cyclohexane	10	U	10	1.4	ug/Kg			10/14/20 15:10	1
4-Methyl-2-pentanone (MIBK)	20	U	20	3.7	ug/Kg			10/14/20 15:10	1
Chlorodibromomethane	5.0	U	5.0	2.8	ug/Kg			10/14/20 15:10	1
Dichlorodifluoromethane	5.0	U	5.0	0.94	ug/Kg			10/14/20 15:10	1
Ethylbenzene	5.0	U	5.0	1.0	ug/Kg			10/14/20 15:10	1
Isopropylbenzene	5.0	U	5.0	0.83	ug/Kg			10/14/20 15:10	1
Methyl acetate	25	U	25	3.4	ug/Kg			10/14/20 15:10	1
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.4	ug/Kg			10/14/20 15:10	1
Methyl tert-butyl ether	5.0	U	5.0	0.82	ug/Kg			10/14/20 15:10	1
Methylcyclohexane	10	U	10	1.2	ug/Kg			10/14/20 15:10	1
Methylene Chloride	25	U	25	12	ug/Kg			10/14/20 15:10	1
Styrene	5.0	U	5.0	1.2	ug/Kg			10/14/20 15:10	1
Tetrachloroethene	5.0	U	5.0	0.73	ug/Kg			10/14/20 15:10	1
Toluene	5.0	U	5.0	0.77	ug/Kg			10/14/20 15:10	1
1,2,4-Trichlorobenzene	5.0	U	5.0	0.57	ug/Kg			10/14/20 15:10	1
trans-1,2-Dichloroethene	5.0	U	5.0	0.47	ug/Kg			10/14/20 15:10	1
1,1,1-Trichloroethane	5.0	U	5.0	0.82	ug/Kg			10/14/20 15:10	1
trans-1,3-Dichloropropene	5.0	U	5.0	1.0	ug/Kg			10/14/20 15:10	1
1,1,2-Trichloroethane	5.0	U	5.0	1.1	ug/Kg			10/14/20 15:10	1
Trichloroethene	5.0	U	5.0	0.63	ug/Kg			10/14/20 15:10	1
Trichlorofluoromethane	5.0	U	5.0	1.1	ug/Kg			10/14/20 15:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	1.3	ug/Kg			10/14/20 15:10	1
Vinyl chloride	5.0	U	5.0	0.84	ug/Kg			10/14/20 15:10	1
Xylenes, Total	10	U	10	1.6	ug/Kg			10/14/20 15:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*51 - 127*		*10/14/20 15:10*	*1*
Dibromofluoromethane (Surr)	*85*		*56 - 122*		*10/14/20 15:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*84*		*59 - 120*		*10/14/20 15:10*	*1*
Toluene-d8 (Surr)	*98*		*64 - 124*		*10/14/20 15:10*	*1*

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

Lab Sample ID: LCS 240-456006/4
Matrix: Solid
Analysis Batch: 456006

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	50.0	54.1		ug/Kg		108	35 - 137
2-Butanone (MEK)	100	95.2		ug/Kg		95	61 - 131
Ethylene Dibromide	50.0	52.1		ug/Kg		104	73 - 126
1,2-Dichlorobenzene	50.0	49.2		ug/Kg		98	74 - 120
1,3-Dichlorobenzene	50.0	51.6		ug/Kg		103	74 - 120
Acetone	100	91.2		ug/Kg		91	47 - 157
1,4-Dichlorobenzene	50.0	51.6		ug/Kg		103	74 - 120
Benzene	50.0	50.8		ug/Kg		102	75 - 120
Dichlorobromomethane	50.0	55.0		ug/Kg		110	63 - 121
1,1-Dichloroethane	50.0	51.6		ug/Kg		103	69 - 120
Bromoform	50.0	54.2		ug/Kg		108	44 - 131
1,2-Dichloroethane	50.0	50.3		ug/Kg		101	66 - 120
Bromomethane	20.0	19.2		ug/Kg		96	10 - 158
Carbon disulfide	50.0	55.0		ug/Kg		110	33 - 144
1,1-Dichloroethene	50.0	53.6		ug/Kg		107	48 - 140
Carbon tetrachloride	50.0	53.2		ug/Kg		106	54 - 130
1,2-Dichloropropane	50.0	52.0		ug/Kg		104	77 - 120
Chlorobenzene	50.0	52.3		ug/Kg		105	79 - 120
Chloroethane	20.0	20.1		ug/Kg		100	10 - 159
2-Hexanone	100	108		ug/Kg		108	54 - 135
Chloroform	50.0	47.8		ug/Kg		96	74 - 120
Chloromethane	20.0	19.4		ug/Kg		97	40 - 127
cis-1,2-Dichloroethene	50.0	51.3		ug/Kg		103	76 - 120
cis-1,3-Dichloropropene	50.0	55.6		ug/Kg		111	62 - 124
Cyclohexane	50.0	53.1		ug/Kg		106	57 - 126
4-Methyl-2-pentanone (MIBK)	100	112		ug/Kg		112	56 - 124
Chlorodibromomethane	50.0	55.9		ug/Kg		112	60 - 121
Dichlorodifluoromethane	20.0	19.9		ug/Kg		100	18 - 137
Ethylbenzene	50.0	55.4		ug/Kg		111	75 - 120
Isopropylbenzene	50.0	57.6		ug/Kg		115	74 - 120
Methyl acetate	100	101		ug/Kg		101	63 - 120
1,1,2,2-Tetrachloroethane	50.0	53.3		ug/Kg		107	61 - 134
Methyl tert-butyl ether	50.0	51.1		ug/Kg		102	66 - 120
Methylcyclohexane	50.0	50.6		ug/Kg		101	62 - 124
Methylene Chloride	50.0	45.6		ug/Kg		91	48 - 142
Styrene	50.0	55.5		ug/Kg		111	70 - 120
Tetrachloroethene	50.0	55.8		ug/Kg		112	75 - 124
Toluene	50.0	52.6		ug/Kg		105	76 - 120
1,2,4-Trichlorobenzene	50.0	47.8		ug/Kg		96	56 - 120
trans-1,2-Dichloroethene	50.0	52.7		ug/Kg		105	74 - 125
1,1,1-Trichloroethane	50.0	54.3		ug/Kg		109	60 - 126
trans-1,3-Dichloropropene	50.0	51.2		ug/Kg		102	58 - 120
1,1,2-Trichloroethane	50.0	51.3		ug/Kg		103	78 - 120
Trichloroethene	50.0	51.9		ug/Kg		104	75 - 123
Trichlorofluoromethane	20.0	20.9		ug/Kg		104	33 - 152
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	48.7		ug/Kg		97	58 - 144
m-Xylene & p-Xylene	50.0	55.2		ug/Kg		110	76 - 120
Vinyl chloride	20.0	19.5		ug/Kg		98	39 - 140

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

Lab Sample ID: LCS 240-456006/4
Matrix: Solid
Analysis Batch: 456006

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	50.0	54.9		ug/Kg		110	76 - 120
Xylenes, Total	100	110		ug/Kg		110	77 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*51 - 127*
Dibromofluoromethane (Surr)	*85*		*56 - 122*
1,2-Dichloroethane-d4 (Surr)	*80*		*59 - 120*
Toluene-d8 (Surr)	*96*		*64 - 124*

Lab Sample ID: MB 240-456042/8
Matrix: Water
Analysis Batch: 456042

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			10/14/20 18:09	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/14/20 18:09	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/14/20 18:09	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/14/20 18:09	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/14/20 18:09	1
Acetone	10	U	10	5.4	ug/L			10/14/20 18:09	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/14/20 18:09	1
Benzene	1.0	U	1.0	0.13	ug/L			10/14/20 18:09	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/14/20 18:09	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/14/20 18:09	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/14/20 18:09	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/14/20 18:09	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/14/20 18:09	1
Carbon disulfide	1.0	U	1.0	0.28	ug/L			10/14/20 18:09	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/14/20 18:09	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/14/20 18:09	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/14/20 18:09	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/14/20 18:09	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/14/20 18:09	1
2-Hexanone	10	U	10	0.54	ug/L			10/14/20 18:09	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/14/20 18:09	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/14/20 18:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/14/20 18:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/14/20 18:09	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/14/20 18:09	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/14/20 18:09	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/14/20 18:09	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/14/20 18:09	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/14/20 18:09	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/14/20 18:09	1
Methyl acetate	10	U	10	1.7	ug/L			10/14/20 18:09	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/14/20 18:09	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/14/20 18:09	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/14/20 18:09	1

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

Lab Sample ID: MB 240-456042/8
Matrix: Water
Analysis Batch: 456042

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/14/20 18:09	1
Styrene	1.0	U	1.0	0.10	ug/L			10/14/20 18:09	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/14/20 18:09	1
Toluene	1.0	U	1.0	0.14	ug/L			10/14/20 18:09	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/14/20 18:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/14/20 18:09	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/14/20 18:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/14/20 18:09	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/14/20 18:09	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/14/20 18:09	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/14/20 18:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/14/20 18:09	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/14/20 18:09	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/14/20 18:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*47 - 134*		*10/14/20 18:09*	*1*
Dibromofluoromethane (Surr)	*102*		*78 - 129*		*10/14/20 18:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*75 - 130*		*10/14/20 18:09*	*1*
Toluene-d8 (Surr)	*103*		*69 - 122*		*10/14/20 18:09*	*1*

Lab Sample ID: LCS 240-456042/5
Matrix: Water
Analysis Batch: 456042

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	20.0	19.1		ug/L		96	34 - 136
1,2-Dibromoethane	20.0	19.6		ug/L		98	73 - 120
2-Butanone (MEK)	40.0	38.2		ug/L		96	41 - 151
1,2-Dichlorobenzene	20.0	20.2		ug/L		101	74 - 120
1,3-Dichlorobenzene	20.0	19.2		ug/L		96	74 - 120
Acetone	40.0	45.2		ug/L		113	33 - 155
1,4-Dichlorobenzene	20.0	19.2		ug/L		96	75 - 120
Benzene	20.0	21.9		ug/L		110	77 - 123
Bromodichloromethane	20.0	19.6		ug/L		98	73 - 122
1,1-Dichloroethane	20.0	21.6		ug/L		108	74 - 126
Bromoform	20.0	17.7		ug/L		89	47 - 133
1,2-Dichloroethane	20.0	18.8		ug/L		94	66 - 129
Bromomethane	20.0	19.7		ug/L		99	48 - 144
Carbon disulfide	20.0	21.0		ug/L		105	67 - 127
1,1-Dichloroethene	20.0	20.5		ug/L		102	73 - 129
Carbon tetrachloride	20.0	18.5		ug/L		93	61 - 142
1,2-Dichloropropane	20.0	21.8		ug/L		109	79 - 127
Chlorobenzene	20.0	20.5		ug/L		103	80 - 120
Chloroethane	20.0	21.5		ug/L		107	41 - 147
2-Hexanone	40.0	38.1		ug/L		95	43 - 142
Chloroform	20.0	20.9		ug/L		105	74 - 127
Chloromethane	20.0	19.6		ug/L		98	46 - 148

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

Lab Sample ID: LCS 240-456042/5
Matrix: Water
Analysis Batch: 456042

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	20.0	21.5		ug/L		107	75 - 124
cis-1,3-Dichloropropene	20.0	20.2		ug/L		101	68 - 128
Cyclohexane	20.0	21.3		ug/L		107	69 - 133
4-Methyl-2-pentanone (MIBK)	40.0	38.3		ug/L		96	43 - 145
Dibromochloromethane	20.0	19.7		ug/L		98	75 - 120
Dichlorodifluoromethane	20.0	15.9		ug/L		80	35 - 137
Ethylbenzene	20.0	20.7		ug/L		104	80 - 120
Isopropylbenzene	20.0	20.8		ug/L		104	73 - 123
Methyl acetate	40.0	39.6		ug/L		99	47 - 140
1,1,2,2-Tetrachloroethane	20.0	22.1		ug/L		110	45 - 151
Methyl tert-butyl ether	20.0	20.6		ug/L		103	57 - 127
Methylcyclohexane	20.0	19.5		ug/L		97	64 - 123
Methylene Chloride	20.0	20.5		ug/L		103	63 - 134
Styrene	20.0	21.1		ug/L		106	75 - 121
Tetrachloroethene	20.0	19.0		ug/L		95	70 - 125
Toluene	20.0	21.4		ug/L		107	79 - 122
1,2,4-Trichlorobenzene	20.0	17.2		ug/L		86	47 - 120
trans-1,2-Dichloroethene	20.0	21.6		ug/L		108	74 - 130
1,1,1-Trichloroethane	20.0	19.9		ug/L		100	65 - 141
trans-1,3-Dichloropropene	20.0	18.0		ug/L		90	64 - 120
1,1,2-Trichloroethane	20.0	21.2		ug/L		106	79 - 121
Trichloroethene	20.0	19.9		ug/L		99	71 - 121
Trichlorofluoromethane	20.0	17.6		ug/L		88	52 - 148
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.8		ug/L		104	54 - 148
m-Xylene & p-Xylene	20.0	21.0		ug/L		105	79 - 121
Vinyl chloride	20.0	20.7		ug/L		103	61 - 134
o-Xylene	20.0	21.9		ug/L		110	75 - 123
Xylenes, Total	40.0	42.9		ug/L		107	78 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*47 - 134*
Dibromofluoromethane (Surr)	*97*		*78 - 129*
1,2-Dichloroethane-d4 (Surr)	*90*		*75 - 130*
Toluene-d8 (Surr)	*104*		*69 - 122*

Lab Sample ID: 240-137652-10 MS
Matrix: Water
Analysis Batch: 456042

Client Sample ID: SB-6 (100220)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	40	U	400	365		ug/L		91	31 - 130
1,2-Dibromoethane	20	U	400	387		ug/L		97	66 - 120
2-Butanone (MEK)	200	U	800	785		ug/L		98	40 - 147
1,2-Dichlorobenzene	20	U	400	369		ug/L		92	65 - 120
1,3-Dichlorobenzene	20	U	400	353		ug/L		88	64 - 120
Acetone	200	U	800	953		ug/L		119	32 - 157
1,4-Dichlorobenzene	20	U	400	353		ug/L		88	65 - 120
Benzene	20	U	400	430		ug/L		108	70 - 121

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

Lab Sample ID: 240-137652-10 MS
Matrix: Water
Analysis Batch: 456042

Client Sample ID: SB-6 (100220)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	20	U	400	386		ug/L		96	69 - 120
1,1-Dichloroethane	20	U	400	425		ug/L		106	71 - 121
Bromoform	20	U	400	354		ug/L		88	41 - 128
1,2-Dichloroethane	20	U	400	366		ug/L		92	65 - 127
Bromomethane	20	U	400	397		ug/L		99	41 - 136
Carbon disulfide	9.2	J	400	417		ug/L		102	54 - 131
1,1-Dichloroethene	20	U	400	401		ug/L		100	64 - 132
Carbon tetrachloride	20	U	400	353		ug/L		88	53 - 142
1,2-Dichloropropane	20	U	400	428		ug/L		107	73 - 125
Chlorobenzene	20	U	400	390		ug/L		97	73 - 120
Chloroethane	20	U	400	429		ug/L		107	37 - 142
2-Hexanone	200	U	800	794		ug/L		99	44 - 142
Chloroform	20	U	400	405		ug/L		101	66 - 126
Chloromethane	20	U	400	392		ug/L		98	33 - 146
cis-1,2-Dichloroethene	20		400	430		ug/L		102	68 - 121
cis-1,3-Dichloropropene	20	U	400	378		ug/L		95	56 - 121
Cyclohexane	20	U	400	393		ug/L		98	48 - 136
4-Methyl-2-pentanone (MIBK)	200	U	800	781		ug/L		98	40 - 147
Dibromochloromethane	20	U	400	392		ug/L		98	66 - 120
Dichlorodifluoromethane	20	U	400	310		ug/L		77	27 - 132
Ethylbenzene	20	U	400	398		ug/L		99	66 - 122
Isopropylbenzene	20	U	400	390		ug/L		97	56 - 122
Methyl acetate	200	U	800	771		ug/L		96	41 - 137
1,1,2,2-Tetrachloroethane	20	U	400	432		ug/L		108	37 - 149
Methyl tert-butyl ether	20	U	400	397		ug/L		99	50 - 126
Methylcyclohexane	20	U	400	357		ug/L		89	40 - 125
Methylene Chloride	100	U	400	421		ug/L		105	59 - 127
Styrene	20	U	400	402		ug/L		101	57 - 126
Tetrachloroethene	20	U	400	360		ug/L		90	52 - 129
Toluene	20	U	400	416		ug/L		104	68 - 124
1,2,4-Trichlorobenzene	20	U	400	311		ug/L		78	37 - 120
trans-1,2-Dichloroethene	20	U	400	415		ug/L		104	69 - 126
1,1,1-Trichloroethane	20	U	400	379		ug/L		95	62 - 135
trans-1,3-Dichloropropene	20	U	400	339		ug/L		85	53 - 120
1,1,2-Trichloroethane	20	U	400	427		ug/L		107	73 - 122
Trichloroethene	630		400	968		ug/L		85	56 - 124
Trichlorofluoromethane	20	U	400	338		ug/L		85	45 - 152
1,1,2-Trichloro-1,2,2-trifluoroethane	20	U	400	394		ug/L		99	41 - 145
m-Xylene & p-Xylene	40	U	400	405		ug/L		101	65 - 123
Vinyl chloride	20	U	400	400		ug/L		100	49 - 136
o-Xylene	20	U	400	409		ug/L		102	63 - 124
Xylenes, Total	40	U	800	814		ug/L		102	64 - 124

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*47 - 134*
Dibromofluoromethane (Surr)	*99*		*78 - 129*
1,2-Dichloroethane-d4 (Surr)	*91*		*75 - 130*

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

Lab Sample ID: 240-137652-10 MS
Matrix: Water
Analysis Batch: 456042

Client Sample ID: SB-6 (100220)
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	106		69 - 122

Lab Sample ID: 240-137652-10 MSD
Matrix: Water
Analysis Batch: 456042

Client Sample ID: SB-6 (100220)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	40	U	400	381		ug/L		95	31 - 130	4	35
1,2-Dibromoethane	20	U	400	389		ug/L		97	66 - 120	1	35
2-Butanone (MEK)	200	U	800	774		ug/L		97	40 - 147	1	35
1,2-Dichlorobenzene	20	U	400	375		ug/L		94	65 - 120	2	35
1,3-Dichlorobenzene	20	U	400	360		ug/L		90	64 - 120	2	35
Acetone	200	U	800	968		ug/L		121	32 - 157	2	35
1,4-Dichlorobenzene	20	U	400	354		ug/L		88	65 - 120	0	35
Benzene	20	U	400	424		ug/L		106	70 - 121	1	35
Bromodichloromethane	20	U	400	386		ug/L		97	69 - 120	0	35
1,1-Dichloroethane	20	U	400	419		ug/L		105	71 - 121	1	35
Bromoform	20	U	400	348		ug/L		87	41 - 128	2	35
1,2-Dichloroethane	20	U	400	358		ug/L		89	65 - 127	2	35
Bromomethane	20	U	400	384		ug/L		96	41 - 136	3	35
Carbon disulfide	9.2	J	400	409		ug/L		100	54 - 131	2	35
1,1-Dichloroethene	20	U	400	391		ug/L		98	64 - 132	3	35
Carbon tetrachloride	20	U	400	349		ug/L		87	53 - 142	1	35
1,2-Dichloropropane	20	U	400	428		ug/L		107	73 - 125	0	35
Chlorobenzene	20	U	400	391		ug/L		98	73 - 120	0	35
Chloroethane	20	U	400	420		ug/L		105	37 - 142	2	35
2-Hexanone	200	U	800	788		ug/L		98	44 - 142	1	35
Chloroform	20	U	400	406		ug/L		101	66 - 126	0	35
Chloromethane	20	U	400	380		ug/L		95	33 - 146	3	35
cis-1,2-Dichloroethene	20		400	426		ug/L		101	68 - 121	1	35
cis-1,3-Dichloropropene	20	U	400	381		ug/L		95	56 - 121	1	35
Cyclohexane	20	U	400	385		ug/L		96	48 - 136	2	35
4-Methyl-2-pentanone (MIBK)	200	U	800	760		ug/L		95	40 - 147	3	35
Dibromochloromethane	20	U	400	391		ug/L		98	66 - 120	0	35
Dichlorodifluoromethane	20	U	400	303		ug/L		76	27 - 132	2	35
Ethylbenzene	20	U	400	388		ug/L		97	66 - 122	3	35
Isopropylbenzene	20	U	400	387		ug/L		97	56 - 122	1	20
Methyl acetate	200	U	800	809		ug/L		101	41 - 137	5	16
1,1,2,2-Tetrachloroethane	20	U	400	436		ug/L		109	37 - 149	1	35
Methyl tert-butyl ether	20	U	400	400		ug/L		100	50 - 126	1	17
Methylcyclohexane	20	U	400	351		ug/L		88	40 - 125	2	35
Methylene Chloride	100	U	400	413		ug/L		103	59 - 127	2	32
Styrene	20	U	400	398		ug/L		99	57 - 126	1	35
Tetrachloroethene	20	U	400	361		ug/L		90	52 - 129	0	35
Toluene	20	U	400	408		ug/L		102	68 - 124	2	35
1,2,4-Trichlorobenzene	20	U	400	310		ug/L		78	37 - 120	0	25
trans-1,2-Dichloroethene	20	U	400	404		ug/L		101	69 - 126	3	35
1,1,1-Trichloroethane	20	U	400	370		ug/L		93	62 - 135	2	35

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

Lab Sample ID: 240-137652-10 MSD
Matrix: Water
Analysis Batch: 456042

Client Sample ID: SB-6 (100220)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	20	U	400	339		ug/L		85	53 - 120	0	35
1,1,2-Trichloroethane	20	U	400	417		ug/L		104	73 - 122	2	35
Trichloroethene	630		400	958		ug/L		83	56 - 124	1	35
Trichlorofluoromethane	20	U	400	330		ug/L		82	45 - 152	2	35
1,1,2-Trichloro-1,2,2-trifluoroethane	20	U	400	383		ug/L		96	41 - 145	3	35
m-Xylene & p-Xylene	40	U	400	395		ug/L		99	65 - 123	2	35
Vinyl chloride	20	U	400	390		ug/L		98	49 - 136	3	35
o-Xylene	20	U	400	407		ug/L		102	63 - 124	0	35
Xylenes, Total	40	U	800	802		ug/L		100	64 - 124	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*47 - 134*
Dibromofluoromethane (Surr)	*99*		*78 - 129*
1,2-Dichloroethane-d4 (Surr)	*93*		*75 - 130*
Toluene-d8 (Surr)	*108*		*69 - 122*

Lab Sample ID: MB 240-456259/8
Matrix: Water
Analysis Batch: 456259

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			10/15/20 18:29	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/15/20 18:29	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/15/20 18:29	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/15/20 18:29	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/15/20 18:29	1
Acetone	10	U	10	5.4	ug/L			10/15/20 18:29	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/15/20 18:29	1
Benzene	1.0	U	1.0	0.13	ug/L			10/15/20 18:29	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/15/20 18:29	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/15/20 18:29	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/15/20 18:29	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/15/20 18:29	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/15/20 18:29	1
Carbon disulfide	1.0	U	1.0	0.28	ug/L			10/15/20 18:29	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/15/20 18:29	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/15/20 18:29	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/15/20 18:29	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/15/20 18:29	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/15/20 18:29	1
2-Hexanone	10	U	10	0.54	ug/L			10/15/20 18:29	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/15/20 18:29	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/15/20 18:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/15/20 18:29	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/15/20 18:29	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/15/20 18:29	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/15/20 18:29	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/15/20 18:29	1

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

Lab Sample ID: MB 240-456259/8
Matrix: Water
Analysis Batch: 456259

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/15/20 18:29	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/15/20 18:29	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/15/20 18:29	1
Methyl acetate	10	U	10	1.7	ug/L			10/15/20 18:29	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/15/20 18:29	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/15/20 18:29	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/15/20 18:29	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/15/20 18:29	1
Styrene	1.0	U	1.0	0.10	ug/L			10/15/20 18:29	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/15/20 18:29	1
Toluene	1.0	U	1.0	0.14	ug/L			10/15/20 18:29	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/15/20 18:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/15/20 18:29	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/15/20 18:29	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/15/20 18:29	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/15/20 18:29	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/15/20 18:29	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/15/20 18:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/15/20 18:29	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/15/20 18:29	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/15/20 18:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*47 - 134*		*10/15/20 18:29*	*1*
Dibromofluoromethane (Surr)	*90*		*78 - 129*		*10/15/20 18:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*75 - 130*		*10/15/20 18:29*	*1*
Toluene-d8 (Surr)	*100*		*69 - 122*		*10/15/20 18:29*	*1*

Lab Sample ID: LCS 240-456259/5
Matrix: Water
Analysis Batch: 456259

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	20.0	22.8		ug/L		114	34 - 136
1,2-Dibromoethane	20.0	20.7		ug/L		103	73 - 120
2-Butanone (MEK)	40.0	40.1		ug/L		100	41 - 151
1,2-Dichlorobenzene	20.0	19.8		ug/L		99	74 - 120
1,3-Dichlorobenzene	20.0	20.1		ug/L		100	74 - 120
Acetone	40.0	49.0		ug/L		123	33 - 155
1,4-Dichlorobenzene	20.0	19.8		ug/L		99	75 - 120
Benzene	20.0	21.2		ug/L		106	77 - 123
Bromodichloromethane	20.0	21.4		ug/L		107	73 - 122
1,1-Dichloroethane	20.0	22.2		ug/L		111	74 - 126
Bromoform	20.0	20.3		ug/L		101	47 - 133
1,2-Dichloroethane	20.0	19.3		ug/L		96	66 - 129
Bromomethane	20.0	18.7		ug/L		93	48 - 144
Carbon disulfide	20.0	23.2		ug/L		116	67 - 127
1,1-Dichloroethene	20.0	23.9		ug/L		120	73 - 129

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

Lab Sample ID: LCS 240-456259/5
Matrix: Water
Analysis Batch: 456259

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	20.0	20.8		ug/L		104	61 - 142
1,2-Dichloropropane	20.0	23.6		ug/L		118	79 - 127
Chlorobenzene	20.0	21.5		ug/L		107	80 - 120
Chloroethane	20.0	19.2		ug/L		96	41 - 147
2-Hexanone	40.0	45.7		ug/L		114	43 - 142
Chloroform	20.0	19.3		ug/L		97	74 - 127
Chloromethane	20.0	22.1		ug/L		111	46 - 148
cis-1,2-Dichloroethene	20.0	18.9		ug/L		94	75 - 124
cis-1,3-Dichloropropene	20.0	22.7		ug/L		113	68 - 128
Cyclohexane	20.0	22.2		ug/L		111	69 - 133
4-Methyl-2-pentanone (MIBK)	40.0	44.2		ug/L		111	43 - 145
Dibromochloromethane	20.0	20.1		ug/L		100	75 - 120
Dichlorodifluoromethane	20.0	21.9		ug/L		110	35 - 137
Ethylbenzene	20.0	22.4		ug/L		112	80 - 120
Isopropylbenzene	20.0	22.0		ug/L		110	73 - 123
Methyl acetate	40.0	52.0		ug/L		130	47 - 140
1,1,2,2-Tetrachloroethane	20.0	21.2		ug/L		106	45 - 151
Methyl tert-butyl ether	20.0	21.2		ug/L		106	57 - 127
Methylcyclohexane	20.0	22.3		ug/L		111	64 - 123
Methylene Chloride	20.0	23.6		ug/L		118	63 - 134
Styrene	20.0	21.5		ug/L		108	75 - 121
Tetrachloroethene	20.0	21.4		ug/L		107	70 - 125
Toluene	20.0	20.9		ug/L		104	79 - 122
1,2,4-Trichlorobenzene	20.0	21.5		ug/L		108	47 - 120
trans-1,2-Dichloroethene	20.0	24.2		ug/L		121	74 - 130
1,1,1-Trichloroethane	20.0	20.4		ug/L		102	65 - 141
trans-1,3-Dichloropropene	20.0	20.6		ug/L		103	64 - 120
1,1,2-Trichloroethane	20.0	20.6		ug/L		103	79 - 121
Trichloroethene	20.0	22.1		ug/L		111	71 - 121
Trichlorofluoromethane	20.0	18.9		ug/L		95	52 - 148
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	24.2		ug/L		121	54 - 148
m-Xylene & p-Xylene	20.0	22.3		ug/L		111	79 - 121
Vinyl chloride	20.0	21.8		ug/L		109	61 - 134
o-Xylene	20.0	21.2		ug/L		106	75 - 123
Xylenes, Total	40.0	43.5		ug/L		109	78 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*47 - 134*
Dibromofluoromethane (Surr)	*88*		*78 - 129*
1,2-Dichloroethane-d4 (Surr)	*88*		*75 - 130*
Toluene-d8 (Surr)	*98*		*69 - 122*

GC/MS VOA

Prep Batch: 454686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-137652-2	SB-1 (13-15)/100220	Total/NA	Solid	5035	
240-137652-3	SB-2 (4-6)/100220	Total/NA	Solid	5035	
240-137652-4	SB-2 (8-10)/100220	Total/NA	Solid	5035	
MB 240-454686/1-A	Method Blank	Total/NA	Solid	5035	
LCS 240-454686/2-A	Lab Control Sample	Total/NA	Solid	5035	

Prep Batch: 454699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-137652-1	SB-1 (5-7)/100220	Total/NA	Solid	5035	
240-137652-3	SB-2 (4-6)/100220	Total/NA	Solid	5035	
240-137652-4	SB-2 (8-10)/100220	Total/NA	Solid	5035	
240-137652-5	SB-6 (6-8)/100220	Total/NA	Solid	5035	
240-137652-6	SB-6 (10-12)/100220	Total/NA	Solid	5035	
240-137652-7	WC-SS/100220	Total/NA	Solid	5035	
MB 240-454699/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 455633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-137652-1	SB-1 (5-7)/100220	Total/NA	Solid	8260C	454699
240-137652-3	SB-2 (4-6)/100220	Total/NA	Solid	8260C	454699
MB 240-454699/1-A	Method Blank	Total/NA	Solid	8260C	454699
LCS 240-455633/5	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 240-455633/6	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 455767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-137652-2	SB-1 (13-15)/100220	Total/NA	Solid	8260C	454686
240-137652-5	SB-6 (6-8)/100220	Total/NA	Solid	8260C	454699
240-137652-6	SB-6 (10-12)/100220	Total/NA	Solid	8260C	454699
240-137652-7	WC-SS/100220	Total/NA	Solid	8260C	454699
MB 240-454686/1-A	Method Blank	Total/NA	Solid	8260C	454686
MB 240-455767/6	Method Blank	Total/NA	Solid	8260C	
LCS 240-454686/2-A	Lab Control Sample	Total/NA	Solid	8260C	454686
LCS 240-455767/4	Lab Control Sample	Total/NA	Solid	8260C	

Analysis Batch: 456006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-137652-2	SB-1 (13-15)/100220	Total/NA	Solid	8260C	454686
240-137652-4	SB-2 (8-10)/100220	Total/NA	Solid	8260C	454686
240-137652-4	SB-2 (8-10)/100220	Total/NA	Solid	8260C	454699
MB 240-456006/6	Method Blank	Total/NA	Solid	8260C	
LCS 240-456006/4	Lab Control Sample	Total/NA	Solid	8260C	

Analysis Batch: 456042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-137652-9	SB-2 (100220)	Total/NA	Water	8260C	
240-137652-10	SB-6 (100220)	Total/NA	Water	8260C	
MB 240-456042/8	Method Blank	Total/NA	Water	8260C	
LCS 240-456042/5	Lab Control Sample	Total/NA	Water	8260C	
240-137652-10 MS	SB-6 (100220)	Total/NA	Water	8260C	
240-137652-10 MSD	SB-6 (100220)	Total/NA	Water	8260C	

GC/MS VOA

Analysis Batch: 456090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-137652-3	SB-2 (4-6)/100220	Total/NA	Solid	8260C	454686

Analysis Batch: 456259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-137652-8	SB-1 (100220)	Total/NA	Water	8260C	
240-137652-11	TRIP BLANKS	Total/NA	Water	8260C	
MB 240-456259/8	Method Blank	Total/NA	Water	8260C	
LCS 240-456259/5	Lab Control Sample	Total/NA	Water	8260C	

General Chemistry

Analysis Batch: 455095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-137652-1	SB-1 (5-7)/100220	Total/NA	Solid	Moisture	
240-137652-2	SB-1 (13-15)/100220	Total/NA	Solid	Moisture	
240-137652-3	SB-2 (4-6)/100220	Total/NA	Solid	Moisture	
240-137652-4	SB-2 (8-10)/100220	Total/NA	Solid	Moisture	
240-137652-5	SB-6 (6-8)/100220	Total/NA	Solid	Moisture	
240-137652-6	SB-6 (10-12)/100220	Total/NA	Solid	Moisture	
240-137652-7	WC-SS/100220	Total/NA	Solid	Moisture	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: SB-1 (5-7)/100220
Lab Sample ID: 240-137652-1
Date Collected: 10/02/20 09:00
Matrix: Solid
Date Received: 10/05/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455095	10/08/20 15:08	AJ	TAL CAN

Client Sample ID: SB-1 (5-7)/100220
Lab Sample ID: 240-137652-1
Date Collected: 10/02/20 09:00
Matrix: Solid
Date Received: 10/05/20 08:00
Percent Solids: 78.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			454699	10/06/20 21:14	LAM	TAL CAN
Total/NA	Analysis	8260C		1	455633	10/13/20 16:09	TJL2	TAL CAN

Client Sample ID: SB-1 (13-15)/100220
Lab Sample ID: 240-137652-2
Date Collected: 10/02/20 09:30
Matrix: Solid
Date Received: 10/05/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455095	10/08/20 15:08	AJ	TAL CAN

Client Sample ID: SB-1 (13-15)/100220
Lab Sample ID: 240-137652-2
Date Collected: 10/02/20 09:30
Matrix: Solid
Date Received: 10/05/20 08:00
Percent Solids: 16.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			454686	10/06/20 18:13	LAM	TAL CAN
Total/NA	Analysis	8260C		20	455767	10/13/20 17:24	SAM	TAL CAN
Total/NA	Prep	5035			454686	10/06/20 18:13	LAM	TAL CAN
Total/NA	Analysis	8260C		200	456006	10/14/20 15:57	SAM	TAL CAN

Client Sample ID: SB-2 (4-6)/100220
Lab Sample ID: 240-137652-3
Date Collected: 10/02/20 11:00
Matrix: Solid
Date Received: 10/05/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455095	10/08/20 15:08	AJ	TAL CAN

Client Sample ID: SB-2 (4-6)/100220
Lab Sample ID: 240-137652-3
Date Collected: 10/02/20 11:00
Matrix: Solid
Date Received: 10/05/20 08:00
Percent Solids: 20.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			454699	10/06/20 21:14	LAM	TAL CAN
Total/NA	Analysis	8260C		1	455633	10/13/20 16:35	TJL2	TAL CAN
Total/NA	Prep	5035			454686	10/06/20 18:13	LAM	TAL CAN
Total/NA	Analysis	8260C		1	456090	10/15/20 14:31	TJL2	TAL CAN

Client Sample ID: SB-2 (8-10)/100220
Lab Sample ID: 240-137652-4
Date Collected: 10/02/20 11:15
Matrix: Solid
Date Received: 10/05/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455095	10/08/20 15:08	AJ	TAL CAN

Client Sample ID: SB-2 (8-10)/100220
Lab Sample ID: 240-137652-4
Date Collected: 10/02/20 11:15
Matrix: Solid
Date Received: 10/05/20 08:00
Percent Solids: 24.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			454686	10/06/20 18:13	LAM	TAL CAN
Total/NA	Analysis	8260C		1	456006	10/14/20 15:34	SAM	TAL CAN
Total/NA	Prep	5035			454699	10/06/20 21:14	LAM	TAL CAN
Total/NA	Analysis	8260C		1	456006	10/14/20 16:21	SAM	TAL CAN

Client Sample ID: SB-6 (6-8)/100220
Lab Sample ID: 240-137652-5
Date Collected: 10/02/20 16:00
Matrix: Solid
Date Received: 10/05/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455095	10/08/20 15:08	AJ	TAL CAN

Client Sample ID: SB-6 (6-8)/100220
Lab Sample ID: 240-137652-5
Date Collected: 10/02/20 16:00
Matrix: Solid
Date Received: 10/05/20 08:00
Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			454699	10/06/20 21:14	LAM	TAL CAN
Total/NA	Analysis	8260C		1	455767	10/13/20 18:34	SAM	TAL CAN

Client Sample ID: SB-6 (10-12)/100220
Lab Sample ID: 240-137652-6
Date Collected: 10/02/20 16:15
Matrix: Solid
Date Received: 10/05/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455095	10/08/20 15:08	AJ	TAL CAN

Client Sample ID: SB-6 (10-12)/100220
Lab Sample ID: 240-137652-6
Date Collected: 10/02/20 16:15
Matrix: Solid
Date Received: 10/05/20 08:00
Percent Solids: 80.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			454699	10/06/20 21:14	LAM	TAL CAN
Total/NA	Analysis	8260C		1	455767	10/13/20 18:58	SAM	TAL CAN

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Client Sample ID: WC-SS/100220
Lab Sample ID: 240-137652-7
Date Collected: 10/02/20 17:30
Matrix: Solid
Date Received: 10/05/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455095	10/08/20 15:08	AJ	TAL CAN

Client Sample ID: WC-SS/100220
Lab Sample ID: 240-137652-7
Date Collected: 10/02/20 17:30
Matrix: Solid
Date Received: 10/05/20 08:00
Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			454699	10/06/20 21:14	LAM	TAL CAN
Total/NA	Analysis	8260C		1	455767	10/13/20 19:21	SAM	TAL CAN

Client Sample ID: SB-1 (100220)
Lab Sample ID: 240-137652-8
Date Collected: 10/02/20 09:45
Matrix: Water
Date Received: 10/05/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	456259	10/15/20 20:42	TJL1	TAL CAN

Client Sample ID: SB-2 (100220)
Lab Sample ID: 240-137652-9
Date Collected: 10/02/20 11:30
Matrix: Water
Date Received: 10/05/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	456042	10/15/20 01:09	TJL1	TAL CAN

Client Sample ID: SB-6 (100220)
Lab Sample ID: 240-137652-10
Date Collected: 10/02/20 16:30
Matrix: Water
Date Received: 10/05/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	456042	10/15/20 01:31	TJL1	TAL CAN

Client Sample ID: TRIP BLANKS
Lab Sample ID: 240-137652-11
Date Collected: 10/02/20 00:00
Matrix: Water
Date Received: 10/05/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	456259	10/15/20 20:19	TJL1	TAL CAN

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: TDY Hartville

Job ID: 240-137652-1

Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-21
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-21
Illinois	NELAP	004498	07-31-21
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21
Kentucky (UST)	State	112225	02-23-21
Kentucky (WW)	State	KY98016	12-31-20
Minnesota	NELAP	OH00048	12-31-20
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-21
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-24-21
Pennsylvania	NELAP	68-00340	08-31-21
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-21
West Virginia DEP	State	210	12-31-20

28137

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Andrea White 405 620 2584	Lab PM: DelMonico, Michael	Carrier Tracking No(s):	COC No: 240-75564-30308.1
Client Contact: Ms. Tricia Trommer	Phone:	E-Mail: Michael.DelMonico@Eurofinset.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.		Analysis Requested		Job #:
Address: 100 E. Campus View Blvd Suite 200	Due Date Requested: Standard			Preservation Codes:
City: Columbus	TAT Requested (days): Standard			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: OH, 43235				
Phone: 614-764-2310(Tel) 614-764-1270(Fax)	PO #: OH000930.0021			
Email: tricia.trommer@arcadis-us.com	WO #:			
Project Name: TDY Hartville	Project #: 24006272			
Site:	SSOW#:			

240-137652 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture - Local Method	8260C - TCL OLM03.1/4.2 Volatile Analyte List	8260C - TCL OLM03.1/4.2 Volatile Analyte List	Total	Special Instructions/Note:
			Preservation Code:		X	X	N	N	A	X	
SB-1(5-7)/100220	10/4/20	0900	G	Solid			X	X		4	
SB-1(13-15)/100220		0930		Solid			X	X		4	
SB-2(4-6)/100220		1100		Solid			X	X		4	
SB-2(8-10)/100220		1115		Solid			X	X		4	
SB-6(6-8)/100220		1600		Solid			X	X		4	
SB-6(10-12)/100220		1615		Solid			X	X		4	
WC-SS/100220		1730		Solid			X	X		4	
SB-1(100220)		0945		Water					X	3	
SB-2(100220)		1130		Water					X	3	
SB-6(100220)		1630		Water					X	3	
trip blanks		—		Water					X	2	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	10/2/20 1930	Arcadis	[signature]	10-5-20 800	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

10/21/2020

Eurofins TestAmerica Canton Sample Receipt Form/Narrative **Login # : 137652**
Canton Facility

Client Arcadis Site Name _____ Cooler unpacked by:

Cooler Received on 10-5-20 Opened on 10-5-20

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # TA Foam Box Client Cooler Box Other _____

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

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-11 (CF **+0.9** °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   IR GUN #IR-12 (CF **+0.5**°C) Observed Cooler Temp. 3.8 °C Corrected Cooler Temp. 3.7 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC907861**
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

19. SAMPLE CONDITION

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

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099