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April 26, 2023
File No.03.0032220.31

Mr. Michael Gray, P.E.
Public Works Director
Town of Jamestown
93 Narragansett Avenue
Jamestown, Rhode Island 02835

Re: January and June 2022 Groundwater Sampling Results
& Proposed Residential Well Sampling
Former Jamestown Landfill

Dear Mr. Gray:

At your request, GZA GeoEnvironmental, Inc. (GZA) has prepared this letter which briefly summarizes the results of groundwater samples collected and analyzed for Per- and Poly-Fluoroalkyl Substances (PFAS), from monitoring wells located around the Town of Jamestown (Town) former landfill on North Main Rd. Additionally, we have provide recommendations to sample and analyze select residential water supply wells at those properties located adjacent to the landfill in response to a recent request made by the Rhode Island Department of Environmental Management (RIDEM).

BACKGROUND

On January 19, 2021, the Rhode Island Department of Environmental Management (RIDEM) issued a letter notifying all Landfill Owners or Responsible Parties of their requirement to sample and analyze groundwater for Per- and Polyfluoroalkyl Substances (PFAS) according to Section 2.1.8.F(1)(h) of the newly promulgated Solid Waste Regulation No 2.

In accordance with RIDEM's January 2021 letter request, GZA (on behalf of the Town) conducted two rounds of groundwater monitoring, once during the approximate seasonal low time frame and once during the approximate seasonal high groundwater time frame. On January 28, and June 22, 2022, GZA collected groundwater samples for PFAS analysis from 10 existing perimeter groundwater monitoring locations (GZ-1, GZ-2, GZ-3, GZ-4, GZ-5, GZ-6, GZ-7S, GZ-7D, GZ-8 and GZ-9), at the former landfill. Well locations and other relevant Site features are shown on **Figure 1** of the attached September 13, 2022, *PFAS Assessment Investigation Result*s Report. Groundwater at the Site generally flows in a southwesterly direction. Groundwater samples were collected in general accordance with US EPA's September 2017 Low Stress (low flow) Purging and Sampling Procedures as well as GZA's internal PFAS Sampling SOP. The groundwater samples were submitted to Eurofins Laboratory (Eurofins) of North Kingstown, Rhode Island for analysis of 25 PFAS compounds via EPA Method 537M.

Note that the sole purpose of the initial investigation was to evaluate groundwater baseline PFAS concentrations, at the landfill. Groundwater at the Site had previously been evaluated for a broad range of other compounds.

RESULTS

PFAS results were compared to the EPA health advisory of 70 parts per trillion (ppt)[1] for PFOS and PFOA (and the sum of the PFOS and PFOA concentrations). PFOS and/or PFOA concentrations were detected in samples collected from all six downgradient monitoring wells (GZ-2, GZ-3, GZ-7S, GZ-7D, GZ-8 and GZ-9). Only at three of the six downgradient monitoring wells (GZ-2, GZ-7S and GZ-8) were the concentrations of PFOS and/or PFOA in excess of the EPA's 70 ppt Health Advisory. None of the four upgradient/cross gradient wells (GZ-1, GZ-4, GZ-5 and GZ-6) reported concentrations of PFOS/PFOA in excess of the 70 ppt Health Advisory during either the January or June 2022 sampling events.

The results from the January and June 2022 sampling events indicate that PFAS are present in groundwater at those monitoring wells within the landfill. The highest detected concentrations were identified in samples collected from downgradient well GZ-2 during both monitoring rounds.

This data indicates that concentrations of PFAS are generally elevated in downgradient wells across the Site. Two of the four upgradient/crossgradient wells were impacted by PFOS/PFOA; however, not above 70 ppt. The PFAS concentrations reported did not vary significantly between seasonal high and seasonal low groundwater conditions.

RECOMMENDED SAMPLING OF DOWNGRADIENT RESIDENTIAL WELL

After review of the baseline PFAS testing completed at the landfill, the RIDEM requested that the Town of Jamestown identify and sample select residential drinking water wells immediately downgradient (groundwater flows to the southwest) of the landfill. These wells should be analyzed for the 25 PFAS compounds via EPA Method 537M, which included PFOS/PFOA.

In review of potential subject properties, one downgradient property (Town of Jamestown Plat 2 Lot 241; 1180 North Main Road) with a private drinking water well is located approximately 0.05 miles south of the landfill. An additional five properties (lots 483, 562, 567, 480 and 545), located in a southwesterly direction from the landfill, are recommended for sampling as these well would be considered downgradient for the landfill. It should be noted that the residences on these five properties are approximately 0.25 miles downgradient and there is a wetland between the landfill and residential properties.

In addition to the RIDEM requested downgradient sampling, GZA recommends collecting samples from six upgradient residential properties that abut the landfill property (lots 10, 31, 246, 43, 44 and 45). Although PFAS was previously detected in only two of the four onsite upgradient wells, well below the 70 ppt health Advisory, the recommendation for one round of upgradient residential well sampling is to provide upgradient abutters with analytical confirmation of groundwater concentrations. Lots recommended for proposed sampling are shown of **Figure 2**.

GZA, Jamestown's environmental consultant, will request access to these properties to collect a representative drinking water sample for PFAS analysis. The sample will be collected from an outdoor spigot (if present) or from an interior faucet. The preferred sampling point is the first spigot after water enters the residences. Sampling will be scheduled in advance with the property owner and take approximately 30 minutes per residence. The property owners will be

[1] On June 27, 2022, Rhode Island enacted law H7223/S2298 which set an interim drinking water standard for the state of 20 parts per trillion (ppt) for six specific PFAS compounds – PFOA, PFOS, PFHxS, PFNA, PFHpA and PFDA. This law requires RIDEM to establish enforceable groundwater standards for these six compounds on or before December 31, 2023. The new law also requires Rhode Island Department of Health to establish similar standards for PFAS in drinking water on or before June 1, 2024.

provided with a copy of the laboratory testing results along with an explanation of their meaning with respect to applicable or relevant drinking water quality criteria.

PFAS REGULATIONS

The initial two rounds of baseline sampling were conducted in January and June of 2022; since then, the State passed house bill (HB7233) on June 21, 2022 and was signed by the governor shortly thereafter. It adopted a 20 ppt drinking water standard for 6 PFAS compounds and required the Rhode Island Department of Health (RIDOH) to develop regulations for public water supplies by July 1, 2023. This 20 ppt MCL is significantly lower than the previous 70 ppt EPA health advisory. This bill does have an impact on groundwater and surface water regulations. It requires RIDEM to adopt standards by Dec 31, 2023. However, because potable water supply wells rely on groundwater recharge, it is GZA's opinion that the RIDEM will implement a 20 ppt for GA/GAA groundwater (applicable to properties surrounding the landfill). In addition, on March 14, 2023, EPA issues a revised DRAFT PFAS National Primary Drinking Water Regulation for PFAS. If approved, the proposed criteria of 4 ppt for PFOA and PFOS will become enforceable. These concentrations are lower that the proposed RIDEM criteria which may impact additional wells surrounding the landfill where potable water supplies are used.

PFAS HEALTH EFFECTS

The public is primarily exposed to PFAS compounds via the ingestion pathway from drinking contaminated water, eating contaminated food, or via consumer products that have been treated with or contain PFAS compounds. In occupational settings, where workers are manufacturing or using PFAS compounds in production processes, the inhalation pathway is the primary route of exposure. After a PFAS compound enters the body, the body reacts to it in different ways depending on the specific PFAS compound. The physical structure, chain length, and chemical composition of the various PFAS compounds impact how the body reacts to or responds to the PFAS chemical. PFAS compounds that have a longer chain length, and more branching are eliminated from the body at a slower rate; whereas shorter PFAS compounds are excreted from the body more readily.[2]

An on-going study of the United States population, by the U.S. National Health and Nutrition Examination Survey (NHANES), has detected select PFAS compounds (PFOS, PFOA, PFHxS, and PFNA) in the blood of more than 98% of Americans.[3] Possible relationships exist between exposure to PFAS compounds and health effects; however, direct causal links between human exposure and health effects have not been confirmed. According to the Agency for Toxic Substances and Disease Registry (ATSDR), some research studies have identified that exposure to high levels of certain PFAS compounds in humans may lead to:

- Increased cholesterol levels;
- Changes in liver enzymes;
- Small decreases in infant birth weights;
- Decreased vaccine response in children;
- Increased risk of high blood pressure (preeclampsia) in pregnant women; and
- Increased risk of kidney or testicular cancer.[4]

[2] Barlow CA, Kemp MJ, Boyd CA, Parr KAH. PFAS Toxicology – The science behind the variations in drinking water standards. The Journal of the New England Water Works Association. December 2019. Volume 133, No. 6

[3] Calafat 2019. Polyfluoroalkyl Chemicals in the U.S. Population: Data from the National Health and Nutrition Examination Survey (NHANES) 2003–2004 and Comparisons with NHANES 1999–2000 - PMC (nih.gov)

[4] ATSDR. November 1, 2022. Per- and Polyfluoroalkyl Substances (PFAS) and Your Health. Available at: https://www.atsdr.cdc.gov/pfas/index.html

The data set on the possible health effects associated with PFAS exposure is continually growing and evolving as new research is underway to better understand potential risks associated with exposure to the various PFAS compounds. Currently, there are not federally mandated and enforceable drinking water standards for PFAS levels in drinking water. The lack of federal guidance has led to a range of state-developed drinking water guidelines for multiple PFAS compounds.

If you should have any questions please feel to contact us at erik.beloff@gza.com or Edward.summerly@gza.com.

Very truly yours,

Erik M. Beloff
Project Manager

Richard J. Desrosiers, P.G.[NH, TN], CT-LEP
Consultant / Reviewer

Edward A. Summerly, P.G.[NY, KY]
District Office Manager/Sr. Principal

Attachment: Figure 2
PFAS Assessment Investigation Results

\\GZAPROVIDENCE\JOBS\ENV\32220.31.EMB\PFAS - RESIDENTIAL WELL SAMPLING\32220.31 JAMESTOWN RES WELL PFAS.DOCX

FIGURE 2

N

W E

S

LEGEND

2006 WELL SAMPLING PROGRAM PROPERTIES

2023 PROPOSED DRINKING WATER WELL PROPERTIES

WELL SAMPLING TEST RESULTS
X.X SUM OF ALL DETECTED PFAS COMPOUNDS (ng/L)

BRL INDICATES PARAMETERS WERE BELOW THE ANALYTICAL METHOD REPORTING LIMITS

SUMMIT AVE

PROSPECT AVE

NORTH MAIN ROAD

10

31

46

43

44

45

545

480

567

562

483

241

NOT DEVELOPED

NOT DEVELOPED

NOT DEVELOPED

GZ-1

GZ-2

GZ-3

GZ-4

GZ-5

GZ-6

GZ-7

GZ-8

GZ-9

JAN 2022 - 2.2
JUNE 2022 - BRL

JAN 2022 - BRL
JUNE 2022 - BRL

JAN 2022 - BRL
JUNE 2022 - BRL

JAN 2022 - 5.4
JUNE 2022 - 4.0

JAN 2022 - 196.6
JUNE 2022 - 256.5

JAN 2022 - 2.7
JUNE 2022 - BRL

JAN 2022 - 6.7
JUNE 2022 - 6.9

JAN 2022 - 150
JUNE 2022 - 140

SHALLOW
JAN 2022 - 99
JUNE 2022 - 122.8
DEEP
JAN 2022 - 47.4
JUNE 2022 - 58.3

0 150' 300' 600'

SCALE IN FEET 1" = 300'

NO.	ISSUE/DESCRIPTION	BY	DATE

PROPOSED DRINKING WATER WELL PROPERTIES - 2023
JAMESTOWN, RHODE ISLAND

PROPOSED DRINKING WATER WELL SAMPLING PLAN - PFAS ASSESSMENT

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: TOWN OF JAMESTOWN	
PROJ MGR: EMB	REVIEWED BY:	CHECKED BY: EAS	FIGURE 2
DESIGNED BY: EMB	DRAWN BY: ADD	SCALE: AS NOTED	SHEET NO. 2 OF 2
DATE: APRIL 2023	PROJECT NO. 32220.31	REVISION NO. 0	

PFAS ASSESSMENT INVESTIGATION RESULTS

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September 13, 2022
File No. 03.0033320.31

Ms. Kasie McKenzie
Rhode Island Department of Environmental Management
Office of Land Revitalization & Sustainable Materials Management
235 Promenade Street
Providence, RI 02908

Re: PFAS Assessment Investigation Results
Former Jamestown Landfill
Jamestown, Rhode Island

Dear Ms. McKenzie:

GZA GeoEnvironmental, Inc. (GZA) is pleased to provide these results associated with the *Proposal for PFAS Monitoring Services* dated September 23, 2021, conducted at the above referenced facility. GZA conducted this work in January and June 2022. This report, our findings and opinions are subject to the limitations provided in **Attachment A**.

BACKGROUND

On January 19, 2021, the Rhode Island Department of Environmental Management (RIDEM) issued a letter notifying all Landfill Owners or Responsible Parties of their requirement to sample and analyze groundwater for Per-and Polyfluoroalkyl Substances (PFAS) according to Section 2.1.8.F(1)(h) of the newly promulgated Solid Waste Regulation No 2.

On January 28, and June 22, 2022, GZA collected groundwater samples for PFAS analysis from 10 existing groundwater monitoring locations (GZ-1, GZ-2, GZ-3, GZ-4, GZ-5, GZ-6, GZ-7S, GZ-7D, GZ-8 and GZ-9). Well locations and other relevant Site features are shown on **Figure 1**. Groundwater samples were collected in general accordance with US EPA's September 2017 Low Stress (low flow) Purging and Sampling Procedures as well as GZA's internal PFAS Sampling SOP. The groundwater samples were submitted to Eurofins Laboratory (Eurofins) of North Kingstown, Rhode Island for analysis of 25 PFAS compounds via EPA Method 537M.

Note that the sole purpose of the investigation is to evaluate baseline PFAS levels in groundwater. Groundwater at the Site has previously been evaluated for a broad range of other compounds. No other constituents were tested as part of this study.

LABORATORY RESULTS

The January and June 2022 groundwater analytical results have been summarized in attached **Table 1.** PFAS results were compared to the EPA health advisory of 70 parts per trillion (ppt) for PFOS and PFOA (and the sum of the PFOS and PFOA concentrations). PFOS and/or PFOA concentrations were detected in samples collected from all six downgradient monitoring wells. PFOS and/or PFOA concentrations in excess of the 70 ppt Health Advisory were identified in samples collected from three of the six downgradient monitoring wells (GZ-2, GZ-7S and GZ-8). None of the four upgradient/cross gradient wells contained PFOS/PFOA as concentrations in excess of the Health Advisory during either the January or June 2022 sampling rounds.

Results for the individual January and June monitoring rounds are discussed in greater detail below and the laboratory certificates of analysis are provided in **Attachment B**.

January 2022 PFAS Results

January 2022 PFOS and/or PFOA concentrations in excess of the 70 ppt Health Advisory were identified three of the 10 monitoring wells sampled (GZ-2, GZ-7S and GZ-8). Combined PFOS and PFOA results ranged from 99.6 ng/L in the sample from GZ-7S to 196.6 ng/L in GZ-2 (ng/L = ppt). Nine of the 25 target PFAS compounds analyzed were detected in one or more of the samples. The concentration range of individual compounds may be found on the attached **Table 1**. Total PFAS concentrations ranged from non-detect in two sampling locations to 309.6 ng/L in the sample from well GZ-8.

June 2022 PFAS Results

The June 2022 combined PFOS and PFOA results ranged from a low of 6.9 ng/L in the sample from downgradient well GZ-9 to a maximum of 256.5 ng/L in the downgradient well sample from GZ-2. Individual compound detections were reported in all samples with results ranging from 1.96 ng/L to 130 ng/L (ng/L = ppt). Nine of the 25 target PFAS compounds analyzed were detected in one or more of the samples. Total PFAS concentrations ranged from Below Reporting Limit (BRL) to 329.3 ng/L.

PFAS concentrations were generally very similar between the two monitoring rounds with total reported PFAS concentrations somewhat higher in June 2022 for four (GZ-2, GZ-7S, GZ-7D and GZ-9) of the 10 wells when compared to total PFAS concentrations in January 2022. Likewise, the combined PFOA and PFOS results in these same four monitoring wells were slightly higher in June 2022 compared to the January 2022 results. The largest variation reported was for the downgradient well GZ-7D which had a combined PFOA and PFOS result of 47.4 ng/L in January 2022 and a result of 58.3 ng/L in June 2022.

Quality Assurance/Quality Control

As part of RIDEMs QA/QC requirements, our Best Management Practices (BMPs), and the laboratory's requirements to maintain their National Environmental Laboratory Accreditation Conference (NELAC) certification, GZA and Eurofins prepared and analyzed a blind duplicate, field blank, equipment blank and laboratory method blanks concurrent with each round's samples. These samples were used to assess the potential for non-Site related or laboratory induced contamination. No PFAS were detected in the field or equipment blanks. No PFAS contamination was detected in the method blanks associated with these samples.

The laboratory also prepared laboratory control samples (LCS), laboratory control sample duplicates (LCSD) and evaluated surrogate recoveries during this round. LCS, LCSD and surrogate recoveries were within acceptable QC ranges for all samples with the minor exceptions noted in the attached laboratory report project narratives. All data were of suitable quality for the intended use.

FINDINGS AND CONCLUSION

The results from the January and June 2022 sampling indicate that PFAS are present in groundwater within onsite monitoring wells. Concentrations from three downgradient sampled locations were above the 70 ppt EPA health advisory. The highest detected concentrations were identified in samples collected from downgradient well GZ-2 during both monitoring rounds. In accordance with RIDEM's January 2021 letter request, GZA has conducted two rounds of monitoring, once during the approximate seasonal low time frame and once during the approximate seasonal high groundwater time frame.

This data indicates that concentrations of PFAS are generally elevated in downgradient wells across the Site with little contribution from off-Site/upgradient sources, and PFAS concentrations are not fluctuating to a meaningful degree on a seasonal basis.

We trust this letter addresses your needs. If you have any questions or comments, or would like to discuss the study, please feel free to contact Ed or Erik at (401) 421-4140 or via email at edward.summerly@gza.com or erik.beloff@gza.com.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Erik M. Beloff
Project Manager

Richard A. Carlone, P.E.
Consultant Reviewer

Edward A. Summerly, P.G. NY, KY
District Office Manager / Senior Principal

Cc: Jean Lambert – Town of Jamestown

Attachments: Table 1
Figure 1
Attachment A-Limitations
Attachment B-Laboratory Certificates

J:\ENV\32220.31.emb\Reports\PFAS\Round 2\32220.31 PFAS Investigation Letter_082522.docx

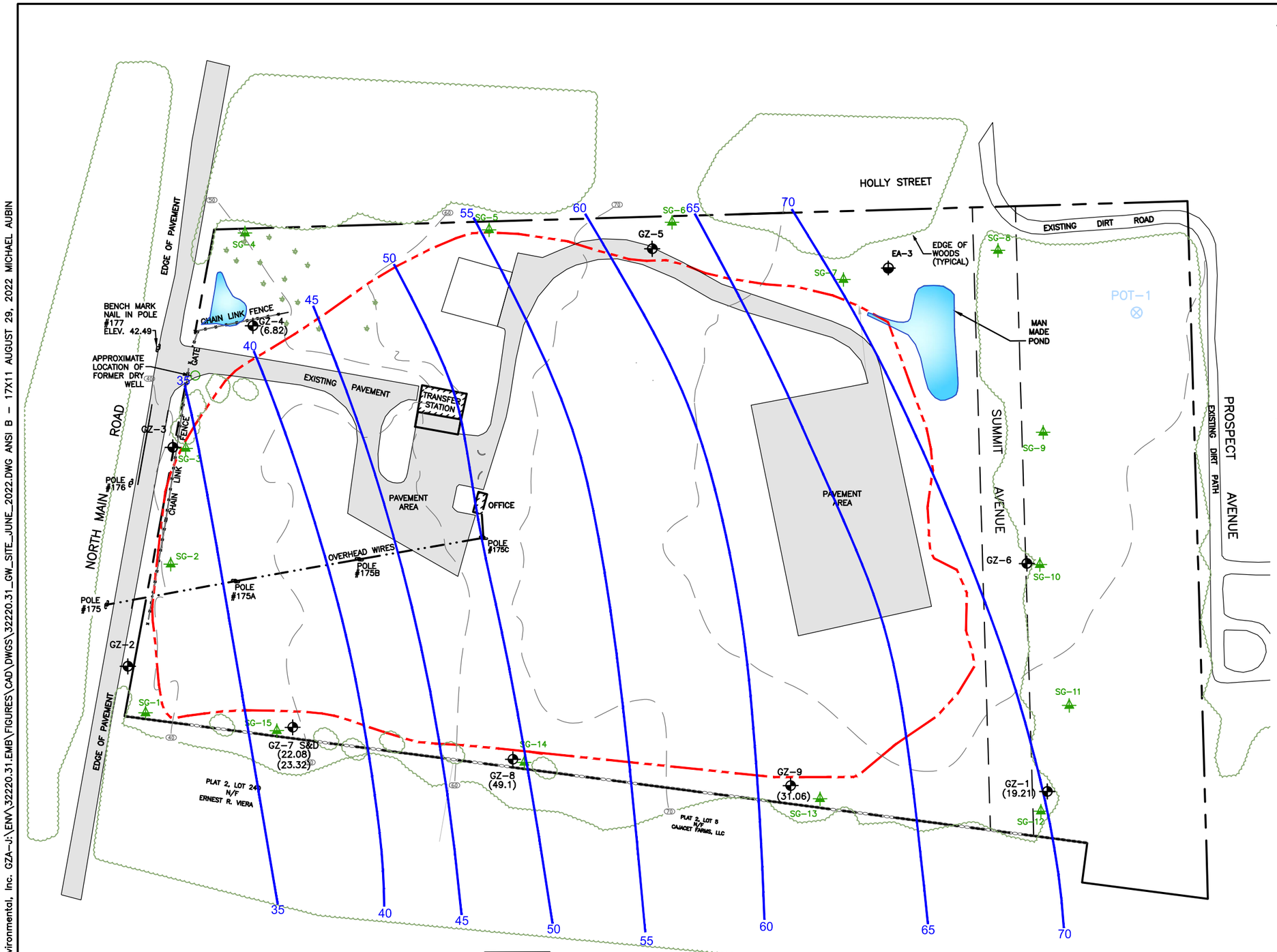
TABLES

TABLE 1
SUMMARY OF PFAS IN GW JANUARY AND JUNE 2022
FORMER JAMESTOWN LANDFILL
Jamestown, RI

Parameter	CAS #	Units	GZ-1		GZ-2		GZ-3		GZ-4		GZ-5		GZ-6		GZ-7S		GZ-7D		GZ-8		GZ-9	
			Upgradient		Downgradient		Downgradient		Crossgradient		Crossgradient		Upgradient		Downgradient		Downgradient		Downgradient		Downgradient	
			1/28/2022	6/22/2022	1/28/2022	6/22/2022	1/28/2022	6/22/2022	1/28/2022	6/22/2022	1/28/2022	6/22/2022	1/28/2022	6/22/2022	1/28/2022	6/22/2022	1/28/2022	6/22/2022	1/28/2022	6/22/2022	1/28/2022	6/22/2022
Perfluorinated Compounds																						
Perfluorohexanoic acid	307-24-4	ng/L	BRL	BRL	**20.2**	**18.7**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**20.0**	**20.7**	**12.0**	**12.4**	**42.8**	**38.4**	**4.4**	**4.9**
Perfluoroheptanoic acid	375-85-9	ng/L	BRL	BRL	**14.9**	**17.6**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**10.5**	**12.4**	**6.0**	**7.2**	**29.8**	**30.4**	**2.9**	**3.2**
Perfluorooctanoic acid (PFOA)	335-67-1	ng/L	BRL	BRL	**175.0**	**210.0**	**3.1**	**2.1**	BRL	BRL	**2.2**	BRL	BRL	BRL	**97.0**	**119.0**	**47.4**	**56.3**	**140.0**	**130.0**	**6.7**	**6.9**
Perfluorononanoic acid	375-95-1	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Perfluorodecanoic acid	335-76-2	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Perfluorotridecanoic acid	72629-94-8	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Perfluorotetradecanoic acid	376-06-7	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Perfluorobutanesulfonic acid	375-73-5	ng/L	BRL	BRL	**2.7**	**2.9**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**2.1**	BRL	BRL	**4.5**	**4.1**	BRL	BRL
Perfluorohexanesulfonic acid	355-46-4	ng/L	BRL	BRL	**11.7**	**13.2**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**3.5**	**4.4**	**2.0**	**2.4**	**27.1**	**24.5**	BRL	BRL
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	ng/L	BRL	BRL	**21.6**	**46.5**	**2.4**	**2.0**	BRL	BRL	BRL	BRL	BRL	BRL	**2.6**	**3.8**	BRL	**2.0**	**10.0**	**10.0**	BRL	BRL
NEtFOSAA	2991-50-6	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
NMeFOSAA	2355-31-9	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Perfluoropentanesulfonic acid	2706-91-4	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**4.9**	**4.4**	BRL	BRL
Perfluoroheptanesulfonic acid	375-92-8	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Perfluorononanesulfonic acid	68259-12-1	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Perfluorodecanesulfonic acid	335-77-3	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Perfluorooctanesulfonamide	754-91-6	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Perfluorobutanoic acid	375-22-4	ng/L	BRL	BRL	**9.5**	**9.0**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**6.2**	**5.9**	BRL	BRL	**21.4**	**18.5**	BRL	BRL
Perfluoropentanoic acid	2706-90-3	ng/L	**2.71**	BRL	**11.8**	**11.4**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**7.9**	**8.7**	**4.7**	**5.2**	**29.2**	**28.1**	**3.1**	**3.5**
Perfluoroundecanoic acid	2058-94-8	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Perfluorododecanoic acid	307-55-1	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
6:2 Fluorotelomer sulfonic acid	27619-97-2	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
8:2 Fluorotelomer sulfonic acid	39108-34-4	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
4:2 Fluorotelomer sulfonic acid	757124-72-4	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
NMeFOSA	31506-32-8	ng/L	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Total of PFOA and PFOS	NA	ng/L	-	-	**196.6**	**256.5**	**5.4**	**4.0**	-	-	-	-	-	-	**99.6**	**122.8**	**47.4**	**58.3**	**150.0**	**140.0**	**6.7**	**6.9**
Total of 25 Target PFAS Compounds	NA	ng/L	**2.7**	-	**267.4**	**329.3**	**5.4**	**4.0**	-	-	**2.2**	-	-	-	**147.8**	**177.0**	**72.1**	**85.5**	**309.6**	**288.4**	**17.1**	**18.6**

Notes:
(1) "BRL" indicates parameter was below the method reporting limit (BRL).
(2) "J" indicates an estimated value below the method reporting limit.
(3) Bold results indicate that the parameter was detected above the method reporting limit.
(4) Yellow highlight results indicate that the parameter exceeded the 70 ppt (70 ng/L) health advisory criteria for PFOS and/or PFOA.

FIGURES



NOTES:

(1) THE BASE PLAN WAS DEVELOPED FROM A PLAN PROVIDED BY TOWN OF JAMESTOWN, PREPARED BY RC COURNOYER ENTERPRISES, INC. DATED 9/15/2000, ORIGINAL SCALE 1"=50' AND UPDATED MAY 12, 2020 FROM GOOGLE EARTH AERIAL PHOTO.

(2) THE LOCATIONS OF THE EXISTING BORINGS AND MONITORING WELLS WERE TAKEN FROM THE AFOREMENTIONED PLAN. THE LOCATION OF THE WELL COUPLET (GZ-7) WAS SURVEYED BY GZA PERSONNEL IN SEPTEMBER OF 2005. THIS DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHODS USED.

(3) GROUNDWATER CONTOURS ARE BASED ON DATA FROM WIDELY SPACED EXPLORATIONS AND MAY NOT REFLECT ACTUAL SUBSURFACE CONDITIONS.

(4) WATER LEVEL READINGS HAVE BEEN MADE IN THE MONITORING WELLS AT THE TIMES AND UNDER THE CONDITIONS STATED ON THE SAMPLING LOGS. THESE DATA HAVE BEEN REVIEWED AND INTERPRETATIONS MADE IN THE TEXT OF THIS REPORT. HOWEVER, IT MUST BE STATED THAT FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO VARIATIONS IN RAINFALL, TEMPERATURE AND OTHER FACTORS.

(5) MONITORING WELLS GZ-8 AND GZ-9 WERE NOT USED TO DEVELOP GROUNDWATER CONTOURS.

LEGEND:

GZ-2 — MONITORING WELL LOCATION

(30.3) — INDICATES GROUND WATER ELEVATION (NR- INDICATES NO WATER LEVEL WAS TAKEN AT THIS LOCATION)

35 — INFERRED GROUNDWATER ELEVATION CONTOUR ON JUNE 17, 2021

SG-1 — SOIL GAS PROBES INSTALLED BY GZA PERSONNEL ON JULY 20, 2015.

ESTIMATED EXTENT OF EXISTING LANDFILL

N W E S

0 60' 120' 240'

SCALE IN FEET 1" = 120'

NO.	ISSUE/DESCRIPTION	BY	DATE

JUNE 2022 ENVIRONMENTAL MONITORING REPORT
JAMESTOWN, RHODE ISLAND

PFAS ASSESSMENT
JUNE 2022

PREPARED BY:		PREPARED FOR:	
GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		TOWN OF JAMESTOWN JAMESTOWN, RI	
PROJ MGR: EMB	REVIEWED BY: EAS	CHECKED BY: EAS	FIGURE 2
DESIGNED BY: EMB	DRAWN BY: ADD	SCALE: AS NOTED	
DATE: AUGUST, 2022	PROJECT NO. 32220.31	REVISION NO. 0	SHEET NO. 2 OF 2

ATTACHMENT A

LIMITATIONS

USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).

3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.

4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

SUBSURFACE CONDITIONS

5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

6. Water level readings have been made, as described in this Report, in and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

COMPLIANCE WITH CODES AND REGULATIONS

7. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

SCREENING AND ANALYTICAL TESTING

8. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.

9. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.

10. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

INTERPRETATION OF DATA

11. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

ADDITIONAL INFORMATION

12. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

ADDITIONAL SERVICES

13. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

ATTACHMENT B

LABORATORY CERTIFICATES

eurofins | Environment Testing New England

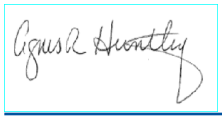
ANALYTICAL REPORT

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Tel: (413)789-9018

Laboratory Job ID: 620-2810-1
Client Project/Site: Jamestown Landfill - Jamestown, RI

For:
GZA GeoEnvironmental, Inc.
188 Valley St
Suite 300
Providence, Rhode Island 02909

Attn: Erik Beloff



Authorized for release by:
2/25/2022 8:59:10 PM

Agnes Huntley, Project Manager
(401)372-3482
agnes.huntley@eurofinset.com

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Definitions/Glossary

Client: GZA GeoEnvironmental, Inc. Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
T	Result is a tentatively identified compound (TIC) and an estimated value.

LCMS

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
I	Value is EMPC (estimated maximum possible concentration).

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
E	Result exceeded calibration range.
F3	Duplicate RPD exceeds the control limit

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 620-2810-1

Laboratory: Eurofins New England

Narrative

Job Narrative
620-2810-1

Comments
No additional comments.

Receipt
The samples were received on 1/28/2022 2:05 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.6º C.

Receipt Exceptions
The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The sample time for sample -11 is not listed on the CoC.

GC/MS VOA
Method 8260C:

Methods 8260, 8260C: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for 8002 recovered outside control limits for the following analyte(s): 2-Hexanone, Dichlorodifluoroemethane, 2-Butanone (MEK), Acetone, 2-Methyl -2-Propanol, Ethanol which have been identified as poor performing analytes when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

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

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

LCMS
Method QSM B15: The recovery for a target analyte(s) in the laboratory control spike(s) associated with the following samples as well as the recovery for the labeled isotope(s) in the following samples: FB012822 (620-2810-14) and EB012822 (620-2810-15) is outside the QC acceptance limits. Sufficient sample was not available to re-extract these samples.

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

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

Subcontract Work
Methods Nitrate, Total Coliforms: These methods were subcontracted to New England Testing Laboratories. The subcontract laboratory certifications are different from that of the facility issuing the final report.

Detection Summary

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-1 — Lab Sample ID: 620-2810-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid	2.71		1.82		ng/L	1		EPA 537(Mod)	Total/NA
Barium	0.00402		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.00346		0.000500		mg/L	1		6020B	Total Recoverable
Copper	0.00292		0.00100		mg/L	1		6020B	Total Recoverable
Nickel	0.0174		0.00100		mg/L	1		6020B	Total Recoverable
Zinc	0.0119		0.0100		mg/L	1		6020B	Total Recoverable

Client Sample ID: GZ-2 — Lab Sample ID: 620-2810-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	4.92		1.00		ug/L	1		8260C	Total/NA
Perfluorohexanoic acid	20.2		1.77		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid	14.9		1.77		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid	175		1.77		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanesulfonic acid	2.67		1.77		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanesulfonic acid	11.7		1.77		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanesulfonic acid	21.6		1.77		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanoic acid	9.53		4.43		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid	11.8		1.77		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanoic acid - RE	14.8	*-	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid - RE	12.7	*-	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid - RE	135	*-	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanesulfonic acid - RE	2.05	*-	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanesulfonic acid - RE	8.62	*-	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanesulfonic acid - RE	16.5	I *-	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanoic acid - RE	6.96	*-	4.44		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid - RE	8.01	*-	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Barium	0.0405		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.234		0.000500		mg/L	1		6020B	Total Recoverable
Copper	0.00304		0.00100		mg/L	1		6020B	Total Recoverable
Nickel	0.0466		0.00100		mg/L	1		6020B	Total Recoverable
Zinc	0.0119		0.0100		mg/L	1		6020B	Total Recoverable

Client Sample ID: GZ-3 — Lab Sample ID: 620-2810-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid	3.06		1.79		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanesulfonic acid	2.38		1.79		ng/L	1		EPA 537(Mod)	Total/NA
Barium	0.0101		0.00200		mg/L	1		6020B	Total Recoverable
Nickel	0.00344		0.00100		mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-4
Lab Sample ID: 620-2810-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00862		0.00200		mg/L	1		6020B	Total Recoverable
Copper	0.00125		0.00100		mg/L	1		6020B	Total Recoverable
Nickel	0.00985		0.00100		mg/L	1		6020B	Total Recoverable
Zinc	0.0107		0.0100		mg/L	1		6020B	Total Recoverable

Client Sample ID: GZ-5
Lab Sample ID: 620-2810-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid	2.22		1.81		ng/L	1		EPA 537(Mod)	Total/NA
Barium	0.0139		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.0236		0.000500		mg/L	1		6020B	Total Recoverable
Copper	0.00140		0.00100		mg/L	1		6020B	Total Recoverable
Nickel	0.00349		0.00100		mg/L	1		6020B	Total Recoverable

Client Sample ID: GZ-6
Lab Sample ID: 620-2810-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00218		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.00291		0.000500		mg/L	1		6020B	Total Recoverable
Copper	0.00908		0.00100		mg/L	1		6020B	Total Recoverable
Lead	0.00108		0.000500		mg/L	1		6020B	Total Recoverable
Nickel	0.0158		0.00100		mg/L	1		6020B	Total Recoverable
Zinc	0.0119		0.0100		mg/L	1		6020B	Total Recoverable

Client Sample ID: GZ-7S
Lab Sample ID: 620-2810-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethyl ether	2.44		1.00		ug/L	1		8260C	Total/NA
Perfluorohexanoic acid	20.0		1.86		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid	10.5		1.86		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid	97.0		1.86		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanesulfonic acid	3.50		1.86		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanesulfonic acid	2.63		1.86		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanoic acid	6.22		4.65		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid	7.90		1.86		ng/L	1		EPA 537(Mod)	Total/NA
Barium	0.00867		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.00747		0.000500		mg/L	1		6020B	Total Recoverable
Nickel	0.0933		0.00100		mg/L	1		6020B	Total Recoverable
Zinc	0.0150		0.0100		mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins New England

Detection Summary

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-7D
Lab Sample ID: 620-2810-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethyl ether	2.04		1.00		ug/L	1		8260C	Total/NA
Perfluorohexanoic acid	12.0		1.77		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid	5.95		1.77		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid	47.4		1.77		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanesulfonic acid	2.02		1.77		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid	4.72		1.77		ng/L	1		EPA 537(Mod)	Total/NA
Barium	0.00917		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.000651		0.000500		mg/L	1		6020B	Total Recoverable
Nickel	0.00781		0.00100		mg/L	1		6020B	Total Recoverable

Client Sample ID: GZ-8
Lab Sample ID: 620-2810-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	9.02		1.00		ug/L	1		8260C	Total/NA
1,3-Dichlorobenzene	1.17		1.00		ug/L	1		8260C	Total/NA
Ethyl ether	3.25		1.00		ug/L	1		8260C	Total/NA
Perfluorohexanoic acid	42.8		1.79		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid	29.8		1.79		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid	140		1.79		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanesulfonic acid	4.45		1.79		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanesulfonic acid	27.1		1.79		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanesulfonic acid	10.0		1.79		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanesulfonic acid	4.87		1.79		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanoic acid	21.4		4.47		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid	29.2		1.79		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanoic acid - RE	32.2	*-	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid - RE	25.5	*-	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid - RE	97.5	*-	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanesulfonic acid - RE	3.45	*-	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanesulfonic acid - RE	20.1	*-	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanesulfonic acid - RE	7.76	*-	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanesulfonic acid - RE	3.45	*-	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanoic acid - RE	15.5	*-	4.45		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid - RE	21.8	*-	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Barium	0.0624		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.00243		0.000500		mg/L	1		6020B	Total Recoverable
Nickel	0.0250		0.00100		mg/L	1		6020B	Total Recoverable

Client Sample ID: GZ-9
Lab Sample ID: 620-2810-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	4.41		1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid	2.85		1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid	6.68		1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid	3.13		1.78		ng/L	1		EPA 537(Mod)	Total/NA
Barium	0.0338		0.00200		mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins New England

Client Sample ID: GZ-9 (Continued) — Lab Sample ID: 620-2810-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.000578		0.000500		mg/L	1		6020B	Total Recoverable
Chromium	0.00350		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.0106		0.000500		mg/L	1		6020B	Total Recoverable
Copper	0.00210		0.00100		mg/L	1		6020B	Total Recoverable
Lead	0.00287		0.000500		mg/L	1		6020B	Total Recoverable
Nickel	0.0227		0.00100		mg/L	1		6020B	Total Recoverable
Zinc	0.0404		0.0100		mg/L	1		6020B	Total Recoverable

Client Sample ID: POT-1 — Lab Sample ID: 620-2810-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.764		0.500		ug/L	1		524.2	Total/NA
Ethyl ether	1.20		0.500		ug/L	1		524.2	Total/NA
Nitrate as N	0.182		0.0300		mg/L	1		Nitrate	Total/NA
Nitrate and Nitrite as N	0.18		0.03		mg/L	1		NO2+NO3	Total/NA

Client Sample ID: TB012822 — Lab Sample ID: 620-2810-12

No Detections.

Client Sample ID: BD012822 — Lab Sample ID: 620-2810-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	12.0		1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid	5.99		1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid	48.1		1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanesulfonic acid	2.14		1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid	4.97		1.78		ng/L	1		EPA 537(Mod)	Total/NA

Client Sample ID: FB012822 — Lab Sample ID: 620-2810-14

No Detections.

Client Sample ID: EB012822 — Lab Sample ID: 620-2810-15

No Detections.

Client Sample ID: POT-1 — Lab Sample ID: 620-2810-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	5.98		2.00		ug/L	1		200.8 Rev 5.4	Total Recoverable
Cobalt	1.62		0.500		ug/L	1		200.8 Rev 5.4	Total Recoverable
Copper	1.13		1.00		ug/L	1		200.8 Rev 5.4	Total Recoverable
Nickel	5.33		1.00		ug/L	1		200.8 Rev 5.4	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-1
Lab Sample ID: 620-2810-1
Date Collected: 01/28/22 11:45
Matrix: Water
Date Received: 01/28/22 14:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			02/09/22 13:48	1
Acetone	ND	*-	10.0		ug/L			02/09/22 13:48	1
Acrylonitrile	ND		0.500		ug/L			02/09/22 13:48	1
Benzene	ND		1.00		ug/L			02/09/22 13:48	1
Bromobenzene	ND		1.00		ug/L			02/09/22 13:48	1
Bromochloromethane	ND		1.00		ug/L			02/09/22 13:48	1
Bromodichloromethane	ND		0.500		ug/L			02/09/22 13:48	1
Bromoform	ND		1.00		ug/L			02/09/22 13:48	1
Bromomethane	ND		2.00		ug/L			02/09/22 13:48	1
2-Butanone (MEK)	ND	*1 *-	2.00		ug/L			02/09/22 13:48	1
n-Butylbenzene	ND		1.00		ug/L			02/09/22 13:48	1
sec-Butylbenzene	ND		1.00		ug/L			02/09/22 13:48	1
tert-Butylbenzene	ND		1.00		ug/L			02/09/22 13:48	1
Carbon disulfide	ND		2.00		ug/L			02/09/22 13:48	1
Carbon tetrachloride	ND		1.00		ug/L			02/09/22 13:48	1
Chlorobenzene	ND		1.00		ug/L			02/09/22 13:48	1
Chloroethane	ND		2.00		ug/L			02/09/22 13:48	1
Chloroform	ND		1.00		ug/L			02/09/22 13:48	1
Chloromethane	ND		2.00		ug/L			02/09/22 13:48	1
2-Chlorotoluene	ND		1.00		ug/L			02/09/22 13:48	1
4-Chlorotoluene	ND		1.00		ug/L			02/09/22 13:48	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			02/09/22 13:48	1
Dibromochloromethane	ND		0.500		ug/L			02/09/22 13:48	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			02/09/22 13:48	1
Dibromomethane	ND		1.00		ug/L			02/09/22 13:48	1
1,2-Dichlorobenzene	ND		1.00		ug/L			02/09/22 13:48	1
1,3-Dichlorobenzene	ND		1.00		ug/L			02/09/22 13:48	1
1,4-Dichlorobenzene	ND		1.00		ug/L			02/09/22 13:48	1
Dichlorodifluoromethane (Freon 12)	ND	*-	2.00		ug/L			02/09/22 13:48	1
1,1-Dichloroethane	ND		1.00		ug/L			02/09/22 13:48	1
1,2-Dichloroethane	ND		1.00		ug/L			02/09/22 13:48	1
1,1-Dichloroethene	ND		1.00		ug/L			02/09/22 13:48	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 13:48	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 13:48	1
1,2-Dichloropropane	ND		1.00		ug/L			02/09/22 13:48	1
1,3-Dichloropropane	ND		1.00		ug/L			02/09/22 13:48	1
2,2-Dichloropropane	ND		1.00		ug/L			02/09/22 13:48	1
1,1-Dichloropropene	ND		1.00		ug/L			02/09/22 13:48	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 13:48	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 13:48	1
Ethylbenzene	ND		1.00		ug/L			02/09/22 13:48	1
Hexachlorobutadiene	ND		1.00		ug/L			02/09/22 13:48	1
2-Hexanone (MBK)	ND	*-	2.00		ug/L			02/09/22 13:48	1
Isopropylbenzene	ND		1.00		ug/L			02/09/22 13:48	1
4-Isopropyltoluene	ND		1.00		ug/L			02/09/22 13:48	1
Methyl tert-butyl ether	ND		1.00		ug/L			02/09/22 13:48	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			02/09/22 13:48	1
Methylene Chloride	ND		2.00		ug/L			02/09/22 13:48	1
Naphthalene	ND		2.00		ug/L			02/09/22 13:48	1

Client Sample ID: GZ-1
Lab Sample ID: 620-2810-1
Date Collected: 01/28/22 11:45
Matrix: Water
Date Received: 01/28/22 14:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			02/09/22 13:48	1
Styrene	ND		1.00		ug/L			02/09/22 13:48	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L			02/09/22 13:48	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			02/09/22 13:48	1
Tetrachloroethene	ND		1.00		ug/L			02/09/22 13:48	1
Toluene	ND		1.00		ug/L			02/09/22 13:48	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			02/09/22 13:48	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			02/09/22 13:48	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			02/09/22 13:48	1
1,1,1-Trichloroethane	ND		1.00		ug/L			02/09/22 13:48	1
1,1,2-Trichloroethane	ND		1.00		ug/L			02/09/22 13:48	1
Trichloroethene	ND		1.00		ug/L			02/09/22 13:48	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			02/09/22 13:48	1
1,2,3-Trichloropropane	ND		1.00		ug/L			02/09/22 13:48	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			02/09/22 13:48	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			02/09/22 13:48	1
Vinyl chloride	ND		1.00		ug/L			02/09/22 13:48	1
m,p-Xylene	ND		1.00		ug/L			02/09/22 13:48	1
o-Xylene	ND		1.00		ug/L			02/09/22 13:48	1
Tetrahydrofuran	ND		2.00		ug/L			02/09/22 13:48	1
Ethyl ether	ND		1.00		ug/L			02/09/22 13:48	1
Tert-amyl methyl ether	ND		1.00		ug/L			02/09/22 13:48	1
Tert-butyl ethyl ether	ND		1.00		ug/L			02/09/22 13:48	1
di-Isopropyl ether	ND		1.00		ug/L			02/09/22 13:48	1
tert-Butyl alcohol	ND	*+	10.0		ug/L			02/09/22 13:48	1
1,4-Dioxane	ND		50.0		ug/L			02/09/22 13:48	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			02/09/22 13:48	1
Ethanol	ND	*+	200		ug/L			02/09/22 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*02/09/22 13:48*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*02/09/22 13:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*02/09/22 13:48*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*02/09/22 13:48*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluoroheptanoic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluorooctanoic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluorononanoic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluorodecanoic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluorotridecanoic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluorotetradecanoic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluorobutanesulfonic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluorohexanesulfonic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluorooctanesulfonic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
NEtFOSAA	ND		2.74		ng/L		02/08/22 07:07	02/09/22 06:37	1
NMeFOSAA	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluoropentanesulfonic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1

Client Sample ID: GZ-1
Date Collected: 01/28/22 11:45
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-1
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluorononanesulfonic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluorodecanesulfonic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluorooctanesulfonamide	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluorobutanoic acid	ND		4.56		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluoropentanoic acid	**2.71**		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluoroundecanoic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
Perfluorododecanoic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
6:2 Fluorotelomer sulfonic acid	ND		4.56		ng/L		02/08/22 07:07	02/09/22 06:37	1
8:2 Fluorotelomer sulfonic acid	ND		2.74		ng/L		02/08/22 07:07	02/09/22 06:37	1
4:2 Fluorotelomer sulfonic acid	ND		1.82		ng/L		02/08/22 07:07	02/09/22 06:37	1
NMeFOSA	ND		2.74		ng/L		02/08/22 07:07	02/09/22 06:37	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*112*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
M2-8:2 FTS	*103*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
M2-6:2 FTS	*102*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
13C5 PFHxA	*109*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
13C4 PFHpA	*115*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
13C8 PFOA	*113*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
13C9 PFNA	*116*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
13C6 PFDA	*114*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
13C7 PFUnA	*107*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
13C2-PFDoDA	*105*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
13C2 PFTeDA	*88*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
13C3 PFBS	*115*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
13C3 PFHxS	*120*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
13C8 PFOS	*107*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
d3-NMeFOSAA	*104*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
d5-NEtFOSAA	*108*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
13C8 FOSA	*104*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
13C4 PFBA	*111*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
13C5 PFPeA	*112*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*
d3-NMePFOSA	*70*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:37*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 17:33	1
Arsenic	ND		0.00200		mg/L		02/02/22 20:05	02/09/22 17:33	1
Barium	**0.00402**		0.00200		mg/L		02/02/22 20:05	02/09/22 17:33	1
Beryllium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:33	1
Cadmium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:33	1
Chromium	ND		0.00200		mg/L		02/02/22 20:05	02/09/22 17:33	1
Cobalt	**0.00346**		0.000500		mg/L		02/02/22 20:05	02/09/22 17:33	1
Copper	**0.00292**		0.00100		mg/L		02/02/22 20:05	02/09/22 17:33	1
Lead	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:33	1
Nickel	**0.0174**		0.00100		mg/L		02/02/22 20:05	02/09/22 17:33	1
Selenium	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 17:33	1
Silver	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:33	1
Thallium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:33	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-1
Lab Sample ID: 620-2810-1
Date Collected: 01/28/22 11:45
Matrix: Water
Date Received: 01/28/22 14:05

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		02/02/22 20:05	02/09/22 17:33	1
Zinc	**0.0119**		0.0100		mg/L		02/02/22 20:05	02/09/22 17:33	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-2
Date Collected: 01/28/22 12:45
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			02/09/22 14:16	1
Acetone	ND	*-	10.0		ug/L			02/09/22 14:16	1
Acrylonitrile	ND		0.500		ug/L			02/09/22 14:16	1
Benzene	ND		1.00		ug/L			02/09/22 14:16	1
Bromobenzene	ND		1.00		ug/L			02/09/22 14:16	1
Bromochloromethane	ND		1.00		ug/L			02/09/22 14:16	1
Bromodichloromethane	ND		0.500		ug/L			02/09/22 14:16	1
Bromoform	ND		1.00		ug/L			02/09/22 14:16	1
Bromomethane	ND		2.00		ug/L			02/09/22 14:16	1
2-Butanone (MEK)	ND	*1 *-	2.00		ug/L			02/09/22 14:16	1
n-Butylbenzene	ND		1.00		ug/L			02/09/22 14:16	1
sec-Butylbenzene	ND		1.00		ug/L			02/09/22 14:16	1
tert-Butylbenzene	ND		1.00		ug/L			02/09/22 14:16	1
Carbon disulfide	ND		2.00		ug/L			02/09/22 14:16	1
Carbon tetrachloride	ND		1.00		ug/L			02/09/22 14:16	1
Chlorobenzene	**4.92**		1.00		ug/L			02/09/22 14:16	1
Chloroethane	ND		2.00		ug/L			02/09/22 14:16	1
Chloroform	ND		1.00		ug/L			02/09/22 14:16	1
Chloromethane	ND		2.00		ug/L			02/09/22 14:16	1
2-Chlorotoluene	ND		1.00		ug/L			02/09/22 14:16	1
4-Chlorotoluene	ND		1.00		ug/L			02/09/22 14:16	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			02/09/22 14:16	1
Dibromochloromethane	ND		0.500		ug/L			02/09/22 14:16	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			02/09/22 14:16	1
Dibromomethane	ND		1.00		ug/L			02/09/22 14:16	1
1,2-Dichlorobenzene	ND		1.00		ug/L			02/09/22 14:16	1
1,3-Dichlorobenzene	ND		1.00		ug/L			02/09/22 14:16	1
1,4-Dichlorobenzene	ND		1.00		ug/L			02/09/22 14:16	1
Dichlorodifluoromethane (Freon 12)	ND	*-	2.00		ug/L			02/09/22 14:16	1
1,1-Dichloroethane	ND		1.00		ug/L			02/09/22 14:16	1
1,2-Dichloroethane	ND		1.00		ug/L			02/09/22 14:16	1
1,1-Dichloroethene	ND		1.00		ug/L			02/09/22 14:16	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 14:16	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 14:16	1
1,2-Dichloropropane	ND		1.00		ug/L			02/09/22 14:16	1
1,3-Dichloropropane	ND		1.00		ug/L			02/09/22 14:16	1
2,2-Dichloropropane	ND		1.00		ug/L			02/09/22 14:16	1
1,1-Dichloropropene	ND		1.00		ug/L			02/09/22 14:16	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 14:16	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 14:16	1
Ethylbenzene	ND		1.00		ug/L			02/09/22 14:16	1
Hexachlorobutadiene	ND		1.00		ug/L			02/09/22 14:16	1
2-Hexanone (MBK)	ND	*-	2.00		ug/L			02/09/22 14:16	1
Isopropylbenzene	ND		1.00		ug/L			02/09/22 14:16	1
4-Isopropyltoluene	ND		1.00		ug/L			02/09/22 14:16	1
Methyl tert-butyl ether	ND		1.00		ug/L			02/09/22 14:16	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			02/09/22 14:16	1
Methylene Chloride	ND		2.00		ug/L			02/09/22 14:16	1
Naphthalene	ND		2.00		ug/L			02/09/22 14:16	1

Client Sample ID: GZ-2
Date Collected: 01/28/22 12:45
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			02/09/22 14:16	1
Styrene	ND		1.00		ug/L			02/09/22 14:16	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L			02/09/22 14:16	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			02/09/22 14:16	1
Tetrachloroethene	ND		1.00		ug/L			02/09/22 14:16	1
Toluene	ND		1.00		ug/L			02/09/22 14:16	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			02/09/22 14:16	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			02/09/22 14:16	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			02/09/22 14:16	1
1,1,1-Trichloroethane	ND		1.00		ug/L			02/09/22 14:16	1
1,1,2-Trichloroethane	ND		1.00		ug/L			02/09/22 14:16	1
Trichloroethene	ND		1.00		ug/L			02/09/22 14:16	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			02/09/22 14:16	1
1,2,3-Trichloropropane	ND		1.00		ug/L			02/09/22 14:16	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			02/09/22 14:16	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			02/09/22 14:16	1
Vinyl chloride	ND		1.00		ug/L			02/09/22 14:16	1
m,p-Xylene	ND		1.00		ug/L			02/09/22 14:16	1
o-Xylene	ND		1.00		ug/L			02/09/22 14:16	1
Tetrahydrofuran	ND		2.00		ug/L			02/09/22 14:16	1
Ethyl ether	ND		1.00		ug/L			02/09/22 14:16	1
Tert-amyl methyl ether	ND		1.00		ug/L			02/09/22 14:16	1
Tert-butyl ethyl ether	ND		1.00		ug/L			02/09/22 14:16	1
di-Isopropyl ether	ND		1.00		ug/L			02/09/22 14:16	1
tert-Butyl alcohol	ND	*+	10.0		ug/L			02/09/22 14:16	1
1,4-Dioxane	ND		50.0		ug/L			02/09/22 14:16	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			02/09/22 14:16	1
Ethanol	ND	*+	200		ug/L			02/09/22 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*02/09/22 14:16*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*02/09/22 14:16*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*02/09/22 14:16*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*02/09/22 14:16*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**20.2**		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluoroheptanoic acid	**14.9**		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluorooctanoic acid	**175**		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluorononanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluorodecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluorotridecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluorotetradecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluorobutanesulfonic acid	**2.67**		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluorohexanesulfonic acid	**11.7**		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluorooctanesulfonic acid	**21.6**		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
NEtFOSAA	ND		2.66		ng/L		02/08/22 07:07	02/09/22 06:48	1
NMeFOSAA	ND		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluoropentanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1

Client Sample ID: GZ-2
Date Collected: 01/28/22 12:45
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-2
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluorononanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluorodecanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluorooctanesulfonamide	ND		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluorobutanoic acid	**9.53**		4.43		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluoropentanoic acid	**11.8**		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluoroundecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
Perfluorododecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
6:2 Fluorotelomer sulfonic acid	ND		4.43		ng/L		02/08/22 07:07	02/09/22 06:48	1
8:2 Fluorotelomer sulfonic acid	ND		2.66		ng/L		02/08/22 07:07	02/09/22 06:48	1
4:2 Fluorotelomer sulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 06:48	1
NMeFOSA	ND		2.66		ng/L		02/08/22 07:07	02/09/22 06:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*157*	*5+	*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
M2-8:2 FTS	*92*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
M2-6:2 FTS	*108*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
13C5 PFHxA	*119*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
13C4 PFHpA	*123*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
13C8 PFOA	*117*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
13C9 PFNA	*118*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
13C6 PFDA	*101*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
13C7 PFUnA	*72*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
13C2-PFDoDA	*35*	*5-	*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
13C2 PFTeDA	*5*	*5-	*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
13C3 PFBS	*133*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
13C3 PFHxS	*123*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
13C8 PFOS	*110*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
d3-NMeFOSAA	*86*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
d5-NEtFOSAA	*73*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
13C8 FOSA	*91*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
13C4 PFBA	*106*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
13C5 PFPeA	*113*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*
d3-NMePFOSA	*28*	*5-	*50 - 150*	*02/08/22 07:07*	*02/09/22 06:48*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**14.8**	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluoroheptanoic acid	**12.7**	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluorooctanoic acid	**135**	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluorononanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluorodecanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluorotridecanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluorotetradecanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluorobutanesulfonic acid	**2.05**	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluorohexanesulfonic acid	**8.62**	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluorooctanesulfonic acid	**16.5**	I *-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
NEtFOSAA	ND		2.67		ng/L		02/06/22 08:04	02/07/22 18:21	1
NMeFOSAA	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluoropentanesulfonic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1

Client Sample ID: GZ-2
Date Collected: 01/28/22 12:45
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-2
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluorononanesulfonic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluorodecanesulfonic acid	ND		1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluorooctanesulfonamide	ND		1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluorobutanoic acid	**6.96**	*-	4.44		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluoropentanoic acid	**8.01**	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluoroundecanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
Perfluorododecanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
6:2 Fluorotelomer sulfonic acid	ND		4.44		ng/L		02/06/22 08:04	02/07/22 18:21	1
8:2 Fluorotelomer sulfonic acid	ND		2.67		ng/L		02/06/22 08:04	02/07/22 18:21	1
4:2 Fluorotelomer sulfonic acid	ND		1.78		ng/L		02/06/22 08:04	02/07/22 18:21	1
NMeFOSA	ND		2.67		ng/L		02/06/22 08:04	02/07/22 18:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*192*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
M2-8:2 FTS	*116*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
M2-6:2 FTS	*125*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
13C5 PFHxA	*138*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
13C4 PFHpA	*126*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
13C8 PFOA	*130*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
13C9 PFNA	*128*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
13C6 PFDA	*119*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
13C7 PFUnA	*105*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
13C2-PFDoDA	*81*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
13C2 PFTeDA	*52*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
13C3 PFBS	*157*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
13C3 PFHxS	*142*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
13C8 PFOS	*124*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
d3-NMeFOSAA	*95*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
d5-NEtFOSAA	*88*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
13C8 FOSA	*54*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
13C4 PFBA	*129*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
13C5 PFPeA	*142*		*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*
d3-NMePFOSA	*0.5*	*5-	*50 - 150*	*02/06/22 08:04*	*02/07/22 18:21*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		02/03/22 06:16	02/03/22 17:34	1
Arsenic	ND		0.00200		mg/L		02/03/22 06:16	02/03/22 17:34	1
Barium	**0.0405**		0.00200		mg/L		02/03/22 06:16	02/03/22 17:34	1
Beryllium	ND		0.000500		mg/L		02/03/22 06:16	02/03/22 17:34	1
Cadmium	ND		0.000500		mg/L		02/03/22 06:16	02/03/22 17:34	1
Chromium	ND		0.00200		mg/L		02/03/22 06:16	02/03/22 17:34	1
Cobalt	**0.234**		0.000500		mg/L		02/03/22 06:16	02/03/22 17:34	1
Copper	**0.00304**		0.00100		mg/L		02/03/22 06:16	02/03/22 17:34	1
Lead	ND		0.000500		mg/L		02/03/22 06:16	02/03/22 17:34	1
Nickel	**0.0466**		0.00100		mg/L		02/03/22 06:16	02/03/22 17:34	1
Selenium	ND		0.00100		mg/L		02/03/22 06:16	02/03/22 17:34	1
Silver	ND		0.000500		mg/L		02/03/22 06:16	02/03/22 17:34	1
Thallium	ND		0.000500		mg/L		02/03/22 06:16	02/03/22 17:34	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-2
Lab Sample ID: 620-2810-2
Date Collected: 01/28/22 12:45
Matrix: Water
Date Received: 01/28/22 14:05

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		02/03/22 06:16	02/03/22 17:34	1
Zinc	**0.0119**		0.0100		mg/L		02/03/22 06:16	02/03/22 17:34	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-3
Lab Sample ID: 620-2810-3
Date Collected: 01/28/22 13:15
Matrix: Water
Date Received: 01/28/22 14:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			02/09/22 14:43	1
Acetone	ND	*-	10.0		ug/L			02/09/22 14:43	1
Acrylonitrile	ND		0.500		ug/L			02/09/22 14:43	1
Benzene	ND		1.00		ug/L			02/09/22 14:43	1
Bromobenzene	ND		1.00		ug/L			02/09/22 14:43	1
Bromochloromethane	ND		1.00		ug/L			02/09/22 14:43	1
Bromodichloromethane	ND		0.500		ug/L			02/09/22 14:43	1
Bromoform	ND		1.00		ug/L			02/09/22 14:43	1
Bromomethane	ND		2.00		ug/L			02/09/22 14:43	1
2-Butanone (MEK)	ND	*1 *-	2.00		ug/L			02/09/22 14:43	1
n-Butylbenzene	ND		1.00		ug/L			02/09/22 14:43	1
sec-Butylbenzene	ND		1.00		ug/L			02/09/22 14:43	1
tert-Butylbenzene	ND		1.00		ug/L			02/09/22 14:43	1
Carbon disulfide	ND		2.00		ug/L			02/09/22 14:43	1
Carbon tetrachloride	ND		1.00		ug/L			02/09/22 14:43	1
Chlorobenzene	ND		1.00		ug/L			02/09/22 14:43	1
Chloroethane	ND		2.00		ug/L			02/09/22 14:43	1
Chloroform	ND		1.00		ug/L			02/09/22 14:43	1
Chloromethane	ND		2.00		ug/L			02/09/22 14:43	1
2-Chlorotoluene	ND		1.00		ug/L			02/09/22 14:43	1
4-Chlorotoluene	ND		1.00		ug/L			02/09/22 14:43	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			02/09/22 14:43	1
Dibromochloromethane	ND		0.500		ug/L			02/09/22 14:43	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			02/09/22 14:43	1
Dibromomethane	ND		1.00		ug/L			02/09/22 14:43	1
1,2-Dichlorobenzene	ND		1.00		ug/L			02/09/22 14:43	1
1,3-Dichlorobenzene	ND		1.00		ug/L			02/09/22 14:43	1
1,4-Dichlorobenzene	ND		1.00		ug/L			02/09/22 14:43	1
Dichlorodifluoromethane (Freon 12)	ND	*-	2.00		ug/L			02/09/22 14:43	1
1,1-Dichloroethane	ND		1.00		ug/L			02/09/22 14:43	1
1,2-Dichloroethane	ND		1.00		ug/L			02/09/22 14:43	1
1,1-Dichloroethene	ND		1.00		ug/L			02/09/22 14:43	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 14:43	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 14:43	1
1,2-Dichloropropane	ND		1.00		ug/L			02/09/22 14:43	1
1,3-Dichloropropane	ND		1.00		ug/L			02/09/22 14:43	1
2,2-Dichloropropane	ND		1.00		ug/L			02/09/22 14:43	1
1,1-Dichloropropene	ND		1.00		ug/L			02/09/22 14:43	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 14:43	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 14:43	1
Ethylbenzene	ND		1.00		ug/L			02/09/22 14:43	1
Hexachlorobutadiene	ND		1.00		ug/L			02/09/22 14:43	1
2-Hexanone (MBK)	ND	*-	2.00		ug/L			02/09/22 14:43	1
Isopropylbenzene	ND		1.00		ug/L			02/09/22 14:43	1
4-Isopropyltoluene	ND		1.00		ug/L			02/09/22 14:43	1
Methyl tert-butyl ether	ND		1.00		ug/L			02/09/22 14:43	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			02/09/22 14:43	1
Methylene Chloride	ND		2.00		ug/L			02/09/22 14:43	1
Naphthalene	ND		2.00		ug/L			02/09/22 14:43	1

Client Sample ID: GZ-3
Date Collected: 01/28/22 13:15
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			02/09/22 14:43	1
Styrene	ND		1.00		ug/L			02/09/22 14:43	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L			02/09/22 14:43	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			02/09/22 14:43	1
Tetrachloroethene	ND		1.00		ug/L			02/09/22 14:43	1
Toluene	ND		1.00		ug/L			02/09/22 14:43	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			02/09/22 14:43	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			02/09/22 14:43	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			02/09/22 14:43	1
1,1,1-Trichloroethane	ND		1.00		ug/L			02/09/22 14:43	1
1,1,2-Trichloroethane	ND		1.00		ug/L			02/09/22 14:43	1
Trichloroethene	ND		1.00		ug/L			02/09/22 14:43	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			02/09/22 14:43	1
1,2,3-Trichloropropane	ND		1.00		ug/L			02/09/22 14:43	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			02/09/22 14:43	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			02/09/22 14:43	1
Vinyl chloride	ND		1.00		ug/L			02/09/22 14:43	1
m,p-Xylene	ND		1.00		ug/L			02/09/22 14:43	1
o-Xylene	ND		1.00		ug/L			02/09/22 14:43	1
Tetrahydrofuran	ND		2.00		ug/L			02/09/22 14:43	1
Ethyl ether	ND		1.00		ug/L			02/09/22 14:43	1
Tert-amyl methyl ether	ND		1.00		ug/L			02/09/22 14:43	1
Tert-butyl ethyl ether	ND		1.00		ug/L			02/09/22 14:43	1
di-Isopropyl ether	ND		1.00		ug/L			02/09/22 14:43	1
tert-Butyl alcohol	ND	*+	10.0		ug/L			02/09/22 14:43	1
1,4-Dioxane	ND		50.0		ug/L			02/09/22 14:43	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			02/09/22 14:43	1
Ethanol	ND	*+	200		ug/L			02/09/22 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*02/09/22 14:43*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*02/09/22 14:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*02/09/22 14:43*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*02/09/22 14:43*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluoroheptanoic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluorooctanoic acid	**3.06**		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluorononanoic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluorodecanoic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluorotridecanoic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluorotetradecanoic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluorobutanesulfonic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluorohexanesulfonic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluorooctanesulfonic acid	**2.38**		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
NEtFOSAA	ND		2.69		ng/L		02/08/22 07:07	02/09/22 06:59	1
NMeFOSAA	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluoropentanesulfonic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-3
Date Collected: 01/28/22 13:15
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-3
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluorononanesulfonic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluorodecanesulfonic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluorooctanesulfonamide	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluorobutanoic acid	ND		4.49		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluoropentanoic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluoroundecanoic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
Perfluorododecanoic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
6:2 Fluorotelomer sulfonic acid	ND		4.49		ng/L		02/08/22 07:07	02/09/22 06:59	1
8:2 Fluorotelomer sulfonic acid	ND		2.69		ng/L		02/08/22 07:07	02/09/22 06:59	1
4:2 Fluorotelomer sulfonic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 06:59	1
NMeFOSA	ND		2.69		ng/L		02/08/22 07:07	02/09/22 06:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*131*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
M2-8:2 FTS	*107*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
M2-6:2 FTS	*120*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
13C5 PFHxA	*118*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
13C4 PFHpA	*125*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
13C8 PFOA	*124*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
13C9 PFNA	*125*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
13C6 PFDA	*123*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
13C7 PFUnA	*115*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
13C2-PFDoDA	*109*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
13C2 PFTeDA	*98*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
13C3 PFBS	*124*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
13C3 PFHxS	*120*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
13C8 PFOS	*120*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
d3-NMeFOSAA	*112*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
d5-NEtFOSAA	*111*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
13C8 FOSA	*108*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
13C4 PFBA	*123*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
13C5 PFPeA	*119*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*
d3-NMePFOSA	*73*		*50 - 150*	*02/08/22 07:07*	*02/09/22 06:59*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		02/02/22 20:00	02/09/22 16:58	1
Arsenic	ND		0.00200		mg/L		02/02/22 20:00	02/09/22 16:58	1
Barium	**0.0101**		0.00200		mg/L		02/02/22 20:00	02/09/22 16:58	1
Beryllium	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 16:58	1
Cadmium	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 16:58	1
Chromium	ND		0.00200		mg/L		02/02/22 20:00	02/09/22 16:58	1
Cobalt	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 16:58	1
Copper	ND		0.00100		mg/L		02/02/22 20:00	02/09/22 16:58	1
Lead	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 16:58	1
Nickel	**0.00344**		0.00100		mg/L		02/02/22 20:00	02/09/22 16:58	1
Selenium	ND		0.00100		mg/L		02/02/22 20:00	02/09/22 16:58	1
Silver	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 16:58	1
Thallium	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 16:58	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-3
Lab Sample ID: 620-2810-3
Date Collected: 01/28/22 13:15
Matrix: Water
Date Received: 01/28/22 14:05

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		02/02/22 20:00	02/09/22 16:58	1
Zinc	ND		0.0100		mg/L		02/02/22 20:00	02/09/22 16:58	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-4
Lab Sample ID: 620-2810-4
Date Collected: 01/28/22 09:50
Matrix: Water
Date Received: 01/28/22 14:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			02/09/22 15:10	1
Acetone	ND	*-	10.0		ug/L			02/09/22 15:10	1
Acrylonitrile	ND		0.500		ug/L			02/09/22 15:10	1
Benzene	ND		1.00		ug/L			02/09/22 15:10	1
Bromobenzene	ND		1.00		ug/L			02/09/22 15:10	1
Bromochloromethane	ND		1.00		ug/L			02/09/22 15:10	1
Bromodichloromethane	ND		0.500		ug/L			02/09/22 15:10	1
Bromoform	ND		1.00		ug/L			02/09/22 15:10	1
Bromomethane	ND		2.00		ug/L			02/09/22 15:10	1
2-Butanone (MEK)	ND	*1 *-	2.00		ug/L			02/09/22 15:10	1
n-Butylbenzene	ND		1.00		ug/L			02/09/22 15:10	1
sec-Butylbenzene	ND		1.00		ug/L			02/09/22 15:10	1
tert-Butylbenzene	ND		1.00		ug/L			02/09/22 15:10	1
Carbon disulfide	ND		2.00		ug/L			02/09/22 15:10	1
Carbon tetrachloride	ND		1.00		ug/L			02/09/22 15:10	1
Chlorobenzene	ND		1.00		ug/L			02/09/22 15:10	1
Chloroethane	ND		2.00		ug/L			02/09/22 15:10	1
Chloroform	ND		1.00		ug/L			02/09/22 15:10	1
Chloromethane	ND		2.00		ug/L			02/09/22 15:10	1
2-Chlorotoluene	ND		1.00		ug/L			02/09/22 15:10	1
4-Chlorotoluene	ND		1.00		ug/L			02/09/22 15:10	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			02/09/22 15:10	1
Dibromochloromethane	ND		0.500		ug/L			02/09/22 15:10	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			02/09/22 15:10	1
Dibromomethane	ND		1.00		ug/L			02/09/22 15:10	1
1,2-Dichlorobenzene	ND		1.00		ug/L			02/09/22 15:10	1
1,3-Dichlorobenzene	ND		1.00		ug/L			02/09/22 15:10	1
1,4-Dichlorobenzene	ND		1.00		ug/L			02/09/22 15:10	1
Dichlorodifluoromethane (Freon 12)	ND	*-	2.00		ug/L			02/09/22 15:10	1
1,1-Dichloroethane	ND		1.00		ug/L			02/09/22 15:10	1
1,2-Dichloroethane	ND		1.00		ug/L			02/09/22 15:10	1
1,1-Dichloroethene	ND		1.00		ug/L			02/09/22 15:10	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 15:10	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 15:10	1
1,2-Dichloropropane	ND		1.00		ug/L			02/09/22 15:10	1
1,3-Dichloropropane	ND		1.00		ug/L			02/09/22 15:10	1
2,2-Dichloropropane	ND		1.00		ug/L			02/09/22 15:10	1
1,1-Dichloropropene	ND		1.00		ug/L			02/09/22 15:10	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 15:10	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 15:10	1
Ethylbenzene	ND		1.00		ug/L			02/09/22 15:10	1
Hexachlorobutadiene	ND		1.00		ug/L			02/09/22 15:10	1
2-Hexanone (MBK)	ND	*-	2.00		ug/L			02/09/22 15:10	1
Isopropylbenzene	ND		1.00		ug/L			02/09/22 15:10	1
4-Isopropyltoluene	ND		1.00		ug/L			02/09/22 15:10	1
Methyl tert-butyl ether	ND		1.00		ug/L			02/09/22 15:10	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			02/09/22 15:10	1
Methylene Chloride	ND		2.00		ug/L			02/09/22 15:10	1
Naphthalene	ND		2.00		ug/L			02/09/22 15:10	1

Client Sample ID: GZ-4
Lab Sample ID: 620-2810-4
Date Collected: 01/28/22 09:50
Matrix: Water
Date Received: 01/28/22 14:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			02/09/22 15:10	1
Styrene	ND		1.00		ug/L			02/09/22 15:10	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L			02/09/22 15:10	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			02/09/22 15:10	1
Tetrachloroethene	ND		1.00		ug/L			02/09/22 15:10	1
Toluene	ND		1.00		ug/L			02/09/22 15:10	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			02/09/22 15:10	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			02/09/22 15:10	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			02/09/22 15:10	1
1,1,1-Trichloroethane	ND		1.00		ug/L			02/09/22 15:10	1
1,1,2-Trichloroethane	ND		1.00		ug/L			02/09/22 15:10	1
Trichloroethene	ND		1.00		ug/L			02/09/22 15:10	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			02/09/22 15:10	1
1,2,3-Trichloropropane	ND		1.00		ug/L			02/09/22 15:10	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			02/09/22 15:10	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			02/09/22 15:10	1
Vinyl chloride	ND		1.00		ug/L			02/09/22 15:10	1
m,p-Xylene	ND		1.00		ug/L			02/09/22 15:10	1
o-Xylene	ND		1.00		ug/L			02/09/22 15:10	1
Tetrahydrofuran	ND		2.00		ug/L			02/09/22 15:10	1
Ethyl ether	ND		1.00		ug/L			02/09/22 15:10	1
Tert-amyl methyl ether	ND		1.00		ug/L			02/09/22 15:10	1
Tert-butyl ethyl ether	ND		1.00		ug/L			02/09/22 15:10	1
di-Isopropyl ether	ND		1.00		ug/L			02/09/22 15:10	1
tert-Butyl alcohol	ND	*+	10.0		ug/L			02/09/22 15:10	1
1,4-Dioxane	ND		50.0		ug/L			02/09/22 15:10	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			02/09/22 15:10	1
Ethanol	ND	*+	200		ug/L			02/09/22 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*02/09/22 15:10*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*02/09/22 15:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*02/09/22 15:10*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*02/09/22 15:10*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluoroheptanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluorooctanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluorononanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluorodecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluorotridecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluorotetradecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluorobutanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluorohexanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluorooctanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
NEtFOSAA	ND		2.66		ng/L		02/08/22 07:07	02/09/22 07:10	1
NMeFOSAA	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluoropentanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1

Client Sample ID: GZ-4
Date Collected: 01/28/22 09:50
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-4
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluorononanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluorodecanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluorooctanesulfonamide	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluorobutanoic acid	ND		4.43		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluoropentanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluoroundecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
Perfluorododecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
6:2 Fluorotelomer sulfonic acid	ND		4.43		ng/L		02/08/22 07:07	02/09/22 07:10	1
8:2 Fluorotelomer sulfonic acid	ND		2.66		ng/L		02/08/22 07:07	02/09/22 07:10	1
4:2 Fluorotelomer sulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:10	1
NMeFOSA	ND		2.66		ng/L		02/08/22 07:07	02/09/22 07:10	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*125*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
M2-8:2 FTS	*108*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
M2-6:2 FTS	*112*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
13C5 PFHxA	*110*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
13C4 PFHpA	*110*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
13C8 PFOA	*118*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
13C9 PFNA	*118*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
13C6 PFDA	*116*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
13C7 PFUnA	*111*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
13C2-PFDoDA	*100*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
13C2 PFTeDA	*92*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
13C3 PFBS	*119*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
13C3 PFHxS	*116*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
13C8 PFOS	*117*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
d3-NMeFOSAA	*98*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
d5-NEtFOSAA	*111*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
13C8 FOSA	*105*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
13C4 PFBA	*115*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
13C5 PFPeA	*114*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*
d3-NMePFOSA	*72*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:10*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		02/10/22 11:44	02/11/22 14:49	1
Arsenic	ND		0.00200		mg/L		02/10/22 11:44	02/11/22 14:49	1
Barium	**0.00862**		0.00200		mg/L		02/10/22 11:44	02/11/22 14:49	1
Beryllium	ND		0.000500		mg/L		02/10/22 11:44	02/11/22 14:49	1
Cadmium	ND		0.000500		mg/L		02/10/22 11:44	02/11/22 14:49	1
Chromium	ND		0.00200		mg/L		02/10/22 11:44	02/11/22 14:49	1
Cobalt	ND		0.000500		mg/L		02/10/22 11:44	02/11/22 14:49	1
Copper	**0.00125**		0.00100		mg/L		02/10/22 11:44	02/11/22 14:49	1
Lead	ND		0.000500		mg/L		02/10/22 11:44	02/11/22 14:49	1
Nickel	**0.00985**		0.00100		mg/L		02/10/22 11:44	02/11/22 14:49	1
Selenium	ND		0.00100		mg/L		02/10/22 11:44	02/11/22 14:49	1
Silver	ND		0.000500		mg/L		02/10/22 11:44	02/11/22 14:49	1
Thallium	ND		0.000500		mg/L		02/10/22 11:44	02/11/22 14:49	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-4
Lab Sample ID: 620-2810-4
Date Collected: 01/28/22 09:50
Matrix: Water
Date Received: 01/28/22 14:05

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		02/10/22 11:44	02/11/22 14:49	1
Zinc	**0.0107**		0.0100		mg/L		02/10/22 11:44	02/11/22 14:49	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-5
Lab Sample ID: 620-2810-5
Date Collected: 01/28/22 10:20
Matrix: Water
Date Received: 01/28/22 14:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			02/09/22 15:38	1
Acetone	ND	*-	10.0		ug/L			02/09/22 15:38	1
Acrylonitrile	ND		0.500		ug/L			02/09/22 15:38	1
Benzene	ND		1.00		ug/L			02/09/22 15:38	1
Bromobenzene	ND		1.00		ug/L			02/09/22 15:38	1
Bromochloromethane	ND		1.00		ug/L			02/09/22 15:38	1
Bromodichloromethane	ND		0.500		ug/L			02/09/22 15:38	1
Bromoform	ND		1.00		ug/L			02/09/22 15:38	1
Bromomethane	ND		2.00		ug/L			02/09/22 15:38	1
2-Butanone (MEK)	ND	*1 *-	2.00		ug/L			02/09/22 15:38	1
n-Butylbenzene	ND		1.00		ug/L			02/09/22 15:38	1
sec-Butylbenzene	ND		1.00		ug/L			02/09/22 15:38	1
tert-Butylbenzene	ND		1.00		ug/L			02/09/22 15:38	1
Carbon disulfide	ND		2.00		ug/L			02/09/22 15:38	1
Carbon tetrachloride	ND		1.00		ug/L			02/09/22 15:38	1
Chlorobenzene	ND		1.00		ug/L			02/09/22 15:38	1
Chloroethane	ND		2.00		ug/L			02/09/22 15:38	1
Chloroform	ND		1.00		ug/L			02/09/22 15:38	1
Chloromethane	ND		2.00		ug/L			02/09/22 15:38	1
2-Chlorotoluene	ND		1.00		ug/L			02/09/22 15:38	1
4-Chlorotoluene	ND		1.00		ug/L			02/09/22 15:38	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			02/09/22 15:38	1
Dibromochloromethane	ND		0.500		ug/L			02/09/22 15:38	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			02/09/22 15:38	1
Dibromomethane	ND		1.00		ug/L			02/09/22 15:38	1
1,2-Dichlorobenzene	ND		1.00		ug/L			02/09/22 15:38	1
1,3-Dichlorobenzene	ND		1.00		ug/L			02/09/22 15:38	1
1,4-Dichlorobenzene	ND		1.00		ug/L			02/09/22 15:38	1
Dichlorodifluoromethane (Freon 12)	ND	*-	2.00		ug/L			02/09/22 15:38	1
1,1-Dichloroethane	ND		1.00		ug/L			02/09/22 15:38	1
1,2-Dichloroethane	ND		1.00		ug/L			02/09/22 15:38	1
1,1-Dichloroethene	ND		1.00		ug/L			02/09/22 15:38	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 15:38	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 15:38	1
1,2-Dichloropropane	ND		1.00		ug/L			02/09/22 15:38	1
1,3-Dichloropropane	ND		1.00		ug/L			02/09/22 15:38	1
2,2-Dichloropropane	ND		1.00		ug/L			02/09/22 15:38	1
1,1-Dichloropropene	ND		1.00		ug/L			02/09/22 15:38	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 15:38	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 15:38	1
Ethylbenzene	ND		1.00		ug/L			02/09/22 15:38	1
Hexachlorobutadiene	ND		1.00		ug/L			02/09/22 15:38	1
2-Hexanone (MBK)	ND	*-	2.00		ug/L			02/09/22 15:38	1
Isopropylbenzene	ND		1.00		ug/L			02/09/22 15:38	1
4-Isopropyltoluene	ND		1.00		ug/L			02/09/22 15:38	1
Methyl tert-butyl ether	ND		1.00		ug/L			02/09/22 15:38	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			02/09/22 15:38	1
Methylene Chloride	ND		2.00		ug/L			02/09/22 15:38	1
Naphthalene	ND		2.00		ug/L			02/09/22 15:38	1

Client Sample ID: GZ-5
Lab Sample ID: 620-2810-5
Date Collected: 01/28/22 10:20
Matrix: Water
Date Received: 01/28/22 14:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			02/09/22 15:38	1
Styrene	ND		1.00		ug/L			02/09/22 15:38	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L			02/09/22 15:38	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			02/09/22 15:38	1
Tetrachloroethene	ND		1.00		ug/L			02/09/22 15:38	1
Toluene	ND		1.00		ug/L			02/09/22 15:38	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			02/09/22 15:38	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			02/09/22 15:38	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			02/09/22 15:38	1
1,1,1-Trichloroethane	ND		1.00		ug/L			02/09/22 15:38	1
1,1,2-Trichloroethane	ND		1.00		ug/L			02/09/22 15:38	1
Trichloroethene	ND		1.00		ug/L			02/09/22 15:38	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			02/09/22 15:38	1
1,2,3-Trichloropropane	ND		1.00		ug/L			02/09/22 15:38	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			02/09/22 15:38	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			02/09/22 15:38	1
Vinyl chloride	ND		1.00		ug/L			02/09/22 15:38	1
m,p-Xylene	ND		1.00		ug/L			02/09/22 15:38	1
o-Xylene	ND		1.00		ug/L			02/09/22 15:38	1
Tetrahydrofuran	ND		2.00		ug/L			02/09/22 15:38	1
Ethyl ether	ND		1.00		ug/L			02/09/22 15:38	1
Tert-amyl methyl ether	ND		1.00		ug/L			02/09/22 15:38	1
Tert-butyl ethyl ether	ND		1.00		ug/L			02/09/22 15:38	1
di-Isopropyl ether	ND		1.00		ug/L			02/09/22 15:38	1
tert-Butyl alcohol	ND	*+	10.0		ug/L			02/09/22 15:38	1
1,4-Dioxane	ND		50.0		ug/L			02/09/22 15:38	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			02/09/22 15:38	1
Ethanol	ND	*+	200		ug/L			02/09/22 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*02/09/22 15:38*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*02/09/22 15:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*02/09/22 15:38*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*02/09/22 15:38*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluoroheptanoic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluorooctanoic acid	**2.22**		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluorononanoic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluorodecanoic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluorotridecanoic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluorotetradecanoic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluorobutanesulfonic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluorohexanesulfonic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluorooctanesulfonic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
NEtFOSAA	ND		2.72		ng/L		02/08/22 07:07	02/09/22 07:22	1
NMeFOSAA	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluoropentanesulfonic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1

Client Sample ID: GZ-5
Date Collected: 01/28/22 10:20
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-5
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluorononanesulfonic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluorodecanesulfonic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluorooctanesulfonamide	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluorobutanoic acid	ND		4.54		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluoropentanoic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluoroundecanoic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
Perfluorododecanoic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
6:2 Fluorotelomer sulfonic acid	ND		4.54		ng/L		02/08/22 07:07	02/09/22 07:22	1
8:2 Fluorotelomer sulfonic acid	ND		2.72		ng/L		02/08/22 07:07	02/09/22 07:22	1
4:2 Fluorotelomer sulfonic acid	ND		1.81		ng/L		02/08/22 07:07	02/09/22 07:22	1
NMeFOSA	ND		2.72		ng/L		02/08/22 07:07	02/09/22 07:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*126*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
M2-8:2 FTS	*56*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
M2-6:2 FTS	*98*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
13C5 PFHxA	*109*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
13C4 PFHpA	*111*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
13C8 PFOA	*102*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
13C9 PFNA	*87*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
13C6 PFDA	*57*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
13C7 PFUnA	*32*	**5-*	*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
13C2-PFDoDA	*12*	**5-*	*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
13C2 PFTeDA	*0.9*	**5-*	*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
13C3 PFBS	*124*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
13C3 PFHxS	*112*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
13C8 PFOS	*74*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
d3-NMeFOSAA	*35*	**5-*	*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
d5-NEtFOSAA	*29*	**5-*	*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
13C8 FOSA	*41*	**5-*	*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
13C4 PFBA	*116*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
13C5 PFPeA	*117*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*
d3-NMePFOSA	*5*	**5-*	*50 - 150*	*02/08/22 07:07*	*02/09/22 07:22*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluoroheptanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluorooctanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluorononanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluorodecanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluorotridecanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluorotetradecanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluorobutanesulfonic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluorohexanesulfonic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluorooctanesulfonic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
NEtFOSAA	ND		2.67		ng/L		02/06/22 08:04	02/07/22 19:05	1
NMeFOSAA	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluoropentanesulfonic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1

Client Sample ID: GZ-5
Date Collected: 01/28/22 10:20
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-5
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluorononanesulfonic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluorodecanesulfonic acid	ND		1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluorooctanesulfonamide	ND		1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluorobutanoic acid	ND	*-	4.45		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluoropentanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluoroundecanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
Perfluorododecanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
6:2 Fluorotelomer sulfonic acid	ND		4.45		ng/L		02/06/22 08:04	02/07/22 19:05	1
8:2 Fluorotelomer sulfonic acid	ND		2.67		ng/L		02/06/22 08:04	02/07/22 19:05	1
4:2 Fluorotelomer sulfonic acid	ND		1.78		ng/L		02/06/22 08:04	02/07/22 19:05	1
NMeFOSA	ND		2.67		ng/L		02/06/22 08:04	02/07/22 19:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*138*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
M2-8:2 FTS	*96*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
M2-6:2 FTS	*122*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
13C5 PFHxA	*129*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
13C4 PFHpA	*120*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
13C8 PFOA	*130*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
13C9 PFNA	*118*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
13C6 PFDA	*103*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
13C7 PFUnA	*92*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
13C2-PFDoDA	*74*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
13C2 PFTeDA	*60*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
13C3 PFBS	*136*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
13C3 PFHxS	*133*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
13C8 PFOS	*103*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
d3-NMeFOSAA	*82*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
d5-NEtFOSAA	*84*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
13C8 FOSA	*62*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
13C4 PFBA	*142*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
13C5 PFPeA	*137*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*
d3-NMePFOSA	*1*	*5-	*50 - 150*	*02/06/22 08:04*	*02/07/22 19:05*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		02/02/22 20:00	02/09/22 16:54	1
Arsenic	ND		0.00200		mg/L		02/02/22 20:00	02/09/22 16:54	1
Barium	**0.0139**		0.00200		mg/L		02/02/22 20:00	02/09/22 16:54	1
Beryllium	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 16:54	1
Cadmium	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 16:54	1
Chromium	ND		0.00200		mg/L		02/02/22 20:00	02/09/22 16:54	1
Cobalt	**0.0236**		0.000500		mg/L		02/02/22 20:00	02/09/22 16:54	1
Copper	**0.00140**		0.00100		mg/L		02/02/22 20:00	02/09/22 16:54	1
Lead	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 16:54	1
Nickel	**0.00349**		0.00100		mg/L		02/02/22 20:00	02/09/22 16:54	1
Selenium	ND		0.00100		mg/L		02/02/22 20:00	02/09/22 16:54	1
Silver	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 16:54	1
Thallium	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 16:54	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-5
Lab Sample ID: 620-2810-5
Date Collected: 01/28/22 10:20
Matrix: Water
Date Received: 01/28/22 14:05

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		02/02/22 20:00	02/09/22 16:54	1
Zinc	ND		0.0100		mg/L		02/02/22 20:00	02/09/22 16:54	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-6
Lab Sample ID: 620-2810-6
Date Collected: 01/28/22 11:00
Matrix: Water
Date Received: 01/28/22 14:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			02/09/22 16:05	1
Acetone	ND	*-	10.0		ug/L			02/09/22 16:05	1
Acrylonitrile	ND		0.500		ug/L			02/09/22 16:05	1
Benzene	ND		1.00		ug/L			02/09/22 16:05	1
Bromobenzene	ND		1.00		ug/L			02/09/22 16:05	1
Bromochloromethane	ND		1.00		ug/L			02/09/22 16:05	1
Bromodichloromethane	ND		0.500		ug/L			02/09/22 16:05	1
Bromoform	ND		1.00		ug/L			02/09/22 16:05	1
Bromomethane	ND		2.00		ug/L			02/09/22 16:05	1
2-Butanone (MEK)	ND	*1 *-	2.00		ug/L			02/09/22 16:05	1
n-Butylbenzene	ND		1.00		ug/L			02/09/22 16:05	1
sec-Butylbenzene	ND		1.00		ug/L			02/09/22 16:05	1
tert-Butylbenzene	ND		1.00		ug/L			02/09/22 16:05	1
Carbon disulfide	ND		2.00		ug/L			02/09/22 16:05	1
Carbon tetrachloride	ND		1.00		ug/L			02/09/22 16:05	1
Chlorobenzene	ND		1.00		ug/L			02/09/22 16:05	1
Chloroethane	ND		2.00		ug/L			02/09/22 16:05	1
Chloroform	ND		1.00		ug/L			02/09/22 16:05	1
Chloromethane	ND		2.00		ug/L			02/09/22 16:05	1
2-Chlorotoluene	ND		1.00		ug/L			02/09/22 16:05	1
4-Chlorotoluene	ND		1.00		ug/L			02/09/22 16:05	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			02/09/22 16:05	1
Dibromochloromethane	ND		0.500		ug/L			02/09/22 16:05	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			02/09/22 16:05	1
Dibromomethane	ND		1.00		ug/L			02/09/22 16:05	1
1,2-Dichlorobenzene	ND		1.00		ug/L			02/09/22 16:05	1
1,3-Dichlorobenzene	ND		1.00		ug/L			02/09/22 16:05	1
1,4-Dichlorobenzene	ND		1.00		ug/L			02/09/22 16:05	1
Dichlorodifluoromethane (Freon 12)	ND	*-	2.00		ug/L			02/09/22 16:05	1
1,1-Dichloroethane	ND		1.00		ug/L			02/09/22 16:05	1
1,2-Dichloroethane	ND		1.00		ug/L			02/09/22 16:05	1
1,1-Dichloroethene	ND		1.00		ug/L			02/09/22 16:05	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 16:05	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 16:05	1
1,2-Dichloropropane	ND		1.00		ug/L			02/09/22 16:05	1
1,3-Dichloropropane	ND		1.00		ug/L			02/09/22 16:05	1
2,2-Dichloropropane	ND		1.00		ug/L			02/09/22 16:05	1
1,1-Dichloropropene	ND		1.00		ug/L			02/09/22 16:05	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 16:05	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 16:05	1
Ethylbenzene	ND		1.00		ug/L			02/09/22 16:05	1
Hexachlorobutadiene	ND		1.00		ug/L			02/09/22 16:05	1
2-Hexanone (MBK)	ND	*-	2.00		ug/L			02/09/22 16:05	1
Isopropylbenzene	ND		1.00		ug/L			02/09/22 16:05	1
4-Isopropyltoluene	ND		1.00		ug/L			02/09/22 16:05	1
Methyl tert-butyl ether	ND		1.00		ug/L			02/09/22 16:05	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			02/09/22 16:05	1
Methylene Chloride	ND		2.00		ug/L			02/09/22 16:05	1
Naphthalene	ND		2.00		ug/L			02/09/22 16:05	1

Client Sample ID: GZ-6
Date Collected: 01/28/22 11:00
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			02/09/22 16:05	1
Styrene	ND		1.00		ug/L			02/09/22 16:05	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L			02/09/22 16:05	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			02/09/22 16:05	1
Tetrachloroethene	ND		1.00		ug/L			02/09/22 16:05	1
Toluene	ND		1.00		ug/L			02/09/22 16:05	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			02/09/22 16:05	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			02/09/22 16:05	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			02/09/22 16:05	1
1,1,1-Trichloroethane	ND		1.00		ug/L			02/09/22 16:05	1
1,1,2-Trichloroethane	ND		1.00		ug/L			02/09/22 16:05	1
Trichloroethene	ND		1.00		ug/L			02/09/22 16:05	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			02/09/22 16:05	1
1,2,3-Trichloropropane	ND		1.00		ug/L			02/09/22 16:05	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			02/09/22 16:05	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			02/09/22 16:05	1
Vinyl chloride	ND		1.00		ug/L			02/09/22 16:05	1
m,p-Xylene	ND		1.00		ug/L			02/09/22 16:05	1
o-Xylene	ND		1.00		ug/L			02/09/22 16:05	1
Tetrahydrofuran	ND		2.00		ug/L			02/09/22 16:05	1
Ethyl ether	ND		1.00		ug/L			02/09/22 16:05	1
Tert-amyl methyl ether	ND		1.00		ug/L			02/09/22 16:05	1
Tert-butyl ethyl ether	ND		1.00		ug/L			02/09/22 16:05	1
di-Isopropyl ether	ND		1.00		ug/L			02/09/22 16:05	1
tert-Butyl alcohol	ND	*+	10.0		ug/L			02/09/22 16:05	1
1,4-Dioxane	ND		50.0		ug/L			02/09/22 16:05	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			02/09/22 16:05	1
Ethanol	ND	*+	200		ug/L			02/09/22 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*02/09/22 16:05*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*02/09/22 16:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*02/09/22 16:05*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*02/09/22 16:05*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluoroheptanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluorooctanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluorononanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluorodecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluorotridecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluorotetradecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluorobutanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluorohexanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluorooctanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
NEtFOSAA	ND		2.66		ng/L		02/08/22 07:07	02/09/22 07:33	1
NMeFOSAA	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluoropentanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1

Client Sample ID: GZ-6
Lab Sample ID: 620-2810-6
Date Collected: 01/28/22 11:00
Matrix: Water
Date Received: 01/28/22 14:05

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluorononanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluorodecanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluorooctanesulfonamide	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluorobutanoic acid	ND		4.44		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluoropentanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluoroundecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
Perfluorododecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
6:2 Fluorotelomer sulfonic acid	ND		4.44		ng/L		02/08/22 07:07	02/09/22 07:33	1
8:2 Fluorotelomer sulfonic acid	ND		2.66		ng/L		02/08/22 07:07	02/09/22 07:33	1
4:2 Fluorotelomer sulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 07:33	1
NMeFOSA	ND		2.66		ng/L		02/08/22 07:07	02/09/22 07:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*116*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
M2-8:2 FTS	*103*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
M2-6:2 FTS	*106*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
13C5 PFHxA	*114*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
13C4 PFHpA	*120*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
13C8 PFOA	*120*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
13C9 PFNA	*116*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
13C6 PFDA	*116*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
13C7 PFUnA	*112*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
13C2-PFDoDA	*101*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
13C2 PFTeDA	*94*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
13C3 PFBS	*119*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
13C3 PFHxS	*119*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
13C8 PFOS	*116*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
d3-NMeFOSAA	*103*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
d5-NEtFOSAA	*112*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
13C8 FOSA	*104*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
13C4 PFBA	*121*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
13C5 PFPeA	*116*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*
d3-NMePFOSA	*68*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:33*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		02/02/22 20:00	02/09/22 17:08	1
Arsenic	ND		0.00200		mg/L		02/02/22 20:00	02/09/22 17:08	1
Barium	**0.00218**		0.00200		mg/L		02/02/22 20:00	02/09/22 17:08	1
Beryllium	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 17:08	1
Cadmium	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 17:08	1
Chromium	ND		0.00200		mg/L		02/02/22 20:00	02/09/22 17:08	1
Cobalt	**0.00291**		0.000500		mg/L		02/02/22 20:00	02/09/22 17:08	1
Copper	**0.00908**		0.00100		mg/L		02/02/22 20:00	02/09/22 17:08	1
Lead	**0.00108**		0.000500		mg/L		02/02/22 20:00	02/09/22 17:08	1
Nickel	**0.0158**		0.00100		mg/L		02/02/22 20:00	02/09/22 17:08	1
Selenium	ND		0.00100		mg/L		02/02/22 20:00	02/09/22 17:08	1
Silver	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 17:08	1
Thallium	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 17:08	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-6
Lab Sample ID: 620-2810-6
Date Collected: 01/28/22 11:00
Matrix: Water
Date Received: 01/28/22 14:05

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		02/02/22 20:00	02/09/22 17:08	1
Zinc	**0.0119**		0.0100		mg/L		02/02/22 20:00	02/09/22 17:08	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-7S
Lab Sample ID: 620-2810-7
Date Collected: 01/28/22 09:26
Matrix: Water
Date Received: 01/28/22 14:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			02/09/22 16:32	1
Acetone	ND	*-	10.0		ug/L			02/09/22 16:32	1
Acrylonitrile	ND		0.500		ug/L			02/09/22 16:32	1
Benzene	ND		1.00		ug/L			02/09/22 16:32	1
Bromobenzene	ND		1.00		ug/L			02/09/22 16:32	1
Bromochloromethane	ND		1.00		ug/L			02/09/22 16:32	1
Bromodichloromethane	ND		0.500		ug/L			02/09/22 16:32	1
Bromoform	ND		1.00		ug/L			02/09/22 16:32	1
Bromomethane	ND		2.00		ug/L			02/09/22 16:32	1
2-Butanone (MEK)	ND	*1 *-	2.00		ug/L			02/09/22 16:32	1
n-Butylbenzene	ND		1.00		ug/L			02/09/22 16:32	1
sec-Butylbenzene	ND		1.00		ug/L			02/09/22 16:32	1
tert-Butylbenzene	ND		1.00		ug/L			02/09/22 16:32	1
Carbon disulfide	ND		2.00		ug/L			02/09/22 16:32	1
Carbon tetrachloride	ND		1.00		ug/L			02/09/22 16:32	1
Chlorobenzene	ND		1.00		ug/L			02/09/22 16:32	1
Chloroethane	ND		2.00		ug/L			02/09/22 16:32	1
Chloroform	ND		1.00		ug/L			02/09/22 16:32	1
Chloromethane	ND		2.00		ug/L			02/09/22 16:32	1
2-Chlorotoluene	ND		1.00		ug/L			02/09/22 16:32	1
4-Chlorotoluene	ND		1.00		ug/L			02/09/22 16:32	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			02/09/22 16:32	1
Dibromochloromethane	ND		0.500		ug/L			02/09/22 16:32	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			02/09/22 16:32	1
Dibromomethane	ND		1.00		ug/L			02/09/22 16:32	1
1,2-Dichlorobenzene	ND		1.00		ug/L			02/09/22 16:32	1
1,3-Dichlorobenzene	ND		1.00		ug/L			02/09/22 16:32	1
1,4-Dichlorobenzene	ND		1.00		ug/L			02/09/22 16:32	1
Dichlorodifluoromethane (Freon 12)	ND	*-	2.00		ug/L			02/09/22 16:32	1
1,1-Dichloroethane	ND		1.00		ug/L			02/09/22 16:32	1
1,2-Dichloroethane	ND		1.00		ug/L			02/09/22 16:32	1
1,1-Dichloroethene	ND		1.00		ug/L			02/09/22 16:32	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 16:32	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 16:32	1
1,2-Dichloropropane	ND		1.00		ug/L			02/09/22 16:32	1
1,3-Dichloropropane	ND		1.00		ug/L			02/09/22 16:32	1
2,2-Dichloropropane	ND		1.00		ug/L			02/09/22 16:32	1
1,1-Dichloropropene	ND		1.00		ug/L			02/09/22 16:32	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 16:32	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 16:32	1
Ethylbenzene	ND		1.00		ug/L			02/09/22 16:32	1
Hexachlorobutadiene	ND		1.00		ug/L			02/09/22 16:32	1
2-Hexanone (MBK)	ND	*-	2.00		ug/L			02/09/22 16:32	1
Isopropylbenzene	ND		1.00		ug/L			02/09/22 16:32	1
4-Isopropyltoluene	ND		1.00		ug/L			02/09/22 16:32	1
Methyl tert-butyl ether	ND		1.00		ug/L			02/09/22 16:32	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			02/09/22 16:32	1
Methylene Chloride	ND		2.00		ug/L			02/09/22 16:32	1
Naphthalene	ND		2.00		ug/L			02/09/22 16:32	1

Client Sample ID: GZ-7S
Lab Sample ID: 620-2810-7
Date Collected: 01/28/22 09:26
Matrix: Water
Date Received: 01/28/22 14:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			02/09/22 16:32	1
Styrene	ND		1.00		ug/L			02/09/22 16:32	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L			02/09/22 16:32	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			02/09/22 16:32	1
Tetrachloroethene	ND		1.00		ug/L			02/09/22 16:32	1
Toluene	ND		1.00		ug/L			02/09/22 16:32	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			02/09/22 16:32	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			02/09/22 16:32	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			02/09/22 16:32	1
1,1,1-Trichloroethane	ND		1.00		ug/L			02/09/22 16:32	1
1,1,2-Trichloroethane	ND		1.00		ug/L			02/09/22 16:32	1
Trichloroethene	ND		1.00		ug/L			02/09/22 16:32	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			02/09/22 16:32	1
1,2,3-Trichloropropane	ND		1.00		ug/L			02/09/22 16:32	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			02/09/22 16:32	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			02/09/22 16:32	1
Vinyl chloride	ND		1.00		ug/L			02/09/22 16:32	1
m,p-Xylene	ND		1.00		ug/L			02/09/22 16:32	1
o-Xylene	ND		1.00		ug/L			02/09/22 16:32	1
Tetrahydrofuran	ND		2.00		ug/L			02/09/22 16:32	1
Ethyl ether	**2.44**		1.00		ug/L			02/09/22 16:32	1
Tert-amyl methyl ether	ND		1.00		ug/L			02/09/22 16:32	1
Tert-butyl ethyl ether	ND		1.00		ug/L			02/09/22 16:32	1
di-Isopropyl ether	ND		1.00		ug/L			02/09/22 16:32	1
tert-Butyl alcohol	ND	*+	10.0		ug/L			02/09/22 16:32	1
1,4-Dioxane	ND		50.0		ug/L			02/09/22 16:32	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			02/09/22 16:32	1
Ethanol	ND	*+	200		ug/L			02/09/22 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*02/09/22 16:32*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*02/09/22 16:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*02/09/22 16:32*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*02/09/22 16:32*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**20.0**		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluoroheptanoic acid	**10.5**		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluorooctanoic acid	**97.0**		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluorononanoic acid	ND		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluorodecanoic acid	ND		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluorotridecanoic acid	ND		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluorotetradecanoic acid	ND		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluorobutanesulfonic acid	ND		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluorohexanesulfonic acid	**3.50**		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluorooctanesulfonic acid	**2.63**		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
NEtFOSAA	ND		2.79		ng/L		02/08/22 07:07	02/09/22 07:44	1
NMeFOSAA	ND		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluoropentanesulfonic acid	ND		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-7S
Date Collected: 01/28/22 09:26
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-7
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluorononanesulfonic acid	ND		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluorodecanesulfonic acid	ND		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluorooctanesulfonamide	ND		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluorobutanoic acid	**6.22**		4.65		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluoropentanoic acid	**7.90**		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluoroundecanoic acid	ND		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
Perfluorododecanoic acid	ND		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
6:2 Fluorotelomer sulfonic acid	ND		4.65		ng/L		02/08/22 07:07	02/09/22 07:44	1
8:2 Fluorotelomer sulfonic acid	ND		2.79		ng/L		02/08/22 07:07	02/09/22 07:44	1
4:2 Fluorotelomer sulfonic acid	ND		1.86		ng/L		02/08/22 07:07	02/09/22 07:44	1
NMeFOSA	ND		2.79		ng/L		02/08/22 07:07	02/09/22 07:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*123*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
M2-8:2 FTS	*105*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
M2-6:2 FTS	*92*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
13C5 PFHxA	*102*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
13C4 PFHpA	*108*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
13C8 PFOA	*105*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
13C9 PFNA	*107*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
13C6 PFDA	*105*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
13C7 PFUnA	*111*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
13C2-PFDoDA	*96*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
13C2 PFTeDA	*91*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
13C3 PFBS	*116*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
13C3 PFHxS	*111*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
13C8 PFOS	*111*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
d3-NMeFOSAA	*100*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
d5-NEtFOSAA	*108*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
13C8 FOSA	*106*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
13C4 PFBA	*105*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
13C5 PFPeA	*100*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*
d3-NMePFOSA	*72*		*50 - 150*	*02/08/22 07:07*	*02/09/22 07:44*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 17:45	1
Arsenic	ND		0.00200		mg/L		02/02/22 20:05	02/09/22 17:45	1
Barium	**0.00867**		0.00200		mg/L		02/02/22 20:05	02/09/22 17:45	1
Beryllium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:45	1
Cadmium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:45	1
Chromium	ND		0.00200		mg/L		02/02/22 20:05	02/09/22 17:45	1
Cobalt	**0.00747**		0.000500		mg/L		02/02/22 20:05	02/09/22 17:45	1
Copper	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 17:45	1
Lead	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:45	1
Nickel	**0.0933**		0.00100		mg/L		02/02/22 20:05	02/09/22 17:45	1
Selenium	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 17:45	1
Silver	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:45	1
Thallium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:45	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-7S
Lab Sample ID: 620-2810-7
Date Collected: 01/28/22 09:26
Matrix: Water
Date Received: 01/28/22 14:05

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		02/02/22 20:05	02/09/22 17:45	1
Zinc	**0.0150**		0.0100		mg/L		02/02/22 20:05	02/09/22 17:45	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-7D
Lab Sample ID: 620-2810-8
Date Collected: 01/28/22 09:55
Matrix: Water
Date Received: 01/28/22 14:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			02/09/22 16:59	1
Acetone	ND	*-	10.0		ug/L			02/09/22 16:59	1
Acrylonitrile	ND		0.500		ug/L			02/09/22 16:59	1
Benzene	ND		1.00		ug/L			02/09/22 16:59	1
Bromobenzene	ND		1.00		ug/L			02/09/22 16:59	1
Bromochloromethane	ND		1.00		ug/L			02/09/22 16:59	1
Bromodichloromethane	ND		0.500		ug/L			02/09/22 16:59	1
Bromoform	ND		1.00		ug/L			02/09/22 16:59	1
Bromomethane	ND		2.00		ug/L			02/09/22 16:59	1
2-Butanone (MEK)	ND	*1 *-	2.00		ug/L			02/09/22 16:59	1
n-Butylbenzene	ND		1.00		ug/L			02/09/22 16:59	1
sec-Butylbenzene	ND		1.00		ug/L			02/09/22 16:59	1
tert-Butylbenzene	ND		1.00		ug/L			02/09/22 16:59	1
Carbon disulfide	ND		2.00		ug/L			02/09/22 16:59	1
Carbon tetrachloride	ND		1.00		ug/L			02/09/22 16:59	1
Chlorobenzene	ND		1.00		ug/L			02/09/22 16:59	1
Chloroethane	ND		2.00		ug/L			02/09/22 16:59	1
Chloroform	ND		1.00		ug/L			02/09/22 16:59	1
Chloromethane	ND		2.00		ug/L			02/09/22 16:59	1
2-Chlorotoluene	ND		1.00		ug/L			02/09/22 16:59	1
4-Chlorotoluene	ND		1.00		ug/L			02/09/22 16:59	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			02/09/22 16:59	1
Dibromochloromethane	ND		0.500		ug/L			02/09/22 16:59	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			02/09/22 16:59	1
Dibromomethane	ND		1.00		ug/L			02/09/22 16:59	1
1,2-Dichlorobenzene	ND		1.00		ug/L			02/09/22 16:59	1
1,3-Dichlorobenzene	ND		1.00		ug/L			02/09/22 16:59	1
1,4-Dichlorobenzene	ND		1.00		ug/L			02/09/22 16:59	1
Dichlorodifluoromethane (Freon 12)	ND	*-	2.00		ug/L			02/09/22 16:59	1
1,1-Dichloroethane	ND		1.00		ug/L			02/09/22 16:59	1
1,2-Dichloroethane	ND		1.00		ug/L			02/09/22 16:59	1
1,1-Dichloroethene	ND		1.00		ug/L			02/09/22 16:59	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 16:59	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 16:59	1
1,2-Dichloropropane	ND		1.00		ug/L			02/09/22 16:59	1
1,3-Dichloropropane	ND		1.00		ug/L			02/09/22 16:59	1
2,2-Dichloropropane	ND		1.00		ug/L			02/09/22 16:59	1
1,1-Dichloropropene	ND		1.00		ug/L			02/09/22 16:59	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 16:59	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 16:59	1
Ethylbenzene	ND		1.00		ug/L			02/09/22 16:59	1
Hexachlorobutadiene	ND		1.00		ug/L			02/09/22 16:59	1
2-Hexanone (MBK)	ND	*-	2.00		ug/L			02/09/22 16:59	1
Isopropylbenzene	ND		1.00		ug/L			02/09/22 16:59	1
4-Isopropyltoluene	ND		1.00		ug/L			02/09/22 16:59	1
Methyl tert-butyl ether	ND		1.00		ug/L			02/09/22 16:59	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			02/09/22 16:59	1
Methylene Chloride	ND		2.00		ug/L			02/09/22 16:59	1
Naphthalene	ND		2.00		ug/L			02/09/22 16:59	1

Client Sample ID: GZ-7D
Lab Sample ID: 620-2810-8
Date Collected: 01/28/22 09:55
Matrix: Water
Date Received: 01/28/22 14:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			02/09/22 16:59	1
Styrene	ND		1.00		ug/L			02/09/22 16:59	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L			02/09/22 16:59	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			02/09/22 16:59	1
Tetrachloroethene	ND		1.00		ug/L			02/09/22 16:59	1
Toluene	ND		1.00		ug/L			02/09/22 16:59	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			02/09/22 16:59	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			02/09/22 16:59	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			02/09/22 16:59	1
1,1,1-Trichloroethane	ND		1.00		ug/L			02/09/22 16:59	1
1,1,2-Trichloroethane	ND		1.00		ug/L			02/09/22 16:59	1
Trichloroethene	ND		1.00		ug/L			02/09/22 16:59	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			02/09/22 16:59	1
1,2,3-Trichloropropane	ND		1.00		ug/L			02/09/22 16:59	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			02/09/22 16:59	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			02/09/22 16:59	1
Vinyl chloride	ND		1.00		ug/L			02/09/22 16:59	1
m,p-Xylene	ND		1.00		ug/L			02/09/22 16:59	1
o-Xylene	ND		1.00		ug/L			02/09/22 16:59	1
Tetrahydrofuran	ND		2.00		ug/L			02/09/22 16:59	1
Ethyl ether	**2.04**		1.00		ug/L			02/09/22 16:59	1
Tert-amyl methyl ether	ND		1.00		ug/L			02/09/22 16:59	1
Tert-butyl ethyl ether	ND		1.00		ug/L			02/09/22 16:59	1
di-Isopropyl ether	ND		1.00		ug/L			02/09/22 16:59	1
tert-Butyl alcohol	ND	*+	10.0		ug/L			02/09/22 16:59	1
1,4-Dioxane	ND		50.0		ug/L			02/09/22 16:59	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			02/09/22 16:59	1
Ethanol	ND	*+	200		ug/L			02/09/22 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*02/09/22 16:59*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*02/09/22 16:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*		*02/09/22 16:59*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*02/09/22 16:59*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**12.0**		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluoroheptanoic acid	**5.95**		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluorooctanoic acid	**47.4**		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluorononanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluorodecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluorotridecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluorotetradecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluorobutanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluorohexanesulfonic acid	**2.02**		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluorooctanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
NEtFOSAA	ND		2.65		ng/L		02/08/22 07:07	02/09/22 08:06	1
NMeFOSAA	ND		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluoropentanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-7D
Date Collected: 01/28/22 09:55
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-8
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluorononanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluorodecanesulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluorooctanesulfonamide	ND		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluorobutanoic acid	ND		4.41		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluoropentanoic acid	**4.72**		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluoroundecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
Perfluorododecanoic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
6:2 Fluorotelomer sulfonic acid	ND		4.41		ng/L		02/08/22 07:07	02/09/22 08:06	1
8:2 Fluorotelomer sulfonic acid	ND		2.65		ng/L		02/08/22 07:07	02/09/22 08:06	1
4:2 Fluorotelomer sulfonic acid	ND		1.77		ng/L		02/08/22 07:07	02/09/22 08:06	1
NMeFOSA	ND		2.65		ng/L		02/08/22 07:07	02/09/22 08:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*125*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
M2-8:2 FTS	*106*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
M2-6:2 FTS	*116*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
13C5 PFHxA	*114*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
13C4 PFHpA	*117*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
13C8 PFOA	*117*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
13C9 PFNA	*119*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
13C6 PFDA	*116*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
13C7 PFUnA	*107*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
13C2-PFDoDA	*106*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
13C2 PFTeDA	*93*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
13C3 PFBS	*124*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
13C3 PFHxS	*115*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
13C8 PFOS	*114*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
d3-NMeFOSAA	*108*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
d5-NEtFOSAA	*104*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
13C8 FOSA	*101*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
13C4 PFBA	*117*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
13C5 PFPeA	*118*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*
d3-NMePFOSA	*74*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:06*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 17:37	1
Arsenic	ND		0.00200		mg/L		02/02/22 20:05	02/09/22 17:37	1
Barium	**0.00917**		0.00200		mg/L		02/02/22 20:05	02/09/22 17:37	1
Beryllium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:37	1
Cadmium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:37	1
Chromium	ND		0.00200		mg/L		02/02/22 20:05	02/09/22 17:37	1
Cobalt	**0.000651**		0.000500		mg/L		02/02/22 20:05	02/09/22 17:37	1
Copper	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 17:37	1
Lead	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:37	1
Nickel	**0.00781**		0.00100		mg/L		02/02/22 20:05	02/09/22 17:37	1
Selenium	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 17:37	1
Silver	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:37	1
Thallium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:37	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-7D
Lab Sample ID: 620-2810-8
Date Collected: 01/28/22 09:55
Matrix: Water
Date Received: 01/28/22 14:05

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		02/02/22 20:05	02/09/22 17:37	1
Zinc	ND		0.0100		mg/L		02/02/22 20:05	02/09/22 17:37	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-8
Date Collected: 01/28/22 10:35
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			02/09/22 17:27	1
Acetone	ND	*-	10.0		ug/L			02/09/22 17:27	1
Acrylonitrile	ND		0.500		ug/L			02/09/22 17:27	1
Benzene	ND		1.00		ug/L			02/09/22 17:27	1
Bromobenzene	ND		1.00		ug/L			02/09/22 17:27	1
Bromochloromethane	ND		1.00		ug/L			02/09/22 17:27	1
Bromodichloromethane	ND		0.500		ug/L			02/09/22 17:27	1
Bromoform	ND		1.00		ug/L			02/09/22 17:27	1
Bromomethane	ND		2.00		ug/L			02/09/22 17:27	1
2-Butanone (MEK)	ND	*1 *-	2.00		ug/L			02/09/22 17:27	1
n-Butylbenzene	ND		1.00		ug/L			02/09/22 17:27	1
sec-Butylbenzene	ND		1.00		ug/L			02/09/22 17:27	1
tert-Butylbenzene	ND		1.00		ug/L			02/09/22 17:27	1
Carbon disulfide	ND		2.00		ug/L			02/09/22 17:27	1
Carbon tetrachloride	ND		1.00		ug/L			02/09/22 17:27	1
Chlorobenzene	**9.02**		1.00		ug/L			02/09/22 17:27	1
Chloroethane	ND		2.00		ug/L			02/09/22 17:27	1
Chloroform	ND		1.00		ug/L			02/09/22 17:27	1
Chloromethane	ND		2.00		ug/L			02/09/22 17:27	1
2-Chlorotoluene	ND		1.00		ug/L			02/09/22 17:27	1
4-Chlorotoluene	ND		1.00		ug/L			02/09/22 17:27	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			02/09/22 17:27	1
Dibromochloromethane	ND		0.500		ug/L			02/09/22 17:27	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			02/09/22 17:27	1
Dibromomethane	ND		1.00		ug/L			02/09/22 17:27	1
1,2-Dichlorobenzene	ND		1.00		ug/L			02/09/22 17:27	1
1,3-Dichlorobenzene	**1.17**		1.00		ug/L			02/09/22 17:27	1
1,4-Dichlorobenzene	ND		1.00		ug/L			02/09/22 17:27	1
Dichlorodifluoromethane (Freon 12)	ND	*-	2.00		ug/L			02/09/22 17:27	1
1,1-Dichloroethane	ND		1.00		ug/L			02/09/22 17:27	1
1,2-Dichloroethane	ND		1.00		ug/L			02/09/22 17:27	1
1,1-Dichloroethene	ND		1.00		ug/L			02/09/22 17:27	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 17:27	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 17:27	1
1,2-Dichloropropane	ND		1.00		ug/L			02/09/22 17:27	1
1,3-Dichloropropane	ND		1.00		ug/L			02/09/22 17:27	1
2,2-Dichloropropane	ND		1.00		ug/L			02/09/22 17:27	1
1,1-Dichloropropene	ND		1.00		ug/L			02/09/22 17:27	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 17:27	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 17:27	1
Ethylbenzene	ND		1.00		ug/L			02/09/22 17:27	1
Hexachlorobutadiene	ND		1.00		ug/L			02/09/22 17:27	1
2-Hexanone (MBK)	ND	*-	2.00		ug/L			02/09/22 17:27	1
Isopropylbenzene	ND		1.00		ug/L			02/09/22 17:27	1
4-Isopropyltoluene	ND		1.00		ug/L			02/09/22 17:27	1
Methyl tert-butyl ether	ND		1.00		ug/L			02/09/22 17:27	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			02/09/22 17:27	1
Methylene Chloride	ND		2.00		ug/L			02/09/22 17:27	1
Naphthalene	ND		2.00		ug/L			02/09/22 17:27	1

Client Sample ID: GZ-8
Date Collected: 01/28/22 10:35
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			02/09/22 17:27	1
Styrene	ND		1.00		ug/L			02/09/22 17:27	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L			02/09/22 17:27	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			02/09/22 17:27	1
Tetrachloroethene	ND		1.00		ug/L			02/09/22 17:27	1
Toluene	ND		1.00		ug/L			02/09/22 17:27	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			02/09/22 17:27	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			02/09/22 17:27	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			02/09/22 17:27	1
1,1,1-Trichloroethane	ND		1.00		ug/L			02/09/22 17:27	1
1,1,2-Trichloroethane	ND		1.00		ug/L			02/09/22 17:27	1
Trichloroethene	ND		1.00		ug/L			02/09/22 17:27	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			02/09/22 17:27	1
1,2,3-Trichloropropane	ND		1.00		ug/L			02/09/22 17:27	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			02/09/22 17:27	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			02/09/22 17:27	1
Vinyl chloride	ND		1.00		ug/L			02/09/22 17:27	1
m,p-Xylene	ND		1.00		ug/L			02/09/22 17:27	1
o-Xylene	ND		1.00		ug/L			02/09/22 17:27	1
Tetrahydrofuran	ND		2.00		ug/L			02/09/22 17:27	1
Ethyl ether	**3.25**		1.00		ug/L			02/09/22 17:27	1
Tert-amyl methyl ether	ND		1.00		ug/L			02/09/22 17:27	1
Tert-butyl ethyl ether	ND		1.00		ug/L			02/09/22 17:27	1
di-Isopropyl ether	ND		1.00		ug/L			02/09/22 17:27	1
tert-Butyl alcohol	ND	*+	10.0		ug/L			02/09/22 17:27	1
1,4-Dioxane	ND		50.0		ug/L			02/09/22 17:27	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			02/09/22 17:27	1
Ethanol	ND	*+	200		ug/L			02/09/22 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*02/09/22 17:27*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*02/09/22 17:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*02/09/22 17:27*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*02/09/22 17:27*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**42.8**		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluoroheptanoic acid	**29.8**		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluorooctanoic acid	**140**		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluorononanoic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluorodecanoic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluorotridecanoic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluorotetradecanoic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluorobutanesulfonic acid	**4.45**		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluorohexanesulfonic acid	**27.1**		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluorooctanesulfonic acid	**10.0**		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
NEtFOSAA	ND		2.68		ng/L		02/08/22 07:07	02/09/22 08:17	1
NMeFOSAA	ND		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluoropentanesulfonic acid	**4.87**		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1

Client Sample ID: GZ-8
Date Collected: 01/28/22 10:35
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-9
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluorononanesulfonic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluorodecanesulfonic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluorooctanesulfonamide	ND		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluorobutanoic acid	**21.4**		4.47		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluoropentanoic acid	**29.2**		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluoroundecanoic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
Perfluorododecanoic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
6:2 Fluorotelomer sulfonic acid	ND		4.47		ng/L		02/08/22 07:07	02/09/22 08:17	1
8:2 Fluorotelomer sulfonic acid	ND		2.68		ng/L		02/08/22 07:07	02/09/22 08:17	1
4:2 Fluorotelomer sulfonic acid	ND		1.79		ng/L		02/08/22 07:07	02/09/22 08:17	1
NMeFOSA	ND		2.68		ng/L		02/08/22 07:07	02/09/22 08:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*197*	*5+	*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
M2-8:2 FTS	*108*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
M2-6:2 FTS	*125*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
13C5 PFHxA	*104*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
13C4 PFHpA	*110*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
13C8 PFOA	*108*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
13C9 PFNA	*112*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
13C6 PFDA	*110*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
13C7 PFUnA	*114*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
13C2-PFDoDA	*104*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
13C2 PFTeDA	*102*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
13C3 PFBS	*112*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
13C3 PFHxS	*109*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
13C8 PFOS	*108*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
d3-NMeFOSAA	*109*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
d5-NEtFOSAA	*109*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
13C8 FOSA	*106*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
13C4 PFBA	*73*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
13C5 PFPeA	*85*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*
d3-NMePFOSA	*77*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:17*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**32.2**	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluoroheptanoic acid	**25.5**	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluorooctanoic acid	**97.5**	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluorononanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluorodecanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluorotridecanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluorotetradecanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluorobutanesulfonic acid	**3.45**	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluorohexanesulfonic acid	**20.1**	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluorooctanesulfonic acid	**7.76**	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
NEtFOSAA	ND		2.67		ng/L		02/06/22 08:04	02/07/22 19:50	1
NMeFOSAA	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluoropentanesulfonic acid	**3.45**	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-8
Date Collected: 01/28/22 10:35
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-9
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluorononanesulfonic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluorodecanesulfonic acid	ND		1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluorooctanesulfonamide	ND		1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluorobutanoic acid	**15.5**	*-	4.45		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluoropentanoic acid	**21.8**	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluoroundecanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
Perfluorododecanoic acid	ND	*-	1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
6:2 Fluorotelomer sulfonic acid	ND		4.45		ng/L		02/06/22 08:04	02/07/22 19:50	1
8:2 Fluorotelomer sulfonic acid	ND		2.67		ng/L		02/06/22 08:04	02/07/22 19:50	1
4:2 Fluorotelomer sulfonic acid	ND		1.78		ng/L		02/06/22 08:04	02/07/22 19:50	1
NMeFOSA	ND		2.67		ng/L		02/06/22 08:04	02/07/22 19:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*247*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
M2-8:2 FTS	*135*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
M2-6:2 FTS	*154*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
13C5 PFHxA	*128*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
13C4 PFHpA	*122*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
13C8 PFOA	*135*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
13C9 PFNA	*132*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
13C6 PFDA	*133*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
13C7 PFUnA	*132*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
13C2-PFDoDA	*117*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
13C2 PFTeDA	*116*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
13C3 PFBS	*135*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
13C3 PFHxS	*135*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
13C8 PFOS	*124*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
d3-NMeFOSAA	*123*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
d5-NEtFOSAA	*135*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
13C8 FOSA	*125*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
13C4 PFBA	*98*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
13C5 PFPeA	*112*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*
d3-NMePFOSA	*64*		*50 - 150*	*02/06/22 08:04*	*02/07/22 19:50*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 17:29	1
Arsenic	ND		0.00200		mg/L		02/02/22 20:05	02/09/22 17:29	1
Barium	**0.0624**		0.00200		mg/L		02/02/22 20:05	02/09/22 17:29	1
Beryllium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:29	1
Cadmium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:29	1
Chromium	ND		0.00200		mg/L		02/02/22 20:05	02/09/22 17:29	1
Cobalt	**0.00243**		0.000500		mg/L		02/02/22 20:05	02/09/22 17:29	1
Copper	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 17:29	1
Lead	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:29	1
Nickel	**0.0250**		0.00100		mg/L		02/02/22 20:05	02/09/22 17:29	1
Selenium	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 17:29	1
Silver	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:29	1
Thallium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:29	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-8
Lab Sample ID: 620-2810-9
Date Collected: 01/28/22 10:35
Matrix: Water
Date Received: 01/28/22 14:05

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		02/02/22 20:05	02/09/22 17:29	1
Zinc	ND		0.0100		mg/L		02/02/22 20:05	02/09/22 17:29	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-9
Lab Sample ID: 620-2810-10
Date Collected: 01/28/22 12:10
Matrix: Water
Date Received: 01/28/22 14:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			02/09/22 17:54	1
Acetone	ND	*-	10.0		ug/L			02/09/22 17:54	1
Acrylonitrile	ND		0.500		ug/L			02/09/22 17:54	1
Benzene	ND		1.00		ug/L			02/09/22 17:54	1
Bromobenzene	ND		1.00		ug/L			02/09/22 17:54	1
Bromochloromethane	ND		1.00		ug/L			02/09/22 17:54	1
Bromodichloromethane	ND		0.500		ug/L			02/09/22 17:54	1
Bromoform	ND		1.00		ug/L			02/09/22 17:54	1
Bromomethane	ND		2.00		ug/L			02/09/22 17:54	1
2-Butanone (MEK)	ND	*1 *-	2.00		ug/L			02/09/22 17:54	1
n-Butylbenzene	ND		1.00		ug/L			02/09/22 17:54	1
sec-Butylbenzene	ND		1.00		ug/L			02/09/22 17:54	1
tert-Butylbenzene	ND		1.00		ug/L			02/09/22 17:54	1
Carbon disulfide	ND		2.00		ug/L			02/09/22 17:54	1
Carbon tetrachloride	ND		1.00		ug/L			02/09/22 17:54	1
Chlorobenzene	ND		1.00		ug/L			02/09/22 17:54	1
Chloroethane	ND		2.00		ug/L			02/09/22 17:54	1
Chloroform	ND		1.00		ug/L			02/09/22 17:54	1
Chloromethane	ND		2.00		ug/L			02/09/22 17:54	1
2-Chlorotoluene	ND		1.00		ug/L			02/09/22 17:54	1
4-Chlorotoluene	ND		1.00		ug/L			02/09/22 17:54	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			02/09/22 17:54	1
Dibromochloromethane	ND		0.500		ug/L			02/09/22 17:54	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			02/09/22 17:54	1
Dibromomethane	ND		1.00		ug/L			02/09/22 17:54	1
1,2-Dichlorobenzene	ND		1.00		ug/L			02/09/22 17:54	1
1,3-Dichlorobenzene	ND		1.00		ug/L			02/09/22 17:54	1
1,4-Dichlorobenzene	ND		1.00		ug/L			02/09/22 17:54	1
Dichlorodifluoromethane (Freon 12)	ND	*-	2.00		ug/L			02/09/22 17:54	1
1,1-Dichloroethane	ND		1.00		ug/L			02/09/22 17:54	1
1,2-Dichloroethane	ND		1.00		ug/L			02/09/22 17:54	1
1,1-Dichloroethene	ND		1.00		ug/L			02/09/22 17:54	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 17:54	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 17:54	1
1,2-Dichloropropane	ND		1.00		ug/L			02/09/22 17:54	1
1,3-Dichloropropane	ND		1.00		ug/L			02/09/22 17:54	1
2,2-Dichloropropane	ND		1.00		ug/L			02/09/22 17:54	1
1,1-Dichloropropene	ND		1.00		ug/L			02/09/22 17:54	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 17:54	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 17:54	1
Ethylbenzene	ND		1.00		ug/L			02/09/22 17:54	1
Hexachlorobutadiene	ND		1.00		ug/L			02/09/22 17:54	1
2-Hexanone (MBK)	ND	*-	2.00		ug/L			02/09/22 17:54	1
Isopropylbenzene	ND		1.00		ug/L			02/09/22 17:54	1
4-Isopropyltoluene	ND		1.00		ug/L			02/09/22 17:54	1
Methyl tert-butyl ether	ND		1.00		ug/L			02/09/22 17:54	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			02/09/22 17:54	1
Methylene Chloride	ND		2.00		ug/L			02/09/22 17:54	1
Naphthalene	ND		2.00		ug/L			02/09/22 17:54	1

Client Sample ID: GZ-9
Lab Sample ID: 620-2810-10
Date Collected: 01/28/22 12:10
Matrix: Water
Date Received: 01/28/22 14:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			02/09/22 17:54	1
Styrene	ND		1.00		ug/L			02/09/22 17:54	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L			02/09/22 17:54	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			02/09/22 17:54	1
Tetrachloroethene	ND		1.00		ug/L			02/09/22 17:54	1
Toluene	ND		1.00		ug/L			02/09/22 17:54	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			02/09/22 17:54	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			02/09/22 17:54	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			02/09/22 17:54	1
1,1,1-Trichloroethane	ND		1.00		ug/L			02/09/22 17:54	1
1,1,2-Trichloroethane	ND		1.00		ug/L			02/09/22 17:54	1
Trichloroethene	ND		1.00		ug/L			02/09/22 17:54	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			02/09/22 17:54	1
1,2,3-Trichloropropane	ND		1.00		ug/L			02/09/22 17:54	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			02/09/22 17:54	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			02/09/22 17:54	1
Vinyl chloride	ND		1.00		ug/L			02/09/22 17:54	1
m,p-Xylene	ND		1.00		ug/L			02/09/22 17:54	1
o-Xylene	ND		1.00		ug/L			02/09/22 17:54	1
Tetrahydrofuran	ND		2.00		ug/L			02/09/22 17:54	1
Ethyl ether	ND		1.00		ug/L			02/09/22 17:54	1
Tert-amyl methyl ether	ND		1.00		ug/L			02/09/22 17:54	1
Tert-butyl ethyl ether	ND		1.00		ug/L			02/09/22 17:54	1
di-Isopropyl ether	ND		1.00		ug/L			02/09/22 17:54	1
tert-Butyl alcohol	ND	*+	10.0		ug/L			02/09/22 17:54	1
1,4-Dioxane	ND		50.0		ug/L			02/09/22 17:54	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			02/09/22 17:54	1
Ethanol	ND	*+	200		ug/L			02/09/22 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*02/09/22 17:54*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*02/09/22 17:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*02/09/22 17:54*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*02/09/22 17:54*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**4.41**		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluoroheptanoic acid	**2.85**		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluorooctanoic acid	**6.68**		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluorononanoic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluorodecanoic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluorotridecanoic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluorotetradecanoic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluorobutanesulfonic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluorohexanesulfonic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluorooctanesulfonic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
NEtFOSAA	ND		2.67		ng/L		02/08/22 07:07	02/09/22 08:28	1
NMeFOSAA	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluoropentanesulfonic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1

Client Sample ID: GZ-9
Date Collected: 01/28/22 12:10
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-10
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluorononanesulfonic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluorodecanesulfonic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluorooctanesulfonamide	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluorobutanoic acid	ND		4.45		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluoropentanoic acid	**3.13**		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluoroundecanoic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
Perfluorododecanoic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
6:2 Fluorotelomer sulfonic acid	ND		4.45		ng/L		02/08/22 07:07	02/09/22 08:28	1
8:2 Fluorotelomer sulfonic acid	ND		2.67		ng/L		02/08/22 07:07	02/09/22 08:28	1
4:2 Fluorotelomer sulfonic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:28	1
NMeFOSA	ND		2.67		ng/L		02/08/22 07:07	02/09/22 08:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*120*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
M2-8:2 FTS	*87*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
M2-6:2 FTS	*108*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
13C5 PFHxA	*118*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
13C4 PFHpA	*117*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
13C8 PFOA	*113*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
13C9 PFNA	*118*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
13C6 PFDA	*110*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
13C7 PFUnA	*106*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
13C2-PFDoDA	*91*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
13C2 PFTeDA	*79*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
13C3 PFBS	*113*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
13C3 PFHxS	*111*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
13C8 PFOS	*110*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
d3-NMeFOSAA	*95*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
d5-NEtFOSAA	*95*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
13C8 FOSA	*96*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
13C4 PFBA	*119*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
13C5 PFPeA	*119*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*
d3-NMePFOSA	*84*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:28*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 17:27	1
Arsenic	ND		0.00200		mg/L		02/02/22 20:05	02/09/22 17:27	1
Barium	**0.0338**		0.00200		mg/L		02/02/22 20:05	02/09/22 17:27	1
Beryllium	**0.000578**		0.000500		mg/L		02/02/22 20:05	02/09/22 17:27	1
Cadmium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:27	1
Chromium	**0.00350**		0.00200		mg/L		02/02/22 20:05	02/09/22 17:27	1
Cobalt	**0.0106**		0.000500		mg/L		02/02/22 20:05	02/09/22 17:27	1
Copper	**0.00210**		0.00100		mg/L		02/02/22 20:05	02/09/22 17:27	1
Lead	**0.00287**		0.000500		mg/L		02/02/22 20:05	02/09/22 17:27	1
Nickel	**0.0227**		0.00100		mg/L		02/02/22 20:05	02/09/22 17:27	1
Selenium	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 17:27	1
Silver	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:27	1
Thallium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 17:27	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-9
Lab Sample ID: 620-2810-10
Date Collected: 01/28/22 12:10
Matrix: Water
Date Received: 01/28/22 14:05

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		02/02/22 20:05	02/09/22 17:27	1
Zinc	**0.0404**		0.0100		mg/L		02/02/22 20:05	02/09/22 17:27	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: POT-1
Lab Sample ID: 620-2810-11
Date Collected: 01/28/22 13:00
Matrix: Drinking Water
Date Received: 01/28/22 14:05

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.500		ug/L			02/02/22 12:43	1
1,1,1-Trichloroethane	ND		0.500		ug/L			02/02/22 12:43	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			02/02/22 12:43	1
1,1,2-Trichloroethane	ND		0.500		ug/L			02/02/22 12:43	1
1,1-Dichloroethane	ND		0.500		ug/L			02/02/22 12:43	1
1,1-Dichloroethene	ND		0.500		ug/L			02/02/22 12:43	1
1,1-Dichloropropene	ND		0.500		ug/L			02/02/22 12:43	1
1,2,3-Trichlorobenzene	ND		0.500		ug/L			02/02/22 12:43	1
1,2,3-Trichloropropane	ND		0.500		ug/L			02/02/22 12:43	1
1,2,4-Trichlorobenzene	ND		0.500		ug/L			02/02/22 12:43	1
1,2,4-Trimethylbenzene	ND		0.500		ug/L			02/02/22 12:43	1
1,2-Dibromo-3-Chloropropane	ND		1.00		ug/L			02/02/22 12:43	1
1,2-Dibromoethane	ND		0.500		ug/L			02/02/22 12:43	1
1,2-Dichlorobenzene	ND		0.500		ug/L			02/02/22 12:43	1
1,2-Dichloroethane	ND		0.500		ug/L			02/02/22 12:43	1
1,2-Dichloropropane	ND		0.500		ug/L			02/02/22 12:43	1
1,3,5-Trimethylbenzene	ND		0.500		ug/L			02/02/22 12:43	1
1,3-Dichlorobenzene	ND		0.500		ug/L			02/02/22 12:43	1
1,3-Dichloropropane	ND		0.500		ug/L			02/02/22 12:43	1
1,4-Dichlorobenzene	ND		0.500		ug/L			02/02/22 12:43	1
2,2-Dichloropropane	ND		0.500		ug/L			02/02/22 12:43	1
2-Butanone (MEK)	ND		5.00		ug/L			02/02/22 12:43	1
2-Chlorotoluene	ND		0.500		ug/L			02/02/22 12:43	1
2-Hexanone	ND		5.00		ug/L			02/02/22 12:43	1
4-Chlorotoluene	ND		0.500		ug/L			02/02/22 12:43	1
4-Methyl-2-pentanone (MIBK)	ND		5.00		ug/L			02/02/22 12:43	1
Acetone	ND		10.0		ug/L			02/02/22 12:43	1
Acrylonitrile	ND		10.0		ug/L			02/02/22 12:43	1
Benzene	ND		0.500		ug/L			02/02/22 12:43	1
Bromobenzene	ND		0.500		ug/L			02/02/22 12:43	1
Bromochloromethane	ND		0.500		ug/L			02/02/22 12:43	1
Bromodichloromethane	ND		0.500		ug/L			02/02/22 12:43	1
Bromoform	ND		0.500		ug/L			02/02/22 12:43	1
Bromomethane	ND		0.500		ug/L			02/02/22 12:43	1
Carbon disulfide	ND		2.00		ug/L			02/02/22 12:43	1
Carbon tetrachloride	ND		0.500		ug/L			02/02/22 12:43	1
Chlorobenzene	ND		0.500		ug/L			02/02/22 12:43	1
Chloroethane	ND		0.500		ug/L			02/02/22 12:43	1
Chloroform	ND		0.500		ug/L			02/02/22 12:43	1
Chloromethane	ND		0.500		ug/L			02/02/22 12:43	1
cis-1,2-Dichloroethene	ND		0.500		ug/L			02/02/22 12:43	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			02/02/22 12:43	1
Dibromochloromethane	ND		0.500		ug/L			02/02/22 12:43	1
Dibromomethane	ND		0.500		ug/L			02/02/22 12:43	1
Dichlorodifluoromethane	**0.764**		0.500		ug/L			02/02/22 12:43	1
di-Isopropyl ether	ND		0.500		ug/L			02/02/22 12:43	1
Ethyl ether	**1.20**		0.500		ug/L			02/02/22 12:43	1
Tert-butyl ethyl ether	ND		0.500		ug/L			02/02/22 12:43	1
Ethylbenzene	ND		0.500		ug/L			02/02/22 12:43	1

Client Sample ID: POT-1
Date Collected: 01/28/22 13:00
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-11
Matrix: Drinking Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.500		ug/L			02/02/22 12:43	1
Hexachlorobutadiene	ND		0.500		ug/L			02/02/22 12:43	1
Isopropylbenzene	ND		0.500		ug/L			02/02/22 12:43	1
m,p-Xylene	ND		1.00		ug/L			02/02/22 12:43	1
Methylene Chloride	ND		0.500		ug/L			02/02/22 12:43	1
Naphthalene	ND		0.500		ug/L			02/02/22 12:43	1
n-Butylbenzene	ND		0.500		ug/L			02/02/22 12:43	1
N-Propylbenzene	ND		0.500		ug/L			02/02/22 12:43	1
o-Xylene	ND		0.500		ug/L			02/02/22 12:43	1
4-Isopropyltoluene	ND		0.500		ug/L			02/02/22 12:43	1
sec-Butylbenzene	ND		0.500		ug/L			02/02/22 12:43	1
Styrene	ND		0.500		ug/L			02/02/22 12:43	1
Tert-amyl methyl ether	ND		0.500		ug/L			02/02/22 12:43	1
tert-Butyl alcohol	ND		25.0		ug/L			02/02/22 12:43	1
tert-Butylbenzene	ND		0.500		ug/L			02/02/22 12:43	1
Tetrachloroethene	ND		0.500		ug/L			02/02/22 12:43	1
Tetrahydrofuran	ND		7.00		ug/L			02/02/22 12:43	1
Toluene	ND		0.500		ug/L			02/02/22 12:43	1
trans-1,2-Dichloroethene	ND		0.500		ug/L			02/02/22 12:43	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			02/02/22 12:43	1
Trichloroethene	ND		0.500		ug/L			02/02/22 12:43	1
Trichlorofluoromethane	ND		0.500		ug/L			02/02/22 12:43	1
Vinyl chloride	ND		0.500		ug/L			02/02/22 12:43	1
Xylene (total)	ND		0.500		ug/L			02/02/22 12:43	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*0.567*	*T J*	*ug/L*		*2.00*			*02/02/22 12:43*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichlorobenzene-d4 (Surr)	*107*		*80 - 120*		*02/02/22 12:43*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*02/02/22 12:43*	*1*

Method: Nitrate - Nitrate / Nitrite

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.182**		0.0300		mg/L		01/28/22 16:50	01/28/22 16:50	1

Method: NO2+NO3 - Nitrate / Nitrite

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate and Nitrite as N	**0.18**		0.03		mg/L		01/28/22 16:50	01/28/22 16:50	1

Method: NO2 - Nitrate / Nitrite

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.007		mg/L		01/28/22 16:50	01/28/22 16:50	1

Method: Total Coliforms - 9222B Total Coliforms

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total coliform	<		1.00		MPN/100ml		01/28/22 17:05	01/28/22 17:05	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: TB012822
Lab Sample ID: 620-2810-12
Date Collected: 01/28/22 08:00
Matrix: Drinking Water
Date Received: 01/28/22 14:05

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.500		ug/L			02/02/22 12:20	1
1,1,1-Trichloroethane	ND		0.500		ug/L			02/02/22 12:20	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			02/02/22 12:20	1
1,1,2-Trichloroethane	ND		0.500		ug/L			02/02/22 12:20	1
1,1-Dichloroethane	ND		0.500		ug/L			02/02/22 12:20	1
1,1-Dichloroethene	ND		0.500		ug/L			02/02/22 12:20	1
1,1-Dichloropropene	ND		0.500		ug/L			02/02/22 12:20	1
1,2,3-Trichlorobenzene	ND		0.500		ug/L			02/02/22 12:20	1
1,2,3-Trichloropropane	ND		0.500		ug/L			02/02/22 12:20	1
1,2,4-Trichlorobenzene	ND		0.500		ug/L			02/02/22 12:20	1
1,2,4-Trimethylbenzene	ND		0.500		ug/L			02/02/22 12:20	1
1,2-Dibromo-3-Chloropropane	ND		1.00		ug/L			02/02/22 12:20	1
1,2-Dibromoethane	ND		0.500		ug/L			02/02/22 12:20	1
1,2-Dichlorobenzene	ND		0.500		ug/L			02/02/22 12:20	1
1,2-Dichloroethane	ND		0.500		ug/L			02/02/22 12:20	1
1,2-Dichloropropane	ND		0.500		ug/L			02/02/22 12:20	1
1,3,5-Trimethylbenzene	ND		0.500		ug/L			02/02/22 12:20	1
1,3-Dichlorobenzene	ND		0.500		ug/L			02/02/22 12:20	1
1,3-Dichloropropane	ND		0.500		ug/L			02/02/22 12:20	1
1,4-Dichlorobenzene	ND		0.500		ug/L			02/02/22 12:20	1
2,2-Dichloropropane	ND		0.500		ug/L			02/02/22 12:20	1
2-Butanone (MEK)	ND		5.00		ug/L			02/02/22 12:20	1
2-Chlorotoluene	ND		0.500		ug/L			02/02/22 12:20	1
2-Hexanone	ND		5.00		ug/L			02/02/22 12:20	1
4-Chlorotoluene	ND		0.500		ug/L			02/02/22 12:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.00		ug/L			02/02/22 12:20	1
Acetone	ND		10.0		ug/L			02/02/22 12:20	1
Acrylonitrile	ND		10.0		ug/L			02/02/22 12:20	1
Benzene	ND		0.500		ug/L			02/02/22 12:20	1
Bromobenzene	ND		0.500		ug/L			02/02/22 12:20	1
Bromochloromethane	ND		0.500		ug/L			02/02/22 12:20	1
Bromodichloromethane	ND		0.500		ug/L			02/02/22 12:20	1
Bromoform	ND		0.500		ug/L			02/02/22 12:20	1
Bromomethane	ND		0.500		ug/L			02/02/22 12:20	1
Carbon disulfide	ND		2.00		ug/L			02/02/22 12:20	1
Carbon tetrachloride	ND		0.500		ug/L			02/02/22 12:20	1
Chlorobenzene	ND		0.500		ug/L			02/02/22 12:20	1
Chloroethane	ND		0.500		ug/L			02/02/22 12:20	1
Chloroform	ND		0.500		ug/L			02/02/22 12:20	1
Chloromethane	ND		0.500		ug/L			02/02/22 12:20	1
cis-1,2-Dichloroethene	ND		0.500		ug/L			02/02/22 12:20	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			02/02/22 12:20	1
Dibromochloromethane	ND		0.500		ug/L			02/02/22 12:20	1
Dibromomethane	ND		0.500		ug/L			02/02/22 12:20	1
Dichlorodifluoromethane	ND		0.500		ug/L			02/02/22 12:20	1
di-Isopropyl ether	ND		0.500		ug/L			02/02/22 12:20	1
Ethyl ether	ND		0.500		ug/L			02/02/22 12:20	1
Tert-butyl ethyl ether	ND		0.500		ug/L			02/02/22 12:20	1
Ethylbenzene	ND		0.500		ug/L			02/02/22 12:20	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: TB012822
Lab Sample ID: 620-2810-12
Date Collected: 01/28/22 08:00
Matrix: Drinking Water
Date Received: 01/28/22 14:05

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.500		ug/L			02/02/22 12:20	1
Hexachlorobutadiene	ND		0.500		ug/L			02/02/22 12:20	1
Isopropylbenzene	ND		0.500		ug/L			02/02/22 12:20	1
m,p-Xylene	ND		1.00		ug/L			02/02/22 12:20	1
Methylene Chloride	ND		0.500		ug/L			02/02/22 12:20	1
Naphthalene	ND		0.500		ug/L			02/02/22 12:20	1
n-Butylbenzene	ND		0.500		ug/L			02/02/22 12:20	1
N-Propylbenzene	ND		0.500		ug/L			02/02/22 12:20	1
o-Xylene	ND		0.500		ug/L			02/02/22 12:20	1
4-Isopropyltoluene	ND		0.500		ug/L			02/02/22 12:20	1
sec-Butylbenzene	ND		0.500		ug/L			02/02/22 12:20	1
Styrene	ND		0.500		ug/L			02/02/22 12:20	1
Tert-amyl methyl ether	ND		0.500		ug/L			02/02/22 12:20	1
tert-Butyl alcohol	ND		25.0		ug/L			02/02/22 12:20	1
tert-Butylbenzene	ND		0.500		ug/L			02/02/22 12:20	1
Tetrachloroethene	ND		0.500		ug/L			02/02/22 12:20	1
Tetrahydrofuran	ND		7.00		ug/L			02/02/22 12:20	1
Toluene	ND		0.500		ug/L			02/02/22 12:20	1
trans-1,2-Dichloroethene	ND		0.500		ug/L			02/02/22 12:20	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			02/02/22 12:20	1
Trichloroethene	ND		0.500		ug/L			02/02/22 12:20	1
Trichlorofluoromethane	ND		0.500		ug/L			02/02/22 12:20	1
Vinyl chloride	ND		0.500		ug/L			02/02/22 12:20	1
Xylene (total)	ND		0.500		ug/L			02/02/22 12:20	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*0.572*	*T J*	*ug/L*		*5.47*			*02/02/22 12:20*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichlorobenzene-d4 (Surr)	*103*		*80 - 120*		*02/02/22 12:20*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*02/02/22 12:20*	*1*

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: BD012822
Lab Sample ID: 620-2810-13

Date Collected: 01/28/22 12:00
Matrix: Water
Date Received: 01/28/22 14:05

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**12.0**		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluoroheptanoic acid	**5.99**		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluorooctanoic acid	**48.1**		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluorononanoic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluorodecanoic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluorotridecanoic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluorotetradecanoic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluorobutanesulfonic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluorohexanesulfonic acid	**2.14**		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluorooctanesulfonic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
NEtFOSAA	ND		2.68		ng/L		02/08/22 07:07	02/09/22 08:39	1
NMeFOSAA	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluoropentanesulfonic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluoroheptanesulfonic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluorononanesulfonic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluorodecanesulfonic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluorooctanesulfonamide	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluorobutanoic acid	ND		4.46		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluoropentanoic acid	**4.97**		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluoroundecanoic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
Perfluorododecanoic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
6:2 Fluorotelomer sulfonic acid	ND		4.46		ng/L		02/08/22 07:07	02/09/22 08:39	1
8:2 Fluorotelomer sulfonic acid	ND		2.68		ng/L		02/08/22 07:07	02/09/22 08:39	1
4:2 Fluorotelomer sulfonic acid	ND		1.78		ng/L		02/08/22 07:07	02/09/22 08:39	1
NMeFOSA	ND		2.68		ng/L		02/08/22 07:07	02/09/22 08:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*123*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
M2-8:2 FTS	*104*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
M2-6:2 FTS	*103*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
13C5 PFHxA	*109*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
13C4 PFHpA	*116*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
13C8 PFOA	*113*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
13C9 PFNA	*114*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
13C6 PFDA	*112*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
13C7 PFUnA	*114*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
13C2-PFDoDA	*102*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
13C2 PFTeDA	*98*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
13C3 PFBS	*114*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
13C3 PFHxS	*112*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
13C8 PFOS	*115*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
d3-NMeFOSAA	*106*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
d5-NEtFOSAA	*115*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
13C8 FOSA	*102*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
13C4 PFBA	*115*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
13C5 PFPeA	*115*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*
d3-NMePFOSA	*79*		*50 - 150*	*02/08/22 07:07*	*02/09/22 08:39*	*1*

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: FB012822
Lab Sample ID: 620-2810-14
Date Collected: 01/28/22 08:10
Matrix: Water
Date Received: 01/28/22 14:05

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluoroheptanoic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluorooctanoic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluorononanoic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluorodecanoic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluorotridecanoic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluorotetradecanoic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluorobutanesulfonic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluorohexanesulfonic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluorooctanesulfonic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
NEtFOSAA	ND		2.63		ng/L		02/06/22 08:04	02/07/22 23:03	1
NMeFOSAA	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluoropentanesulfonic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluoroheptanesulfonic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluorononanesulfonic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluorodecanesulfonic acid	ND		1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluorooctanesulfonamide	ND		1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluorobutanoic acid	ND	*-	4.38		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluoropentanoic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluoroundecanoic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
Perfluorododecanoic acid	ND	*-	1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
6:2 Fluorotelomer sulfonic acid	ND		4.38		ng/L		02/06/22 08:04	02/07/22 23:03	1
8:2 Fluorotelomer sulfonic acid	ND		2.63		ng/L		02/06/22 08:04	02/07/22 23:03	1
4:2 Fluorotelomer sulfonic acid	ND		1.75		ng/L		02/06/22 08:04	02/07/22 23:03	1
NMeFOSA	ND		2.63		ng/L		02/06/22 08:04	02/07/22 23:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*149*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
M2-8:2 FTS	*138*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
M2-6:2 FTS	*166*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
13C5 PFHxA	*153*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
13C4 PFHpA	*84*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
13C8 PFOA	*153*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
13C9 PFNA	*158*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
13C6 PFDA	*144*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
13C7 PFUnA	*136*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
13C2-PFDoDA	*132*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
13C2 PFTeDA	*124*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
13C3 PFBS	*155*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
13C3 PFHxS	*128*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
13C8 PFOS	*143*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
d3-NMeFOSAA	*131*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
d5-NEtFOSAA	*140*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
13C8 FOSA	*125*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
13C4 PFBA	*155*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
13C5 PFPeA	*149*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*
d3-NMePFOSA	*77*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:03*	*1*

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: EB012822
Date Collected: 01/28/22 08:20
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-15
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluoroheptanoic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluorooctanoic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluorononanoic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluorodecanoic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluorotridecanoic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluorotetradecanoic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluorobutanesulfonic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluorohexanesulfonic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluorooctanesulfonic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
NEtFOSAA	ND		2.62		ng/L		02/06/22 08:04	02/07/22 23:14	1
NMeFOSAA	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluoropentanesulfonic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluoroheptanesulfonic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluorononanesulfonic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluorodecanesulfonic acid	ND		1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluorooctanesulfonamide	ND		1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluorobutanoic acid	ND	*-	4.36		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluoropentanoic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluoroundecanoic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
Perfluorododecanoic acid	ND	*-	1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
6:2 Fluorotelomer sulfonic acid	ND		4.36		ng/L		02/06/22 08:04	02/07/22 23:14	1
8:2 Fluorotelomer sulfonic acid	ND		2.62		ng/L		02/06/22 08:04	02/07/22 23:14	1
4:2 Fluorotelomer sulfonic acid	ND		1.74		ng/L		02/06/22 08:04	02/07/22 23:14	1
NMeFOSA	ND		2.62		ng/L		02/06/22 08:04	02/07/22 23:14	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*150*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
M2-8:2 FTS	*140*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
M2-6:2 FTS	*168*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
13C5 PFHxA	*152*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
13C4 PFHpA	*89*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
13C8 PFOA	*152*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
13C9 PFNA	*155*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
13C6 PFDA	*154*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
13C7 PFUnA	*134*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
13C2-PFDoDA	*133*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
13C2 PFTeDA	*124*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
13C3 PFBS	*142*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
13C3 PFHxS	*129*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
13C8 PFOS	*136*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
d3-NMeFOSAA	*140*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
d5-NEtFOSAA	*140*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
13C8 FOSA	*128*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
13C4 PFBA	*154*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
13C5 PFPeA	*154*	*5+	*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*
d3-NMePFOSA	*84*		*50 - 150*	*02/06/22 08:04*	*02/07/22 23:14*	*1*

Client Sample Results

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: POT-1
Date Collected: 01/28/22 00:00
Date Received: 01/28/22 14:05

Lab Sample ID: 620-2810-16
Matrix: Water

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.00		ug/L		02/03/22 11:59	02/07/22 20:37	1
Arsenic	ND		2.00		ug/L		02/03/22 11:59	02/07/22 20:37	1
Barium	**5.98**		2.00		ug/L		02/03/22 11:59	02/07/22 20:37	1
Beryllium	ND		0.500		ug/L		02/03/22 11:59	02/07/22 20:37	1
Cadmium	ND		0.500		ug/L		02/03/22 11:59	02/07/22 20:37	1
Chromium	ND		2.00		ug/L		02/03/22 11:59	02/07/22 20:37	1
Cobalt	**1.62**		0.500		ug/L		02/03/22 11:59	02/07/22 20:37	1
Copper	**1.13**		1.00		ug/L		02/03/22 11:59	02/07/22 20:37	1
Lead	ND		0.500		ug/L		02/03/22 11:59	02/07/22 20:37	1
Nickel	**5.33**		1.00		ug/L		02/03/22 11:59	02/10/22 12:03	1
Selenium	ND		1.00		ug/L		02/03/22 11:59	02/07/22 20:37	1
Silver	ND		0.500		ug/L		02/03/22 11:59	02/07/22 20:37	1
Thallium	ND		0.500		ug/L		02/03/22 11:59	02/07/22 20:37	1
Vanadium	ND		4.00		ug/L		02/03/22 11:59	02/07/22 20:37	1
Zinc	ND		10.0		ug/L		02/03/22 11:59	02/07/22 20:37	1

Surrogate Summary

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Method: 524.2 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		DCZ	BFB
Lab Sample ID	Client Sample ID	(80-120)	(80-120)
620-2810-11	POT-1	107	97
620-2810-12	TB012822	103	95
LCS 410-220011/4	Lab Control Sample	105	105
MB 410-220011/6	Method Blank	103	97

Surrogate Legend

DCZ = 1,2-Dichlorobenzene-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	TOL	DCA	DBFM
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
620-2810-1	GZ-1	92	100	110	100
620-2810-2	GZ-2	92	101	110	100
620-2810-3	GZ-3	90	99	108	100
620-2810-4	GZ-4	90	101	108	100
620-2810-5	GZ-5	90	101	110	100
620-2810-6	GZ-6	91	102	110	100
620-2810-7	GZ-7S	91	102	110	100
620-2810-8	GZ-7D	90	101	111	100
620-2810-9	GZ-8	91	100	110	100
620-2810-10	GZ-9	90	101	109	101
LCS 620-8002/4	Lab Control Sample	100	100	104	101
LCSD 620-8002/5	Lab Control Sample Dup	102	101	105	102
MB 620-8002/7	Method Blank	91	100	108	99

Surrogate Legend

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

Isotope Dilution Summary

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Matrix: Water
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M282FTS	M262FTS	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
620-2810-1	GZ-1	112	103	102	109	115	113	116	114
620-2810-2 - RE	GZ-2	192 *5+	116	125	138	126	130	128	119
620-2810-2	GZ-2	157 *5+	92	108	119	123	117	118	101
620-2810-3	GZ-3	131	107	120	118	125	124	125	123
620-2810-4	GZ-4	125	108	112	110	110	118	118	116
620-2810-5 - RE	GZ-5	138	96	122	129	120	130	118	103
620-2810-5	GZ-5	126	56	98	109	111	102	87	57
620-2810-6	GZ-6	116	103	106	114	120	120	116	116
620-2810-7	GZ-7S	123	105	92	102	108	105	107	105
620-2810-8	GZ-7D	125	106	116	114	117	117	119	116
620-2810-9 - RE	GZ-8	247 *5+	135	154 *5+	128	122	135	132	133
620-2810-9	GZ-8	197 *5+	108	125	104	110	108	112	110
620-2810-10	GZ-9	120	87	108	118	117	113	118	110
620-2810-13	BD012822	123	104	103	109	116	113	114	112
620-2810-14	FB012822	149	138	166 *5+	153 *5+	84	153 *5+	158 *5+	144
620-2810-15	EB012822	150	140	168 *5+	152 *5+	89	152 *5+	155 *5+	154 *5+
LCS 410-221245/3-A	Lab Control Sample	140	147	133	146	142	149	163 *5+	150
LCS 410-221760/3-A	Lab Control Sample	109	102	100	110	116	117	112	107
LCSD 410-221245/4-A	Lab Control Sample Dup	128	121	129	136	126	135	145	136
LCSD 410-221760/4-A	Lab Control Sample Dup	112	104	109	108	113	117	114	113
MB 410-221245/1-A	Method Blank	140	143	141	140	131	149	158 *5+	147
MB 410-221760/1-A	Method Blank	117	110	104	117	119	123	123	120

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		13C7PUA	PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	d3NMFOS	d5NEFOS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
620-2810-1	GZ-1	107	105	88	115	120	107	104	108
620-2810-2 - RE	GZ-2	105	81	52	157 *5+	142	124	95	88
620-2810-2	GZ-2	72	35 *5-	5 *5-	133	123	110	86	73
620-2810-3	GZ-3	115	109	98	124	120	120	112	111
620-2810-4	GZ-4	111	100	92	119	116	117	98	111
620-2810-5 - RE	GZ-5	92	74	60	136	133	103	82	84
620-2810-5	GZ-5	32 *5-	12 *5-	0.9 *5-	124	112	74	35 *5-	29 *5-
620-2810-6	GZ-6	112	101	94	119	119	116	103	112
620-2810-7	GZ-7S	111	96	91	116	111	111	100	108
620-2810-8	GZ-7D	107	106	93	124	115	114	108	104
620-2810-9 - RE	GZ-8	132	117	116	135	135	124	123	135
620-2810-9	GZ-8	114	104	102	112	109	108	109	109
620-2810-10	GZ-9	106	91	79	113	111	110	95	95
620-2810-13	BD012822	114	102	98	114	112	115	106	115
620-2810-14	FB012822	136	132	124	155 *5+	128	143	131	140
620-2810-15	EB012822	134	133	124	142	129	136	140	140
LCS 410-221245/3-A	Lab Control Sample	136	136	111	155 *5+	158 *5+	144	129	134
LCS 410-221760/3-A	Lab Control Sample	108	98	93	112	119	116	100	101
LCSD 410-221245/4-A	Lab Control Sample Dup	124	118	104	136	147	140	121	110
LCSD 410-221760/4-A	Lab Control Sample Dup	115	108	92	118	117	119	103	111
MB 410-221245/1-A	Method Blank	126	145	112	148	154 *5+	146	123	123
MB 410-221760/1-A	Method Blank	116	116	96	119	118	124	103	107

Isotope Dilution Summary

Client: GZA GeoEnvironmental, Inc. Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	PFOSA (50-150)	PFBA (50-150)	PFPeA (50-150)	d3NMFSA (50-150)
620-2810-1	GZ-1	104	111	112	70
620-2810-2 - RE	GZ-2	54	129	142	0.5 *5-
620-2810-2	GZ-2	91	106	113	28 *5-
620-2810-3	GZ-3	108	123	119	73
620-2810-4	GZ-4	105	115	114	72
620-2810-5 - RE	GZ-5	62	142	137	1 *5-
620-2810-5	GZ-5	41 *5-	116	117	5 *5-
620-2810-6	GZ-6	104	121	116	68
620-2810-7	GZ-7S	106	105	100	72
620-2810-8	GZ-7D	101	117	118	74
620-2810-9 - RE	GZ-8	125	98	112	64
620-2810-9	GZ-8	106	73	85	77
620-2810-10	GZ-9	96	119	119	84
620-2810-13	BD012822	102	115	115	79
620-2810-14	FB012822	125	155 *5+	149	77
620-2810-15	EB012822	128	154 *5+	154 *5+	84
LCS 410-221245/3-A	Lab Control Sample	137	155 *5+	169 *5+	105
LCS 410-221760/3-A	Lab Control Sample	100	111	107	88
LCSD 410-221245/4-A	Lab Control Sample Dup	121	139	146	83
LCSD 410-221760/4-A	Lab Control Sample Dup	108	113	114	92
MB 410-221245/1-A	Method Blank	127	145	151 *5+	118
MB 410-221760/1-A	Method Blank	111	121	120	99

Surrogate Legend

M242FTS = M2-4:2 FTS
M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
d3NMFSA = d3-NMePFOSA

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-220011/6
Matrix: Drinking Water
Analysis Batch: 220011

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.500		ug/L			02/02/22 09:10	1
1,1,1-Trichloroethane	ND		0.500		ug/L			02/02/22 09:10	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			02/02/22 09:10	1
1,1,2-Trichloroethane	ND		0.500		ug/L			02/02/22 09:10	1
1,1-Dichloroethane	ND		0.500		ug/L			02/02/22 09:10	1
1,1-Dichloroethene	ND		0.500		ug/L			02/02/22 09:10	1
1,1-Dichloropropene	ND		0.500		ug/L			02/02/22 09:10	1
1,2,3-Trichlorobenzene	ND		0.500		ug/L			02/02/22 09:10	1
1,2,3-Trichloropropane	ND		0.500		ug/L			02/02/22 09:10	1
1,2,4-Trichlorobenzene	ND		0.500		ug/L			02/02/22 09:10	1
1,2,4-Trimethylbenzene	ND		0.500		ug/L			02/02/22 09:10	1
1,2-Dibromo-3-Chloropropane	ND		1.00		ug/L			02/02/22 09:10	1
1,2-Dibromoethane	ND		0.500		ug/L			02/02/22 09:10	1
1,2-Dichlorobenzene	ND		0.500		ug/L			02/02/22 09:10	1
1,2-Dichloroethane	ND		0.500		ug/L			02/02/22 09:10	1
1,2-Dichloropropane	ND		0.500		ug/L			02/02/22 09:10	1
1,3,5-Trimethylbenzene	ND		0.500		ug/L			02/02/22 09:10	1
1,3-Dichlorobenzene	ND		0.500		ug/L			02/02/22 09:10	1
1,3-Dichloropropane	ND		0.500		ug/L			02/02/22 09:10	1
1,4-Dichlorobenzene	ND		0.500		ug/L			02/02/22 09:10	1
2,2-Dichloropropane	ND		0.500		ug/L			02/02/22 09:10	1
2-Butanone (MEK)	ND		5.00		ug/L			02/02/22 09:10	1
2-Chlorotoluene	ND		0.500		ug/L			02/02/22 09:10	1
2-Hexanone	ND		5.00		ug/L			02/02/22 09:10	1
4-Chlorotoluene	ND		0.500		ug/L			02/02/22 09:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.00		ug/L			02/02/22 09:10	1
Acetone	ND		10.0		ug/L			02/02/22 09:10	1
Acrylonitrile	ND		10.0		ug/L			02/02/22 09:10	1
Benzene	ND		0.500		ug/L			02/02/22 09:10	1
Bromobenzene	ND		0.500		ug/L			02/02/22 09:10	1
Bromochloromethane	ND		0.500		ug/L			02/02/22 09:10	1
Bromodichloromethane	ND		0.500		ug/L			02/02/22 09:10	1
Bromoform	ND		0.500		ug/L			02/02/22 09:10	1
Bromomethane	ND		0.500		ug/L			02/02/22 09:10	1
Carbon disulfide	ND		2.00		ug/L			02/02/22 09:10	1
Carbon tetrachloride	ND		0.500		ug/L			02/02/22 09:10	1
Chlorobenzene	ND		0.500		ug/L			02/02/22 09:10	1
Chloroethane	ND		0.500		ug/L			02/02/22 09:10	1
Chloroform	ND		0.500		ug/L			02/02/22 09:10	1
Chloromethane	ND		0.500		ug/L			02/02/22 09:10	1
cis-1,2-Dichloroethene	ND		0.500		ug/L			02/02/22 09:10	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			02/02/22 09:10	1
Dibromochloromethane	ND		0.500		ug/L			02/02/22 09:10	1
Dibromomethane	ND		0.500		ug/L			02/02/22 09:10	1
Dichlorodifluoromethane	ND		0.500		ug/L			02/02/22 09:10	1
di-Isopropyl ether	ND		0.500		ug/L			02/02/22 09:10	1
Ethyl ether	ND		0.500		ug/L			02/02/22 09:10	1
Tert-butyl ethyl ether	ND		0.500		ug/L			02/02/22 09:10	1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-220011/6
Matrix: Drinking Water
Analysis Batch: 220011

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.500		ug/L			02/02/22 09:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.500		ug/L			02/02/22 09:10	1
Hexachlorobutadiene	ND		0.500		ug/L			02/02/22 09:10	1
Isopropylbenzene	ND		0.500		ug/L			02/02/22 09:10	1
m,p-Xylene	ND		1.00		ug/L			02/02/22 09:10	1
Methylene Chloride	ND		0.500		ug/L			02/02/22 09:10	1
Naphthalene	ND		0.500		ug/L			02/02/22 09:10	1
n-Butylbenzene	ND		0.500		ug/L			02/02/22 09:10	1
N-Propylbenzene	ND		0.500		ug/L			02/02/22 09:10	1
o-Xylene	ND		0.500		ug/L			02/02/22 09:10	1
4-Isopropyltoluene	ND		0.500		ug/L			02/02/22 09:10	1
sec-Butylbenzene	ND		0.500		ug/L			02/02/22 09:10	1
Styrene	ND		0.500		ug/L			02/02/22 09:10	1
Tert-amyl methyl ether	ND		0.500		ug/L			02/02/22 09:10	1
tert-Butyl alcohol	ND		25.0		ug/L			02/02/22 09:10	1
tert-Butylbenzene	ND		0.500		ug/L			02/02/22 09:10	1
Tetrachloroethene	ND		0.500		ug/L			02/02/22 09:10	1
Tetrahydrofuran	ND		7.00		ug/L			02/02/22 09:10	1
Toluene	ND		0.500		ug/L			02/02/22 09:10	1
trans-1,2-Dichloroethene	ND		0.500		ug/L			02/02/22 09:10	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			02/02/22 09:10	1
Trichloroethene	ND		0.500		ug/L			02/02/22 09:10	1
Trichlorofluoromethane	ND		0.500		ug/L			02/02/22 09:10	1
Vinyl chloride	ND		0.500		ug/L			02/02/22 09:10	1
Xylene (total)	ND		0.500		ug/L			02/02/22 09:10	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*02/02/22 09:10*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichlorobenzene-d4 (Surr)	*103*		*80 - 120*		*02/02/22 09:10*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*02/02/22 09:10*	*1*

Lab Sample ID: LCS 410-220011/4
Matrix: Drinking Water
Analysis Batch: 220011

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	5.00	5.014		ug/L		100	70 - 130
1,1,1-Trichloroethane	5.00	5.063		ug/L		101	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.874		ug/L		97	70 - 130
1,1,2-Trichloroethane	5.00	4.973		ug/L		99	70 - 130
1,1-Dichloroethane	5.00	4.747		ug/L		95	70 - 130
1,1-Dichloroethene	5.00	5.056		ug/L		101	70 - 130
1,1-Dichloropropene	5.00	5.006		ug/L		100	70 - 130
1,2,3-Trichlorobenzene	5.00	5.011		ug/L		100	70 - 130
1,2,3-Trichloropropane	5.00	5.154		ug/L		103	70 - 130
1,2,4-Trichlorobenzene	5.00	4.836		ug/L		97	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-220011/4
Matrix: Drinking Water
Analysis Batch: 220011

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	5.00	5.215		ug/L		104	70 - 130
1,2-Dibromo-3-Chloropropane	5.00	4.943		ug/L		99	70 - 130
1,2-Dibromoethane	5.00	4.909		ug/L		98	70 - 130
1,2-Dichlorobenzene	5.00	4.968		ug/L		99	70 - 130
1,2-Dichloroethane	5.00	4.926		ug/L		99	70 - 130
1,2-Dichloropropane	5.00	4.938		ug/L		99	70 - 130
1,3,5-Trimethylbenzene	5.00	5.161		ug/L		103	70 - 130
1,3-Dichlorobenzene	5.00	5.065		ug/L		101	70 - 130
1,3-Dichloropropane	5.00	5.011		ug/L		100	70 - 130
1,4-Dichlorobenzene	5.00	5.165		ug/L		103	70 - 130
2,2-Dichloropropane	5.00	5.083		ug/L		102	70 - 130
2-Butanone (MEK)	62.5	56.65		ug/L		91	70 - 130
2-Chlorotoluene	5.00	5.055		ug/L		101	70 - 130
2-Hexanone	62.5	63.38		ug/L		101	70 - 130
4-Chlorotoluene	5.00	5.060		ug/L		101	70 - 130
4-Methyl-2-pentanone (MIBK)	62.5	59.15		ug/L		95	70 - 130
Acetone	62.5	53.32		ug/L		85	70 - 130
Acrylonitrile	113	102.0		ug/L		91	70 - 130
Benzene	5.00	4.951		ug/L		99	70 - 130
Bromobenzene	5.00	5.213		ug/L		104	70 - 130
Bromochloromethane	5.00	5.103		ug/L		102	70 - 130
Bromodichloromethane	5.00	5.069		ug/L		101	70 - 130
Bromoform	5.00	5.186		ug/L		104	70 - 130
Bromomethane	2.00	2.161		ug/L		108	70 - 130
Carbon disulfide	5.00	5.776		ug/L		116	70 - 130
Carbon tetrachloride	5.00	5.174		ug/L		103	70 - 130
Chlorobenzene	5.00	5.011		ug/L		100	70 - 130
Chloroethane	2.00	2.167		ug/L		108	70 - 130
Chloroform	5.00	4.973		ug/L		99	70 - 130
Chloromethane	2.00	2.116		ug/L		106	70 - 130
cis-1,2-Dichloroethene	5.00	4.914		ug/L		98	70 - 130
cis-1,3-Dichloropropene	5.00	4.744		ug/L		95	70 - 130
Dibromochloromethane	5.00	5.076		ug/L		102	70 - 130
Dibromomethane	5.00	5.006		ug/L		100	70 - 130
Dichlorodifluoromethane	2.00	2.336		ug/L		117	70 - 130
di-Isopropyl ether	5.00	4.919		ug/L		98	70 - 130
Ethyl ether	5.00	5.408		ug/L		108	70 - 130
Tert-butyl ethyl ether	5.00	4.966		ug/L		99	70 - 130
Ethylbenzene	5.00	4.988		ug/L		100	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	5.464		ug/L		109	70 - 130
Hexachlorobutadiene	5.00	5.082		ug/L		102	70 - 130
Isopropylbenzene	5.00	5.100		ug/L		102	70 - 130
m,p-Xylene	10.0	10.28		ug/L		103	70 - 130
Methylene Chloride	5.00	4.872		ug/L		97	70 - 130
Naphthalene	5.00	4.938		ug/L		99	70 - 130
n-Butylbenzene	5.00	5.018		ug/L		100	70 - 130
N-Propylbenzene	5.00	4.996		ug/L		100	70 - 130
o-Xylene	5.00	4.997		ug/L		100	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-220011/4
Matrix: Drinking Water
Analysis Batch: 220011

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Isopropyltoluene	5.00	5.302		ug/L		106	70 - 130
sec-Butylbenzene	5.00	5.125		ug/L		102	70 - 130
Styrene	5.00	5.145		ug/L		103	70 - 130
Tert-amyl methyl ether	5.00	4.976		ug/L		100	70 - 130
tert-Butyl alcohol	50.0	39.45		ug/L		79	70 - 130
tert-Butylbenzene	5.00	4.969		ug/L		99	70 - 130
Tetrachloroethene	5.00	5.146		ug/L		103	70 - 130
Tetrahydrofuran	46.9	42.99		ug/L		92	70 - 130
Toluene	5.00	4.905		ug/L		98	70 - 130
trans-1,2-Dichloroethene	5.00	4.919		ug/L		98	70 - 130
trans-1,3-Dichloropropene	5.00	4.975		ug/L		100	70 - 130
Trichloroethene	5.00	4.777		ug/L		96	70 - 130
Trichlorofluoromethane	2.00	2.144		ug/L		107	70 - 130
Vinyl chloride	2.00	2.151		ug/L		108	70 - 130
Xylene (total)	15.0	15.28		ug/L		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichlorobenzene-d4 (Surr)	*105*		*80 - 120*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*

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

Lab Sample ID: MB 620-8002/7
Matrix: Water
Analysis Batch: 8002

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			02/09/22 11:59	1
Acetone	ND		10.0		ug/L			02/09/22 11:59	1
Acrylonitrile	ND		0.500		ug/L			02/09/22 11:59	1
Benzene	ND		1.00		ug/L			02/09/22 11:59	1
Bromobenzene	ND		1.00		ug/L			02/09/22 11:59	1
Bromochloromethane	ND		1.00		ug/L			02/09/22 11:59	1
Bromodichloromethane	ND		0.500		ug/L			02/09/22 11:59	1
Bromoform	ND		1.00		ug/L			02/09/22 11:59	1
Bromomethane	ND		2.00		ug/L			02/09/22 11:59	1
2-Butanone (MEK)	ND		2.00		ug/L			02/09/22 11:59	1
n-Butylbenzene	ND		1.00		ug/L			02/09/22 11:59	1
sec-Butylbenzene	ND		1.00		ug/L			02/09/22 11:59	1
tert-Butylbenzene	ND		1.00		ug/L			02/09/22 11:59	1
Carbon disulfide	ND		2.00		ug/L			02/09/22 11:59	1
Carbon tetrachloride	ND		1.00		ug/L			02/09/22 11:59	1
Chlorobenzene	ND		1.00		ug/L			02/09/22 11:59	1
Chloroethane	ND		2.00		ug/L			02/09/22 11:59	1
Chloroform	ND		1.00		ug/L			02/09/22 11:59	1
Chloromethane	ND		2.00		ug/L			02/09/22 11:59	1
2-Chlorotoluene	ND		1.00		ug/L			02/09/22 11:59	1
4-Chlorotoluene	ND		1.00		ug/L			02/09/22 11:59	1

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

Lab Sample ID: MB 620-8002/7
Matrix: Water
Analysis Batch: 8002

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	ND		2.00		ug/L			02/09/22 11:59	1
Dibromochloromethane	ND		0.500		ug/L			02/09/22 11:59	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			02/09/22 11:59	1
Dibromomethane	ND		1.00		ug/L			02/09/22 11:59	1
1,2-Dichlorobenzene	ND		1.00		ug/L			02/09/22 11:59	1
1,3-Dichlorobenzene	ND		1.00		ug/L			02/09/22 11:59	1
1,4-Dichlorobenzene	ND		1.00		ug/L			02/09/22 11:59	1
Dichlorodifluoromethane (Freon 12)	ND		2.00		ug/L			02/09/22 11:59	1
1,1-Dichloroethane	ND		1.00		ug/L			02/09/22 11:59	1
1,2-Dichloroethane	ND		1.00		ug/L			02/09/22 11:59	1
1,1-Dichloroethene	ND		1.00		ug/L			02/09/22 11:59	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 11:59	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			02/09/22 11:59	1
1,2-Dichloropropane	ND		1.00		ug/L			02/09/22 11:59	1
1,3-Dichloropropane	ND		1.00		ug/L			02/09/22 11:59	1
2,2-Dichloropropane	ND		1.00		ug/L			02/09/22 11:59	1
1,1-Dichloropropene	ND		1.00		ug/L			02/09/22 11:59	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 11:59	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			02/09/22 11:59	1
Ethylbenzene	ND		1.00		ug/L			02/09/22 11:59	1
Hexachlorobutadiene	ND		1.00		ug/L			02/09/22 11:59	1
2-Hexanone (MBK)	ND		2.00		ug/L			02/09/22 11:59	1
Isopropylbenzene	ND		1.00		ug/L			02/09/22 11:59	1
4-Isopropyltoluene	ND		1.00		ug/L			02/09/22 11:59	1
Methyl tert-butyl ether	ND		1.00		ug/L			02/09/22 11:59	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			02/09/22 11:59	1
Methylene Chloride	ND		2.00		ug/L			02/09/22 11:59	1
Naphthalene	ND		2.00		ug/L			02/09/22 11:59	1
N-Propylbenzene	ND		1.00		ug/L			02/09/22 11:59	1
Styrene	ND		1.00		ug/L			02/09/22 11:59	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L			02/09/22 11:59	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			02/09/22 11:59	1
Tetrachloroethene	ND		1.00		ug/L			02/09/22 11:59	1
Toluene	ND		1.00		ug/L			02/09/22 11:59	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			02/09/22 11:59	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			02/09/22 11:59	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			02/09/22 11:59	1
1,1,1-Trichloroethane	ND		1.00		ug/L			02/09/22 11:59	1
1,1,2-Trichloroethane	ND		1.00		ug/L			02/09/22 11:59	1
Trichloroethene	ND		1.00		ug/L			02/09/22 11:59	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			02/09/22 11:59	1
1,2,3-Trichloropropane	ND		1.00		ug/L			02/09/22 11:59	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			02/09/22 11:59	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			02/09/22 11:59	1
Vinyl chloride	ND		1.00		ug/L			02/09/22 11:59	1
m,p-Xylene	ND		1.00		ug/L			02/09/22 11:59	1
o-Xylene	ND		1.00		ug/L			02/09/22 11:59	1
Tetrahydrofuran	ND		2.00		ug/L			02/09/22 11:59	1
Ethyl ether	ND		1.00		ug/L			02/09/22 11:59	1

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

Lab Sample ID: MB 620-8002/7
Matrix: Water
Analysis Batch: 8002

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-amyl methyl ether	ND		1.00		ug/L			02/09/22 11:59	1
Tert-butyl ethyl ether	ND		1.00		ug/L			02/09/22 11:59	1
di-Isopropyl ether	ND		1.00		ug/L			02/09/22 11:59	1
tert-Butyl alcohol	ND		10.0		ug/L			02/09/22 11:59	1
1,4-Dioxane	ND		50.0		ug/L			02/09/22 11:59	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			02/09/22 11:59	1
Ethanol	ND		200		ug/L			02/09/22 11:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*02/09/22 11:59*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*02/09/22 11:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*02/09/22 11:59*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*02/09/22 11:59*	*1*

Lab Sample ID: LCS 620-8002/4
Matrix: Water
Analysis Batch: 8002

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichlorotrifluoroethane (Freon 113)	20.0	20.86		ug/L		104	70 - 130
Acetone	20.0	13.81	*-	ug/L		69	70 - 130
Acrylonitrile	20.0	24.87		ug/L		124	70 - 130
Benzene	20.0	20.33		ug/L		102	70 - 130
Bromobenzene	20.0	21.29		ug/L		106	70 - 130
Bromochloromethane	20.0	21.04		ug/L		105	70 - 130
Bromodichloromethane	20.0	23.33		ug/L		117	70 - 130
Bromoform	20.0	23.62		ug/L		118	70 - 130
Bromomethane	20.0	19.70		ug/L		99	70 - 130
2-Butanone (MEK)	20.0	13.75	*-	ug/L		69	70 - 130
n-Butylbenzene	20.0	22.29		ug/L		111	70 - 130
sec-Butylbenzene	20.0	19.28		ug/L		96	70 - 130
tert-Butylbenzene	20.0	20.98		ug/L		105	70 - 130
Carbon disulfide	20.0	23.43		ug/L		117	70 - 130
Carbon tetrachloride	20.0	20.89		ug/L		104	70 - 130
Chlorobenzene	20.0	21.19		ug/L		106	70 - 130
Chloroethane	20.0	21.96		ug/L		110	70 - 130
Chloroform	20.0	20.56		ug/L		103	70 - 130
Chloromethane	20.0	17.17		ug/L		86	70 - 130
2-Chlorotoluene	20.0	21.08		ug/L		105	70 - 130
4-Chlorotoluene	20.0	22.42		ug/L		112	70 - 130
1,2-Dibromo-3-Chloropropane	20.0	22.14		ug/L		111	70 - 130
Dibromochloromethane	20.0	22.54		ug/L		113	70 - 130
1,2-Dibromoethane (EDB)	20.0	22.02		ug/L		110	70 - 130
Dibromomethane	20.0	22.39		ug/L		112	70 - 130
1,2-Dichlorobenzene	20.0	23.98		ug/L		120	70 - 130
1,3-Dichlorobenzene	20.0	20.95		ug/L		105	70 - 130
1,4-Dichlorobenzene	20.0	21.22		ug/L		106	70 - 130

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

Lab Sample ID: LCS 620-8002/4
Matrix: Water
Analysis Batch: 8002

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane (Freon 12)	20.0	13.29	*-	ug/L		66	70 - 130
1,1-Dichloroethane	20.0	21.19		ug/L		106	70 - 130
1,2-Dichloroethane	20.0	20.96		ug/L		105	70 - 130
1,1-Dichloroethene	20.0	20.37		ug/L		102	70 - 130
cis-1,2-Dichloroethene	20.0	22.19		ug/L		111	70 - 130
trans-1,2-Dichloroethene	20.0	21.54		ug/L		108	70 - 130
1,2-Dichloropropane	20.0	22.87		ug/L		114	70 - 130
1,3-Dichloropropane	20.0	20.87		ug/L		104	70 - 130
2,2-Dichloropropane	20.0	21.34		ug/L		107	70 - 130
1,1-Dichloropropene	20.0	20.40		ug/L		102	70 - 130
cis-1,3-Dichloropropene	20.0	20.61		ug/L		103	70 - 130
trans-1,3-Dichloropropene	20.0	21.57		ug/L		108	70 - 130
Ethylbenzene	20.0	20.72		ug/L		104	70 - 130
Hexachlorobutadiene	20.0	19.83		ug/L		99	70 - 130
2-Hexanone (MBK)	20.0	12.66	*-	ug/L		63	70 - 130
Isopropylbenzene	20.0	20.22		ug/L		101	70 - 130
4-Isopropyltoluene	20.0	21.03		ug/L		105	70 - 130
Methyl tert-butyl ether	20.0	20.69		ug/L		103	70 - 130
4-Methyl-2-pentanone (MIBK)	20.0	18.08		ug/L		90	70 - 130
Methylene Chloride	20.0	19.17		ug/L		96	70 - 130
Naphthalene	20.0	21.07		ug/L		105	70 - 130
N-Propylbenzene	20.0	21.06		ug/L		105	70 - 130
Styrene	20.0	20.72		ug/L		104	70 - 130
1,1,1,2-Tetrachloroethane	20.0	21.48		ug/L		107	70 - 130
1,1,2,2-Tetrachloroethane	20.0	23.40		ug/L		117	70 - 130
Tetrachloroethene	20.0	20.28		ug/L		101	70 - 130
Toluene	20.0	20.07		ug/L		100	70 - 130
1,2,3-Trichlorobenzene	20.0	21.60		ug/L		108	70 - 130
1,2,4-Trichlorobenzene	20.0	21.62		ug/L		108	70 - 130
1,3,5-Trichlorobenzene	20.0	22.32		ug/L		112	70 - 130
1,1,1-Trichloroethane	20.0	20.86		ug/L		104	70 - 130
1,1,2-Trichloroethane	20.0	23.57		ug/L		118	70 - 130
Trichloroethene	20.0	19.13		ug/L		96	70 - 130
Trichlorofluoromethane (Freon 11)	20.0	20.52		ug/L		103	70 - 130
1,2,3-Trichloropropane	20.0	21.90		ug/L		109	70 - 130
1,2,4-Trimethylbenzene	20.0	21.36		ug/L		107	70 - 130
1,3,5-Trimethylbenzene	20.0	21.29		ug/L		106	70 - 130
Vinyl chloride	20.0	24.65		ug/L		123	70 - 130
m,p-Xylene	40.0	41.79		ug/L		104	70 - 130
o-Xylene	20.0	21.16		ug/L		106	70 - 130
Tetrahydrofuran	20.0	24.70		ug/L		124	70 - 130
Ethyl ether	20.0	20.36		ug/L		102	70 - 130
Tert-amyl methyl ether	20.0	20.85		ug/L		104	70 - 130
Tert-butyl ethyl ether	20.0	21.74		ug/L		109	70 - 130
di-Isopropyl ether	20.0	22.15		ug/L		111	70 - 130
tert-Butyl alcohol	200	263.6	*+	ug/L		132	70 - 130
1,4-Dioxane	200	246.7		ug/L		123	70 - 130

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

Lab Sample ID: LCS 620-8002/4
Matrix: Water
Analysis Batch: 8002

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
trans-1,4-Dichloro-2-butene			20.0	24.83		ug/L		124	70 - 130		
Ethanol			400	537.8	*+	ug/L		134	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*
Dibromofluoromethane (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 620-8002/5
Matrix: Water
Analysis Batch: 8002

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
1,1,2-Trichlorotrifluoroethane (Freon 113)			20.0	20.92		ug/L		105	70 - 130	0	20
Acetone			20.0	14.92		ug/L		75	70 - 130	8	20
Acrylonitrile			20.0	21.89		ug/L		109	70 - 130	13	20
Benzene			20.0	20.90		ug/L		105	70 - 130	3	20
Bromobenzene			20.0	21.43		ug/L		107	70 - 130	1	20
Bromochloromethane			20.0	21.27		ug/L		106	70 - 130	1	20
Bromodichloromethane			20.0	23.55		ug/L		118	70 - 130	1	20
Bromoform			20.0	23.62		ug/L		118	70 - 130	0	20
Bromomethane			20.0	20.42		ug/L		102	70 - 130	4	20
2-Butanone (MEK)			20.0	23.02	*1	ug/L		115	70 - 130	50	20
n-Butylbenzene			20.0	22.24		ug/L		111	70 - 130	0	20
sec-Butylbenzene			20.0	19.08		ug/L		95	70 - 130	1	20
tert-Butylbenzene			20.0	21.10		ug/L		106	70 - 130	1	20
Carbon disulfide			20.0	23.51		ug/L		118	70 - 130	0	20
Carbon tetrachloride			20.0	20.94		ug/L		105	70 - 130	0	20
Chlorobenzene			20.0	21.24		ug/L		106	70 - 130	0	20
Chloroethane			20.0	21.75		ug/L		109	70 - 130	1	20
Chloroform			20.0	20.85		ug/L		104	70 - 130	1	20
Chloromethane			20.0	16.86		ug/L		84	70 - 130	2	20
2-Chlorotoluene			20.0	21.22		ug/L		106	70 - 130	1	20
4-Chlorotoluene			20.0	22.61		ug/L		113	70 - 130	1	20
1,2-Dibromo-3-Chloropropane			20.0	23.46		ug/L		117	70 - 130	6	20
Dibromochloromethane			20.0	23.14		ug/L		116	70 - 130	3	20
1,2-Dibromoethane (EDB)			20.0	22.65		ug/L		113	70 - 130	3	20
Dibromomethane			20.0	22.66		ug/L		113	70 - 130	1	20
1,2-Dichlorobenzene			20.0	23.68		ug/L		118	70 - 130	1	20
1,3-Dichlorobenzene			20.0	21.03		ug/L		105	70 - 130	0	20
1,4-Dichlorobenzene			20.0	21.22		ug/L		106	70 - 130	0	20
Dichlorodifluoromethane (Freon 12)			20.0	13.21	*-	ug/L		66	70 - 130	1	20
1,1-Dichloroethane			20.0	21.29		ug/L		106	70 - 130	0	20
1,2-Dichloroethane			20.0	21.42		ug/L		107	70 - 130	2	20
1,1-Dichloroethene			20.0	20.57		ug/L		103	70 - 130	1	20
cis-1,2-Dichloroethene			20.0	22.52		ug/L		113	70 - 130	1	20

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

Lab Sample ID: LCSD 620-8002/5
Matrix: Water
Analysis Batch: 8002

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
trans-1,2-Dichloroethene	20.0	21.43		ug/L		107	70 - 130	0	20
1,2-Dichloropropane	20.0	23.47		ug/L		117	70 - 130	3	20
1,3-Dichloropropane	20.0	22.10		ug/L		111	70 - 130	6	20
2,2-Dichloropropane	20.0	21.38		ug/L		107	70 - 130	0	20
1,1-Dichloropropene	20.0	21.02		ug/L		105	70 - 130	3	20
cis-1,3-Dichloropropene	20.0	21.05		ug/L		105	70 - 130	2	20
trans-1,3-Dichloropropene	20.0	22.06		ug/L		110	70 - 130	2	20
Ethylbenzene	20.0	21.05		ug/L		105	70 - 130	2	20
Hexachlorobutadiene	20.0	19.75		ug/L		99	70 - 130	0	20
2-Hexanone (MBK)	20.0	13.15	*-	ug/L		66	70 - 130	4	20
Isopropylbenzene	20.0	20.11		ug/L		101	70 - 130	1	20
4-Isopropyltoluene	20.0	20.91		ug/L		105	70 - 130	1	20
Methyl tert-butyl ether	20.0	21.79		ug/L		109	70 - 130	5	20
4-Methyl-2-pentanone (MIBK)	20.0	19.59		ug/L		98	70 - 130	8	20
Methylene Chloride	20.0	19.60		ug/L		98	70 - 130	2	20
Naphthalene	20.0	21.65		ug/L		108	70 - 130	3	20
N-Propylbenzene	20.0	20.98		ug/L		105	70 - 130	0	20
Styrene	20.0	20.55		ug/L		103	70 - 130	1	20
1,1,1,2-Tetrachloroethane	20.0	21.46		ug/L		107	70 - 130	0	20
1,1,2,2-Tetrachloroethane	20.0	24.21		ug/L		121	70 - 130	3	20
Tetrachloroethene	20.0	20.69		ug/L		103	70 - 130	2	20
Toluene	20.0	20.05		ug/L		100	70 - 130	0	20
1,2,3-Trichlorobenzene	20.0	21.83		ug/L		109	70 - 130	1	20
1,2,4-Trichlorobenzene	20.0	21.90		ug/L		109	70 - 130	1	20
1,3,5-Trichlorobenzene	20.0	22.23		ug/L		111	70 - 130	0	20
1,1,1-Trichloroethane	20.0	21.16		ug/L		106	70 - 130	1	20
1,1,2-Trichloroethane	20.0	23.90		ug/L		120	70 - 130	1	20
Trichloroethene	20.0	19.04		ug/L		95	70 - 130	0	20
Trichlorofluoromethane (Freon 11)	20.0	20.82		ug/L		104	70 - 130	1	20
1,2,3-Trichloropropane	20.0	22.98		ug/L		115	70 - 130	5	20
1,2,4-Trimethylbenzene	20.0	21.23		ug/L		106	70 - 130	1	20
1,3,5-Trimethylbenzene	20.0	21.46		ug/L		107	70 - 130	1	20
Vinyl chloride	20.0	24.16		ug/L		121	70 - 130	2	20
m,p-Xylene	40.0	42.39		ug/L		106	70 - 130	1	20
o-Xylene	20.0	21.14		ug/L		106	70 - 130	0	20
Tetrahydrofuran	20.0	25.33		ug/L		127	70 - 130	2	20
Ethyl ether	20.0	21.03		ug/L		105	70 - 130	3	20
Tert-amyl methyl ether	20.0	21.60		ug/L		108	70 - 130	4	20
Tert-butyl ethyl ether	20.0	22.21		ug/L		111	70 - 130	2	20
di-Isopropyl ether	20.0	22.55		ug/L		113	70 - 130	2	20
tert-Butyl alcohol	200	294.2	*+	ug/L		147	70 - 130	11	20
1,4-Dioxane	200	259.2		ug/L		130	70 - 130	5	20
trans-1,4-Dichloro-2-butene	20.0	25.41		ug/L		127	70 - 130	2	20
Ethanol	400	562.8	*+	ug/L		141	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*

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

Lab Sample ID: LCSD 620-8002/5
Matrix: Water
Analysis Batch: 8002

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	105		70 - 130
Dibromofluoromethane (Surr)	102		70 - 130

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Lab Sample ID: MB 410-221245/1-A
Matrix: Water
Analysis Batch: 221402

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221245

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluoroheptanoic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluorooctanoic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluorononanoic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluorodecanoic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluorotridecanoic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluorotetradecanoic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluorobutanesulfonic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluorohexanesulfonic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluorooctanesulfonic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
NEtFOSAA	ND		3.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
NMeFOSAA	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluoropentanesulfonic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluoroheptanesulfonic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluorononanesulfonic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluorodecanesulfonic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluorooctanesulfonamide	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluorobutanoic acid	ND		5.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluoropentanoic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluoroundecanoic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
Perfluorododecanoic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
6:2 Fluorotelomer sulfonic acid	ND		5.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
8:2 Fluorotelomer sulfonic acid	ND		3.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
4:2 Fluorotelomer sulfonic acid	ND		2.00		ng/L		02/06/22 08:04	02/07/22 16:08	1
NMeFOSA	ND		3.00		ng/L		02/06/22 08:04	02/07/22 16:08	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	140		50 - 150	02/06/22 08:04	02/07/22 16:08	1
M2-8:2 FTS	143		50 - 150	02/06/22 08:04	02/07/22 16:08	1
M2-6:2 FTS	141		50 - 150	02/06/22 08:04	02/07/22 16:08	1
13C5 PFHxA	140		50 - 150	02/06/22 08:04	02/07/22 16:08	1
13C4 PFHpA	131		50 - 150	02/06/22 08:04	02/07/22 16:08	1
13C8 PFOA	149		50 - 150	02/06/22 08:04	02/07/22 16:08	1
13C9 PFNA	158	*5+	50 - 150	02/06/22 08:04	02/07/22 16:08	1
13C6 PFDA	147		50 - 150	02/06/22 08:04	02/07/22 16:08	1
13C7 PFUnA	126		50 - 150	02/06/22 08:04	02/07/22 16:08	1
13C2-PFDoDA	145		50 - 150	02/06/22 08:04	02/07/22 16:08	1
13C2 PFTeDA	112		50 - 150	02/06/22 08:04	02/07/22 16:08	1

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Lab Sample ID: MB 410-221245/1-A
Matrix: Water
Analysis Batch: 221402

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221245

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFBS	148		50 - 150	02/06/22 08:04	02/07/22 16:08	1
13C3 PFHxS	154	*5+	50 - 150	02/06/22 08:04	02/07/22 16:08	1
13C8 PFOS	146		50 - 150	02/06/22 08:04	02/07/22 16:08	1
d3-NMeFOSAA	123		50 - 150	02/06/22 08:04	02/07/22 16:08	1
d5-NEtFOSAA	123		50 - 150	02/06/22 08:04	02/07/22 16:08	1
13C8 FOSA	127		50 - 150	02/06/22 08:04	02/07/22 16:08	1
13C4 PFBA	145		50 - 150	02/06/22 08:04	02/07/22 16:08	1
13C5 PFPeA	151	*5+	50 - 150	02/06/22 08:04	02/07/22 16:08	1
d3-NMePFOSA	118		50 - 150	02/06/22 08:04	02/07/22 16:08	1

Lab Sample ID: LCS 410-221245/3-A
Matrix: Water
Analysis Batch: 221402

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 221245

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	25.6	17.00	*-	ng/L		66	72 - 129
Perfluoroheptanoic acid	25.6	18.36		ng/L		72	72 - 130
Perfluorooctanoic acid	25.6	16.41	*-	ng/L		64	71 - 133
Perfluorononanoic acid	25.6	15.50	*-	ng/L		61	69 - 130
Perfluorodecanoic acid	25.6	14.74	*-	ng/L		58	71 - 129
Perfluorotridecanoic acid	25.6	14.84	*-	ng/L		58	65 - 144
Perfluorotetradecanoic acid	25.6	15.83	*-	ng/L		62	71 - 132
Perfluorobutanesulfonic acid	22.7	14.67	*-	ng/L		65	72 - 130
Perfluorohexanesulfonic acid	23.3	14.42	*-	ng/L		62	68 - 131
Perfluorooctanesulfonic acid	23.7	15.40		ng/L		65	65 - 140
NEtFOSAA	25.6	15.98		ng/L		62	61 - 135
NMeFOSAA	25.6	16.05	*-	ng/L		63	65 - 136
Perfluoropentanesulfonic acid	24.0	14.97	*-	ng/L		62	71 - 127
Perfluoroheptanesulfonic acid	24.4	14.30	*-	ng/L		59	69 - 134
Perfluorononanesulfonic acid	24.6	15.75	*-	ng/L		64	69 - 127
Perfluorodecanesulfonic acid	24.7	14.92		ng/L		60	53 - 142
Perfluorooctanesulfonamide	25.6	17.41		ng/L		68	67 - 137
Perfluorobutanoic acid	25.6	17.09	*-	ng/L		67	73 - 129
Perfluoropentanoic acid	25.6	16.09	*-	ng/L		63	72 - 129
Perfluoroundecanoic acid	25.6	17.24	*-	ng/L		67	69 - 133
Perfluorododecanoic acid	25.6	16.86	*-	ng/L		66	72 - 134
6:2 Fluorotelomer sulfonic acid	24.3	19.20		ng/L		79	64 - 140
8:2 Fluorotelomer sulfonic acid	24.5	17.84		ng/L		73	67 - 138
4:2 Fluorotelomer sulfonic acid	23.9	15.26		ng/L		64	63 - 143
NMeFOSA	25.6	20.85		ng/L		81	68 - 141

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-4:2 FTS	140		50 - 150
M2-8:2 FTS	147		50 - 150
M2-6:2 FTS	133		50 - 150
13C5 PFHxA	146		50 - 150
13C4 PFHpA	142		50 - 150
13C8 PFOA	149		50 - 150
13C9 PFNA	163	*5+	50 - 150

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Lab Sample ID: LCS 410-221245/3-A
Matrix: Water
Analysis Batch: 221402

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 221245

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C6 PFDA	150		50 - 150
13C7 PFUnA	136		50 - 150
13C2-PFDoDA	136		50 - 150
13C2 PFTeDA	111		50 - 150
13C3 PFBS	155	*5+	50 - 150
13C3 PFHxS	158	*5+	50 - 150
13C8 PFOS	144		50 - 150
d3-NMeFOSAA	129		50 - 150
d5-NEtFOSAA	134		50 - 150
13C8 FOSA	137		50 - 150
13C4 PFBA	155	*5+	50 - 150
13C5 PFPeA	169	*5+	50 - 150
d3-NMePFOSA	105		50 - 150

Lab Sample ID: LCSD 410-221245/4-A
Matrix: Water
Analysis Batch: 221402

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 221245

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorohexanoic acid			25.6	16.40	*-	ng/L		64	72 - 129	4	30
Perfluoroheptanoic acid			25.6	17.20	*-	ng/L		67	72 - 130	6	30
Perfluorooctanoic acid			25.6	16.80	*-	ng/L		66	71 - 133	2	30
Perfluorononanoic acid			25.6	14.86	*-	ng/L		58	69 - 130	4	30
Perfluorodecanoic acid			25.6	15.43	*-	ng/L		60	71 - 129	5	30
Perfluorotridecanoic acid			25.6	14.84	*-	ng/L		58	65 - 144	0	30
Perfluorotetradecanoic acid			25.6	16.22	*-	ng/L		63	71 - 132	2	30
Perfluorobutanesulfonic acid			22.7	14.71	*-	ng/L		65	72 - 130	0	30
Perfluorohexanesulfonic acid			23.3	14.79	*-	ng/L		63	68 - 131	3	30
Perfluorooctanesulfonic acid			23.7	15.25	*-	ng/L		64	65 - 140	1	30
NEtFOSAA			25.6	17.53		ng/L		68	61 - 135	9	30
NMeFOSAA			25.6	15.10	*-	ng/L		59	65 - 136	6	30
Perfluoropentanesulfonic acid			24.0	15.46	*-	ng/L		64	71 - 127	3	30
Perfluoroheptanesulfonic acid			24.4	14.32	*-	ng/L		59	69 - 134	0	30
Perfluorononanesulfonic acid			24.6	15.46	*-	ng/L		63	69 - 127	2	30
Perfluorodecanesulfonic acid			24.7	13.66		ng/L		55	53 - 142	9	30
Perfluorooctanesulfonamide			25.6	17.74		ng/L		69	67 - 137	2	30
Perfluorobutanoic acid			25.6	17.42	*-	ng/L		68	73 - 129	2	30
Perfluoropentanoic acid			25.6	17.27	*-	ng/L		67	72 - 129	7	30
Perfluoroundecanoic acid			25.6	16.42	*-	ng/L		64	69 - 133	5	30
Perfluorododecanoic acid			25.6	16.29	*-	ng/L		64	72 - 134	3	30
6:2 Fluorotelomer sulfonic acid			24.3	18.12		ng/L		75	64 - 140	6	30
8:2 Fluorotelomer sulfonic acid			24.5	20.08		ng/L		82	67 - 138	12	30
4:2 Fluorotelomer sulfonic acid			23.9	16.67		ng/L		70	63 - 143	9	30
NMeFOSA			25.6	20.95		ng/L		82	68 - 141	0	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
M2-4:2 FTS	128		50 - 150
M2-8:2 FTS	121		50 - 150
M2-6:2 FTS	129		50 - 150

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Lab Sample ID: LCSD 410-221245/4-A
Matrix: Water
Analysis Batch: 221402

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 221245

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C5 PFHxA	136		50 - 150
13C4 PFHpA	126		50 - 150
13C8 PFOA	135		50 - 150
13C9 PFNA	145		50 - 150
13C6 PFDA	136		50 - 150
13C7 PFUnA	124		50 - 150
13C2-PFDoDA	118		50 - 150
13C2 PFTeDA	104		50 - 150
13C3 PFBS	136		50 - 150
13C3 PFHxS	147		50 - 150
13C8 PFOS	140		50 - 150
d3-NMeFOSAA	121		50 - 150
d5-NEtFOSAA	110		50 - 150
13C8 FOSA	121		50 - 150
13C4 PFBA	139		50 - 150
13C5 PFPeA	146		50 - 150
d3-NMePFOSA	83		50 - 150

Lab Sample ID: MB 410-221760/1-A
Matrix: Water
Analysis Batch: 222003

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221760

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluoroheptanoic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluorooctanoic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluorononanoic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluorodecanoic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluorotridecanoic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluorotetradecanoic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluorobutanesulfonic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluorohexanesulfonic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluorooctanesulfonic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
NEtFOSAA	ND		3.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
NMeFOSAA	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluoropentanesulfonic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluoroheptanesulfonic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluorononanesulfonic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluorodecanesulfonic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluorooctanesulfonamide	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluorobutanoic acid	ND		5.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluoropentanoic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluoroundecanoic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
Perfluorododecanoic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
6:2 Fluorotelomer sulfonic acid	ND		5.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
8:2 Fluorotelomer sulfonic acid	ND		3.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
4:2 Fluorotelomer sulfonic acid	ND		2.00		ng/L		02/08/22 07:07	02/09/22 05:20	1
NMeFOSA	ND		3.00		ng/L		02/08/22 07:07	02/09/22 05:20	1

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	117		50 - 150	02/08/22 07:07	02/09/22 05:20	1
M2-8:2 FTS	110		50 - 150	02/08/22 07:07	02/09/22 05:20	1
M2-6:2 FTS	104		50 - 150	02/08/22 07:07	02/09/22 05:20	1
13C5 PFHxA	117		50 - 150	02/08/22 07:07	02/09/22 05:20	1
13C4 PFHpA	119		50 - 150	02/08/22 07:07	02/09/22 05:20	1
13C8 PFOA	123		50 - 150	02/08/22 07:07	02/09/22 05:20	1
13C9 PFNA	123		50 - 150	02/08/22 07:07	02/09/22 05:20	1
13C6 PFDA	120		50 - 150	02/08/22 07:07	02/09/22 05:20	1
13C7 PFUnA	116		50 - 150	02/08/22 07:07	02/09/22 05:20	1
13C2-PFDoDA	116		50 - 150	02/08/22 07:07	02/09/22 05:20	1
13C2 PFTeDA	96		50 - 150	02/08/22 07:07	02/09/22 05:20	1
13C3 PFBS	119		50 - 150	02/08/22 07:07	02/09/22 05:20	1
13C3 PFHxS	118		50 - 150	02/08/22 07:07	02/09/22 05:20	1
13C8 PFOS	124		50 - 150	02/08/22 07:07	02/09/22 05:20	1
d3-NMeFOSAA	103		50 - 150	02/08/22 07:07	02/09/22 05:20	1
d5-NEtFOSAA	107		50 - 150	02/08/22 07:07	02/09/22 05:20	1
13C8 FOSA	111		50 - 150	02/08/22 07:07	02/09/22 05:20	1
13C4 PFBA	121		50 - 150	02/08/22 07:07	02/09/22 05:20	1
13C5 PFPeA	120		50 - 150	02/08/22 07:07	02/09/22 05:20	1
d3-NMePFOSA	99		50 - 150	02/08/22 07:07	02/09/22 05:20	1

Lab Sample ID: LCS 410-221760/3-A
Matrix: Water
Analysis Batch: 222003

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 221760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	25.6	23.07		ng/L		90	72 - 129
Perfluoroheptanoic acid	25.6	22.30		ng/L		87	72 - 130
Perfluorooctanoic acid	25.6	22.72		ng/L		89	71 - 133
Perfluorononanoic acid	25.6	23.03		ng/L		90	69 - 130
Perfluorodecanoic acid	25.6	23.00		ng/L		90	71 - 129
Perfluorotridecanoic acid	25.6	23.39		ng/L		91	65 - 144
Perfluorotetradecanoic acid	25.6	23.70		ng/L		93	71 - 132
Perfluorobutanesulfonic acid	22.7	20.06		ng/L		89	72 - 130
Perfluorohexanesulfonic acid	23.3	20.26		ng/L		87	68 - 131
Perfluorooctanesulfonic acid	23.7	20.35		ng/L		86	65 - 140
NEtFOSAA	25.6	23.83		ng/L		93	61 - 135
NMeFOSAA	25.6	22.52		ng/L		88	65 - 136
Perfluoropentanesulfonic acid	24.0	21.71		ng/L		90	71 - 127
Perfluoroheptanesulfonic acid	24.4	20.78		ng/L		85	69 - 134
Perfluorononanesulfonic acid	24.6	21.43		ng/L		87	69 - 127
Perfluorodecanesulfonic acid	24.7	20.50		ng/L		83	53 - 142
Perfluorooctanesulfonamide	25.6	25.53		ng/L		100	67 - 137
Perfluorobutanoic acid	25.6	24.80		ng/L		97	73 - 129
Perfluoropentanoic acid	25.6	25.82		ng/L		101	72 - 129
Perfluoroundecanoic acid	25.6	23.98		ng/L		94	69 - 133
Perfluorododecanoic acid	25.6	25.72		ng/L		100	72 - 134
6:2 Fluorotelomer sulfonic acid	24.3	26.77		ng/L		110	64 - 140
8:2 Fluorotelomer sulfonic acid	24.5	25.88		ng/L		106	67 - 138
4:2 Fluorotelomer sulfonic acid	23.9	19.99		ng/L		84	63 - 143
NMeFOSA	25.6	27.85		ng/L		109	68 - 141

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-4:2 FTS	109		50 - 150
M2-8:2 FTS	102		50 - 150
M2-6:2 FTS	100		50 - 150
13C5 PFHxA	110		50 - 150
13C4 PFHpA	116		50 - 150
13C8 PFOA	117		50 - 150
13C9 PFNA	112		50 - 150
13C6 PFDA	107		50 - 150
13C7 PFUnA	108		50 - 150
13C2-PFDoDA	98		50 - 150
13C2 PFTeDA	93		50 - 150
13C3 PFBS	112		50 - 150
13C3 PFHxS	119		50 - 150
13C8 PFOS	116		50 - 150
d3-NMeFOSAA	100		50 - 150
d5-NEtFOSAA	101		50 - 150
13C8 FOSA	100		50 - 150
13C4 PFBA	111		50 - 150
13C5 PFPeA	107		50 - 150
d3-NMePFOSA	88		50 - 150

Lab Sample ID: LCSD 410-221760/4-A
Matrix: Water
Analysis Batch: 222003

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 221760

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorohexanoic acid			25.6	23.80		ng/L		93	72 - 129	3	30
Perfluoroheptanoic acid			25.6	23.21		ng/L		91	72 - 130	4	30
Perfluorooctanoic acid			25.6	23.29		ng/L		91	71 - 133	2	30
Perfluorononanoic acid			25.6	22.72		ng/L		89	69 - 130	1	30
Perfluorodecanoic acid			25.6	22.20		ng/L		87	71 - 129	4	30
Perfluorotridecanoic acid			25.6	21.36		ng/L		83	65 - 144	9	30
Perfluorotetradecanoic acid			25.6	24.42		ng/L		95	71 - 132	3	30
Perfluorobutanesulfonic acid			22.7	20.05		ng/L		88	72 - 130	0	30
Perfluorohexanesulfonic acid			23.3	20.17		ng/L		86	68 - 131	0	30
Perfluorooctanesulfonic acid			23.7	20.47		ng/L		86	65 - 140	1	30
NEtFOSAA			25.6	20.22		ng/L		79	61 - 135	16	30
NMeFOSAA			25.6	21.73		ng/L		85	65 - 136	4	30
Perfluoropentanesulfonic acid			24.0	21.26		ng/L		89	71 - 127	2	30
Perfluoroheptanesulfonic acid			24.4	20.90		ng/L		86	69 - 134	1	30
Perfluorononanesulfonic acid			24.6	20.72		ng/L		84	69 - 127	3	30
Perfluorodecanesulfonic acid			24.7	20.73		ng/L		84	53 - 142	1	30
Perfluorooctanesulfonamide			25.6	23.68		ng/L		92	67 - 137	8	30
Perfluorobutanoic acid			25.6	26.18		ng/L		102	73 - 129	5	30
Perfluoropentanoic acid			25.6	24.19		ng/L		94	72 - 129	7	30
Perfluoroundecanoic acid			25.6	21.55		ng/L		84	69 - 133	11	30
Perfluorododecanoic acid			25.6	23.58		ng/L		92	72 - 134	9	30
6:2 Fluorotelomer sulfonic acid			24.3	24.01		ng/L		99	64 - 140	11	30
8:2 Fluorotelomer sulfonic acid			24.5	25.47		ng/L		104	67 - 138	2	30
4:2 Fluorotelomer sulfonic acid			23.9	19.60		ng/L		82	63 - 143	2	30
NMeFOSA			25.6	28.15		ng/L		110	68 - 141	1	30

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
M2-4:2 FTS	112		50 - 150
M2-8:2 FTS	104		50 - 150
M2-6:2 FTS	109		50 - 150
13C5 PFHxA	108		50 - 150
13C4 PFHpA	113		50 - 150
13C8 PFOA	117		50 - 150
13C9 PFNA	114		50 - 150
13C6 PFDA	113		50 - 150
13C7 PFUnA	115		50 - 150
13C2-PFDoDA	108		50 - 150
13C2 PFTeDA	92		50 - 150
13C3 PFBS	118		50 - 150
13C3 PFHxS	117		50 - 150
13C8 PFOS	119		50 - 150
d3-NMeFOSAA	103		50 - 150
d5-NEtFOSAA	111		50 - 150
13C8 FOSA	108		50 - 150
13C4 PFBA	113		50 - 150
13C5 PFPeA	114		50 - 150
d3-NMePFOSA	92		50 - 150

Method: 200.8 Rev 5.4 - Metals (ICP/MS)

Lab Sample ID: MB 410-220698/1-A
Matrix: Water
Analysis Batch: 221810

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 220698

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.00		ug/L		02/03/22 11:59	02/07/22 20:15	1
Arsenic	ND		2.00		ug/L		02/03/22 11:59	02/07/22 20:15	1
Barium	ND		2.00		ug/L		02/03/22 11:59	02/07/22 20:15	1
Beryllium	ND		0.500		ug/L		02/03/22 11:59	02/07/22 20:15	1
Cadmium	ND		0.500		ug/L		02/03/22 11:59	02/07/22 20:15	1
Chromium	ND		2.00		ug/L		02/03/22 11:59	02/07/22 20:15	1
Cobalt	ND		0.500		ug/L		02/03/22 11:59	02/07/22 20:15	1
Copper	ND		1.00		ug/L		02/03/22 11:59	02/07/22 20:15	1
Lead	ND		0.500		ug/L		02/03/22 11:59	02/07/22 20:15	1
Selenium	ND		1.00		ug/L		02/03/22 11:59	02/07/22 20:15	1
Silver	ND		0.500		ug/L		02/03/22 11:59	02/07/22 20:15	1
Thallium	ND		0.500		ug/L		02/03/22 11:59	02/07/22 20:15	1
Vanadium	ND		4.00		ug/L		02/03/22 11:59	02/07/22 20:15	1
Zinc	ND		10.0		ug/L		02/03/22 11:59	02/07/22 20:15	1

Lab Sample ID: MB 410-220698/1-A
Matrix: Water
Analysis Batch: 222790

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 220698

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		1.00		ug/L		02/03/22 11:59	02/10/22 11:59	1

Method: 200.8 Rev 5.4 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-220698/2-A
Matrix: Water
Analysis Batch: 221810

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 220698

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	100	94.64		ug/L		95	85 - 115
Arsenic	500	428.9		ug/L		86	85 - 115
Barium	500	476.2		ug/L		95	85 - 115
Beryllium	50.0	47.53		ug/L		95	85 - 115
Cadmium	50.0	48.96		ug/L		98	85 - 115
Chromium	500	478.1		ug/L		96	85 - 115
Cobalt	500	441.4		ug/L		88	85 - 115
Copper	500	438.8		ug/L		88	85 - 115
Lead	50.0	49.46		ug/L		99	85 - 115
Selenium	100	97.92		ug/L		98	85 - 115
Silver	50.0	47.52		ug/L		95	85 - 115
Thallium	100	101.2		ug/L		101	85 - 115
Vanadium	500	489.0		ug/L		98	85 - 115
Zinc	500	443.1		ug/L		89	85 - 115

Lab Sample ID: LCS 410-220698/2-A
Matrix: Water
Analysis Batch: 222790

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 220698

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nickel	500	479.8		ug/L		96	85 - 115

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-220400/1-A
Matrix: Water
Analysis Batch: 222519

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 220400

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		02/02/22 20:00	02/09/22 15:54	1
Arsenic	ND		0.00200		mg/L		02/02/22 20:00	02/09/22 15:54	1
Barium	ND		0.00200		mg/L		02/02/22 20:00	02/09/22 15:54	1
Beryllium	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 15:54	1
Cadmium	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 15:54	1
Chromium	ND		0.00200		mg/L		02/02/22 20:00	02/09/22 15:54	1
Cobalt	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 15:54	1
Copper	ND		0.00100		mg/L		02/02/22 20:00	02/09/22 15:54	1
Lead	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 15:54	1
Nickel	ND		0.00100		mg/L		02/02/22 20:00	02/09/22 15:54	1
Selenium	ND		0.00100		mg/L		02/02/22 20:00	02/09/22 15:54	1
Silver	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 15:54	1
Thallium	ND		0.000500		mg/L		02/02/22 20:00	02/09/22 15:54	1
Vanadium	ND		0.00400		mg/L		02/02/22 20:00	02/09/22 15:54	1
Zinc	ND		0.0100		mg/L		02/02/22 20:00	02/09/22 15:54	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-220400/2-A
Matrix: Water
Analysis Batch: 222519

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 220400

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.09781		mg/L		98	80 - 120
Arsenic	0.500	0.4684		mg/L		94	85 - 120
Barium	0.500	0.4873		mg/L		97	80 - 120
Beryllium	0.0500	0.04939		mg/L		99	90 - 112
Cadmium	0.0500	0.04772		mg/L		96	86 - 113
Chromium	0.500	0.4892		mg/L		98	90 - 115
Cobalt	0.500	0.4809	E	mg/L		96	90 - 113
Copper	0.500	0.4794		mg/L		96	80 - 120
Lead	0.0500	0.05027		mg/L		101	90 - 115
Nickel	0.500	0.4855		mg/L		97	90 - 114
Selenium	0.100	0.09786		mg/L		98	80 - 120
Silver	0.0500	0.04773		mg/L		95	88 - 113
Thallium	0.100	0.1008		mg/L		101	80 - 120
Vanadium	0.500	0.4995		mg/L		100	90 - 115
Zinc	0.500	0.4846		mg/L		97	90 - 115

Lab Sample ID: MB 410-220404/1-A
Matrix: Water
Analysis Batch: 222502

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 220404

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 16:52	1
Arsenic	ND		0.00200		mg/L		02/02/22 20:05	02/09/22 16:52	1
Barium	ND		0.00200		mg/L		02/02/22 20:05	02/09/22 16:52	1
Beryllium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 16:52	1
Cadmium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 16:52	1
Chromium	ND		0.00200		mg/L		02/02/22 20:05	02/09/22 16:52	1
Cobalt	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 16:52	1
Copper	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 16:52	1
Lead	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 16:52	1
Nickel	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 16:52	1
Selenium	ND		0.00100		mg/L		02/02/22 20:05	02/09/22 16:52	1
Silver	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 16:52	1
Thallium	ND		0.000500		mg/L		02/02/22 20:05	02/09/22 16:52	1
Vanadium	ND		0.00400		mg/L		02/02/22 20:05	02/09/22 16:52	1
Zinc	ND		0.0100		mg/L		02/02/22 20:05	02/09/22 16:52	1

Lab Sample ID: LCS 410-220404/2-A
Matrix: Water
Analysis Batch: 222502

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 220404

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.1004		mg/L		100	80 - 120
Arsenic	0.500	0.4656		mg/L		93	85 - 120
Barium	0.500	0.5090		mg/L		102	80 - 120
Beryllium	0.0500	0.05180		mg/L		104	90 - 112
Cadmium	0.0500	0.05116		mg/L		102	86 - 113
Chromium	0.500	0.4797		mg/L		96	90 - 115
Cobalt	0.500	0.4896	E	mg/L		98	90 - 113

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-220404/2-A
Matrix: Water
Analysis Batch: 222502

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 220404

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.500	0.4585		mg/L		92	80 - 120
Lead	0.0500	0.05006		mg/L		100	90 - 115
Nickel	0.500	0.4857		mg/L		97	90 - 114
Selenium	0.100	0.09825		mg/L		98	80 - 120
Silver	0.0500	0.05059		mg/L		101	88 - 113
Thallium	0.100	0.09925		mg/L		99	80 - 120
Vanadium	0.500	0.4853		mg/L		97	90 - 115
Zinc	0.500	0.4895		mg/L		98	90 - 115

Lab Sample ID: LCSD 410-220404/3-A
Matrix: Water
Analysis Batch: 222502

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 220404

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.100	0.1015		mg/L		102	80 - 120	1	20
Arsenic	0.500	0.4620		mg/L		92	85 - 120	1	20
Barium	0.500	0.5082		mg/L		102	80 - 120	0	20
Beryllium	0.0500	0.05152		mg/L		103	90 - 112	1	20
Cadmium	0.0500	0.05132		mg/L		103	86 - 113	0	20
Chromium	0.500	0.4749		mg/L		95	90 - 115	1	20
Cobalt	0.500	0.4876	E	mg/L		98	90 - 113	0	20
Copper	0.500	0.4565		mg/L		91	80 - 120	0	20
Lead	0.0500	0.04994		mg/L		100	90 - 115	0	20
Nickel	0.500	0.4822		mg/L		96	90 - 114	1	20
Selenium	0.100	0.09770		mg/L		98	80 - 120	1	20
Silver	0.0500	0.05053		mg/L		101	88 - 113	0	20
Thallium	0.100	0.09939		mg/L		99	80 - 120	0	20
Vanadium	0.500	0.4814		mg/L		96	90 - 115	1	20
Zinc	0.500	0.4903		mg/L		98	90 - 115	0	20

Lab Sample ID: MB 410-220458/1-A
Matrix: Water
Analysis Batch: 220875

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 220458

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		02/03/22 06:16	02/03/22 16:17	1
Arsenic	ND		0.00200		mg/L		02/03/22 06:16	02/03/22 16:17	1
Barium	ND		0.00200		mg/L		02/03/22 06:16	02/03/22 16:17	1
Beryllium	ND		0.000500		mg/L		02/03/22 06:16	02/03/22 16:17	1
Cadmium	ND		0.000500		mg/L		02/03/22 06:16	02/03/22 16:17	1
Chromium	ND		0.00200		mg/L		02/03/22 06:16	02/03/22 16:17	1
Cobalt	ND		0.000500		mg/L		02/03/22 06:16	02/03/22 16:17	1
Copper	ND		0.00100		mg/L		02/03/22 06:16	02/03/22 16:17	1
Lead	ND		0.000500		mg/L		02/03/22 06:16	02/03/22 16:17	1
Nickel	ND		0.00100		mg/L		02/03/22 06:16	02/03/22 16:17	1
Selenium	ND		0.00100		mg/L		02/03/22 06:16	02/03/22 16:17	1
Silver	ND		0.000500		mg/L		02/03/22 06:16	02/03/22 16:17	1
Thallium	ND		0.000500		mg/L		02/03/22 06:16	02/03/22 16:17	1
Vanadium	ND		0.00400		mg/L		02/03/22 06:16	02/03/22 16:17	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-220458/1-A
Matrix: Water
Analysis Batch: 220875

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 220458

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.0100		mg/L		02/03/22 06:16	02/03/22 16:17	1

Lab Sample ID: LCS 410-220458/2-A
Matrix: Water
Analysis Batch: 220875

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 220458

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.1046		mg/L		105	80 - 120
Arsenic	0.500	0.4786		mg/L		96	85 - 120
Barium	0.500	0.5232		mg/L		105	80 - 120
Beryllium	0.0500	0.05206		mg/L		104	90 - 112
Cadmium	0.0500	0.05240		mg/L		105	86 - 113
Chromium	0.500	0.4932		mg/L		99	90 - 115
Cobalt	0.500	0.5116	E	mg/L		102	90 - 113
Copper	0.500	0.5036		mg/L		101	80 - 120
Lead	0.0500	0.05137		mg/L		103	90 - 115
Nickel	0.500	0.5013		mg/L		100	90 - 114
Selenium	0.100	0.1034		mg/L		103	80 - 120
Silver	0.0500	0.05154		mg/L		103	88 - 113
Thallium	0.100	0.1036		mg/L		104	80 - 120
Vanadium	0.500	0.4979		mg/L		100	90 - 115
Zinc	0.500	0.5026		mg/L		101	90 - 115

Lab Sample ID: LCSD 410-220458/7-A
Matrix: Water
Analysis Batch: 220875

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 220458

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.100	0.1049		mg/L		105	80 - 120	0	20
Arsenic	0.500	0.4895		mg/L		98	85 - 120	2	20
Barium	0.500	0.5314		mg/L		106	80 - 120	2	20
Beryllium	0.0500	0.05489	^+	mg/L		110	90 - 112	5	20
Cadmium	0.0500	0.05316		mg/L		106	86 - 113	1	20
Chromium	0.500	0.5020		mg/L		100	90 - 115	2	20
Cobalt	0.500	0.5248	E	mg/L		105	90 - 113	3	20
Copper	0.500	0.5083		mg/L		102	80 - 120	1	20
Lead	0.0500	0.05256		mg/L		105	90 - 115	2	20
Nickel	0.500	0.5143		mg/L		103	90 - 114	3	20
Selenium	0.100	0.1060		mg/L		106	80 - 120	2	20
Silver	0.0500	0.05236		mg/L		105	88 - 113	2	20
Thallium	0.100	0.1053		mg/L		105	80 - 120	2	20
Vanadium	0.500	0.5016		mg/L		100	90 - 115	1	20
Zinc	0.500	0.5173		mg/L		103	90 - 115	3	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-222735/1-A
Matrix: Water
Analysis Batch: 223254

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 222735

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		02/10/22 11:44	02/11/22 14:45	1
Arsenic	ND		0.00200		mg/L		02/10/22 11:44	02/11/22 14:45	1
Barium	ND		0.00200		mg/L		02/10/22 11:44	02/11/22 14:45	1
Beryllium	ND		0.000500		mg/L		02/10/22 11:44	02/11/22 14:45	1
Cadmium	ND		0.000500		mg/L		02/10/22 11:44	02/11/22 14:45	1
Chromium	ND		0.00200		mg/L		02/10/22 11:44	02/11/22 14:45	1
Cobalt	ND		0.000500		mg/L		02/10/22 11:44	02/11/22 14:45	1
Copper	ND		0.00100		mg/L		02/10/22 11:44	02/11/22 14:45	1
Lead	ND		0.000500		mg/L		02/10/22 11:44	02/11/22 14:45	1
Nickel	ND		0.00100		mg/L		02/10/22 11:44	02/11/22 14:45	1
Selenium	ND		0.00100		mg/L		02/10/22 11:44	02/11/22 14:45	1
Silver	ND		0.000500		mg/L		02/10/22 11:44	02/11/22 14:45	1
Thallium	ND		0.000500		mg/L		02/10/22 11:44	02/11/22 14:45	1
Vanadium	ND		0.00400		mg/L		02/10/22 11:44	02/11/22 14:45	1
Zinc	ND		0.0100		mg/L		02/10/22 11:44	02/11/22 14:45	1

Lab Sample ID: LCS 410-222735/2-A
Matrix: Water
Analysis Batch: 223254

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 222735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.09982		mg/L		100	80 - 120
Arsenic	0.500	0.4683		mg/L		94	85 - 120
Barium	0.500	0.4975		mg/L		99	80 - 120
Beryllium	0.0500	0.04723		mg/L		94	90 - 112
Cadmium	0.0500	0.05048		mg/L		101	86 - 113
Chromium	0.500	0.4865		mg/L		97	90 - 115
Cobalt	0.500	0.4902	E	mg/L		98	90 - 113
Copper	0.500	0.4666		mg/L		93	80 - 120
Lead	0.0500	0.05050		mg/L		101	90 - 115
Nickel	0.500	0.4880		mg/L		98	90 - 114
Selenium	0.100	0.09751		mg/L		98	80 - 120
Silver	0.0500	0.04979		mg/L		100	88 - 113
Thallium	0.100	0.1010		mg/L		101	80 - 120
Vanadium	0.500	0.4815		mg/L		96	90 - 115
Zinc	0.500	0.4865		mg/L		97	90 - 115

Lab Sample ID: 620-2810-4 MS
Matrix: Water
Analysis Batch: 223254

Client Sample ID: GZ-4
Prep Type: Total Recoverable
Prep Batch: 222735

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		0.100	0.1035		mg/L		104	75 - 125
Arsenic	ND		0.500	0.4727		mg/L		95	75 - 125
Barium	0.00862		0.500	0.5145		mg/L		101	75 - 125
Beryllium	ND		0.0500	0.04806		mg/L		96	75 - 125
Cadmium	ND		0.0500	0.05126		mg/L		103	75 - 125
Chromium	ND		0.500	0.4921		mg/L		98	75 - 125
Cobalt	ND		0.500	0.4956	E	mg/L		99	80 - 125

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 620-2810-4 MS
Matrix: Water
Analysis Batch: 223254

Client Sample ID: GZ-4
Prep Type: Total Recoverable
Prep Batch: 222735

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Copper	0.00125		0.500	0.4664		mg/L		93	75 - 125		
Lead	ND		0.0500	0.05096		mg/L		102	75 - 125		
Nickel	0.00985		0.500	0.4973		mg/L		97	75 - 125		
Selenium	ND		0.100	0.09945		mg/L		99	75 - 125		
Silver	ND		0.0500	0.05094		mg/L		101	75 - 125		
Thallium	ND		0.100	0.1016		mg/L		101	75 - 125		
Vanadium	ND		0.500	0.4863		mg/L		97	75 - 125		
Zinc	0.0107		0.500	0.4988		mg/L		98	75 - 125		

Lab Sample ID: 620-2810-4 MSD
Matrix: Water
Analysis Batch: 223254

Client Sample ID: GZ-4
Prep Type: Total Recoverable
Prep Batch: 222735

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		0.100	0.1008		mg/L		101	75 - 125	3	20
Arsenic	ND		0.500	0.4704		mg/L		94	75 - 125	1	20
Barium	0.00862		0.500	0.5065		mg/L		100	75 - 125	2	20
Beryllium	ND		0.0500	0.04795		mg/L		96	75 - 125	0	20
Cadmium	ND		0.0500	0.05061		mg/L		101	75 - 125	1	20
Chromium	ND		0.500	0.4812		mg/L		96	75 - 125	2	20
Cobalt	ND		0.500	0.4912	E	mg/L		98	80 - 125	1	20
Copper	0.00125		0.500	0.4712		mg/L		94	75 - 125	1	20
Lead	ND		0.0500	0.05110		mg/L		102	75 - 125	0	20
Nickel	0.00985		0.500	0.5006		mg/L		98	75 - 125	1	20
Selenium	ND		0.100	0.09899		mg/L		99	75 - 125	0	20
Silver	ND		0.0500	0.04944		mg/L		99	75 - 125	3	20
Thallium	ND		0.100	0.1014		mg/L		101	75 - 125	0	20
Vanadium	ND		0.500	0.4779		mg/L		96	75 - 125	2	20
Zinc	0.0107		0.500	0.4994		mg/L		98	75 - 125	0	20

Lab Sample ID: 620-2810-4 DU
Matrix: Water
Analysis Batch: 223254

Client Sample ID: GZ-4
Prep Type: Total Recoverable
Prep Batch: 222735

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	ND		ND		mg/L		NC	20
Arsenic	ND		ND		mg/L		NC	20
Barium	0.00862		0.008321		mg/L		4	20
Beryllium	ND		ND		mg/L		NC	20
Cadmium	ND		ND		mg/L		NC	20
Chromium	ND		ND		mg/L		NC	20
Cobalt	ND		ND		mg/L		NC	20
Copper	0.00125		0.003368	F3	mg/L		92	20
Lead	ND		ND		mg/L		NC	20
Nickel	0.00985		0.01206		mg/L		20	20
Selenium	ND		ND		mg/L		NC	20
Silver	ND		ND		mg/L		NC	20
Thallium	ND		ND		mg/L		NC	20
Vanadium	ND		ND		mg/L		NC	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 620-2810-4 DU
Matrix: Water
Analysis Batch: 223254

Client Sample ID: GZ-4
Prep Type: Total Recoverable
Prep Batch: 222735

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Zinc	0.0107		0.01207		mg/L		12	20

Method: NO2 - Nitrate / Nitrite

Lab Sample ID: B2B0017-BLK1
Matrix: Drinking water
Analysis Batch: B2B0017

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: B2B0017_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.007		mg/L		01/28/22 12:45	01/28/22 12:45	1

Lab Sample ID: B2B0017-BLK2
Matrix: Drinking water
Analysis Batch: B2B0017

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: B2B0017_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.007		mg/L		01/28/22 17:25	01/28/22 17:25	1

Lab Sample ID: B2B0017-BS1
Matrix: Drinking water
Analysis Batch: B2B0017

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: B2B0017_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.100	0.095		mg/L		95.0	90 - 110

Lab Sample ID: B2B0017-BS2
Matrix: Drinking water
Analysis Batch: B2B0017

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: B2B0017_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.100	0.090		mg/L		90.0	90 - 110

Method: NO2+NO3 - Nitrate / Nitrite

Lab Sample ID: B2B0016-BLK1
Matrix: Drinking water
Analysis Batch: B2B0016

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: B2B0016_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate and Nitrite as N	ND		0.03		mg/L		01/28/22 12:45	01/28/22 12:45	1

Lab Sample ID: B2B0016-BLK2
Matrix: Drinking water
Analysis Batch: B2B0016

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: B2B0016_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate and Nitrite as N	ND		0.03		mg/L		01/28/22 17:25	01/28/22 17:25	1

Method: NO2+NO3 - Nitrate / Nitrite (Continued)

Lab Sample ID: B2B0016-BS1
Matrix: Drinking water
Analysis Batch: B2B0016

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: B2B0016_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate and Nitrite as N	0.800	0.82		mg/L		102	90 - 110

Lab Sample ID: B2B0016-BS2
Matrix: Drinking water
Analysis Batch: B2B0016

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: B2B0016_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate and Nitrite as N	0.800	0.82		mg/L		103	90 - 110

Method: Total Coliforms - 9222B Total Coliforms

Lab Sample ID: B2A1279-BLK1
Matrix: Drinking water
Analysis Batch: B2A1279

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: B2A1279_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total coliform	<		1.00		MPN/100ml		01/28/22 17:05	01/28/22 17:05	1

QC Association Summary

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

GC/MS VOA

Analysis Batch: 8002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-1	GZ-1	Total/NA	Water	8260C	
620-2810-2	GZ-2	Total/NA	Water	8260C	
620-2810-3	GZ-3	Total/NA	Water	8260C	
620-2810-4	GZ-4	Total/NA	Water	8260C	
620-2810-5	GZ-5	Total/NA	Water	8260C	
620-2810-6	GZ-6	Total/NA	Water	8260C	
620-2810-7	GZ-7S	Total/NA	Water	8260C	
620-2810-8	GZ-7D	Total/NA	Water	8260C	
620-2810-9	GZ-8	Total/NA	Water	8260C	
620-2810-10	GZ-9	Total/NA	Water	8260C	
MB 620-8002/7	Method Blank	Total/NA	Water	8260C	
LCS 620-8002/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 620-8002/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 220011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-11	POT-1	Total/NA	Drinking Water	524.2	
620-2810-12	TB012822	Total/NA	Drinking Water	524.2	
MB 410-220011/6	Method Blank	Total/NA	Drinking Water	524.2	
LCS 410-220011/4	Lab Control Sample	Total/NA	Drinking Water	524.2	

LCMS

Prep Batch: 221245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-2 - RE	GZ-2	Total/NA	Water	537 IDA	
620-2810-5 - RE	GZ-5	Total/NA	Water	537 IDA	
620-2810-9 - RE	GZ-8	Total/NA	Water	537 IDA	
620-2810-14	FB012822	Total/NA	Water	537 IDA	
620-2810-15	EB012822	Total/NA	Water	537 IDA	
MB 410-221245/1-A	Method Blank	Total/NA	Water	537 IDA	
LCS 410-221245/3-A	Lab Control Sample	Total/NA	Water	537 IDA	
LCSD 410-221245/4-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	

Analysis Batch: 221402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-2 - RE	GZ-2	Total/NA	Water	EPA 537(Mod)	221245
620-2810-5 - RE	GZ-5	Total/NA	Water	EPA 537(Mod)	221245
620-2810-9 - RE	GZ-8	Total/NA	Water	EPA 537(Mod)	221245
620-2810-14	FB012822	Total/NA	Water	EPA 537(Mod)	221245
620-2810-15	EB012822	Total/NA	Water	EPA 537(Mod)	221245
MB 410-221245/1-A	Method Blank	Total/NA	Water	EPA 537(Mod)	221245
LCS 410-221245/3-A	Lab Control Sample	Total/NA	Water	EPA 537(Mod)	221245
LCSD 410-221245/4-A	Lab Control Sample Dup	Total/NA	Water	EPA 537(Mod)	221245

Prep Batch: 221760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-1	GZ-1	Total/NA	Water	537 IDA	
620-2810-2	GZ-2	Total/NA	Water	537 IDA	
620-2810-3	GZ-3	Total/NA	Water	537 IDA	
620-2810-4	GZ-4	Total/NA	Water	537 IDA	

LCMS (Continued)

Prep Batch: 221760 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-5	GZ-5	Total/NA	Water	537 IDA	
620-2810-6	GZ-6	Total/NA	Water	537 IDA	
620-2810-7	GZ-7S	Total/NA	Water	537 IDA	
620-2810-8	GZ-7D	Total/NA	Water	537 IDA	
620-2810-9	GZ-8	Total/NA	Water	537 IDA	
620-2810-10	GZ-9	Total/NA	Water	537 IDA	
620-2810-13	BD012822	Total/NA	Water	537 IDA	
MB 410-221760/1-A	Method Blank	Total/NA	Water	537 IDA	
LCS 410-221760/3-A	Lab Control Sample	Total/NA	Water	537 IDA	
LCSD 410-221760/4-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	

Analysis Batch: 222003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-1	GZ-1	Total/NA	Water	EPA 537(Mod)	221760
620-2810-2	GZ-2	Total/NA	Water	EPA 537(Mod)	221760
620-2810-3	GZ-3	Total/NA	Water	EPA 537(Mod)	221760
620-2810-4	GZ-4	Total/NA	Water	EPA 537(Mod)	221760
620-2810-5	GZ-5	Total/NA	Water	EPA 537(Mod)	221760
620-2810-6	GZ-6	Total/NA	Water	EPA 537(Mod)	221760
620-2810-7	GZ-7S	Total/NA	Water	EPA 537(Mod)	221760
620-2810-8	GZ-7D	Total/NA	Water	EPA 537(Mod)	221760
620-2810-9	GZ-8	Total/NA	Water	EPA 537(Mod)	221760
620-2810-10	GZ-9	Total/NA	Water	EPA 537(Mod)	221760
620-2810-13	BD012822	Total/NA	Water	EPA 537(Mod)	221760
MB 410-221760/1-A	Method Blank	Total/NA	Water	EPA 537(Mod)	221760
LCS 410-221760/3-A	Lab Control Sample	Total/NA	Water	EPA 537(Mod)	221760
LCSD 410-221760/4-A	Lab Control Sample Dup	Total/NA	Water	EPA 537(Mod)	221760

Metals

Prep Batch: 220400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-3	GZ-3	Total Recoverable	Water	3005A	
620-2810-5	GZ-5	Total Recoverable	Water	3005A	
620-2810-6	GZ-6	Total Recoverable	Water	3005A	
MB 410-220400/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-220400/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 220404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-1	GZ-1	Total Recoverable	Water	3005A	
620-2810-7	GZ-7S	Total Recoverable	Water	3005A	
620-2810-8	GZ-7D	Total Recoverable	Water	3005A	
620-2810-9	GZ-8	Total Recoverable	Water	3005A	
620-2810-10	GZ-9	Total Recoverable	Water	3005A	
MB 410-220404/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-220404/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 410-220404/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Metals

Prep Batch: 220458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-2	GZ-2	Total Recoverable	Water	3005A	
MB 410-220458/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-220458/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 410-220458/7-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Prep Batch: 220698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-16	POT-1	Total Recoverable	Water	200.8 Rev 5.4	
MB 410-220698/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	
LCS 410-220698/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	

Analysis Batch: 220875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-2	GZ-2	Total Recoverable	Water	6020B	220458
MB 410-220458/1-A	Method Blank	Total Recoverable	Water	6020B	220458
LCS 410-220458/2-A	Lab Control Sample	Total Recoverable	Water	6020B	220458
LCSD 410-220458/7-A	Lab Control Sample Dup	Total Recoverable	Water	6020B	220458

Analysis Batch: 221810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-16	POT-1	Total Recoverable	Water	200.8 Rev 5.4	220698
MB 410-220698/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	220698
LCS 410-220698/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	220698

Analysis Batch: 222502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-1	GZ-1	Total Recoverable	Water	6020B	220404
620-2810-7	GZ-7S	Total Recoverable	Water	6020B	220404
620-2810-8	GZ-7D	Total Recoverable	Water	6020B	220404
620-2810-9	GZ-8	Total Recoverable	Water	6020B	220404
620-2810-10	GZ-9	Total Recoverable	Water	6020B	220404
MB 410-220404/1-A	Method Blank	Total Recoverable	Water	6020B	220404
LCS 410-220404/2-A	Lab Control Sample	Total Recoverable	Water	6020B	220404
LCSD 410-220404/3-A	Lab Control Sample Dup	Total Recoverable	Water	6020B	220404

Analysis Batch: 222519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-3	GZ-3	Total Recoverable	Water	6020B	220400
620-2810-5	GZ-5	Total Recoverable	Water	6020B	220400
620-2810-6	GZ-6	Total Recoverable	Water	6020B	220400
MB 410-220400/1-A	Method Blank	Total Recoverable	Water	6020B	220400
LCS 410-220400/2-A	Lab Control Sample	Total Recoverable	Water	6020B	220400

Prep Batch: 222735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-4	GZ-4	Total Recoverable	Water	3005A	
MB 410-222735/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-222735/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
620-2810-4 MS	GZ-4	Total Recoverable	Water	3005A	
620-2810-4 MSD	GZ-4	Total Recoverable	Water	3005A	
620-2810-4 DU	GZ-4	Total Recoverable	Water	3005A	

Metals

Analysis Batch: 222790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-16	POT-1	Total Recoverable	Water	200.8 Rev 5.4	220698
MB 410-220698/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	220698
LCS 410-220698/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	220698

Analysis Batch: 223254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-4	GZ-4	Total Recoverable	Water	6020B	222735
MB 410-222735/1-A	Method Blank	Total Recoverable	Water	6020B	222735
LCS 410-222735/2-A	Lab Control Sample	Total Recoverable	Water	6020B	222735
620-2810-4 MS	GZ-4	Total Recoverable	Water	6020B	222735
620-2810-4 MSD	GZ-4	Total Recoverable	Water	6020B	222735
620-2810-4 DU	GZ-4	Total Recoverable	Water	6020B	222735

Subcontract

Analysis Batch: B2A1279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-11	POT-1	Total/NA	Drinking Water	Total Coliforms	B2A1279_P
B2A1279-BLK1	Method Blank	Total/NA	Drinking water	Total Coliforms	B2A1279_P

Analysis Batch: B2B0016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-11	POT-1	Total/NA	Drinking Water	NO2+NO3	B2B0016_P
B2B0016-BLK1	Method Blank	Total/NA	Drinking water	NO2+NO3	B2B0016_P
B2B0016-BLK2	Method Blank	Total/NA	Drinking water	NO2+NO3	B2B0016_P
B2B0016-BS1	Lab Control Sample	Total/NA	Drinking water	NO2+NO3	B2B0016_P
B2B0016-BS2	Lab Control Sample	Total/NA	Drinking water	NO2+NO3	B2B0016_P

Analysis Batch: B2B0017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-11	POT-1	Total/NA	Drinking Water	NO2	B2B0017_P
B2B0017-BLK1	Method Blank	Total/NA	Drinking water	NO2	B2B0017_P
B2B0017-BLK2	Method Blank	Total/NA	Drinking water	NO2	B2B0017_P
B2B0017-BS1	Lab Control Sample	Total/NA	Drinking water	NO2	B2B0017_P
B2B0017-BS2	Lab Control Sample	Total/NA	Drinking water	NO2	B2B0017_P

Prep Batch: B2A1279_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-11	POT-1	Total/NA	Drinking Water	Microbiology	
B2A1279-BLK1	Method Blank	Total/NA	Drinking water	Microbiology	

Prep Batch: B2B0016_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-11	POT-1	Total/NA	Drinking Water	General Chemistry DW	
B2B0016-BLK1	Method Blank	Total/NA	Drinking water	General Chemistry DW	
B2B0016-BLK2	Method Blank	Total/NA	Drinking water	General Chemistry DW	
B2B0016-BS1	Lab Control Sample	Total/NA	Drinking water	General Chemistry DW	
B2B0016-BS2	Lab Control Sample	Total/NA	Drinking water	General Chemistry DW	

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Subcontract

Prep Batch: B2B0017_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-2810-11	POT-1	Total/NA	Drinking Water	General Chemistry DW	
B2B0017-BLK1	Method Blank	Total/NA	Drinking water	General Chemistry DW	
B2B0017-BLK2	Method Blank	Total/NA	Drinking water	General Chemistry DW	
B2B0017-BS1	Lab Control Sample	Total/NA	Drinking water	General Chemistry DW	
B2B0017-BS2	Lab Control Sample	Total/NA	Drinking water	General Chemistry DW	

Lab Chronicle

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-1
Lab Sample ID: 620-2810-1
Date Collected: 01/28/22 11:45
Matrix: Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	8002	02/09/22 13:48	MED	ENE
Total/NA	Prep	537 IDA			221760	02/08/22 07:07	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	222003	02/09/22 06:37	PY4D	ELLE
Total Recoverable	Prep	3005A			220404	02/02/22 20:05	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	222502	02/09/22 17:33	UCIG	ELLE

Client Sample ID: GZ-2
Lab Sample ID: 620-2810-2
Date Collected: 01/28/22 12:45
Matrix: Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	8002	02/09/22 14:16	MED	ENE
Total/NA	Prep	537 IDA	RE		221245	02/06/22 08:04	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)	RE	1	221402	02/07/22 18:21	OLN7	ELLE
Total/NA	Prep	537 IDA			221760	02/08/22 07:07	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	222003	02/09/22 06:48	PY4D	ELLE
Total Recoverable	Prep	3005A			220458	02/03/22 06:16	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	220875	02/03/22 17:34	UCIG	ELLE

Client Sample ID: GZ-3
Lab Sample ID: 620-2810-3
Date Collected: 01/28/22 13:15
Matrix: Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	8002	02/09/22 14:43	MED	ENE
Total/NA	Prep	537 IDA			221760	02/08/22 07:07	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	222003	02/09/22 06:59	PY4D	ELLE
Total Recoverable	Prep	3005A			220400	02/02/22 20:00	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	222519	02/09/22 16:58	UCIG	ELLE

Client Sample ID: GZ-4
Lab Sample ID: 620-2810-4
Date Collected: 01/28/22 09:50
Matrix: Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	8002	02/09/22 15:10	MED	ENE
Total/NA	Prep	537 IDA			221760	02/08/22 07:07	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	222003	02/09/22 07:10	PY4D	ELLE
Total Recoverable	Prep	3005A			222735	02/10/22 11:44	UJLA	ELLE
Total Recoverable	Analysis	6020B		1	223254	02/11/22 14:49	NWV2	ELLE

Lab Chronicle

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-5
Lab Sample ID: 620-2810-5
Date Collected: 01/28/22 10:20
Matrix: Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	8002	02/09/22 15:38	MED	ENE
Total/NA	Prep	537 IDA	RE		221245	02/06/22 08:04	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)	RE	1	221402	02/07/22 19:05	OLN7	ELLE
Total/NA	Prep	537 IDA			221760	02/08/22 07:07	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	222003	02/09/22 07:22	PY4D	ELLE
Total Recoverable	Prep	3005A			220400	02/02/22 20:00	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	222519	02/09/22 16:54	UCIG	ELLE

Client Sample ID: GZ-6
Lab Sample ID: 620-2810-6
Date Collected: 01/28/22 11:00
Matrix: Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	8002	02/09/22 16:05	MED	ENE
Total/NA	Prep	537 IDA			221760	02/08/22 07:07	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	222003	02/09/22 07:33	PY4D	ELLE
Total Recoverable	Prep	3005A			220400	02/02/22 20:00	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	222519	02/09/22 17:08	UCIG	ELLE

Client Sample ID: GZ-7S
Lab Sample ID: 620-2810-7
Date Collected: 01/28/22 09:26
Matrix: Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	8002	02/09/22 16:32	MED	ENE
Total/NA	Prep	537 IDA			221760	02/08/22 07:07	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	222003	02/09/22 07:44	PY4D	ELLE
Total Recoverable	Prep	3005A			220404	02/02/22 20:05	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	222502	02/09/22 17:45	UCIG	ELLE

Client Sample ID: GZ-7D
Lab Sample ID: 620-2810-8
Date Collected: 01/28/22 09:55
Matrix: Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	8002	02/09/22 16:59	MED	ENE
Total/NA	Prep	537 IDA			221760	02/08/22 07:07	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	222003	02/09/22 08:06	PY4D	ELLE
Total Recoverable	Prep	3005A			220404	02/02/22 20:05	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	222502	02/09/22 17:37	UCIG	ELLE

Lab Chronicle

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-8
Lab Sample ID: 620-2810-9
Date Collected: 01/28/22 10:35
Matrix: Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	8002	02/09/22 17:27	MED	ENE
Total/NA	Prep	537 IDA	RE		221245	02/06/22 08:04	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)	RE	1	221402	02/07/22 19:50	OLN7	ELLE
Total/NA	Prep	537 IDA			221760	02/08/22 07:07	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	222003	02/09/22 08:17	PY4D	ELLE
Total Recoverable	Prep	3005A			220404	02/02/22 20:05	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	222502	02/09/22 17:29	UCIG	ELLE

Client Sample ID: GZ-9
Lab Sample ID: 620-2810-10
Date Collected: 01/28/22 12:10
Matrix: Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	8002	02/09/22 17:54	MED	ENE
Total/NA	Prep	537 IDA			221760	02/08/22 07:07	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	222003	02/09/22 08:28	PY4D	ELLE
Total Recoverable	Prep	3005A			220404	02/02/22 20:05	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	222502	02/09/22 17:27	UCIG	ELLE

Client Sample ID: POT-1
Lab Sample ID: 620-2810-11
Date Collected: 01/28/22 13:00
Matrix: Drinking Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	220011	02/02/22 12:43	UJML	ELLE
Total/NA	Prep	General Chemistry DW		1	B2B0017_P	01/28/22 16:50		NETL
Total/NA	Analysis	NO2		1	B2B0017	01/28/22 16:50	MH	NETL
Total/NA	Prep	General Chemistry DW		1	B2B0016_P	01/28/22 16:50		NETL
Total/NA	Analysis	NO2+NO3		1	B2B0016	01/28/22 16:50	MH	NETL
Total/NA	Prep	Microbiology		1	B2A1279_P	01/28/22 17:05		NETL
Total/NA	Analysis	Total Coliforms		1	B2A1279	01/28/22 17:05	ASW	NETL

Client Sample ID: TB012822
Lab Sample ID: 620-2810-12
Date Collected: 01/28/22 08:00
Matrix: Drinking Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	220011	02/02/22 12:20	UJML	ELLE

Lab Chronicle

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: BD012822
Lab Sample ID: 620-2810-13
Date Collected: 01/28/22 12:00
Matrix: Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 IDA			221760	02/08/22 07:07	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	222003	02/09/22 08:39	PY4D	ELLE

Client Sample ID: FB012822
Lab Sample ID: 620-2810-14
Date Collected: 01/28/22 08:10
Matrix: Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 IDA			221245	02/06/22 08:04	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	221402	02/07/22 23:03	OLN7	ELLE

Client Sample ID: EB012822
Lab Sample ID: 620-2810-15
Date Collected: 01/28/22 08:20
Matrix: Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 IDA			221245	02/06/22 08:04	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	221402	02/07/22 23:14	OLN7	ELLE

Client Sample ID: POT-1
Lab Sample ID: 620-2810-16
Date Collected: 01/28/22 00:00
Matrix: Water
Date Received: 01/28/22 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8 Rev 5.4			220698	02/03/22 11:59	UAMX	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	221810	02/07/22 20:37	NWV2	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			220698	02/03/22 11:59	UAMX	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	222790	02/10/22 12:03	UCIG	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

ENE = Eurofins New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

NETL = New England Testing Laboratories, 59 Greenhill Street, West Warwick, RI 02893

Accreditation/Certification Summary

Client: GZA GeoEnvironmental, Inc. Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Laboratory: Eurofins New England

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Rhode Island	State	LAI00368	12-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,1,1,2-Tetrachloroethane
8260C		Water	1,1,1-Trichloroethane
8260C		Water	1,1,2,2-Tetrachloroethane
8260C		Water	1,1,2-Trichloroethane
8260C		Water	1,1,2-Trichlorotrifluoroethane (Freon 113)
8260C		Water	1,1-Dichloroethane
8260C		Water	1,1-Dichloroethene
8260C		Water	1,1-Dichloropropene
8260C		Water	1,2,3-Trichlorobenzene
8260C		Water	1,2,3-Trichloropropane
8260C		Water	1,2,4-Trichlorobenzene
8260C		Water	1,2,4-Trimethylbenzene
8260C		Water	1,2-Dibromo-3-Chloropropane
8260C		Water	1,2-Dibromoethane (EDB)
8260C		Water	1,2-Dichlorobenzene
8260C		Water	1,2-Dichloroethane
8260C		Water	1,2-Dichloropropane
8260C		Water	1,3,5-Trichlorobenzene
8260C		Water	1,3,5-Trimethylbenzene
8260C		Water	1,3-Dichlorobenzene
8260C		Water	1,3-Dichloropropane
8260C		Water	1,4-Dichlorobenzene
8260C		Water	1,4-Dioxane
8260C		Water	2,2-Dichloropropane
8260C		Water	2-Butanone (MEK)
8260C		Water	2-Chlorotoluene
8260C		Water	2-Hexanone (MBK)
8260C		Water	4-Chlorotoluene
8260C		Water	4-Isopropyltoluene
8260C		Water	4-Methyl-2-pentanone (MIBK)
8260C		Water	Acetone
8260C		Water	Acrylonitrile
8260C		Water	Benzene
8260C		Water	Bromobenzene
8260C		Water	Bromochloromethane
8260C		Water	Bromodichloromethane
8260C		Water	Bromoform
8260C		Water	Bromomethane
8260C		Water	Carbon disulfide
8260C		Water	Carbon tetrachloride
8260C		Water	Chlorobenzene
8260C		Water	Chloroethane
8260C		Water	Chloroform
8260C		Water	Chloromethane
8260C		Water	cis-1,2-Dichloroethene

Client: GZA GeoEnvironmental, Inc. Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Laboratory: Eurofins New England (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	cis-1,3-Dichloropropene
8260C		Water	Dibromochloromethane
8260C		Water	Dibromomethane
8260C		Water	Dichlorodifluoromethane (Freon 12)
8260C		Water	di-Isopropyl ether
8260C		Water	Ethanol
8260C		Water	Ethyl ether
8260C		Water	Ethylbenzene
8260C		Water	Hexachlorobutadiene
8260C		Water	Isopropylbenzene
8260C		Water	m,p-Xylene
8260C		Water	Methyl tert-butyl ether
8260C		Water	Methylene Chloride
8260C		Water	Naphthalene
8260C		Water	n-Butylbenzene
8260C		Water	N-Propylbenzene
8260C		Water	o-Xylene
8260C		Water	sec-Butylbenzene
8260C		Water	Styrene
8260C		Water	Tert-amyl methyl ether
8260C		Water	tert-Butyl alcohol
8260C		Water	Tert-butyl ethyl ether
8260C		Water	tert-Butylbenzene
8260C		Water	Tetrachloroethene
8260C		Water	Tetrahydrofuran
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	trans-1,4-Dichloro-2-butene
8260C		Water	Trichloroethene
8260C		Water	Trichlorofluoromethane (Freon 11)
8260C		Water	Vinyl chloride

Laboratory: Eurofins Lancaster Laboratories Env, LLC

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-22
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Alaska (UST)	State	17-027	02-28-22
Arizona	State	AZ0780	03-11-22
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	02-02-22 *
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: GZA GeoEnvironmental, Inc. Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

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

Authority	Program	Identification Number	Expiration Date
Delaware (DW)	State	N/A	01-31-23
Florida	NELAP	E87997	06-30-22
Georgia (DW)	State	C048	01-31-22 *
Hawaii	State	N/A	01-31-23
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-22
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	01-01-23
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-31-23
Minnesota	NELAP	042-999-487	12-31-22
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-23
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-23
New Hampshire	NELAP	2730	01-10-23
New Jersey	NELAP	PA011	02-17-22
New York	NELAP	10670	04-01-22
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-22
North Dakota	State	R-205	01-31-22 *
Oklahoma	NELAP	R-205	08-31-22
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-31-23
Rhode Island	State	LAO00338	12-30-22
South Carolina	State	89002	01-31-23
Tennessee	State	02838	01-31-22 *
Texas	NELAP	T104704194-21-40	08-31-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	06-14-22
Washington	State	C457	04-12-22
West Virginia (DW)	State	9906 C	12-31-22
West Virginia DEP	State	055	02-28-22
Wyoming	State	8TMS-L	01-31-23
Wyoming (UST)	A2LA	1.01	11-30-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	ELLE
8260C	Volatile Organic Compounds by GC/MS	SW846	ENE
EPA 537(Mod)	PFAS for QSM 5.3, Table B-15	EPA	ELLE
200.8 Rev 5.4	Metals (ICP/MS)	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
353.2	Nitrate / Nitrite	EPA	NETL
9222B	9222B Total Coliforms	SM	NETL
200.8 Rev 5.4	Preparation, Total Recoverable Metals	EPA	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
5030C	Purge and Trap	SW846	ENE
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

ENE = Eurofins New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

NETL = New England Testing Laboratories, 59 Greenhill Street, West Warwick, RI 02893

Sample Summary

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-2810-1
Project/Site: Jamestown Landfill - Jamestown, RI

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-2810-1	GZ-1	Water	01/28/22 11:45	01/28/22 14:05
620-2810-2	GZ-2	Water	01/28/22 12:45	01/28/22 14:05
620-2810-3	GZ-3	Water	01/28/22 13:15	01/28/22 14:05
620-2810-4	GZ-4	Water	01/28/22 09:50	01/28/22 14:05
620-2810-5	GZ-5	Water	01/28/22 10:20	01/28/22 14:05
620-2810-6	GZ-6	Water	01/28/22 11:00	01/28/22 14:05
620-2810-7	GZ-7S	Water	01/28/22 09:26	01/28/22 14:05
620-2810-8	GZ-7D	Water	01/28/22 09:55	01/28/22 14:05
620-2810-9	GZ-8	Water	01/28/22 10:35	01/28/22 14:05
620-2810-10	GZ-9	Water	01/28/22 12:10	01/28/22 14:05
620-2810-11	POT-1	Drinking Water	01/28/22 13:00	01/28/22 14:05
620-2810-12	TB012822	Drinking Water	01/28/22 08:00	01/28/22 14:05
620-2810-13	BD012822	Water	01/28/22 12:00	01/28/22 14:05
620-2810-14	FB012822	Water	01/28/22 08:10	01/28/22 14:05
620-2810-15	EB012822	Water	01/28/22 08:20	01/28/22 14:05
620-2810-16	POT-1	Water	01/28/22 00:00	01/28/22 14:05

620-2810 Chain of Custody

...nment Testing
New England

CHAIN OF CUSTODY RECORD

Page 1 of 2

Special Handling:
- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed

Report To: GZA
188 Valley St Suite 300
Providence RI 02909
Telephone # 401-421-4140
Project Mgr: Erik Beloff

Invoice To: GZA

PO No. _____ Quote # _____

Project No: 32220.33
Site Name: Jamestown Landfill
Location Jamestown State. RI
Sampler(s) BR/EAB

~~1~~=Field Filtered 1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH ~~6~~=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=_____ 12=_____

List Preservative Code below: 2 4

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1=_____ X2=_____ X3=_____

G= Grab C=Composite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analysis: VOC's	Metals	PFAS	Check if chlorinated
	GZ-1	1-28-22	1145	G	GW	3			3	X	X	X	
	GZ-2		1245	G	GW	3			3	X	X	X	
	GZ-3		1315	G	GW	3			3	X	X	X	
	GZ-4		0950	G	GW	3			3	X	X	X	
	GZ-5		1020	G	GW	3			3	X	X	X	
	GZ-6		1100	G	GW	3			3	X	X	X	
	GZ-7S		0926	G	GW	3			3	X	X	X	
	GZ-7D		0955	G	GW	3			3	X	X	X	
	GZ-8		1035	G	GW	3			3	X	X	X	
	GZ-9		1210	G	GW	3			3	X	X	X	

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? [ ] Yes [ ] No
CT DPH RCP Report? [ ] Yes [ ] No
[ ] Standard [ ] No QC [ ] DQA*
[ ] ASP A* [ ] ASP B*
[ ] NJ Reduced* [ ] NJ Full*
[ ] Tier II* [ ] Tier IV*
[ ] Other _____
State-specific reporting standards.

① RIDEM App. A
15 Solid Waste
Metals.

Relinquished by:	Received by:	Date:	Time:
		1/28/22	1405

Temp °C
Observed 2.6
Correction Factor +
Corrected 3.6
IR ID # 6

[ ] EDD format
[x] E-mail to: erik.beloff@gza.com

Condition upon receipt: Custody Seals: [ ] Present [ ] Intact [ ] Broken
[ ] Ambient [x] Iced [ ] Refrigerated [ ] DI VOA Frozen [ ] Soil Jar Frozen

2/25/2022

Sample Shipping Address: 126 Myron Street • West Springfield, MA 01089 • 413-789-9018
Lab Address. 646 Camp Ave • North Kingstown, RI 02852
www.EurofinsUS.com/Spectrum

eurofins | Environment Testing New England

CHAIN OF CUSTODY RECORD

Page 2 of 2

Special Handling:
- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed _____

All TATs subject to laboratory approval
Min 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed

Report To: GZA
188 Valley St., Suite 300
Providence RI 02909
Telephone # 401-421-4140
Project Mgr:

Invoice To: GZA

PO No. _____ Quote #: _____

Project No: 32220.33
Site Name: Jamestown Landfill
Location Jamestown State RI
Sampler(s) BR / EmB

F=Field Filtered 1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=_____ 12=_____

List Preservative Code below: 2 4

QA/QC Reporting Notes:
* additional charges may appply

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1=_____ X2=_____ X3=_____

G= Grab C=Composite

MA DEP MCP CAM Report? Yes No
CT DPH RCP Report? Yes No
Standard No QC DQA*
ASP A* ASP B*
NJ Reduced* NJ Full*
Tier II* Tier IV*
Other _____
State-specific reporting standards

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analysis: VOCs	Metals	PFAS	Check if chlorinated
	POT-1	1-28-22		G	DW	3			1	X	X		
	TB01282 2	1-28-22	0800			1				X			
	BD01282 2	1-28-22	1200		GW				2			X	
	FB01282 2	1-28-22	0810						1			X	
	EB01282 2	1-28-22	0820						1			X	

Relinquished by:	Received by:	Date:	Time:	Temp °C
		1/28/22	1405	Observed 2-6
				Correction Factor +1
				Corrected 3.6
				IR ID # 6

- [ ] EDD format
- [ ] E-mail to

Condition upon receipt: Iced
Custody Seals: [ ] Present [ ] Intact [ ] Broken
[ ] Ambient [x] Iced [ ] Refrigerated [ ] DI VOA Frozen [ ] Soil Jar Frozen

Sample Shipping Address: 126 Myron Street • West Springfield, MA 01089 • 413-789-9018
Lab Address: 646 Camp Ave • North Kingstown, RI 02852
www.EurofinsUS.com/Spectrum

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Phone: 413-789-9018

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Huntley, Agnes R	Carrier Tracking No(s):	COC No: 620-2602.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: agnes.huntley@eurofinset.com	State of Origin: Rhode Island	Page: Page 1 of 2
Company: Eurofins Lancaster Laboratories Env, LLC		Accreditations Required (See note): State - Rhode Island		Job #: 620-2810-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 2/10/2022			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: Jamestown Landfill - Jamestown, RI	Project #: 62000117			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	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)	6020B/3005A RI (ICPMS)	PFC_IDA_D5.3/3535_PFC DoD list of 25	524.2_Preserved/ (MOD) Custom Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
GZ-1 (620-2810-1)	1/28/22	11:45 Eastern		Water			X	X		3	
GZ-2 (620-2810-2)	1/28/22	12:45 Eastern		Water			X	X		3	
GZ-3 (620-2810-3)	1/28/22	13:15 Eastern		Water			X	X		3	
GZ-4 (620-2810-4)	1/28/22	09:50 Eastern		Water			X	X		3	
GZ-5 (620-2810-5)	1/28/22	10:20 Eastern		Water			X	X		3	
GZ-6 (620-2810-6)	1/28/22	11:00 Eastern		Water			X	X		3	
GZ-7S (620-2810-7)	1/28/22	09:26 Eastern		Water			X	X		3	
GZ-7D (620-2810-8)	1/28/22	09:55 Eastern		Water			X	X		3	
GZ-8 (620-2810-9)	1/28/22	10:35 Eastern		Water			X	X		3	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time: 1/31/22 16:06	Company: ENE	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 2/1/22 1044	Company: DNA

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.1 / 2.4

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Phone: 413-789-9018

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Huntley, Agnes R	Carrier Tracking No(s):	COC No: 620-2602.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: agnes.huntley@eurofinset.com	State of Origin: Rhode Island	Page: Page 2 of 2
Company: Eurofins Lancaster Laboratories Env, LLC		Accreditations Required (See note): State - Rhode Island		Job #: 620-2810-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 2/10/2022			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: Jamestown Landfill - Jamestown, RI	Project #: 62000117			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA
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)
Other:

Sample Identification - Client ID (Lab ID)	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)	6020B/3005A RI (ICPMS)	PFC_IDA_D5.3/3535_PFC DoD list of 25	524.2_Preserved/ (MOD) Custom Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
GZ-9 (620-2810-10)	1/28/22	12:10 Eastern		Water			X	X		3	
POT-1 (620-2810-11)	1/28/22	Eastern		Drinking Water					X	4	
TB012822 (620-2810-12)	1/28/22	08:00 Eastern		Drinking Water					X	1	
BD012822 (620-2810-13)	1/28/22	12:00 Eastern		Water				X		2	
FB012822 (620-2810-14)	1/28/22	08:10 Eastern		Water				X		1	
EB012822 (620-2810-15)	1/28/22	08:20 Eastern		Water				X		1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification
Unconfirmed

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) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	1/31/22 19:00	EWE			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	2/1/22 10:44	[signature]

Custody Seals Intact: ☒ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.1 / 2.4

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 620-2810-1

Login Number: 2810
List Number: 1
Creator: Makhoul, Elie

List Source: Eurofins New England

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

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 620-2810-1

Login Number: 2810
List Number: 2
Creator: McCaskey, Jonathan

List Source: Eurofins Lancaster Laboratories Env, LLC
List Creation: 02/01/22 11:29 AM

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

eurofins | Environment Testing New England

ANALYTICAL REPORT

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Tel: (413)789-9018

Laboratory Job ID: 620-5294-1
Client Project/Site: Jamestown Landfill - Jamestown, RI

For:
GZA GeoEnvironmental, Inc.
188 Valley St
Suite 300
Providence, Rhode Island 02909

Attn: Erik Beloff

Authorized for release by:
8/1/2022 8:29:16 PM

Agnes Huntley, Project Manager
(401)372-3482
Agnes.Huntley@et.eurofinsus.com

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Definitions/Glossary

Client: GZA GeoEnvironmental, Inc. Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
T	Result is a tentatively identified compound (TIC) and an estimated value.

LCMS

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
H	Sample was prepped or analyzed beyond the specified holding time
I	Value is EMPC (estimated maximum possible concentration).

Metals

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
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

Case Narrative

Client: GZA GeoEnvironmental, Inc. Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Job ID: 620-5294-1

Laboratory: Eurofins New England

Narrative

Job Narrative
620-5294-1

Comments
No additional comments.

Receipt
The samples were received on 6/22/2022 3:47 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 8.2º C.

Receipt Exceptions

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC).

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 620-12474 exhibited % difference of > 20% for the following analyte: Naphthalene; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 20% difference from the initial calibration. According to the laboratory standard operating procedure, the LCS is acceptable if it meets the CCV acceptance criteria.

Method 8260C: The large number of analytes included in the continuing calibration verification (CCV) gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes of interest are outside the method-defined %D criteria. Affected analytes: n-Butylbenzene, 1,2,3-Trichlorobenzene, and 1,2,4-Trichlorobenzene.
(CCVIS 620-12474/3)

Method 8260C: The laboratory control sample (LCS) for analytical batch 620-12474 recovered outside control limits for the following analytes: Chlorobenzene and 1,1,1,2-Tetrachloroethane. Since the affected target compounds were not detected in the samples, the data have been reported and qualified.

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

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

LCMS
Method QSM B15: The recovery for the labeled isotope(s) d3-NMePFOSA in the following sample: Field Blank (620-5294-13) is outside the QC acceptance limits.Sufficient sample was not available to re-extract this sample.

Method QSM B15: The recovery for the labeled isotope(s) in the following samples: GZ-6 (620-5294-7) and GZ-7S (620-5294-8) is outside the QC acceptance limits. The following action was taken: These samples were re-extracted outside of the required holding time and the recovery for labeled isotope(s) was within QC acceptance limits.

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

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

Subcontract Work
Methods Nitrate, Total Coliforms: These methods were subcontracted to New England Testing Laboratories. The subcontract laboratory certifications are different from that of the facility issuing the final report.

Detection Summary

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: POT-1 — Lab Sample ID: 620-5294-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.704		0.500		ug/L	1		524.2	Total/NA
Ethyl ether	1.24		0.500		ug/L	1		524.2	Total/NA
Barium	6.84		2.06		ug/L	1		200.8 Rev 5.4	Total/NA
Nickel	6.12		2.06		ug/L	1		200.8 Rev 5.4	Total/NA
Selenium	15.4		2.06		ug/L	1		200.8 Rev 5.4	Total/NA

Client Sample ID: GZ-1 — Lab Sample ID: 620-5294-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00329		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.00300		0.000500		mg/L	1		6020B	Total Recoverable
Copper	0.00216		0.00100		mg/L	1		6020B	Total Recoverable
Nickel	0.0156		0.00100		mg/L	1		6020B	Total Recoverable
Zinc	0.0112		0.0100		mg/L	1		6020B	Total Recoverable

Client Sample ID: GZ-2 — Lab Sample ID: 620-5294-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	5.14	*-	1.00		ug/L	1		8260C	Total/NA
Perfluorohexanoic acid	18.6		1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid	17.6		1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid	210		1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanesulfonic acid	2.89		1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanesulfonic acid	13.2		1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanesulfonic acid	46.5	I	1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanoic acid	8.99		4.45		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid	11.4		1.78		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanoic acid - RE	18.7	H	1.72		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid - RE	15.1	H	1.72		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid - RE	188	H	1.72		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanesulfonic acid - RE	2.64	H	1.72		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanesulfonic acid - RE	11.4	H	1.72		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanesulfonic acid - RE	22.8	H	1.72		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanesulfonic acid - RE	1.78	H	1.72		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanoic acid - RE	8.02	H	4.30		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid - RE	10.7	H	1.72		ng/L	1		EPA 537(Mod)	Total/NA
Barium	0.0396		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.231		0.000500		mg/L	1		6020B	Total Recoverable
Copper	0.00211		0.00100		mg/L	1		6020B	Total Recoverable
Nickel	0.0460		0.00100		mg/L	1		6020B	Total Recoverable
Zinc	0.0147		0.0100		mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-3 — Lab Sample ID: 620-5294-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid	2.08		1.68		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanesulfonic acid	1.96		1.68		ng/L	1		EPA 537(Mod)	Total/NA
Barium	0.0114		0.00200		mg/L	1		6020B	Total Recoverable
Nickel	0.00414		0.00100		mg/L	1		6020B	Total Recoverable

Client Sample ID: GZ-4 — Lab Sample ID: 620-5294-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00893		0.00200		mg/L	1		6020B	Total Recoverable
Copper	0.00143		0.00100		mg/L	1		6020B	Total Recoverable
Nickel	0.00990		0.00100		mg/L	1		6020B	Total Recoverable

Client Sample ID: GZ-5 — Lab Sample ID: 620-5294-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0129		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.0332		0.000500		mg/L	1		6020B	Total Recoverable
Copper	0.00684		0.00100		mg/L	1		6020B	Total Recoverable
Lead	0.000692		0.000500		mg/L	1		6020B	Total Recoverable
Nickel	0.00502		0.00100		mg/L	1		6020B	Total Recoverable

Client Sample ID: GZ-6 — Lab Sample ID: 620-5294-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00219		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.00341		0.000500		mg/L	1		6020B	Total Recoverable
Copper	0.0108		0.00100		mg/L	1		6020B	Total Recoverable
Nickel	0.0159		0.00100		mg/L	1		6020B	Total Recoverable
Zinc	0.0140		0.0100		mg/L	1		6020B	Total Recoverable

Client Sample ID: GZ-7S — Lab Sample ID: 620-5294-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethyl ether	2.23		1.00		ug/L	1		8260C	Total/NA
Perfluorohexanoic acid	20.7		1.71		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid	12.4		1.71		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid	119		1.71		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanesulfonic acid	2.13		1.71		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanesulfonic acid	4.37		1.71		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanesulfonic acid	3.80		1.71		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanoic acid	5.87		4.27		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid	8.71		1.71		ng/L	1		EPA 537(Mod)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins New England

Client Sample ID: GZ-7S (Continued)
Lab Sample ID: 620-5294-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid - RE	18.8	H	1.71		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid - RE	11.4	H	1.71		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid - RE	113	H	1.71		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanesulfonic acid - RE	3.95	H	1.71		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanesulfonic acid - RE	3.22	H	1.71		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanoic acid - RE	5.20	H	4.29		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid - RE	8.27	H	1.71		ng/L	1		EPA 537(Mod)	Total/NA
Barium	0.00998		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.0109		0.000500		mg/L	1		6020B	Total Recoverable
Nickel	0.0791		0.00100		mg/L	1		6020B	Total Recoverable
Zinc	0.0121		0.0100		mg/L	1		6020B	Total Recoverable

Client Sample ID: GZ-7D
Lab Sample ID: 620-5294-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethyl ether	1.95		1.00		ug/L	1		8260C	Total/NA
Perfluorohexanoic acid	12.4		1.68		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid	7.24		1.68		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid	56.3		1.68		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanesulfonic acid	2.37		1.68		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanesulfonic acid	1.97		1.68		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid	5.23		1.68		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanoic acid - RE	11.8	H	1.69		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid - RE	6.69	H	1.69		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid - RE	56.2	H	1.69		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanesulfonic acid - RE	2.22	H	1.69		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanesulfonic acid - RE	1.79	H	1.69		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid - RE	5.10	H	1.69		ng/L	1		EPA 537(Mod)	Total/NA
Barium	0.00775		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.00175		0.000500		mg/L	1		6020B	Total Recoverable
Nickel	0.0220		0.00100		mg/L	1		6020B	Total Recoverable

Client Sample ID: GZ-8
Lab Sample ID: 620-5294-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	8.70		1.00		ug/L	1		8260C	Total/NA
1,4-Dichlorobenzene	1.24		1.00		ug/L	1		8260C	Total/NA
Ethyl ether	2.89		1.00		ug/L	1		8260C	Total/NA
Perfluorohexanoic acid	38.4		1.68		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid	30.4		1.68		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid	130		1.68		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanesulfonic acid	4.13		1.68		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanesulfonic acid	24.5		1.68		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanesulfonic acid	10.0		1.68		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanesulfonic acid	4.37		1.68		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanoic acid	18.5		4.20		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid	28.1		1.68		ng/L	1		EPA 537(Mod)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: GZ-8 (Continued) — Lab Sample ID: 620-5294-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid - RE	36.7	H	1.67		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid - RE	27.6	H	1.67		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid - RE	124	H	1.67		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanesulfonic acid - RE	3.73	H	1.67		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanesulfonic acid - RE	22.6	H	1.67		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanesulfonic acid - RE	9.40	H	1.67		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanesulfonic acid - RE	3.88	H	1.67		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorobutanoic acid - RE	17.7	H	4.17		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid - RE	26.4	H	1.67		ng/L	1		EPA 537(Mod)	Total/NA
Barium	0.0593		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.00230		0.000500		mg/L	1		6020B	Total Recoverable
Nickel	0.0239		0.00100		mg/L	1		6020B	Total Recoverable

Client Sample ID: GZ-9 — Lab Sample ID: 620-5294-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	4.93		1.72		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid	3.20		1.72		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid	6.90		1.72		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid	3.53		1.72		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanoic acid - RE	4.56	H	1.70		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid - RE	3.03	H	1.70		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorooctanoic acid - RE	6.35	H	1.70		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid - RE	3.22	H	1.70		ng/L	1		EPA 537(Mod)	Total/NA
Antimony	0.00190		0.00100		mg/L	1		6020B	Total Recoverable
Barium	0.0157		0.00200		mg/L	1		6020B	Total Recoverable
Cobalt	0.00704		0.000500		mg/L	1		6020B	Total Recoverable
Lead	0.000670		0.000500		mg/L	1		6020B	Total Recoverable
Nickel	0.0146		0.00100		mg/L	1		6020B	Total Recoverable
Zinc	0.0167		0.0100		mg/L	1		6020B	Total Recoverable

Client Sample ID: TB — Lab Sample ID: 620-5294-12

No Detections.

Client Sample ID: Field Blank — Lab Sample ID: 620-5294-13

No Detections.

Client Sample ID: POT-1 — Lab Sample ID: 620-5294-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	4.12		1.71		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid	1.82		1.71		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoropentanoic acid	3.82		1.71		ng/L	1		EPA 537(Mod)	Total/NA
Perfluorohexanoic acid - RE	3.73	H	1.77		ng/L	1		EPA 537(Mod)	Total/NA
Perfluoroheptanoic acid - RE	1.79	H	1.77		ng/L	1		EPA 537(Mod)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: POT-1 (Continued)
Lab Sample ID: 620-5294-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid - RE	3.54	H	1.77		ng/L	1		EPA 537(Mod)	Total/NA

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: POT-1
Lab Sample ID: 620-5294-1
Date Collected: 06/22/22 13:03
Matrix: Drinking Water
Date Received: 06/22/22 15:47

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.500		ug/L			06/27/22 16:34	1
1,1,1-Trichloroethane	ND		0.500		ug/L			06/27/22 16:34	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			06/27/22 16:34	1
1,1,2-Trichloroethane	ND		0.500		ug/L			06/27/22 16:34	1
1,1-Dichloroethane	ND		0.500		ug/L			06/27/22 16:34	1
1,1-Dichloroethene	ND		0.500		ug/L			06/27/22 16:34	1
1,1-Dichloropropene	ND		0.500		ug/L			06/27/22 16:34	1
1,2,3-Trichlorobenzene	ND		0.500		ug/L			06/27/22 16:34	1
1,2,3-Trichloropropane	ND		0.500		ug/L			06/27/22 16:34	1
1,2,4-Trichlorobenzene	ND		0.500		ug/L			06/27/22 16:34	1
1,2,4-Trimethylbenzene	ND		0.500		ug/L			06/27/22 16:34	1
1,2-Dibromo-3-Chloropropane	ND		1.00		ug/L			06/27/22 16:34	1
1,2-Dibromoethane	ND		0.500		ug/L			06/27/22 16:34	1
1,2-Dichlorobenzene	ND		0.500		ug/L			06/27/22 16:34	1
1,2-Dichloroethane	ND		0.500		ug/L			06/27/22 16:34	1
1,2-Dichloropropane	ND		0.500		ug/L			06/27/22 16:34	1
1,3,5-Trimethylbenzene	ND		0.500		ug/L			06/27/22 16:34	1
1,3-Dichlorobenzene	ND		0.500		ug/L			06/27/22 16:34	1
1,3-Dichloropropane	ND		0.500		ug/L			06/27/22 16:34	1
1,4-Dichlorobenzene	ND		0.500		ug/L			06/27/22 16:34	1
2,2-Dichloropropane	ND		0.500		ug/L			06/27/22 16:34	1
2-Butanone (MEK)	ND		5.00		ug/L			06/27/22 16:34	1
2-Chlorotoluene	ND		0.500		ug/L			06/27/22 16:34	1
2-Hexanone	ND		5.00		ug/L			06/27/22 16:34	1
4-Chlorotoluene	ND		0.500		ug/L			06/27/22 16:34	1
4-Methyl-2-pentanone (MIBK)	ND		5.00		ug/L			06/27/22 16:34	1
Acetone	ND		10.0		ug/L			06/27/22 16:34	1
Acrylonitrile	ND		10.0		ug/L			06/27/22 16:34	1
Benzene	ND		0.500		ug/L			06/27/22 16:34	1
Bromobenzene	ND		0.500		ug/L			06/27/22 16:34	1
Bromochloromethane	ND		0.500		ug/L			06/27/22 16:34	1
Bromodichloromethane	ND		0.500		ug/L			06/27/22 16:34	1
Bromoform	ND		0.500		ug/L			06/27/22 16:34	1
Bromomethane	ND		0.500		ug/L			06/27/22 16:34	1
Carbon disulfide	ND		2.00		ug/L			06/27/22 16:34	1
Carbon tetrachloride	ND		0.500		ug/L			06/27/22 16:34	1
Chlorobenzene	ND		0.500		ug/L			06/27/22 16:34	1
Chloroethane	ND		0.500		ug/L			06/27/22 16:34	1
Chloroform	ND		0.500		ug/L			06/27/22 16:34	1
Chloromethane	ND		0.500		ug/L			06/27/22 16:34	1
cis-1,2-Dichloroethene	ND		0.500		ug/L			06/27/22 16:34	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			06/27/22 16:34	1
Dibromochloromethane	ND		0.500		ug/L			06/27/22 16:34	1
Dibromomethane	ND		0.500		ug/L			06/27/22 16:34	1
Dichlorodifluoromethane	**0.704**		0.500		ug/L			06/27/22 16:34	1
di-Isopropyl ether	ND		0.500		ug/L			06/27/22 16:34	1
Ethyl ether	**1.24**		0.500		ug/L			06/27/22 16:34	1
Tert-butyl ethyl ether	ND		0.500		ug/L			06/27/22 16:34	1
Ethylbenzene	ND		0.500		ug/L			06/27/22 16:34	1

Client Sample ID: POT-1
Date Collected: 06/22/22 13:03
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-1
Matrix: Drinking Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.500		ug/L			06/27/22 16:34	1
Hexachlorobutadiene	ND		0.500		ug/L			06/27/22 16:34	1
Isopropylbenzene	ND		0.500		ug/L			06/27/22 16:34	1
m,p-Xylene	ND		1.00		ug/L			06/27/22 16:34	1
Methylene Chloride	ND		0.500		ug/L			06/27/22 16:34	1
Naphthalene	ND		0.500		ug/L			06/27/22 16:34	1
n-Butylbenzene	ND		0.500		ug/L			06/27/22 16:34	1
N-Propylbenzene	ND		0.500		ug/L			06/27/22 16:34	1
o-Xylene	ND		0.500		ug/L			06/27/22 16:34	1
4-Isopropyltoluene	ND		0.500		ug/L			06/27/22 16:34	1
sec-Butylbenzene	ND		0.500		ug/L			06/27/22 16:34	1
Styrene	ND		0.500		ug/L			06/27/22 16:34	1
Tert-amyl methyl ether	ND		0.500		ug/L			06/27/22 16:34	1
tert-Butyl alcohol	ND		25.0		ug/L			06/27/22 16:34	1
tert-Butylbenzene	ND		0.500		ug/L			06/27/22 16:34	1
Tetrachloroethene	ND		0.500		ug/L			06/27/22 16:34	1
Tetrahydrofuran	ND		7.00		ug/L			06/27/22 16:34	1
Toluene	ND		0.500		ug/L			06/27/22 16:34	1
trans-1,2-Dichloroethene	ND		0.500		ug/L			06/27/22 16:34	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			06/27/22 16:34	1
Trichloroethene	ND		0.500		ug/L			06/27/22 16:34	1
Trichlorofluoromethane	ND		0.500		ug/L			06/27/22 16:34	1
Vinyl chloride	ND		0.500		ug/L			06/27/22 16:34	1
Xylene (total)	ND		0.500		ug/L			06/27/22 16:34	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1.21*	*T J*	*ug/L*		*2.47*			*06/27/22 16:34*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichlorobenzene-d4 (Surr)	*92*		*80 - 120*		*06/27/22 16:34*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*06/27/22 16:34*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.03		ug/L		06/29/22 19:21	06/30/22 23:34	1
Arsenic	ND		5.15		ug/L		06/29/22 19:21	06/30/22 23:34	1
Barium	**6.84**		2.06		ug/L		06/29/22 19:21	06/30/22 23:34	1
Beryllium	ND		0.515		ug/L		06/29/22 19:21	06/30/22 23:34	1
Cadmium	ND		0.515		ug/L		06/29/22 19:21	06/30/22 23:34	1
Chromium	ND		2.06		ug/L		06/29/22 19:21	06/30/22 23:34	1
Copper	ND		10.3		ug/L		06/29/22 19:21	06/30/22 23:34	1
Lead	ND		1.03		ug/L		06/29/22 19:21	06/30/22 23:34	1
Nickel	**6.12**		2.06		ug/L		06/29/22 19:21	06/30/22 23:34	1
Selenium	**15.4**		2.06		ug/L		06/29/22 19:21	06/30/22 23:34	1
Silver	ND		0.515		ug/L		06/29/22 19:21	06/30/22 23:34	1
Thallium	ND		0.515		ug/L		06/29/22 19:21	06/30/22 23:34	1
Zinc	ND		15.5		ug/L		06/29/22 19:21	06/30/22 23:34	1

Client Sample Results

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: POT-1
Date Collected: 06/22/22 13:03
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-1
Matrix: Drinking Water

Method: EPA 200.7Rev4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	ND		0.00515		mg/L		06/29/22 19:21	07/28/22 19:18	1
Vanadium	ND		0.0103		mg/L		06/29/22 19:21	07/28/22 19:18	1

Method: Nitrate - Nitrate / Nitrite

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.03		mg/L		06/24/22 12:45	06/24/22 12:45	1

Method: NO2+NO3 - Nitrate / Nitrite

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate and Nitrite as N	ND		0.03		mg/L		06/24/22 12:20	06/24/22 12:20	1

Method: NO2 - Nitrate / Nitrite

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.007		mg/L		06/24/22 12:45	06/24/22 12:45	1

Method: Total Coliforms - 9222B Total Coliforms

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total coliform	<		1.00		Col./100ml		06/23/22 14:40	06/23/22 14:40	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-1
Lab Sample ID: 620-5294-2
Date Collected: 06/22/22 14:53
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			06/29/22 16:37	1
Acetone	ND		10.0		ug/L			06/29/22 16:37	1
Acrylonitrile	ND		0.500		ug/L			06/29/22 16:37	1
Benzene	ND		1.00		ug/L			06/29/22 16:37	1
Bromobenzene	ND		1.00		ug/L			06/29/22 16:37	1
Bromochloromethane	ND		1.00		ug/L			06/29/22 16:37	1
Bromodichloromethane	ND		0.500		ug/L			06/29/22 16:37	1
Bromoform	ND		1.00		ug/L			06/29/22 16:37	1
Bromomethane	ND		2.00		ug/L			06/29/22 16:37	1
2-Butanone (MEK)	ND		2.00		ug/L			06/29/22 16:37	1
n-Butylbenzene	ND		1.00		ug/L			06/29/22 16:37	1
sec-Butylbenzene	ND		1.00		ug/L			06/29/22 16:37	1
tert-Butylbenzene	ND		1.00		ug/L			06/29/22 16:37	1
Carbon disulfide	ND		2.00		ug/L			06/29/22 16:37	1
Carbon tetrachloride	ND		1.00		ug/L			06/29/22 16:37	1
Chlorobenzene	ND	*-	1.00		ug/L			06/29/22 16:37	1
Chloroethane	ND		2.00		ug/L			06/29/22 16:37	1
Chloroform	ND		1.00		ug/L			06/29/22 16:37	1
Chloromethane	ND		2.00		ug/L			06/29/22 16:37	1
2-Chlorotoluene	ND		1.00		ug/L			06/29/22 16:37	1
4-Chlorotoluene	ND		1.00		ug/L			06/29/22 16:37	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			06/29/22 16:37	1
Dibromochloromethane	ND		0.500		ug/L			06/29/22 16:37	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			06/29/22 16:37	1
Dibromomethane	ND		1.00		ug/L			06/29/22 16:37	1
1,2-Dichlorobenzene	ND		1.00		ug/L			06/29/22 16:37	1
1,3-Dichlorobenzene	ND		1.00		ug/L			06/29/22 16:37	1
1,4-Dichlorobenzene	ND		1.00		ug/L			06/29/22 16:37	1
Dichlorodifluoromethane (Freon 12)	ND		2.00		ug/L			06/29/22 16:37	1
1,1-Dichloroethane	ND		1.00		ug/L			06/29/22 16:37	1
1,2-Dichloroethane	ND		1.00		ug/L			06/29/22 16:37	1
1,1-Dichloroethene	ND		1.00		ug/L			06/29/22 16:37	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 16:37	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 16:37	1
1,2-Dichloropropane	ND		1.00		ug/L			06/29/22 16:37	1
1,3-Dichloropropane	ND		1.00		ug/L			06/29/22 16:37	1
2,2-Dichloropropane	ND		1.00		ug/L			06/29/22 16:37	1
1,1-Dichloropropene	ND		1.00		ug/L			06/29/22 16:37	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 16:37	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 16:37	1
Ethylbenzene	ND		1.00		ug/L			06/29/22 16:37	1
Hexachlorobutadiene	ND		1.00		ug/L			06/29/22 16:37	1
2-Hexanone (MBK)	ND		2.00		ug/L			06/29/22 16:37	1
Isopropylbenzene	ND		1.00		ug/L			06/29/22 16:37	1
4-Isopropyltoluene	ND		1.00		ug/L			06/29/22 16:37	1
Methyl tert-butyl ether	ND		1.00		ug/L			06/29/22 16:37	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			06/29/22 16:37	1
Methylene Chloride	ND		2.00		ug/L			06/29/22 16:37	1
Naphthalene	ND		2.00		ug/L			06/29/22 16:37	1

Client Sample ID: GZ-1
Lab Sample ID: 620-5294-2
Date Collected: 06/22/22 14:53
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			06/29/22 16:37	1
Styrene	ND		1.00		ug/L			06/29/22 16:37	1
1,1,1,2-Tetrachloroethane	ND	*-	1.00		ug/L			06/29/22 16:37	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			06/29/22 16:37	1
Tetrachloroethene	ND		1.00		ug/L			06/29/22 16:37	1
Toluene	ND		1.00		ug/L			06/29/22 16:37	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			06/29/22 16:37	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			06/29/22 16:37	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			06/29/22 16:37	1
1,1,1-Trichloroethane	ND		1.00		ug/L			06/29/22 16:37	1
1,1,2-Trichloroethane	ND		1.00		ug/L			06/29/22 16:37	1
Trichloroethene	ND		1.00		ug/L			06/29/22 16:37	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			06/29/22 16:37	1
1,2,3-Trichloropropane	ND		1.00		ug/L			06/29/22 16:37	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			06/29/22 16:37	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			06/29/22 16:37	1
Vinyl chloride	ND		1.00		ug/L			06/29/22 16:37	1
m,p-Xylene	ND		1.00		ug/L			06/29/22 16:37	1
o-Xylene	ND		1.00		ug/L			06/29/22 16:37	1
Tetrahydrofuran	ND		2.00		ug/L			06/29/22 16:37	1
Ethyl ether	ND		1.00		ug/L			06/29/22 16:37	1
Tert-amyl methyl ether	ND		1.00		ug/L			06/29/22 16:37	1
Tert-butyl ethyl ether	ND		1.00		ug/L			06/29/22 16:37	1
di-Isopropyl ether	ND		1.00		ug/L			06/29/22 16:37	1
tert-Butyl alcohol	ND		10.0		ug/L			06/29/22 16:37	1
1,4-Dioxane	ND		50.0		ug/L			06/29/22 16:37	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			06/29/22 16:37	1
Ethanol	ND		200		ug/L			06/29/22 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*06/29/22 16:37*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*06/29/22 16:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*06/29/22 16:37*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*06/29/22 16:37*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluoroheptanoic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluorooctanoic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluorononanoic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluorodecanoic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluorotridecanoic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluorotetradecanoic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluorobutanesulfonic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluorohexanesulfonic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluorooctanesulfonic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
NEtFOSAA	ND		2.62		ng/L		07/05/22 08:31	07/06/22 19:16	1
NMeFOSAA	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluoropentanesulfonic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1

Client Sample ID: GZ-1
Date Collected: 06/22/22 14:53
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-2
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluorononanesulfonic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluorodecanesulfonic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluorooctanesulfonamide	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluorobutanoic acid	ND		4.37		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluoropentanoic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluoroundecanoic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
Perfluorododecanoic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
6:2 Fluorotelomer sulfonic acid	ND		4.37		ng/L		07/05/22 08:31	07/06/22 19:16	1
8:2 Fluorotelomer sulfonic acid	ND		2.62		ng/L		07/05/22 08:31	07/06/22 19:16	1
4:2 Fluorotelomer sulfonic acid	ND		1.75		ng/L		07/05/22 08:31	07/06/22 19:16	1
NMeFOSA	ND		2.62		ng/L		07/05/22 08:31	07/06/22 19:16	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*134*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
M2-8:2 FTS	*109*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
M2-6:2 FTS	*124*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
13C5 PFHxA	*113*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
13C4 PFHpA	*115*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
13C8 PFOA	*117*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
13C9 PFNA	*116*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
13C6 PFDA	*116*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
13C7 PFUnA	*113*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
13C2-PFDoDA	*108*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
13C2 PFTeDA	*97*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
13C3 PFBS	*113*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
13C3 PFHxS	*117*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
13C8 PFOS	*110*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
d3-NMeFOSAA	*111*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
d5-NEtFOSAA	*107*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
13C8 FOSA	*110*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
13C4 PFBA	*106*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
13C5 PFPeA	*108*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*
d3-NMePFOSA	*68*		*50 - 150*	*07/05/22 08:31*	*07/06/22 19:16*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		06/29/22 05:40	07/06/22 12:40	1
Arsenic	ND		0.00200		mg/L		06/29/22 05:40	07/06/22 12:40	1
Barium	**0.00329**		0.00200		mg/L		06/29/22 05:40	07/06/22 12:40	1
Beryllium	ND		0.000500		mg/L		06/29/22 05:40	07/06/22 12:40	1
Cadmium	ND		0.000500		mg/L		06/29/22 05:40	07/06/22 12:40	1
Chromium	ND		0.00200		mg/L		06/29/22 05:40	07/06/22 12:40	1
Cobalt	**0.00300**		0.000500		mg/L		06/29/22 05:40	07/06/22 18:46	1
Copper	**0.00216**		0.00100		mg/L		06/29/22 05:40	07/06/22 12:40	1
Lead	ND		0.000500		mg/L		06/29/22 05:40	07/06/22 12:40	1
Nickel	**0.0156**		0.00100		mg/L		06/29/22 05:40	07/06/22 18:46	1
Selenium	ND		0.00100		mg/L		06/29/22 05:40	07/06/22 12:40	1
Silver	ND		0.000500		mg/L		06/29/22 05:40	07/06/22 12:40	1
Thallium	ND		0.000500		mg/L		06/29/22 05:40	07/06/22 12:40	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-1
Lab Sample ID: 620-5294-2
Date Collected: 06/22/22 14:53
Matrix: Water
Date Received: 06/22/22 15:47

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		06/29/22 05:40	07/06/22 12:40	1
Zinc	**0.0112**		0.0100		mg/L		06/29/22 05:40	07/06/22 12:40	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-2
Date Collected: 06/22/22 11:09
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			06/29/22 17:03	1
Acetone	ND		10.0		ug/L			06/29/22 17:03	1
Acrylonitrile	ND		0.500		ug/L			06/29/22 17:03	1
Benzene	ND		1.00		ug/L			06/29/22 17:03	1
Bromobenzene	ND		1.00		ug/L			06/29/22 17:03	1
Bromochloromethane	ND		1.00		ug/L			06/29/22 17:03	1
Bromodichloromethane	ND		0.500		ug/L			06/29/22 17:03	1
Bromoform	ND		1.00		ug/L			06/29/22 17:03	1
Bromomethane	ND		2.00		ug/L			06/29/22 17:03	1
2-Butanone (MEK)	ND		2.00		ug/L			06/29/22 17:03	1
n-Butylbenzene	ND		1.00		ug/L			06/29/22 17:03	1
sec-Butylbenzene	ND		1.00		ug/L			06/29/22 17:03	1
tert-Butylbenzene	ND		1.00		ug/L			06/29/22 17:03	1
Carbon disulfide	ND		2.00		ug/L			06/29/22 17:03	1
Carbon tetrachloride	ND		1.00		ug/L			06/29/22 17:03	1
Chlorobenzene	**5.14**	*-	1.00		ug/L			06/29/22 17:03	1
Chloroethane	ND		2.00		ug/L			06/29/22 17:03	1
Chloroform	ND		1.00		ug/L			06/29/22 17:03	1
Chloromethane	ND		2.00		ug/L			06/29/22 17:03	1
2-Chlorotoluene	ND		1.00		ug/L			06/29/22 17:03	1
4-Chlorotoluene	ND		1.00		ug/L			06/29/22 17:03	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			06/29/22 17:03	1
Dibromochloromethane	ND		0.500		ug/L			06/29/22 17:03	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			06/29/22 17:03	1
Dibromomethane	ND		1.00		ug/L			06/29/22 17:03	1
1,2-Dichlorobenzene	ND		1.00		ug/L			06/29/22 17:03	1
1,3-Dichlorobenzene	ND		1.00		ug/L			06/29/22 17:03	1
1,4-Dichlorobenzene	ND		1.00		ug/L			06/29/22 17:03	1
Dichlorodifluoromethane (Freon 12)	ND		2.00		ug/L			06/29/22 17:03	1
1,1-Dichloroethane	ND		1.00		ug/L			06/29/22 17:03	1
1,2-Dichloroethane	ND		1.00		ug/L			06/29/22 17:03	1
1,1-Dichloroethene	ND		1.00		ug/L			06/29/22 17:03	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 17:03	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 17:03	1
1,2-Dichloropropane	ND		1.00		ug/L			06/29/22 17:03	1
1,3-Dichloropropane	ND		1.00		ug/L			06/29/22 17:03	1
2,2-Dichloropropane	ND		1.00		ug/L			06/29/22 17:03	1
1,1-Dichloropropene	ND		1.00		ug/L			06/29/22 17:03	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 17:03	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 17:03	1
Ethylbenzene	ND		1.00		ug/L			06/29/22 17:03	1
Hexachlorobutadiene	ND		1.00		ug/L			06/29/22 17:03	1
2-Hexanone (MBK)	ND		2.00		ug/L			06/29/22 17:03	1
Isopropylbenzene	ND		1.00		ug/L			06/29/22 17:03	1
4-Isopropyltoluene	ND		1.00		ug/L			06/29/22 17:03	1
Methyl tert-butyl ether	ND		1.00		ug/L			06/29/22 17:03	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			06/29/22 17:03	1
Methylene Chloride	ND		2.00		ug/L			06/29/22 17:03	1
Naphthalene	ND		2.00		ug/L			06/29/22 17:03	1

Client Sample ID: GZ-2
Lab Sample ID: 620-5294-3
Date Collected: 06/22/22 11:09
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			06/29/22 17:03	1
Styrene	ND		1.00		ug/L			06/29/22 17:03	1
1,1,1,2-Tetrachloroethane	ND	*-	1.00		ug/L			06/29/22 17:03	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			06/29/22 17:03	1
Tetrachloroethene	ND		1.00		ug/L			06/29/22 17:03	1
Toluene	ND		1.00		ug/L			06/29/22 17:03	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			06/29/22 17:03	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			06/29/22 17:03	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			06/29/22 17:03	1
1,1,1-Trichloroethane	ND		1.00		ug/L			06/29/22 17:03	1
1,1,2-Trichloroethane	ND		1.00		ug/L			06/29/22 17:03	1
Trichloroethene	ND		1.00		ug/L			06/29/22 17:03	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			06/29/22 17:03	1
1,2,3-Trichloropropane	ND		1.00		ug/L			06/29/22 17:03	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			06/29/22 17:03	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			06/29/22 17:03	1
Vinyl chloride	ND		1.00		ug/L			06/29/22 17:03	1
m,p-Xylene	ND		1.00		ug/L			06/29/22 17:03	1
o-Xylene	ND		1.00		ug/L			06/29/22 17:03	1
Tetrahydrofuran	ND		2.00		ug/L			06/29/22 17:03	1
Ethyl ether	ND		1.00		ug/L			06/29/22 17:03	1
Tert-amyl methyl ether	ND		1.00		ug/L			06/29/22 17:03	1
Tert-butyl ethyl ether	ND		1.00		ug/L			06/29/22 17:03	1
di-Isopropyl ether	ND		1.00		ug/L			06/29/22 17:03	1
tert-Butyl alcohol	ND		10.0		ug/L			06/29/22 17:03	1
1,4-Dioxane	ND		50.0		ug/L			06/29/22 17:03	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			06/29/22 17:03	1
Ethanol	ND		200		ug/L			06/29/22 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*06/29/22 17:03*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/29/22 17:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*06/29/22 17:03*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*06/29/22 17:03*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**18.6**		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluoroheptanoic acid	**17.6**		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluorooctanoic acid	**210**		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluorononanoic acid	ND		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluorodecanoic acid	ND		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluorotridecanoic acid	ND		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluorotetradecanoic acid	ND		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluorobutanesulfonic acid	**2.89**		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluorohexanesulfonic acid	**13.2**		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluorooctanesulfonic acid	**46.5**	I	1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
NEtFOSAA	ND		2.67		ng/L		07/05/22 09:51	07/07/22 11:56	1
NMeFOSAA	ND		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluoropentanesulfonic acid	ND		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-2
Date Collected: 06/22/22 11:09
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-3
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluorononanesulfonic acid	ND		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluorodecanesulfonic acid	ND		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluorooctanesulfonamide	ND		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluorobutanoic acid	**8.99**		4.45		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluoropentanoic acid	**11.4**		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluoroundecanoic acid	ND		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
Perfluorododecanoic acid	ND		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
6:2 Fluorotelomer sulfonic acid	ND		4.45		ng/L		07/05/22 09:51	07/07/22 11:56	1
8:2 Fluorotelomer sulfonic acid	ND		2.67		ng/L		07/05/22 09:51	07/07/22 11:56	1
4:2 Fluorotelomer sulfonic acid	ND		1.78		ng/L		07/05/22 09:51	07/07/22 11:56	1
NMeFOSA	ND		2.67		ng/L		07/05/22 09:51	07/07/22 11:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*112*		*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
M2-8:2 FTS	*0.7*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
M2-6:2 FTS	*16*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
13C5 PFHxA	*83*		*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
13C4 PFHpA	*43*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
13C8 PFOA	*12*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
13C9 PFNA	*2*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
13C6 PFDA	*0.6*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
13C7 PFUnA	*0.1*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
13C2-PFDoDA	*0.07*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
13C2 PFTeDA	*0.02*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
13C3 PFBS	*95*		*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
13C3 PFHxS	*35*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
13C8 PFOS	*1*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
d3-NMeFOSAA	*0.3*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
d5-NEtFOSAA	*0.3*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
13C8 FOSA	*0.2*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
13C4 PFBA	*75*		*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
13C5 PFPeA	*92*		*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*
d3-NMePFOSA	*0.01*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 11:56*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**18.7**	**H**	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluoroheptanoic acid	**15.1**	**H**	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluorooctanoic acid	**188**	**H**	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluorononanoic acid	ND	H	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluorodecanoic acid	ND	H	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluorotridecanoic acid	ND	H	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluorotetradecanoic acid	ND	H	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluorobutanesulfonic acid	**2.64**	**H**	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluorohexanesulfonic acid	**11.4**	**H**	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluorooctanesulfonic acid	**22.8**	**H**	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
NEtFOSAA	ND	H	2.58		ng/L		07/10/22 12:17	07/12/22 02:59	1
NMeFOSAA	ND	H	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluoropentanesulfonic acid	**1.78**	**H**	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1

Client Sample ID: GZ-2
Date Collected: 06/22/22 11:09
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-3
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND	H	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluorononanesulfonic acid	ND	H	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluorodecanesulfonic acid	ND	H	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluorooctanesulfonamide	ND	H	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluorobutanoic acid	**8.02**	**H**	4.30		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluoropentanoic acid	**10.7**	**H**	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluoroundecanoic acid	ND	H	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
Perfluorododecanoic acid	ND	H	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
6:2 Fluorotelomer sulfonic acid	ND	H	4.30		ng/L		07/10/22 12:17	07/12/22 02:59	1
8:2 Fluorotelomer sulfonic acid	ND	H	2.58		ng/L		07/10/22 12:17	07/12/22 02:59	1
4:2 Fluorotelomer sulfonic acid	ND	H	1.72		ng/L		07/10/22 12:17	07/12/22 02:59	1
NMeFOSA	ND	H	2.58		ng/L		07/10/22 12:17	07/12/22 02:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*164*	*5+	*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
M2-8:2 FTS	*90*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
M2-6:2 FTS	*129*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
13C5 PFHxA	*108*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
13C4 PFHpA	*115*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
13C8 PFOA	*102*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
13C9 PFNA	*102*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
13C6 PFDA	*92*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
13C7 PFUnA	*79*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
13C2-PFDoDA	*61*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
13C2 PFTeDA	*28*	*5-	*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
13C3 PFBS	*107*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
13C3 PFHxS	*110*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
13C8 PFOS	*100*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
d3-NMeFOSAA	*86*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
d5-NEtFOSAA	*69*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
13C8 FOSA	*17*	*5-	*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
13C4 PFBA	*74*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
13C5 PFPeA	*94*		*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*
d3-NMePFOSA	*2*	*5-	*50 - 150*	*07/10/22 12:17*	*07/12/22 02:59*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:03	1
Arsenic	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:03	1
Barium	**0.0396**		0.00200		mg/L		07/01/22 05:50	07/05/22 19:03	1
Beryllium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:03	1
Cadmium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:03	1
Chromium	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:03	1
Cobalt	**0.231**		0.000500		mg/L		07/01/22 05:50	07/05/22 19:03	1
Copper	**0.00211**		0.00100		mg/L		07/01/22 05:50	07/05/22 19:03	1
Lead	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:03	1
Nickel	**0.0460**		0.00100		mg/L		07/01/22 05:50	07/05/22 19:03	1
Selenium	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:03	1
Silver	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:03	1
Thallium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:03	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-2
Lab Sample ID: 620-5294-3
Date Collected: 06/22/22 11:09
Matrix: Water
Date Received: 06/22/22 15:47

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		07/01/22 05:50	07/05/22 19:03	1
Zinc	**0.0147**		0.0100		mg/L		07/01/22 05:50	07/05/22 19:03	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-3
Lab Sample ID: 620-5294-4
Date Collected: 06/22/22 10:02
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			06/29/22 17:30	1
Acetone	ND		10.0		ug/L			06/29/22 17:30	1
Acrylonitrile	ND		0.500		ug/L			06/29/22 17:30	1
Benzene	ND		1.00		ug/L			06/29/22 17:30	1
Bromobenzene	ND		1.00		ug/L			06/29/22 17:30	1
Bromochloromethane	ND		1.00		ug/L			06/29/22 17:30	1
Bromodichloromethane	ND		0.500		ug/L			06/29/22 17:30	1
Bromoform	ND		1.00		ug/L			06/29/22 17:30	1
Bromomethane	ND		2.00		ug/L			06/29/22 17:30	1
2-Butanone (MEK)	ND		2.00		ug/L			06/29/22 17:30	1
n-Butylbenzene	ND		1.00		ug/L			06/29/22 17:30	1
sec-Butylbenzene	ND		1.00		ug/L			06/29/22 17:30	1
tert-Butylbenzene	ND		1.00		ug/L			06/29/22 17:30	1
Carbon disulfide	ND		2.00		ug/L			06/29/22 17:30	1
Carbon tetrachloride	ND		1.00		ug/L			06/29/22 17:30	1
Chlorobenzene	ND	*-	1.00		ug/L			06/29/22 17:30	1
Chloroethane	ND		2.00		ug/L			06/29/22 17:30	1
Chloroform	ND		1.00		ug/L			06/29/22 17:30	1
Chloromethane	ND		2.00		ug/L			06/29/22 17:30	1
2-Chlorotoluene	ND		1.00		ug/L			06/29/22 17:30	1
4-Chlorotoluene	ND		1.00		ug/L			06/29/22 17:30	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			06/29/22 17:30	1
Dibromochloromethane	ND		0.500		ug/L			06/29/22 17:30	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			06/29/22 17:30	1
Dibromomethane	ND		1.00		ug/L			06/29/22 17:30	1
1,2-Dichlorobenzene	ND		1.00		ug/L			06/29/22 17:30	1
1,3-Dichlorobenzene	ND		1.00		ug/L			06/29/22 17:30	1
1,4-Dichlorobenzene	ND		1.00		ug/L			06/29/22 17:30	1
Dichlorodifluoromethane (Freon 12)	ND		2.00		ug/L			06/29/22 17:30	1
1,1-Dichloroethane	ND		1.00		ug/L			06/29/22 17:30	1
1,2-Dichloroethane	ND		1.00		ug/L			06/29/22 17:30	1
1,1-Dichloroethene	ND		1.00		ug/L			06/29/22 17:30	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 17:30	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 17:30	1
1,2-Dichloropropane	ND		1.00		ug/L			06/29/22 17:30	1
1,3-Dichloropropane	ND		1.00		ug/L			06/29/22 17:30	1
2,2-Dichloropropane	ND		1.00		ug/L			06/29/22 17:30	1
1,1-Dichloropropene	ND		1.00		ug/L			06/29/22 17:30	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 17:30	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 17:30	1
Ethylbenzene	ND		1.00		ug/L			06/29/22 17:30	1
Hexachlorobutadiene	ND		1.00		ug/L			06/29/22 17:30	1
2-Hexanone (MBK)	ND		2.00		ug/L			06/29/22 17:30	1
Isopropylbenzene	ND		1.00		ug/L			06/29/22 17:30	1
4-Isopropyltoluene	ND		1.00		ug/L			06/29/22 17:30	1
Methyl tert-butyl ether	ND		1.00		ug/L			06/29/22 17:30	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			06/29/22 17:30	1
Methylene Chloride	ND		2.00		ug/L			06/29/22 17:30	1
Naphthalene	ND		2.00		ug/L			06/29/22 17:30	1

Client Sample ID: GZ-3
Lab Sample ID: 620-5294-4
Date Collected: 06/22/22 10:02
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			06/29/22 17:30	1
Styrene	ND		1.00		ug/L			06/29/22 17:30	1
1,1,1,2-Tetrachloroethane	ND	*-	1.00		ug/L			06/29/22 17:30	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			06/29/22 17:30	1
Tetrachloroethene	ND		1.00		ug/L			06/29/22 17:30	1
Toluene	ND		1.00		ug/L			06/29/22 17:30	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			06/29/22 17:30	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			06/29/22 17:30	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			06/29/22 17:30	1
1,1,1-Trichloroethane	ND		1.00		ug/L			06/29/22 17:30	1
1,1,2-Trichloroethane	ND		1.00		ug/L			06/29/22 17:30	1
Trichloroethene	ND		1.00		ug/L			06/29/22 17:30	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			06/29/22 17:30	1
1,2,3-Trichloropropane	ND		1.00		ug/L			06/29/22 17:30	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			06/29/22 17:30	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			06/29/22 17:30	1
Vinyl chloride	ND		1.00		ug/L			06/29/22 17:30	1
m,p-Xylene	ND		1.00		ug/L			06/29/22 17:30	1
o-Xylene	ND		1.00		ug/L			06/29/22 17:30	1
Tetrahydrofuran	ND		2.00		ug/L			06/29/22 17:30	1
Ethyl ether	ND		1.00		ug/L			06/29/22 17:30	1
Tert-amyl methyl ether	ND		1.00		ug/L			06/29/22 17:30	1
Tert-butyl ethyl ether	ND		1.00		ug/L			06/29/22 17:30	1
di-Isopropyl ether	ND		1.00		ug/L			06/29/22 17:30	1
tert-Butyl alcohol	ND		10.0		ug/L			06/29/22 17:30	1
1,4-Dioxane	ND		50.0		ug/L			06/29/22 17:30	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			06/29/22 17:30	1
Ethanol	ND		200		ug/L			06/29/22 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*06/29/22 17:30*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/29/22 17:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*06/29/22 17:30*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*06/29/22 17:30*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluoroheptanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluorooctanoic acid	**2.08**		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluorononanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluorodecanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluorotridecanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluorotetradecanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluorobutanesulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluorohexanesulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluorooctanesulfonic acid	**1.96**		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
NEtFOSAA	ND		2.52		ng/L		07/05/22 09:51	07/07/22 12:17	1
NMeFOSAA	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluoropentanesulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-3
Date Collected: 06/22/22 10:02
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-4
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluorononanesulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluorodecanesulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluorooctanesulfonamide	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluorobutanoic acid	ND		4.20		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluoropentanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluoroundecanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
Perfluorododecanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
6:2 Fluorotelomer sulfonic acid	ND		4.20		ng/L		07/05/22 09:51	07/07/22 12:17	1
8:2 Fluorotelomer sulfonic acid	ND		2.52		ng/L		07/05/22 09:51	07/07/22 12:17	1
4:2 Fluorotelomer sulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 12:17	1
NMeFOSA	ND		2.52		ng/L		07/05/22 09:51	07/07/22 12:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*124*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
M2-8:2 FTS	*110*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
M2-6:2 FTS	*117*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
13C5 PFHxA	*103*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
13C4 PFHpA	*100*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
13C8 PFOA	*103*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
13C9 PFNA	*107*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
13C6 PFDA	*106*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
13C7 PFUnA	*110*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
13C2-PFDoDA	*108*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
13C2 PFTeDA	*93*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
13C3 PFBS	*110*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
13C3 PFHxS	*111*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
13C8 PFOS	*109*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
d3-NMeFOSAA	*98*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
d5-NEtFOSAA	*95*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
13C8 FOSA	*95*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
13C4 PFBA	*93*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
13C5 PFPeA	*99*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*
d3-NMePFOSA	*67*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:17*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:05	1
Arsenic	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:05	1
Barium	**0.0114**		0.00200		mg/L		07/01/22 05:50	07/05/22 19:05	1
Beryllium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:05	1
Cadmium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:05	1
Chromium	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:05	1
Cobalt	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:05	1
Copper	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:05	1
Lead	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:05	1
Nickel	**0.00414**		0.00100		mg/L		07/01/22 05:50	07/05/22 19:05	1
Selenium	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:05	1
Silver	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:05	1
Thallium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:05	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-3
Lab Sample ID: 620-5294-4
Date Collected: 06/22/22 10:02
Matrix: Water
Date Received: 06/22/22 15:47

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		07/01/22 05:50	07/05/22 19:05	1
Zinc	ND		0.0100		mg/L		07/01/22 05:50	07/05/22 19:05	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-4
Lab Sample ID: 620-5294-5
Date Collected: 06/22/22 11:59
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			06/29/22 17:56	1
Acetone	ND		10.0		ug/L			06/29/22 17:56	1
Acrylonitrile	ND		0.500		ug/L			06/29/22 17:56	1
Benzene	ND		1.00		ug/L			06/29/22 17:56	1
Bromobenzene	ND		1.00		ug/L			06/29/22 17:56	1
Bromochloromethane	ND		1.00		ug/L			06/29/22 17:56	1
Bromodichloromethane	ND		0.500		ug/L			06/29/22 17:56	1
Bromoform	ND		1.00		ug/L			06/29/22 17:56	1
Bromomethane	ND		2.00		ug/L			06/29/22 17:56	1
2-Butanone (MEK)	ND		2.00		ug/L			06/29/22 17:56	1
n-Butylbenzene	ND		1.00		ug/L			06/29/22 17:56	1
sec-Butylbenzene	ND		1.00		ug/L			06/29/22 17:56	1
tert-Butylbenzene	ND		1.00		ug/L			06/29/22 17:56	1
Carbon disulfide	ND		2.00		ug/L			06/29/22 17:56	1
Carbon tetrachloride	ND		1.00		ug/L			06/29/22 17:56	1
Chlorobenzene	ND	*-	1.00		ug/L			06/29/22 17:56	1
Chloroethane	ND		2.00		ug/L			06/29/22 17:56	1
Chloroform	ND		1.00		ug/L			06/29/22 17:56	1
Chloromethane	ND		2.00		ug/L			06/29/22 17:56	1
2-Chlorotoluene	ND		1.00		ug/L			06/29/22 17:56	1
4-Chlorotoluene	ND		1.00		ug/L			06/29/22 17:56	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			06/29/22 17:56	1
Dibromochloromethane	ND		0.500		ug/L			06/29/22 17:56	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			06/29/22 17:56	1
Dibromomethane	ND		1.00		ug/L			06/29/22 17:56	1
1,2-Dichlorobenzene	ND		1.00		ug/L			06/29/22 17:56	1
1,3-Dichlorobenzene	ND		1.00		ug/L			06/29/22 17:56	1
1,4-Dichlorobenzene	ND		1.00		ug/L			06/29/22 17:56	1
Dichlorodifluoromethane (Freon 12)	ND		2.00		ug/L			06/29/22 17:56	1
1,1-Dichloroethane	ND		1.00		ug/L			06/29/22 17:56	1
1,2-Dichloroethane	ND		1.00		ug/L			06/29/22 17:56	1
1,1-Dichloroethene	ND		1.00		ug/L			06/29/22 17:56	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 17:56	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 17:56	1
1,2-Dichloropropane	ND		1.00		ug/L			06/29/22 17:56	1
1,3-Dichloropropane	ND		1.00		ug/L			06/29/22 17:56	1
2,2-Dichloropropane	ND		1.00		ug/L			06/29/22 17:56	1
1,1-Dichloropropene	ND		1.00		ug/L			06/29/22 17:56	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 17:56	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 17:56	1
Ethylbenzene	ND		1.00		ug/L			06/29/22 17:56	1
Hexachlorobutadiene	ND		1.00		ug/L			06/29/22 17:56	1
2-Hexanone (MBK)	ND		2.00		ug/L			06/29/22 17:56	1
Isopropylbenzene	ND		1.00		ug/L			06/29/22 17:56	1
4-Isopropyltoluene	ND		1.00		ug/L			06/29/22 17:56	1
Methyl tert-butyl ether	ND		1.00		ug/L			06/29/22 17:56	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			06/29/22 17:56	1
Methylene Chloride	ND		2.00		ug/L			06/29/22 17:56	1
Naphthalene	ND		2.00		ug/L			06/29/22 17:56	1

Client Sample ID: GZ-4
Lab Sample ID: 620-5294-5
Date Collected: 06/22/22 11:59
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			06/29/22 17:56	1
Styrene	ND		1.00		ug/L			06/29/22 17:56	1
1,1,1,2-Tetrachloroethane	ND	*-	1.00		ug/L			06/29/22 17:56	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			06/29/22 17:56	1
Tetrachloroethene	ND		1.00		ug/L			06/29/22 17:56	1
Toluene	ND		1.00		ug/L			06/29/22 17:56	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			06/29/22 17:56	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			06/29/22 17:56	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			06/29/22 17:56	1
1,1,1-Trichloroethane	ND		1.00		ug/L			06/29/22 17:56	1
1,1,2-Trichloroethane	ND		1.00		ug/L			06/29/22 17:56	1
Trichloroethene	ND		1.00		ug/L			06/29/22 17:56	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			06/29/22 17:56	1
1,2,3-Trichloropropane	ND		1.00		ug/L			06/29/22 17:56	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			06/29/22 17:56	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			06/29/22 17:56	1
Vinyl chloride	ND		1.00		ug/L			06/29/22 17:56	1
m,p-Xylene	ND		1.00		ug/L			06/29/22 17:56	1
o-Xylene	ND		1.00		ug/L			06/29/22 17:56	1
Tetrahydrofuran	ND		2.00		ug/L			06/29/22 17:56	1
Ethyl ether	ND		1.00		ug/L			06/29/22 17:56	1
Tert-amyl methyl ether	ND		1.00		ug/L			06/29/22 17:56	1
Tert-butyl ethyl ether	ND		1.00		ug/L			06/29/22 17:56	1
di-Isopropyl ether	ND		1.00		ug/L			06/29/22 17:56	1
tert-Butyl alcohol	ND		10.0		ug/L			06/29/22 17:56	1
1,4-Dioxane	ND		50.0		ug/L			06/29/22 17:56	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			06/29/22 17:56	1
Ethanol	ND		200		ug/L			06/29/22 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*06/29/22 17:56*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/29/22 17:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*06/29/22 17:56*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*06/29/22 17:56*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluoroheptanoic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluorooctanoic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluorononanoic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluorodecanoic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluorotridecanoic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluorotetradecanoic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluorobutanesulfonic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluorohexanesulfonic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluorooctanesulfonic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
NEtFOSAA	ND		2.59		ng/L		07/05/22 09:51	07/07/22 12:27	1
NMeFOSAA	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluoropentanesulfonic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1

Client Sample ID: GZ-4
Date Collected: 06/22/22 11:59
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-5
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluorononanesulfonic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluorodecanesulfonic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluorooctanesulfonamide	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluorobutanoic acid	ND		4.31		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluoropentanoic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluoroundecanoic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
Perfluorododecanoic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
6:2 Fluorotelomer sulfonic acid	ND		4.31		ng/L		07/05/22 09:51	07/07/22 12:27	1
8:2 Fluorotelomer sulfonic acid	ND		2.59		ng/L		07/05/22 09:51	07/07/22 12:27	1
4:2 Fluorotelomer sulfonic acid	ND		1.73		ng/L		07/05/22 09:51	07/07/22 12:27	1
NMeFOSA	ND		2.59		ng/L		07/05/22 09:51	07/07/22 12:27	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*126*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
M2-8:2 FTS	*111*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
M2-6:2 FTS	*116*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
13C5 PFHxA	*106*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
13C4 PFHpA	*109*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
13C8 PFOA	*111*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
13C9 PFNA	*109*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
13C6 PFDA	*110*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
13C7 PFUnA	*111*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
13C2-PFDoDA	*109*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
13C2 PFTeDA	*94*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
13C3 PFBS	*109*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
13C3 PFHxS	*113*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
13C8 PFOS	*111*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
d3-NMeFOSAA	*110*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
d5-NEtFOSAA	*98*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
13C8 FOSA	*103*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
13C4 PFBA	*102*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
13C5 PFPeA	*103*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*
d3-NMePFOSA	*51*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:27*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:07	1
Arsenic	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:07	1
Barium	**0.00893**		0.00200		mg/L		07/01/22 05:50	07/05/22 19:07	1
Beryllium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:07	1
Cadmium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:07	1
Chromium	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:07	1
Cobalt	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:07	1
Copper	**0.00143**		0.00100		mg/L		07/01/22 05:50	07/05/22 19:07	1
Lead	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:07	1
Nickel	**0.00990**		0.00100		mg/L		07/01/22 05:50	07/05/22 19:07	1
Selenium	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:07	1
Silver	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:07	1
Thallium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:07	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-4
Lab Sample ID: 620-5294-5
Date Collected: 06/22/22 11:59
Matrix: Water
Date Received: 06/22/22 15:47

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		07/01/22 05:50	07/05/22 19:07	1
Zinc	ND		0.0100		mg/L		07/01/22 05:50	07/05/22 19:07	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-5
Lab Sample ID: 620-5294-6
Date Collected: 06/22/22 13:45
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			06/29/22 18:22	1
Acetone	ND		10.0		ug/L			06/29/22 18:22	1
Acrylonitrile	ND		0.500		ug/L			06/29/22 18:22	1
Benzene	ND		1.00		ug/L			06/29/22 18:22	1
Bromobenzene	ND		1.00		ug/L			06/29/22 18:22	1
Bromochloromethane	ND		1.00		ug/L			06/29/22 18:22	1
Bromodichloromethane	ND		0.500		ug/L			06/29/22 18:22	1
Bromoform	ND		1.00		ug/L			06/29/22 18:22	1
Bromomethane	ND		2.00		ug/L			06/29/22 18:22	1
2-Butanone (MEK)	ND		2.00		ug/L			06/29/22 18:22	1
n-Butylbenzene	ND		1.00		ug/L			06/29/22 18:22	1
sec-Butylbenzene	ND		1.00		ug/L			06/29/22 18:22	1
tert-Butylbenzene	ND		1.00		ug/L			06/29/22 18:22	1
Carbon disulfide	ND		2.00		ug/L			06/29/22 18:22	1
Carbon tetrachloride	ND		1.00		ug/L			06/29/22 18:22	1
Chlorobenzene	ND	*-	1.00		ug/L			06/29/22 18:22	1
Chloroethane	ND		2.00		ug/L			06/29/22 18:22	1
Chloroform	ND		1.00		ug/L			06/29/22 18:22	1
Chloromethane	ND		2.00		ug/L			06/29/22 18:22	1
2-Chlorotoluene	ND		1.00		ug/L			06/29/22 18:22	1
4-Chlorotoluene	ND		1.00		ug/L			06/29/22 18:22	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			06/29/22 18:22	1
Dibromochloromethane	ND		0.500		ug/L			06/29/22 18:22	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			06/29/22 18:22	1
Dibromomethane	ND		1.00		ug/L			06/29/22 18:22	1
1,2-Dichlorobenzene	ND		1.00		ug/L			06/29/22 18:22	1
1,3-Dichlorobenzene	ND		1.00		ug/L			06/29/22 18:22	1
1,4-Dichlorobenzene	ND		1.00		ug/L			06/29/22 18:22	1
Dichlorodifluoromethane (Freon 12)	ND		2.00		ug/L			06/29/22 18:22	1
1,1-Dichloroethane	ND		1.00		ug/L			06/29/22 18:22	1
1,2-Dichloroethane	ND		1.00		ug/L			06/29/22 18:22	1
1,1-Dichloroethene	ND		1.00		ug/L			06/29/22 18:22	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 18:22	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 18:22	1
1,2-Dichloropropane	ND		1.00		ug/L			06/29/22 18:22	1
1,3-Dichloropropane	ND		1.00		ug/L			06/29/22 18:22	1
2,2-Dichloropropane	ND		1.00		ug/L			06/29/22 18:22	1
1,1-Dichloropropene	ND		1.00		ug/L			06/29/22 18:22	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 18:22	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 18:22	1
Ethylbenzene	ND		1.00		ug/L			06/29/22 18:22	1
Hexachlorobutadiene	ND		1.00		ug/L			06/29/22 18:22	1
2-Hexanone (MBK)	ND		2.00		ug/L			06/29/22 18:22	1
Isopropylbenzene	ND		1.00		ug/L			06/29/22 18:22	1
4-Isopropyltoluene	ND		1.00		ug/L			06/29/22 18:22	1
Methyl tert-butyl ether	ND		1.00		ug/L			06/29/22 18:22	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			06/29/22 18:22	1
Methylene Chloride	ND		2.00		ug/L			06/29/22 18:22	1
Naphthalene	ND		2.00		ug/L			06/29/22 18:22	1

Client Sample ID: GZ-5
Lab Sample ID: 620-5294-6
Date Collected: 06/22/22 13:45
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			06/29/22 18:22	1
Styrene	ND		1.00		ug/L			06/29/22 18:22	1
1,1,1,2-Tetrachloroethane	ND	*-	1.00		ug/L			06/29/22 18:22	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			06/29/22 18:22	1
Tetrachloroethene	ND		1.00		ug/L			06/29/22 18:22	1
Toluene	ND		1.00		ug/L			06/29/22 18:22	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			06/29/22 18:22	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			06/29/22 18:22	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			06/29/22 18:22	1
1,1,1-Trichloroethane	ND		1.00		ug/L			06/29/22 18:22	1
1,1,2-Trichloroethane	ND		1.00		ug/L			06/29/22 18:22	1
Trichloroethene	ND		1.00		ug/L			06/29/22 18:22	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			06/29/22 18:22	1
1,2,3-Trichloropropane	ND		1.00		ug/L			06/29/22 18:22	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			06/29/22 18:22	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			06/29/22 18:22	1
Vinyl chloride	ND		1.00		ug/L			06/29/22 18:22	1
m,p-Xylene	ND		1.00		ug/L			06/29/22 18:22	1
o-Xylene	ND		1.00		ug/L			06/29/22 18:22	1
Tetrahydrofuran	ND		2.00		ug/L			06/29/22 18:22	1
Ethyl ether	ND		1.00		ug/L			06/29/22 18:22	1
Tert-amyl methyl ether	ND		1.00		ug/L			06/29/22 18:22	1
Tert-butyl ethyl ether	ND		1.00		ug/L			06/29/22 18:22	1
di-Isopropyl ether	ND		1.00		ug/L			06/29/22 18:22	1
tert-Butyl alcohol	ND		10.0		ug/L			06/29/22 18:22	1
1,4-Dioxane	ND		50.0		ug/L			06/29/22 18:22	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			06/29/22 18:22	1
Ethanol	ND		200		ug/L			06/29/22 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*06/29/22 18:22*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/29/22 18:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*06/29/22 18:22*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*06/29/22 18:22*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluoroheptanoic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluorooctanoic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluorononanoic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluorodecanoic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluorotridecanoic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluorotetradecanoic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluorobutanesulfonic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluorohexanesulfonic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluorooctanesulfonic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
NEtFOSAA	ND		2.51		ng/L		07/05/22 09:51	07/07/22 12:38	1
NMeFOSAA	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluoropentanesulfonic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1

Client Sample ID: GZ-5
Date Collected: 06/22/22 13:45
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-6
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluorononanesulfonic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluorodecanesulfonic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluorooctanesulfonamide	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluorobutanoic acid	ND		4.18		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluoropentanoic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluoroundecanoic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
Perfluorododecanoic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
6:2 Fluorotelomer sulfonic acid	ND		4.18		ng/L		07/05/22 09:51	07/07/22 12:38	1
8:2 Fluorotelomer sulfonic acid	ND		2.51		ng/L		07/05/22 09:51	07/07/22 12:38	1
4:2 Fluorotelomer sulfonic acid	ND		1.67		ng/L		07/05/22 09:51	07/07/22 12:38	1
NMeFOSA	ND		2.51		ng/L		07/05/22 09:51	07/07/22 12:38	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*100*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
M2-8:2 FTS	*1*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
M2-6:2 FTS	*19*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
13C5 PFHxA	*87*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
13C4 PFHpA	*50*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
13C8 PFOA	*14*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
13C9 PFNA	*4*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
13C6 PFDA	*1*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
13C7 PFUnA	*0.8*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
13C2-PFDoDA	*0.4*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
13C2 PFTeDA	*0.2*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
13C3 PFBS	*94*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
13C3 PFHxS	*41*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
13C8 PFOS	*3*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
d3-NMeFOSAA	*1*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
d5-NEtFOSAA	*0.9*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
13C8 FOSA	*0.8*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
13C4 PFBA	*100*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
13C5 PFPeA	*96*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*
d3-NMePFOSA	*0.07*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:38*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluoroheptanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluorooctanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluorononanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluorodecanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluorotridecanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluorotetradecanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluorobutanesulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluorohexanesulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluorooctanesulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
NEtFOSAA	ND	H	2.65		ng/L		07/10/22 12:17	07/12/22 03:09	1
NMeFOSAA	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluoropentanesulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1

Client Sample ID: GZ-5
Date Collected: 06/22/22 13:45
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-6
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluorononanesulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluorodecanesulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluorooctanesulfonamide	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluorobutanoic acid	ND	H	4.41		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluoropentanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluoroundecanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
Perfluorododecanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
6:2 Fluorotelomer sulfonic acid	ND	H	4.41		ng/L		07/10/22 12:17	07/12/22 03:09	1
8:2 Fluorotelomer sulfonic acid	ND	H	2.65		ng/L		07/10/22 12:17	07/12/22 03:09	1
4:2 Fluorotelomer sulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:09	1
NMeFOSA	ND	H	2.65		ng/L		07/10/22 12:17	07/12/22 03:09	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*111*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
M2-8:2 FTS	*65*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
M2-6:2 FTS	*120*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
13C5 PFHxA	*99*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
13C4 PFHpA	*101*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
13C8 PFOA	*98*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
13C9 PFNA	*79*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
13C6 PFDA	*63*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
13C7 PFUnA	*39*	**5-*	*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
13C2-PFDoDA	*19*	**5-*	*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
13C2 PFTeDA	*2*	**5-*	*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
13C3 PFBS	*107*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
13C3 PFHxS	*105*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
13C8 PFOS	*75*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
d3-NMeFOSAA	*40*	**5-*	*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
d5-NEtFOSAA	*21*	**5-*	*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
13C8 FOSA	*10*	**5-*	*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
13C4 PFBA	*98*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
13C5 PFPeA	*100*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*
d3-NMePFOSA	*1*	**5-*	*50 - 150*	*07/10/22 12:17*	*07/12/22 03:09*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:09	1
Arsenic	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:09	1
Barium	**0.0129**		0.00200		mg/L		07/01/22 05:50	07/05/22 19:09	1
Beryllium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:09	1
Cadmium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:09	1
Chromium	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:09	1
Cobalt	**0.0332**		0.000500		mg/L		07/01/22 05:50	07/05/22 19:09	1
Copper	**0.00684**		0.00100		mg/L		07/01/22 05:50	07/05/22 19:09	1
Lead	**0.000692**		0.000500		mg/L		07/01/22 05:50	07/05/22 19:09	1
Nickel	**0.00502**		0.00100		mg/L		07/01/22 05:50	07/05/22 19:09	1
Selenium	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:09	1
Silver	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:09	1
Thallium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:09	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-5
Lab Sample ID: 620-5294-6
Date Collected: 06/22/22 13:45
Matrix: Water
Date Received: 06/22/22 15:47

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		07/01/22 05:50	07/05/22 19:09	1
Zinc	ND		0.0100		mg/L		07/01/22 05:50	07/05/22 19:09	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-6
Lab Sample ID: 620-5294-7
Date Collected: 06/22/22 13:24
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			06/29/22 18:48	1
Acetone	ND		10.0		ug/L			06/29/22 18:48	1
Acrylonitrile	ND		0.500		ug/L			06/29/22 18:48	1
Benzene	ND		1.00		ug/L			06/29/22 18:48	1
Bromobenzene	ND		1.00		ug/L			06/29/22 18:48	1
Bromochloromethane	ND		1.00		ug/L			06/29/22 18:48	1
Bromodichloromethane	ND		0.500		ug/L			06/29/22 18:48	1
Bromoform	ND		1.00		ug/L			06/29/22 18:48	1
Bromomethane	ND		2.00		ug/L			06/29/22 18:48	1
2-Butanone (MEK)	ND		2.00		ug/L			06/29/22 18:48	1
n-Butylbenzene	ND		1.00		ug/L			06/29/22 18:48	1
sec-Butylbenzene	ND		1.00		ug/L			06/29/22 18:48	1
tert-Butylbenzene	ND		1.00		ug/L			06/29/22 18:48	1
Carbon disulfide	ND		2.00		ug/L			06/29/22 18:48	1
Carbon tetrachloride	ND		1.00		ug/L			06/29/22 18:48	1
Chlorobenzene	ND	*-	1.00		ug/L			06/29/22 18:48	1
Chloroethane	ND		2.00		ug/L			06/29/22 18:48	1
Chloroform	ND		1.00		ug/L			06/29/22 18:48	1
Chloromethane	ND		2.00		ug/L			06/29/22 18:48	1
2-Chlorotoluene	ND		1.00		ug/L			06/29/22 18:48	1
4-Chlorotoluene	ND		1.00		ug/L			06/29/22 18:48	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			06/29/22 18:48	1
Dibromochloromethane	ND		0.500		ug/L			06/29/22 18:48	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			06/29/22 18:48	1
Dibromomethane	ND		1.00		ug/L			06/29/22 18:48	1
1,2-Dichlorobenzene	ND		1.00		ug/L			06/29/22 18:48	1
1,3-Dichlorobenzene	ND		1.00		ug/L			06/29/22 18:48	1
1,4-Dichlorobenzene	ND		1.00		ug/L			06/29/22 18:48	1
Dichlorodifluoromethane (Freon 12)	ND		2.00		ug/L			06/29/22 18:48	1
1,1-Dichloroethane	ND		1.00		ug/L			06/29/22 18:48	1
1,2-Dichloroethane	ND		1.00		ug/L			06/29/22 18:48	1
1,1-Dichloroethene	ND		1.00		ug/L			06/29/22 18:48	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 18:48	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 18:48	1
1,2-Dichloropropane	ND		1.00		ug/L			06/29/22 18:48	1
1,3-Dichloropropane	ND		1.00		ug/L			06/29/22 18:48	1
2,2-Dichloropropane	ND		1.00		ug/L			06/29/22 18:48	1
1,1-Dichloropropene	ND		1.00		ug/L			06/29/22 18:48	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 18:48	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 18:48	1
Ethylbenzene	ND		1.00		ug/L			06/29/22 18:48	1
Hexachlorobutadiene	ND		1.00		ug/L			06/29/22 18:48	1
2-Hexanone (MBK)	ND		2.00		ug/L			06/29/22 18:48	1
Isopropylbenzene	ND		1.00		ug/L			06/29/22 18:48	1
4-Isopropyltoluene	ND		1.00		ug/L			06/29/22 18:48	1
Methyl tert-butyl ether	ND		1.00		ug/L			06/29/22 18:48	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			06/29/22 18:48	1
Methylene Chloride	ND		2.00		ug/L			06/29/22 18:48	1
Naphthalene	ND		2.00		ug/L			06/29/22 18:48	1

Client Sample ID: GZ-6
Date Collected: 06/22/22 13:24
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			06/29/22 18:48	1
Styrene	ND		1.00		ug/L			06/29/22 18:48	1
1,1,1,2-Tetrachloroethane	ND	*-	1.00		ug/L			06/29/22 18:48	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			06/29/22 18:48	1
Tetrachloroethene	ND		1.00		ug/L			06/29/22 18:48	1
Toluene	ND		1.00		ug/L			06/29/22 18:48	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			06/29/22 18:48	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			06/29/22 18:48	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			06/29/22 18:48	1
1,1,1-Trichloroethane	ND		1.00		ug/L			06/29/22 18:48	1
1,1,2-Trichloroethane	ND		1.00		ug/L			06/29/22 18:48	1
Trichloroethene	ND		1.00		ug/L			06/29/22 18:48	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			06/29/22 18:48	1
1,2,3-Trichloropropane	ND		1.00		ug/L			06/29/22 18:48	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			06/29/22 18:48	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			06/29/22 18:48	1
Vinyl chloride	ND		1.00		ug/L			06/29/22 18:48	1
m,p-Xylene	ND		1.00		ug/L			06/29/22 18:48	1
o-Xylene	ND		1.00		ug/L			06/29/22 18:48	1
Tetrahydrofuran	ND		2.00		ug/L			06/29/22 18:48	1
Ethyl ether	ND		1.00		ug/L			06/29/22 18:48	1
Tert-amyl methyl ether	ND		1.00		ug/L			06/29/22 18:48	1
Tert-butyl ethyl ether	ND		1.00		ug/L			06/29/22 18:48	1
di-Isopropyl ether	ND		1.00		ug/L			06/29/22 18:48	1
tert-Butyl alcohol	ND		10.0		ug/L			06/29/22 18:48	1
1,4-Dioxane	ND		50.0		ug/L			06/29/22 18:48	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			06/29/22 18:48	1
Ethanol	ND		200		ug/L			06/29/22 18:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*06/29/22 18:48*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/29/22 18:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*06/29/22 18:48*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*06/29/22 18:48*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluoroheptanoic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluorooctanoic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluorononanoic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluorodecanoic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluorotridecanoic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluorotetradecanoic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluorobutanesulfonic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluorohexanesulfonic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluorooctanesulfonic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
NEtFOSAA	ND		2.48		ng/L		07/05/22 09:51	07/07/22 12:49	1
NMeFOSAA	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluoropentanesulfonic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1

Client Sample ID: GZ-6
Date Collected: 06/22/22 13:24
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-7
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluorononanesulfonic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluorodecanesulfonic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluorooctanesulfonamide	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluorobutanoic acid	ND		4.13		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluoropentanoic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluoroundecanoic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
Perfluorododecanoic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
6:2 Fluorotelomer sulfonic acid	ND		4.13		ng/L		07/05/22 09:51	07/07/22 12:49	1
8:2 Fluorotelomer sulfonic acid	ND		2.48		ng/L		07/05/22 09:51	07/07/22 12:49	1
4:2 Fluorotelomer sulfonic acid	ND		1.65		ng/L		07/05/22 09:51	07/07/22 12:49	1
NMeFOSA	ND		2.48		ng/L		07/05/22 09:51	07/07/22 12:49	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*126*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
M2-8:2 FTS	*78*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
M2-6:2 FTS	*107*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
13C5 PFHxA	*108*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
13C4 PFHpA	*106*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
13C8 PFOA	*106*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
13C9 PFNA	*99*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
13C6 PFDA	*86*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
13C7 PFUnA	*62*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
13C2-PFDoDA	*37*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
13C2 PFTeDA	*10*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
13C3 PFBS	*111*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
13C3 PFHxS	*109*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
13C8 PFOS	*95*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
d3-NMeFOSAA	*69*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
d5-NEtFOSAA	*54*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
13C8 FOSA	*49*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
13C4 PFBA	*104*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
13C5 PFPeA	*109*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*
d3-NMePFOSA	*4*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:49*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluoroheptanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluorooctanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluorononanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluorodecanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluorotridecanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluorotetradecanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluorobutanesulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluorohexanesulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluorooctanesulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
NEtFOSAA	ND	H	2.64		ng/L		07/10/22 12:17	07/12/22 03:20	1
NMeFOSAA	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluoropentanesulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1

Client Sample ID: GZ-6
Date Collected: 06/22/22 13:24
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-7
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluorononanesulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluorodecanesulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluorooctanesulfonamide	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluorobutanoic acid	ND	H	4.40		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluoropentanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluoroundecanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
Perfluorododecanoic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
6:2 Fluorotelomer sulfonic acid	ND	H	4.40		ng/L		07/10/22 12:17	07/12/22 03:20	1
8:2 Fluorotelomer sulfonic acid	ND	H	2.64		ng/L		07/10/22 12:17	07/12/22 03:20	1
4:2 Fluorotelomer sulfonic acid	ND	H	1.76		ng/L		07/10/22 12:17	07/12/22 03:20	1
NMeFOSA	ND	H	2.64		ng/L		07/10/22 12:17	07/12/22 03:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*130*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
M2-8:2 FTS	*105*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
M2-6:2 FTS	*133*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
13C5 PFHxA	*124*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
13C4 PFHpA	*120*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
13C8 PFOA	*122*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
13C9 PFNA	*116*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
13C6 PFDA	*114*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
13C7 PFUnA	*114*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
13C2-PFDoDA	*91*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
13C2 PFTeDA	*55*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
13C3 PFBS	*117*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
13C3 PFHxS	*119*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
13C8 PFOS	*115*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
d3-NMeFOSAA	*109*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
d5-NEtFOSAA	*91*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
13C8 FOSA	*112*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
13C4 PFBA	*115*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
13C5 PFPeA	*116*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*
d3-NMePFOSA	*52*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:20*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:11	1
Arsenic	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:11	1
Barium	**0.00219**		0.00200		mg/L		07/01/22 05:50	07/05/22 19:11	1
Beryllium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:11	1
Cadmium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:11	1
Chromium	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:11	1
Cobalt	**0.00341**		0.000500		mg/L		07/01/22 05:50	07/05/22 19:11	1
Copper	**0.0108**		0.00100		mg/L		07/01/22 05:50	07/05/22 19:11	1
Lead	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:11	1
Nickel	**0.0159**		0.00100		mg/L		07/01/22 05:50	07/05/22 19:11	1
Selenium	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:11	1
Silver	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:11	1
Thallium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:11	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-6
Lab Sample ID: 620-5294-7
Date Collected: 06/22/22 13:24
Matrix: Water
Date Received: 06/22/22 15:47

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		07/01/22 05:50	07/05/22 19:11	1
Zinc	**0.0140**		0.0100		mg/L		07/01/22 05:50	07/05/22 19:11	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-7S
Lab Sample ID: 620-5294-8
Date Collected: 06/22/22 09:28
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			06/29/22 19:14	1
Acetone	ND		10.0		ug/L			06/29/22 19:14	1
Acrylonitrile	ND		0.500		ug/L			06/29/22 19:14	1
Benzene	ND		1.00		ug/L			06/29/22 19:14	1
Bromobenzene	ND		1.00		ug/L			06/29/22 19:14	1
Bromochloromethane	ND		1.00		ug/L			06/29/22 19:14	1
Bromodichloromethane	ND		0.500		ug/L			06/29/22 19:14	1
Bromoform	ND		1.00		ug/L			06/29/22 19:14	1
Bromomethane	ND		2.00		ug/L			06/29/22 19:14	1
2-Butanone (MEK)	ND		2.00		ug/L			06/29/22 19:14	1
n-Butylbenzene	ND		1.00		ug/L			06/29/22 19:14	1
sec-Butylbenzene	ND		1.00		ug/L			06/29/22 19:14	1
tert-Butylbenzene	ND		1.00		ug/L			06/29/22 19:14	1
Carbon disulfide	ND		2.00		ug/L			06/29/22 19:14	1
Carbon tetrachloride	ND		1.00		ug/L			06/29/22 19:14	1
Chlorobenzene	ND	*-	1.00		ug/L			06/29/22 19:14	1
Chloroethane	ND		2.00		ug/L			06/29/22 19:14	1
Chloroform	ND		1.00		ug/L			06/29/22 19:14	1
Chloromethane	ND		2.00		ug/L			06/29/22 19:14	1
2-Chlorotoluene	ND		1.00		ug/L			06/29/22 19:14	1
4-Chlorotoluene	ND		1.00		ug/L			06/29/22 19:14	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			06/29/22 19:14	1
Dibromochloromethane	ND		0.500		ug/L			06/29/22 19:14	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			06/29/22 19:14	1
Dibromomethane	ND		1.00		ug/L			06/29/22 19:14	1
1,2-Dichlorobenzene	ND		1.00		ug/L			06/29/22 19:14	1
1,3-Dichlorobenzene	ND		1.00		ug/L			06/29/22 19:14	1
1,4-Dichlorobenzene	ND		1.00		ug/L			06/29/22 19:14	1
Dichlorodifluoromethane (Freon 12)	ND		2.00		ug/L			06/29/22 19:14	1
1,1-Dichloroethane	ND		1.00		ug/L			06/29/22 19:14	1
1,2-Dichloroethane	ND		1.00		ug/L			06/29/22 19:14	1
1,1-Dichloroethene	ND		1.00		ug/L			06/29/22 19:14	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 19:14	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 19:14	1
1,2-Dichloropropane	ND		1.00		ug/L			06/29/22 19:14	1
1,3-Dichloropropane	ND		1.00		ug/L			06/29/22 19:14	1
2,2-Dichloropropane	ND		1.00		ug/L			06/29/22 19:14	1
1,1-Dichloropropene	ND		1.00		ug/L			06/29/22 19:14	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 19:14	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 19:14	1
Ethylbenzene	ND		1.00		ug/L			06/29/22 19:14	1
Hexachlorobutadiene	ND		1.00		ug/L			06/29/22 19:14	1
2-Hexanone (MBK)	ND		2.00		ug/L			06/29/22 19:14	1
Isopropylbenzene	ND		1.00		ug/L			06/29/22 19:14	1
4-Isopropyltoluene	ND		1.00		ug/L			06/29/22 19:14	1
Methyl tert-butyl ether	ND		1.00		ug/L			06/29/22 19:14	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			06/29/22 19:14	1
Methylene Chloride	ND		2.00		ug/L			06/29/22 19:14	1
Naphthalene	ND		2.00		ug/L			06/29/22 19:14	1

Client Sample ID: GZ-7S
Lab Sample ID: 620-5294-8
Date Collected: 06/22/22 09:28
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			06/29/22 19:14	1
Styrene	ND		1.00		ug/L			06/29/22 19:14	1
1,1,1,2-Tetrachloroethane	ND	*-	1.00		ug/L			06/29/22 19:14	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			06/29/22 19:14	1
Tetrachloroethene	ND		1.00		ug/L			06/29/22 19:14	1
Toluene	ND		1.00		ug/L			06/29/22 19:14	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			06/29/22 19:14	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			06/29/22 19:14	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			06/29/22 19:14	1
1,1,1-Trichloroethane	ND		1.00		ug/L			06/29/22 19:14	1
1,1,2-Trichloroethane	ND		1.00		ug/L			06/29/22 19:14	1
Trichloroethene	ND		1.00		ug/L			06/29/22 19:14	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			06/29/22 19:14	1
1,2,3-Trichloropropane	ND		1.00		ug/L			06/29/22 19:14	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			06/29/22 19:14	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			06/29/22 19:14	1
Vinyl chloride	ND		1.00		ug/L			06/29/22 19:14	1
m,p-Xylene	ND		1.00		ug/L			06/29/22 19:14	1
o-Xylene	ND		1.00		ug/L			06/29/22 19:14	1
Tetrahydrofuran	ND		2.00		ug/L			06/29/22 19:14	1
Ethyl ether	**2.23**		1.00		ug/L			06/29/22 19:14	1
Tert-amyl methyl ether	ND		1.00		ug/L			06/29/22 19:14	1
Tert-butyl ethyl ether	ND		1.00		ug/L			06/29/22 19:14	1
di-Isopropyl ether	ND		1.00		ug/L			06/29/22 19:14	1
tert-Butyl alcohol	ND		10.0		ug/L			06/29/22 19:14	1
1,4-Dioxane	ND		50.0		ug/L			06/29/22 19:14	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			06/29/22 19:14	1
Ethanol	ND		200		ug/L			06/29/22 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*06/29/22 19:14*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/29/22 19:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*06/29/22 19:14*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*06/29/22 19:14*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**20.7**		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluoroheptanoic acid	**12.4**		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluorooctanoic acid	**119**		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluorononanoic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluorodecanoic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluorotridecanoic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluorotetradecanoic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluorobutanesulfonic acid	**2.13**		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluorohexanesulfonic acid	**4.37**		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluorooctanesulfonic acid	**3.80**		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
NEtFOSAA	ND		2.56		ng/L		07/05/22 09:51	07/07/22 12:59	1
NMeFOSAA	ND		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluoropentanesulfonic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1

Client Sample ID: GZ-7S
Date Collected: 06/22/22 09:28
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-8
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluorononanesulfonic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluorodecanesulfonic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluorooctanesulfonamide	ND		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluorobutanoic acid	**5.87**		4.27		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluoropentanoic acid	**8.71**		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluoroundecanoic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
Perfluorododecanoic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
6:2 Fluorotelomer sulfonic acid	ND		4.27		ng/L		07/05/22 09:51	07/07/22 12:59	1
8:2 Fluorotelomer sulfonic acid	ND		2.56		ng/L		07/05/22 09:51	07/07/22 12:59	1
4:2 Fluorotelomer sulfonic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 12:59	1
NMeFOSA	ND		2.56		ng/L		07/05/22 09:51	07/07/22 12:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*156*	*5+	*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
M2-8:2 FTS	*101*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
M2-6:2 FTS	*100*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
13C5 PFHxA	*98*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
13C4 PFHpA	*98*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
13C8 PFOA	*98*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
13C9 PFNA	*104*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
13C6 PFDA	*101*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
13C7 PFUnA	*102*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
13C2-PFDoDA	*100*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
13C2 PFTeDA	*93*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
13C3 PFBS	*103*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
13C3 PFHxS	*104*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
13C8 PFOS	*101*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
d3-NMeFOSAA	*100*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
d5-NEtFOSAA	*92*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
13C8 FOSA	*83*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
13C4 PFBA	*78*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
13C5 PFPeA	*89*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*
d3-NMePFOSA	*54*		*50 - 150*	*07/05/22 09:51*	*07/07/22 12:59*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**18.8**	**H**	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluoroheptanoic acid	**11.4**	**H**	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluorooctanoic acid	**113**	**H**	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluorononanoic acid	ND	H	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluorodecanoic acid	ND	H	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluorotridecanoic acid	ND	H	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluorotetradecanoic acid	ND	H	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluorobutanesulfonic acid	ND	H	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluorohexanesulfonic acid	**3.95**	**H**	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluorooctanesulfonic acid	**3.22**	**H**	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
NEtFOSAA	ND	H	2.57		ng/L		07/10/22 12:17	07/12/22 03:41	1
NMeFOSAA	ND	H	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluoropentanesulfonic acid	ND	H	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1

Client Sample ID: GZ-7S
Date Collected: 06/22/22 09:28
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-8
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND	H	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluorononanesulfonic acid	ND	H	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluorodecanesulfonic acid	ND	H	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluorooctanesulfonamide	ND	H	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluorobutanoic acid	**5.20**	**H**	4.29		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluoropentanoic acid	**8.27**	**H**	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluoroundecanoic acid	ND	H	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
Perfluorododecanoic acid	ND	H	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
6:2 Fluorotelomer sulfonic acid	ND	H	4.29		ng/L		07/10/22 12:17	07/12/22 03:41	1
8:2 Fluorotelomer sulfonic acid	ND	H	2.57		ng/L		07/10/22 12:17	07/12/22 03:41	1
4:2 Fluorotelomer sulfonic acid	ND	H	1.71		ng/L		07/10/22 12:17	07/12/22 03:41	1
NMeFOSA	ND	H	2.57		ng/L		07/10/22 12:17	07/12/22 03:41	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*138*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
M2-8:2 FTS	*120*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
M2-6:2 FTS	*120*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
13C5 PFHxA	*111*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
13C4 PFHpA	*114*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
13C8 PFOA	*111*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
13C9 PFNA	*113*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
13C6 PFDA	*113*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
13C7 PFUnA	*124*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
13C2-PFDoDA	*116*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
13C2 PFTeDA	*111*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
13C3 PFBS	*111*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
13C3 PFHxS	*115*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
13C8 PFOS	*119*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
d3-NMeFOSAA	*124*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
d5-NEtFOSAA	*113*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
13C8 FOSA	*99*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
13C4 PFBA	*90*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
13C5 PFPeA	*103*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*
d3-NMePFOSA	*76*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:41*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:13	1
Arsenic	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:13	1
Barium	**0.00998**		0.00200		mg/L		07/01/22 05:50	07/05/22 19:13	1
Beryllium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:13	1
Cadmium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:13	1
Chromium	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:13	1
Cobalt	**0.0109**		0.000500		mg/L		07/01/22 05:50	07/05/22 19:13	1
Copper	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:13	1
Lead	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:13	1
Nickel	**0.0791**		0.00100		mg/L		07/01/22 05:50	07/05/22 19:13	1
Selenium	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:13	1
Silver	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:13	1
Thallium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:13	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-7S
Lab Sample ID: 620-5294-8
Date Collected: 06/22/22 09:28
Matrix: Water
Date Received: 06/22/22 15:47

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		07/01/22 05:50	07/05/22 19:13	1
Zinc	**0.0121**		0.0100		mg/L		07/01/22 05:50	07/05/22 19:13	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-7D
Lab Sample ID: 620-5294-9
Date Collected: 06/22/22 09:41
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			06/29/22 19:40	1
Acetone	ND		10.0		ug/L			06/29/22 19:40	1
Acrylonitrile	ND		0.500		ug/L			06/29/22 19:40	1
Benzene	ND		1.00		ug/L			06/29/22 19:40	1
Bromobenzene	ND		1.00		ug/L			06/29/22 19:40	1
Bromochloromethane	ND		1.00		ug/L			06/29/22 19:40	1
Bromodichloromethane	ND		0.500		ug/L			06/29/22 19:40	1
Bromoform	ND		1.00		ug/L			06/29/22 19:40	1
Bromomethane	ND		2.00		ug/L			06/29/22 19:40	1
2-Butanone (MEK)	ND		2.00		ug/L			06/29/22 19:40	1
n-Butylbenzene	ND		1.00		ug/L			06/29/22 19:40	1
sec-Butylbenzene	ND		1.00		ug/L			06/29/22 19:40	1
tert-Butylbenzene	ND		1.00		ug/L			06/29/22 19:40	1
Carbon disulfide	ND		2.00		ug/L			06/29/22 19:40	1
Carbon tetrachloride	ND		1.00		ug/L			06/29/22 19:40	1
Chlorobenzene	ND	*-	1.00		ug/L			06/29/22 19:40	1
Chloroethane	ND		2.00		ug/L			06/29/22 19:40	1
Chloroform	ND		1.00		ug/L			06/29/22 19:40	1
Chloromethane	ND		2.00		ug/L			06/29/22 19:40	1
2-Chlorotoluene	ND		1.00		ug/L			06/29/22 19:40	1
4-Chlorotoluene	ND		1.00		ug/L			06/29/22 19:40	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			06/29/22 19:40	1
Dibromochloromethane	ND		0.500		ug/L			06/29/22 19:40	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			06/29/22 19:40	1
Dibromomethane	ND		1.00		ug/L			06/29/22 19:40	1
1,2-Dichlorobenzene	ND		1.00		ug/L			06/29/22 19:40	1
1,3-Dichlorobenzene	ND		1.00		ug/L			06/29/22 19:40	1
1,4-Dichlorobenzene	ND		1.00		ug/L			06/29/22 19:40	1
Dichlorodifluoromethane (Freon 12)	ND		2.00		ug/L			06/29/22 19:40	1
1,1-Dichloroethane	ND		1.00		ug/L			06/29/22 19:40	1
1,2-Dichloroethane	ND		1.00		ug/L			06/29/22 19:40	1
1,1-Dichloroethene	ND		1.00		ug/L			06/29/22 19:40	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 19:40	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 19:40	1
1,2-Dichloropropane	ND		1.00		ug/L			06/29/22 19:40	1
1,3-Dichloropropane	ND		1.00		ug/L			06/29/22 19:40	1
2,2-Dichloropropane	ND		1.00		ug/L			06/29/22 19:40	1
1,1-Dichloropropene	ND		1.00		ug/L			06/29/22 19:40	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 19:40	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 19:40	1
Ethylbenzene	ND		1.00		ug/L			06/29/22 19:40	1
Hexachlorobutadiene	ND		1.00		ug/L			06/29/22 19:40	1
2-Hexanone (MBK)	ND		2.00		ug/L			06/29/22 19:40	1
Isopropylbenzene	ND		1.00		ug/L			06/29/22 19:40	1
4-Isopropyltoluene	ND		1.00		ug/L			06/29/22 19:40	1
Methyl tert-butyl ether	ND		1.00		ug/L			06/29/22 19:40	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			06/29/22 19:40	1
Methylene Chloride	ND		2.00		ug/L			06/29/22 19:40	1
Naphthalene	ND		2.00		ug/L			06/29/22 19:40	1

Client Sample ID: GZ-7D
Lab Sample ID: 620-5294-9
Date Collected: 06/22/22 09:41
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			06/29/22 19:40	1
Styrene	ND		1.00		ug/L			06/29/22 19:40	1
1,1,1,2-Tetrachloroethane	ND	*-	1.00		ug/L			06/29/22 19:40	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			06/29/22 19:40	1
Tetrachloroethene	ND		1.00		ug/L			06/29/22 19:40	1
Toluene	ND		1.00		ug/L			06/29/22 19:40	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			06/29/22 19:40	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			06/29/22 19:40	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			06/29/22 19:40	1
1,1,1-Trichloroethane	ND		1.00		ug/L			06/29/22 19:40	1
1,1,2-Trichloroethane	ND		1.00		ug/L			06/29/22 19:40	1
Trichloroethene	ND		1.00		ug/L			06/29/22 19:40	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			06/29/22 19:40	1
1,2,3-Trichloropropane	ND		1.00		ug/L			06/29/22 19:40	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			06/29/22 19:40	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			06/29/22 19:40	1
Vinyl chloride	ND		1.00		ug/L			06/29/22 19:40	1
m,p-Xylene	ND		1.00		ug/L			06/29/22 19:40	1
o-Xylene	ND		1.00		ug/L			06/29/22 19:40	1
Tetrahydrofuran	ND		2.00		ug/L			06/29/22 19:40	1
Ethyl ether	**1.95**		1.00		ug/L			06/29/22 19:40	1
Tert-amyl methyl ether	ND		1.00		ug/L			06/29/22 19:40	1
Tert-butyl ethyl ether	ND		1.00		ug/L			06/29/22 19:40	1
di-Isopropyl ether	ND		1.00		ug/L			06/29/22 19:40	1
tert-Butyl alcohol	ND		10.0		ug/L			06/29/22 19:40	1
1,4-Dioxane	ND		50.0		ug/L			06/29/22 19:40	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			06/29/22 19:40	1
Ethanol	ND		200		ug/L			06/29/22 19:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*06/29/22 19:40*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/29/22 19:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*06/29/22 19:40*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*06/29/22 19:40*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**12.4**		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluoroheptanoic acid	**7.24**		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluorooctanoic acid	**56.3**		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluorononanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluorodecanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluorotridecanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluorotetradecanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluorobutanesulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluorohexanesulfonic acid	**2.37**		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluorooctanesulfonic acid	**1.97**		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
NEtFOSAA	ND		2.53		ng/L		07/05/22 09:51	07/07/22 13:10	1
NMeFOSAA	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluoropentanesulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-7D
Lab Sample ID: 620-5294-9
Date Collected: 06/22/22 09:41
Matrix: Water
Date Received: 06/22/22 15:47

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluorononanesulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluorodecanesulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluorooctanesulfonamide	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluorobutanoic acid	ND		4.21		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluoropentanoic acid	**5.23**		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluoroundecanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
Perfluorododecanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
6:2 Fluorotelomer sulfonic acid	ND		4.21		ng/L		07/05/22 09:51	07/07/22 13:10	1
8:2 Fluorotelomer sulfonic acid	ND		2.53		ng/L		07/05/22 09:51	07/07/22 13:10	1
4:2 Fluorotelomer sulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:10	1
NMeFOSA	ND		2.53		ng/L		07/05/22 09:51	07/07/22 13:10	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*115*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
M2-8:2 FTS	*66*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
M2-6:2 FTS	*94*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
13C5 PFHxA	*100*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
13C4 PFHpA	*96*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
13C8 PFOA	*96*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
13C9 PFNA	*88*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
13C6 PFDA	*73*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
13C7 PFUnA	*49*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
13C2-PFDoDA	*27*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
13C2 PFTeDA	*6*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
13C3 PFBS	*102*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
13C3 PFHxS	*96*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
13C8 PFOS	*83*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
d3-NMeFOSAA	*48*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
d5-NEtFOSAA	*34*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
13C8 FOSA	*54*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
13C4 PFBA	*93*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
13C5 PFPeA	*99*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*
d3-NMePFOSA	*18*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 13:10*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**11.8**	**H**	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluoroheptanoic acid	**6.69**	**H**	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluorooctanoic acid	**56.2**	**H**	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluorononanoic acid	ND	H	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluorodecanoic acid	ND	H	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluorotridecanoic acid	ND	H	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluorotetradecanoic acid	ND	H	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluorobutanesulfonic acid	ND	H	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluorohexanesulfonic acid	**2.22**	**H**	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluorooctanesulfonic acid	**1.79**	**H**	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
NEtFOSAA	ND	H	2.53		ng/L		07/10/22 12:17	07/12/22 03:52	1
NMeFOSAA	ND	H	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluoropentanesulfonic acid	ND	H	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1

Client Sample ID: GZ-7D
Date Collected: 06/22/22 09:41
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-9
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND	H	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluorononanesulfonic acid	ND	H	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluorodecanesulfonic acid	ND	H	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluorooctanesulfonamide	ND	H	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluorobutanoic acid	ND	H	4.22		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluoropentanoic acid	**5.10**	**H**	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluoroundecanoic acid	ND	H	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
Perfluorododecanoic acid	ND	H	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
6:2 Fluorotelomer sulfonic acid	ND	H	4.22		ng/L		07/10/22 12:17	07/12/22 03:52	1
8:2 Fluorotelomer sulfonic acid	ND	H	2.53		ng/L		07/10/22 12:17	07/12/22 03:52	1
4:2 Fluorotelomer sulfonic acid	ND	H	1.69		ng/L		07/10/22 12:17	07/12/22 03:52	1
NMeFOSA	ND	H	2.53		ng/L		07/10/22 12:17	07/12/22 03:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*124*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
M2-8:2 FTS	*101*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
M2-6:2 FTS	*118*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
13C5 PFHxA	*116*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
13C4 PFHpA	*116*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
13C8 PFOA	*109*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
13C9 PFNA	*100*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
13C6 PFDA	*91*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
13C7 PFUnA	*77*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
13C2-PFDoDA	*54*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
13C2 PFTeDA	*21*	*5-	*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
13C3 PFBS	*117*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
13C3 PFHxS	*113*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
13C8 PFOS	*99*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
d3-NMeFOSAA	*89*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
d5-NEtFOSAA	*73*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
13C8 FOSA	*76*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
13C4 PFBA	*101*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
13C5 PFPeA	*110*		*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*
d3-NMePFOSA	*27*	*5-	*50 - 150*	*07/10/22 12:17*	*07/12/22 03:52*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:19	1
Arsenic	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:19	1
Barium	**0.00775**		0.00200		mg/L		07/01/22 05:50	07/05/22 19:19	1
Beryllium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:19	1
Cadmium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:19	1
Chromium	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:19	1
Cobalt	**0.00175**		0.000500		mg/L		07/01/22 05:50	07/05/22 19:19	1
Copper	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:19	1
Lead	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:19	1
Nickel	**0.0220**		0.00100		mg/L		07/01/22 05:50	07/05/22 19:19	1
Selenium	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:19	1
Silver	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:19	1
Thallium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:19	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-7D
Lab Sample ID: 620-5294-9
Date Collected: 06/22/22 09:41
Matrix: Water
Date Received: 06/22/22 15:47

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		07/01/22 05:50	07/05/22 19:19	1
Zinc	ND		0.0100		mg/L		07/01/22 05:50	07/05/22 19:19	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-8
Lab Sample ID: 620-5294-10
Date Collected: 06/22/22 10:37
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			06/30/22 02:38	1
Acetone	ND		10.0		ug/L			06/30/22 02:38	1
Acrylonitrile	ND		0.500		ug/L			06/30/22 02:38	1
Benzene	ND		1.00		ug/L			06/30/22 02:38	1
Bromobenzene	ND		1.00		ug/L			06/30/22 02:38	1
Bromochloromethane	ND		1.00		ug/L			06/30/22 02:38	1
Bromodichloromethane	ND		0.500		ug/L			06/30/22 02:38	1
Bromoform	ND		1.00		ug/L			06/30/22 02:38	1
Bromomethane	ND		2.00		ug/L			06/30/22 02:38	1
2-Butanone (MEK)	ND		2.00		ug/L			06/30/22 02:38	1
n-Butylbenzene	ND		1.00		ug/L			06/30/22 02:38	1
sec-Butylbenzene	ND		1.00		ug/L			06/30/22 02:38	1
tert-Butylbenzene	ND		1.00		ug/L			06/30/22 02:38	1
Carbon disulfide	ND		2.00		ug/L			06/30/22 02:38	1
Carbon tetrachloride	ND		1.00		ug/L			06/30/22 02:38	1
Chlorobenzene	**8.70**		1.00		ug/L			06/30/22 02:38	1
Chloroethane	ND		2.00		ug/L			06/30/22 02:38	1
Chloroform	ND		1.00		ug/L			06/30/22 02:38	1
Chloromethane	ND		2.00		ug/L			06/30/22 02:38	1
2-Chlorotoluene	ND		1.00		ug/L			06/30/22 02:38	1
4-Chlorotoluene	ND		1.00		ug/L			06/30/22 02:38	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			06/30/22 02:38	1
Dibromochloromethane	ND		0.500		ug/L			06/30/22 02:38	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			06/30/22 02:38	1
Dibromomethane	ND		1.00		ug/L			06/30/22 02:38	1
1,2-Dichlorobenzene	ND		1.00		ug/L			06/30/22 02:38	1
1,3-Dichlorobenzene	ND		1.00		ug/L			06/30/22 02:38	1
1,4-Dichlorobenzene	**1.24**		1.00		ug/L			06/30/22 02:38	1
Dichlorodifluoromethane (Freon 12)	ND		2.00		ug/L			06/30/22 02:38	1
1,1-Dichloroethane	ND		1.00		ug/L			06/30/22 02:38	1
1,2-Dichloroethane	ND		1.00		ug/L			06/30/22 02:38	1
1,1-Dichloroethene	ND		1.00		ug/L			06/30/22 02:38	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			06/30/22 02:38	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			06/30/22 02:38	1
1,2-Dichloropropane	ND		1.00		ug/L			06/30/22 02:38	1
1,3-Dichloropropane	ND		1.00		ug/L			06/30/22 02:38	1
2,2-Dichloropropane	ND		1.00		ug/L			06/30/22 02:38	1
1,1-Dichloropropene	ND		1.00		ug/L			06/30/22 02:38	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			06/30/22 02:38	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			06/30/22 02:38	1
Ethylbenzene	ND		1.00		ug/L			06/30/22 02:38	1
Hexachlorobutadiene	ND		1.00		ug/L			06/30/22 02:38	1
2-Hexanone (MBK)	ND		2.00		ug/L			06/30/22 02:38	1
Isopropylbenzene	ND		1.00		ug/L			06/30/22 02:38	1
4-Isopropyltoluene	ND		1.00		ug/L			06/30/22 02:38	1
Methyl tert-butyl ether	ND		1.00		ug/L			06/30/22 02:38	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			06/30/22 02:38	1
Methylene Chloride	ND		2.00		ug/L			06/30/22 02:38	1
Naphthalene	ND		2.00		ug/L			06/30/22 02:38	1

Client Sample ID: GZ-8
Lab Sample ID: 620-5294-10
Date Collected: 06/22/22 10:37
Matrix: Water
Date Received: 06/22/22 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.00		ug/L			06/30/22 02:38	1
Styrene	ND		1.00		ug/L			06/30/22 02:38	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L			06/30/22 02:38	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			06/30/22 02:38	1
Tetrachloroethene	ND		1.00		ug/L			06/30/22 02:38	1
Toluene	ND		1.00		ug/L			06/30/22 02:38	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			06/30/22 02:38	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			06/30/22 02:38	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			06/30/22 02:38	1
1,1,1-Trichloroethane	ND		1.00		ug/L			06/30/22 02:38	1
1,1,2-Trichloroethane	ND		1.00		ug/L			06/30/22 02:38	1
Trichloroethene	ND		1.00		ug/L			06/30/22 02:38	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			06/30/22 02:38	1
1,2,3-Trichloropropane	ND		1.00		ug/L			06/30/22 02:38	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			06/30/22 02:38	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			06/30/22 02:38	1
Vinyl chloride	ND		1.00		ug/L			06/30/22 02:38	1
m,p-Xylene	ND		1.00		ug/L			06/30/22 02:38	1
o-Xylene	ND		1.00		ug/L			06/30/22 02:38	1
Tetrahydrofuran	ND		2.00		ug/L			06/30/22 02:38	1
Ethyl ether	**2.89**		1.00		ug/L			06/30/22 02:38	1
Tert-amyl methyl ether	ND		1.00		ug/L			06/30/22 02:38	1
Tert-butyl ethyl ether	ND		1.00		ug/L			06/30/22 02:38	1
di-Isopropyl ether	ND		1.00		ug/L			06/30/22 02:38	1
tert-Butyl alcohol	ND		10.0		ug/L			06/30/22 02:38	1
1,4-Dioxane	ND		50.0		ug/L			06/30/22 02:38	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			06/30/22 02:38	1
Ethanol	ND		200		ug/L			06/30/22 02:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*06/30/22 02:38*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/30/22 02:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*06/30/22 02:38*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*06/30/22 02:38*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**38.4**		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluoroheptanoic acid	**30.4**		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluorooctanoic acid	**130**		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluorononanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluorodecanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluorotridecanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluorotetradecanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluorobutanesulfonic acid	**4.13**		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluorohexanesulfonic acid	**24.5**		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluorooctanesulfonic acid	**10.0**		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
NEtFOSAA	ND		2.52		ng/L		07/05/22 09:51	07/07/22 13:20	1
NMeFOSAA	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluoropentanesulfonic acid	**4.37**		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1

Client Sample ID: GZ-8
Lab Sample ID: 620-5294-10

Date Collected: 06/22/22 10:37
Matrix: Water

Date Received: 06/22/22 15:47

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluorononanesulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluorodecanesulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluorooctanesulfonamide	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluorobutanoic acid	**18.5**		4.20		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluoropentanoic acid	**28.1**		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluoroundecanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
Perfluorododecanoic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
6:2 Fluorotelomer sulfonic acid	ND		4.20		ng/L		07/05/22 09:51	07/07/22 13:20	1
8:2 Fluorotelomer sulfonic acid	ND		2.52		ng/L		07/05/22 09:51	07/07/22 13:20	1
4:2 Fluorotelomer sulfonic acid	ND		1.68		ng/L		07/05/22 09:51	07/07/22 13:20	1
NMeFOSA	ND		2.52		ng/L		07/05/22 09:51	07/07/22 13:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*239*	*5+	*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
M2-8:2 FTS	*108*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
M2-6:2 FTS	*148*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
13C5 PFHxA	*75*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
13C4 PFHpA	*89*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
13C8 PFOA	*94*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
13C9 PFNA	*103*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
13C6 PFDA	*102*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
13C7 PFUnA	*99*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
13C2-PFDoDA	*94*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
13C2 PFTeDA	*72*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
13C3 PFBS	*89*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
13C3 PFHxS	*94*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
13C8 PFOS	*96*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
d3-NMeFOSAA	*99*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
d5-NEtFOSAA	*91*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
13C8 FOSA	*91*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
13C4 PFBA	*50*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
13C5 PFPeA	*63*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*
d3-NMePFOSA	*56*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:20*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**36.7**	**H**	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluoroheptanoic acid	**27.6**	**H**	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluorooctanoic acid	**124**	**H**	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluorononanoic acid	ND	H	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluorodecanoic acid	ND	H	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluorotridecanoic acid	ND	H	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluorotetradecanoic acid	ND	H	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluorobutanesulfonic acid	**3.73**	**H**	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluorohexanesulfonic acid	**22.6**	**H**	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluorooctanesulfonic acid	**9.40**	**H**	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
NEtFOSAA	ND	H	2.50		ng/L		07/10/22 12:17	07/12/22 04:02	1
NMeFOSAA	ND	H	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluoropentanesulfonic acid	**3.88**	**H**	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1

Client Sample ID: GZ-8
Lab Sample ID: 620-5294-10

Date Collected: 06/22/22 10:37
Matrix: Water

Date Received: 06/22/22 15:47

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid	ND	H	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluorononanesulfonic acid	ND	H	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluorodecanesulfonic acid	ND	H	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluorooctanesulfonamide	ND	H	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluorobutanoic acid	**17.7**	**H**	4.17		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluoropentanoic acid	**26.4**	**H**	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluoroundecanoic acid	ND	H	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
Perfluorododecanoic acid	ND	H	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
6:2 Fluorotelomer sulfonic acid	ND	H	4.17		ng/L		07/10/22 12:17	07/12/22 04:02	1
8:2 Fluorotelomer sulfonic acid	ND	H	2.50		ng/L		07/10/22 12:17	07/12/22 04:02	1
4:2 Fluorotelomer sulfonic acid	ND	H	1.67		ng/L		07/10/22 12:17	07/12/22 04:02	1
NMeFOSA	ND	H	2.50		ng/L		07/10/22 12:17	07/12/22 04:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*240*	*5+	*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
M2-8:2 FTS	*121*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
M2-6:2 FTS	*163*	*5+	*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
13C5 PFHxA	*81*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
13C4 PFHpA	*101*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
13C8 PFOA	*104*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
13C9 PFNA	*107*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
13C6 PFDA	*118*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
13C7 PFUnA	*116*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
13C2-PFDoDA	*113*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
13C2 PFTeDA	*102*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
13C3 PFBS	*93*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
13C3 PFHxS	*98*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
13C8 PFOS	*107*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
d3-NMeFOSAA	*121*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
d5-NEtFOSAA	*106*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
13C8 FOSA	*108*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
13C4 PFBA	*53*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
13C5 PFPeA	*71*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*
d3-NMePFOSA	*57*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:02*	*1*

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:21	1
Arsenic	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:21	1
Barium	**0.0593**		0.00200		mg/L		07/01/22 05:50	07/05/22 19:21	1
Beryllium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:21	1
Cadmium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:21	1
Chromium	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:21	1
Cobalt	**0.00230**		0.000500		mg/L		07/01/22 05:50	07/05/22 19:21	1
Copper	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:21	1
Lead	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:21	1
Nickel	**0.0239**		0.00100		mg/L		07/01/22 05:50	07/05/22 19:21	1
Selenium	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:21	1
Silver	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:21	1
Thallium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:21	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-8
Lab Sample ID: 620-5294-10
Date Collected: 06/22/22 10:37
Matrix: Water
Date Received: 06/22/22 15:47

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.00400		mg/L		07/01/22 05:50	07/05/22 19:21	1
Zinc	ND		0.0100		mg/L		07/01/22 05:50	07/05/22 19:21	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-9
Lab Sample ID: 620-5294-11
Date Collected: 06/22/22 11:24
Matrix: Water
Date Received: 06/22/22 15:47

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**4.93**		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluoroheptanoic acid	**3.20**		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluorooctanoic acid	**6.90**		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluorononanoic acid	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluorodecanoic acid	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluorotridecanoic acid	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluorotetradecanoic acid	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluorobutanesulfonic acid	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluorohexanesulfonic acid	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluorooctanesulfonic acid	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
NEtFOSAA	ND		2.58		ng/L		07/05/22 09:51	07/07/22 13:31	1
NMeFOSAA	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluoropentanesulfonic acid	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluoroheptanesulfonic acid	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluorononanesulfonic acid	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluorodecanesulfonic acid	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluorooctanesulfonamide	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluorobutanoic acid	ND		4.29		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluoropentanoic acid	**3.53**		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluoroundecanoic acid	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
Perfluorododecanoic acid	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
6:2 Fluorotelomer sulfonic acid	ND		4.29		ng/L		07/05/22 09:51	07/07/22 13:31	1
8:2 Fluorotelomer sulfonic acid	ND		2.58		ng/L		07/05/22 09:51	07/07/22 13:31	1
4:2 Fluorotelomer sulfonic acid	ND		1.72		ng/L		07/05/22 09:51	07/07/22 13:31	1
NMeFOSA	ND		2.58		ng/L		07/05/22 09:51	07/07/22 13:31	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*104*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
M2-8:2 FTS	*74*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
M2-6:2 FTS	*111*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
13C5 PFHxA	*100*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
13C4 PFHpA	*98*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
13C8 PFOA	*99*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
13C9 PFNA	*90*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
13C6 PFDA	*76*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
13C7 PFUnA	*60*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
13C2-PFDoDA	*39*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
13C2 PFTeDA	*10*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
13C3 PFBS	*100*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
13C3 PFHxS	*99*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
13C8 PFOS	*86*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
d3-NMeFOSAA	*51*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
d5-NEtFOSAA	*38*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
13C8 FOSA	*65*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
13C4 PFBA	*100*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
13C5 PFPeA	*97*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*
d3-NMePFOSA	*25*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 13:31*	*1*

Client: GZA GeoEnvironmental, Inc.
Project/Site: Jamestown Landfill - Jamestown, RI

Job ID: 620-5294-1

Client Sample ID: GZ-9
Date Collected: 06/22/22 11:24
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-11
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**4.56**	**H**	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluoroheptanoic acid	**3.03**	**H**	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluorooctanoic acid	**6.35**	**H**	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluorononanoic acid	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluorodecanoic acid	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluorotridecanoic acid	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluorotetradecanoic acid	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluorobutanesulfonic acid	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluorohexanesulfonic acid	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluorooctanesulfonic acid	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
NEtFOSAA	ND	H	2.55		ng/L		07/10/22 12:17	07/12/22 04:13	1
NMeFOSAA	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluoropentanesulfonic acid	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluoroheptanesulfonic acid	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluorononanesulfonic acid	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluorodecanesulfonic acid	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluorooctanesulfonamide	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluorobutanoic acid	ND	H	4.25		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluoropentanoic acid	**3.22**	**H**	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluoroundecanoic acid	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
Perfluorododecanoic acid	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
6:2 Fluorotelomer sulfonic acid	ND	H	4.25		ng/L		07/10/22 12:17	07/12/22 04:13	1
8:2 Fluorotelomer sulfonic acid	ND	H	2.55		ng/L		07/10/22 12:17	07/12/22 04:13	1
4:2 Fluorotelomer sulfonic acid	ND	H	1.70		ng/L		07/10/22 12:17	07/12/22 04:13	1
NMeFOSA	ND	H	2.55		ng/L		07/10/22 12:17	07/12/22 04:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*112*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
M2-8:2 FTS	*99*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
M2-6:2 FTS	*125*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
13C5 PFHxA	*112*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
13C4 PFHpA	*112*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
13C8 PFOA	*114*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
13C9 PFNA	*108*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
13C6 PFDA	*102*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
13C7 PFUnA	*96*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
13C2-PFDoDA	*82*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
13C2 PFTeDA	*38*	**5-*	*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
13C3 PFBS	*107*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
13C3 PFHxS	*110*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
13C8 PFOS	*105*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
d3-NMeFOSAA	*101*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
d5-NEtFOSAA	*83*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
13C8 FOSA	*86*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
13C4 PFBA	*112*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
13C5 PFPeA	*108*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*
d3-NMePFOSA	*27*	**5-*	*50 - 150*	*07/10/22 12:17*	*07/12/22 04:13*	*1*

Client Sample Results

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-9
Lab Sample ID: 620-5294-11
Date Collected: 06/22/22 11:24
Matrix: Water
Date Received: 06/22/22 15:47

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00190**		0.00100		mg/L		07/01/22 05:50	07/05/22 19:23	1
Arsenic	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:23	1
Barium	**0.0157**		0.00200		mg/L		07/01/22 05:50	07/05/22 19:23	1
Beryllium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:23	1
Cadmium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:23	1
Chromium	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 19:23	1
Cobalt	**0.00704**		0.000500		mg/L		07/01/22 05:50	07/05/22 19:23	1
Copper	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:23	1
Lead	**0.000670**		0.000500		mg/L		07/01/22 05:50	07/05/22 19:23	1
Nickel	**0.0146**		0.00100		mg/L		07/01/22 05:50	07/05/22 19:23	1
Selenium	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 19:23	1
Silver	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:23	1
Thallium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 19:23	1
Vanadium	ND		0.00400		mg/L		07/01/22 05:50	07/05/22 19:23	1
Zinc	**0.0167**		0.0100		mg/L		07/01/22 05:50	07/05/22 19:23	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: TB
Lab Sample ID: 620-5294-12
Date Collected: 06/22/22 10:00
Matrix: Drinking Water
Date Received: 06/22/22 15:47

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.500		ug/L			06/27/22 16:10	1
1,1,1-Trichloroethane	ND		0.500		ug/L			06/27/22 16:10	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			06/27/22 16:10	1
1,1,2-Trichloroethane	ND		0.500		ug/L			06/27/22 16:10	1
1,1-Dichloroethane	ND		0.500		ug/L			06/27/22 16:10	1
1,1-Dichloroethene	ND		0.500		ug/L			06/27/22 16:10	1
1,1-Dichloropropene	ND		0.500		ug/L			06/27/22 16:10	1
1,2,3-Trichlorobenzene	ND		0.500		ug/L			06/27/22 16:10	1
1,2,3-Trichloropropane	ND		0.500		ug/L			06/27/22 16:10	1
1,2,4-Trichlorobenzene	ND		0.500		ug/L			06/27/22 16:10	1
1,2,4-Trimethylbenzene	ND		0.500		ug/L			06/27/22 16:10	1
1,2-Dibromo-3-Chloropropane	ND		1.00		ug/L			06/27/22 16:10	1
1,2-Dibromoethane	ND		0.500		ug/L			06/27/22 16:10	1
1,2-Dichlorobenzene	ND		0.500		ug/L			06/27/22 16:10	1
1,2-Dichloroethane	ND		0.500		ug/L			06/27/22 16:10	1
1,2-Dichloropropane	ND		0.500		ug/L			06/27/22 16:10	1
1,3,5-Trimethylbenzene	ND		0.500		ug/L			06/27/22 16:10	1
1,3-Dichlorobenzene	ND		0.500		ug/L			06/27/22 16:10	1
1,3-Dichloropropane	ND		0.500		ug/L			06/27/22 16:10	1
1,4-Dichlorobenzene	ND		0.500		ug/L			06/27/22 16:10	1
2,2-Dichloropropane	ND		0.500		ug/L			06/27/22 16:10	1
2-Butanone (MEK)	ND		5.00		ug/L			06/27/22 16:10	1
2-Chlorotoluene	ND		0.500		ug/L			06/27/22 16:10	1
2-Hexanone	ND		5.00		ug/L			06/27/22 16:10	1
4-Chlorotoluene	ND		0.500		ug/L			06/27/22 16:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.00		ug/L			06/27/22 16:10	1
Acetone	ND		10.0		ug/L			06/27/22 16:10	1
Acrylonitrile	ND		10.0		ug/L			06/27/22 16:10	1
Benzene	ND		0.500		ug/L			06/27/22 16:10	1
Bromobenzene	ND		0.500		ug/L			06/27/22 16:10	1
Bromochloromethane	ND		0.500		ug/L			06/27/22 16:10	1
Bromodichloromethane	ND		0.500		ug/L			06/27/22 16:10	1
Bromoform	ND		0.500		ug/L			06/27/22 16:10	1
Bromomethane	ND		0.500		ug/L			06/27/22 16:10	1
Carbon disulfide	ND		2.00		ug/L			06/27/22 16:10	1
Carbon tetrachloride	ND		0.500		ug/L			06/27/22 16:10	1
Chlorobenzene	ND		0.500		ug/L			06/27/22 16:10	1
Chloroethane	ND		0.500		ug/L			06/27/22 16:10	1
Chloroform	ND		0.500		ug/L			06/27/22 16:10	1
Chloromethane	ND		0.500		ug/L			06/27/22 16:10	1
cis-1,2-Dichloroethene	ND		0.500		ug/L			06/27/22 16:10	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			06/27/22 16:10	1
Dibromochloromethane	ND		0.500		ug/L			06/27/22 16:10	1
Dibromomethane	ND		0.500		ug/L			06/27/22 16:10	1
Dichlorodifluoromethane	ND		0.500		ug/L			06/27/22 16:10	1
di-Isopropyl ether	ND		0.500		ug/L			06/27/22 16:10	1
Ethyl ether	ND		0.500		ug/L			06/27/22 16:10	1
Tert-butyl ethyl ether	ND		0.500		ug/L			06/27/22 16:10	1
Ethylbenzene	ND		0.500		ug/L			06/27/22 16:10	1

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: TB
Lab Sample ID: 620-5294-12
Date Collected: 06/22/22 10:00
Matrix: Drinking Water
Date Received: 06/22/22 15:47

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.500		ug/L			06/27/22 16:10	1
Hexachlorobutadiene	ND		0.500		ug/L			06/27/22 16:10	1
Isopropylbenzene	ND		0.500		ug/L			06/27/22 16:10	1
m,p-Xylene	ND		1.00		ug/L			06/27/22 16:10	1
Methylene Chloride	ND		0.500		ug/L			06/27/22 16:10	1
Naphthalene	ND		0.500		ug/L			06/27/22 16:10	1
n-Butylbenzene	ND		0.500		ug/L			06/27/22 16:10	1
N-Propylbenzene	ND		0.500		ug/L			06/27/22 16:10	1
o-Xylene	ND		0.500		ug/L			06/27/22 16:10	1
4-Isopropyltoluene	ND		0.500		ug/L			06/27/22 16:10	1
sec-Butylbenzene	ND		0.500		ug/L			06/27/22 16:10	1
Styrene	ND		0.500		ug/L			06/27/22 16:10	1
Tert-amyl methyl ether	ND		0.500		ug/L			06/27/22 16:10	1
tert-Butyl alcohol	ND		25.0		ug/L			06/27/22 16:10	1
tert-Butylbenzene	ND		0.500		ug/L			06/27/22 16:10	1
Tetrachloroethene	ND		0.500		ug/L			06/27/22 16:10	1
Tetrahydrofuran	ND		7.00		ug/L			06/27/22 16:10	1
Toluene	ND		0.500		ug/L			06/27/22 16:10	1
trans-1,2-Dichloroethene	ND		0.500		ug/L			06/27/22 16:10	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			06/27/22 16:10	1
Trichloroethene	ND		0.500		ug/L			06/27/22 16:10	1
Trichlorofluoromethane	ND		0.500		ug/L			06/27/22 16:10	1
Vinyl chloride	ND		0.500		ug/L			06/27/22 16:10	1
Xylene (total)	ND		0.500		ug/L			06/27/22 16:10	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*06/27/22 16:10*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichlorobenzene-d4 (Surr)	*93*		*80 - 120*		*06/27/22 16:10*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*06/27/22 16:10*	*1*

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: Field Blank
Lab Sample ID: 620-5294-13
Date Collected: 06/22/22 10:00
Matrix: Water
Date Received: 06/22/22 15:47

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluoroheptanoic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluorooctanoic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluorononanoic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluorodecanoic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluorotridecanoic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluorotetradecanoic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluorobutanesulfonic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluorohexanesulfonic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluorooctanesulfonic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
NEtFOSAA	ND		2.65		ng/L		07/05/22 09:51	07/07/22 13:41	1
NMeFOSAA	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluoropentanesulfonic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluoroheptanesulfonic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluorononanesulfonic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluorodecanesulfonic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluorooctanesulfonamide	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluorobutanoic acid	ND		4.42		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluoropentanoic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluoroundecanoic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
Perfluorododecanoic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
6:2 Fluorotelomer sulfonic acid	ND		4.42		ng/L		07/05/22 09:51	07/07/22 13:41	1
8:2 Fluorotelomer sulfonic acid	ND		2.65		ng/L		07/05/22 09:51	07/07/22 13:41	1
4:2 Fluorotelomer sulfonic acid	ND		1.77		ng/L		07/05/22 09:51	07/07/22 13:41	1
NMeFOSA	ND		2.65		ng/L		07/05/22 09:51	07/07/22 13:41	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*112*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
M2-8:2 FTS	*109*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
M2-6:2 FTS	*105*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
13C5 PFHxA	*94*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
13C4 PFHpA	*92*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
13C8 PFOA	*98*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
13C9 PFNA	*95*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
13C6 PFDA	*104*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
13C7 PFUnA	*95*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
13C2-PFDoDA	*100*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
13C2 PFTeDA	*95*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
13C3 PFBS	*100*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
13C3 PFHxS	*105*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
13C8 PFOS	*105*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
d3-NMeFOSAA	*99*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
d5-NEtFOSAA	*92*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
13C8 FOSA	*84*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
13C4 PFBA	*92*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
13C5 PFPeA	*91*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*
d3-NMePFOSA	*49*	*5-	*50 - 150*	*07/05/22 09:51*	*07/07/22 13:41*	*1*

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: POT-1
Date Collected: 06/22/22 13:03
Date Received: 06/22/22 15:47

Lab Sample ID: 620-5294-14
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**4.12**		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluoroheptanoic acid	**1.82**		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluorooctanoic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluorononanoic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluorodecanoic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluorotridecanoic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluorotetradecanoic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluorobutanesulfonic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluorohexanesulfonic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluorooctanesulfonic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
NEtFOSAA	ND		2.57		ng/L		07/05/22 09:51	07/07/22 13:52	1
NMeFOSAA	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluoropentanesulfonic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluoroheptanesulfonic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluorononanesulfonic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluorodecanesulfonic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluorooctanesulfonamide	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluorobutanoic acid	ND		4.28		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluoropentanoic acid	**3.82**		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluoroundecanoic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
Perfluorododecanoic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
6:2 Fluorotelomer sulfonic acid	ND		4.28		ng/L		07/05/22 09:51	07/07/22 13:52	1
8:2 Fluorotelomer sulfonic acid	ND		2.57		ng/L		07/05/22 09:51	07/07/22 13:52	1
4:2 Fluorotelomer sulfonic acid	ND		1.71		ng/L		07/05/22 09:51	07/07/22 13:52	1
NMeFOSA	ND		2.57		ng/L		07/05/22 09:51	07/07/22 13:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*104*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
M2-8:2 FTS	*84*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
M2-6:2 FTS	*97*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
13C5 PFHxA	*87*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
13C4 PFHpA	*86*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
13C8 PFOA	*91*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
13C9 PFNA	*91*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
13C6 PFDA	*84*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
13C7 PFUnA	*85*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
13C2-PFDoDA	*77*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
13C2 PFTeDA	*47*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
13C3 PFBS	*91*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
13C3 PFHxS	*88*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
13C8 PFOS	*84*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
d3-NMeFOSAA	*79*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
d5-NEtFOSAA	*70*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
13C8 FOSA	*26*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
13C4 PFBA	*89*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
13C5 PFPeA	*88*		*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*
d3-NMePFOSA	*4*	**5-*	*50 - 150*	*07/05/22 09:51*	*07/07/22 13:52*	*1*

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: POT-1
Lab Sample ID: 620-5294-14
Date Collected: 06/22/22 13:03
Matrix: Water
Date Received: 06/22/22 15:47

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**3.73**	**H**	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluoroheptanoic acid	**1.79**	**H**	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluorooctanoic acid	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluorononanoic acid	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluorodecanoic acid	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluorotridecanoic acid	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluorotetradecanoic acid	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluorobutanesulfonic acid	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluorohexanesulfonic acid	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluorooctanesulfonic acid	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
NEtFOSAA	ND	H	2.65		ng/L		07/10/22 12:17	07/12/22 04:23	1
NMeFOSAA	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluoropentanesulfonic acid	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluoroheptanesulfonic acid	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluorononanesulfonic acid	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluorodecanesulfonic acid	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluorooctanesulfonamide	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluorobutanoic acid	ND	H	4.41		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluoropentanoic acid	**3.54**	**H**	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluoroundecanoic acid	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
Perfluorododecanoic acid	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
6:2 Fluorotelomer sulfonic acid	ND	H	4.41		ng/L		07/10/22 12:17	07/12/22 04:23	1
8:2 Fluorotelomer sulfonic acid	ND	H	2.65		ng/L		07/10/22 12:17	07/12/22 04:23	1
4:2 Fluorotelomer sulfonic acid	ND	H	1.77		ng/L		07/10/22 12:17	07/12/22 04:23	1
NMeFOSA	ND	H	2.65		ng/L		07/10/22 12:17	07/12/22 04:23	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*102*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
M2-8:2 FTS	*102*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
M2-6:2 FTS	*116*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
13C5 PFHxA	*102*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
13C4 PFHpA	*105*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
13C8 PFOA	*103*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
13C9 PFNA	*103*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
13C6 PFDA	*107*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
13C7 PFUnA	*102*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
13C2-PFDoDA	*94*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
13C2 PFTeDA	*76*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
13C3 PFBS	*96*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
13C3 PFHxS	*102*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
13C8 PFOS	*102*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
d3-NMeFOSAA	*107*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
d5-NEtFOSAA	*92*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
13C8 FOSA	*90*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
13C4 PFBA	*98*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
13C5 PFPeA	*100*		*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*
d3-NMePFOSA	*28*	**5-*	*50 - 150*	*07/10/22 12:17*	*07/12/22 04:23*	*1*

Surrogate Summary

Client: GZA GeoEnvironmental, Inc.
Project/Site: Jamestown Landfill - Jamestown, RI

Job ID: 620-5294-1

Method: 524.2 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)									
		DCZ	BFB								
Lab Sample ID	Client Sample ID	(80-120)	(80-120)								
620-5294-1	POT-1	92	92								
620-5294-12	TB	93	90								
LCS 410-269853/4	Lab Control Sample	98	101								
MB 410-269853/6	Method Blank	91	90								

Surrogate Legend

DCZ = 1,2-Dichlorobenzene-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
		BFB	TOL	DCA	DBFM						
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)						
620-5294-2	GZ-1	98	102	101	101						
620-5294-3	GZ-2	98	101	100	99						
620-5294-4	GZ-3	99	100	102	100						
620-5294-5	GZ-4	97	100	100	100						
620-5294-6	GZ-5	98	101	105	102						
620-5294-7	GZ-6	98	101	105	102						
620-5294-8	GZ-7S	100	100	105	100						
620-5294-9	GZ-7D	98	101	104	101						
620-5294-10	GZ-8	97	101	104	100						
LCS 620-12474/4	Lab Control Sample	100	101	96	99						
LCS 620-12494/4	Lab Control Sample	98	101	99	101						
LCSD 620-12474/5	Lab Control Sample Dup	99	103	99	101						
LCSD 620-12494/5	Lab Control Sample Dup	98	100	96	99						
MB 620-12474/7	Method Blank	99	102	103	101						
MB 620-12494/7	Method Blank	98	100	102	101						

Surrogate Legend

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

Isotope Dilution Summary

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M282FTS	M262FTS	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
410-88130-B-3-B MS	Matrix Spike	137	100	131	107	108	112	110	111
410-88130-B-3-C MSD	Matrix Spike Duplicate	144	113	132	112	118	118	117	116
620-5294-2	GZ-1	134	109	124	113	115	117	116	116
620-5294-3	GZ-2	112	0.7 *5-	16 *5-	83	43 *5-	12 *5-	2 *5-	0.6 *5-
620-5294-3 - RE	GZ-2	164 *5+	90	129	108	115	102	102	92
620-5294-4	GZ-3	124	110	117	103	100	103	107	106
620-5294-5	GZ-4	126	111	116	106	109	111	109	110
620-5294-6	GZ-5	100	1 *5-	19 *5-	87	50	14 *5-	4 *5-	1 *5-
620-5294-6 - RE	GZ-5	111	65	120	99	101	98	79	63
620-5294-7	GZ-6	126	78	107	108	106	106	99	86
620-5294-7 - RE	GZ-6	130	105	133	124	120	122	116	114
620-5294-8	GZ-7S	156 *5+	101	100	98	98	98	104	101
620-5294-8 - RE	GZ-7S	138	120	120	111	114	111	113	113
620-5294-9	GZ-7D	115	66	94	100	96	96	88	73
620-5294-9 - RE	GZ-7D	124	101	118	116	116	109	100	91
620-5294-10	GZ-8	239 *5+	108	148	75	89	94	103	102
620-5294-10 - RE	GZ-8	240 *5+	121	163 *5+	81	101	104	107	118
620-5294-11	GZ-9	104	74	111	100	98	99	90	76
620-5294-11 - RE	GZ-9	112	99	125	112	112	114	108	102
620-5294-13	Field Blank	112	109	105	94	92	98	95	104
620-5294-14	POT-1	104	84	97	87	86	91	91	84
620-5294-14 - RE	POT-1	102	102	116	102	105	103	103	107
LCS 410-272148/3-A	Lab Control Sample	125	111	117	114	114	116	115	117
LCS 410-272227/2-A	Lab Control Sample	120	102	114	104	102	108	109	113
LCS 410-273884/2-A	Lab Control Sample	119	112	128	117	118	121	115	119
LCSD 410-272148/4-A	Lab Control Sample Dup	119	107	109	111	106	111	109	111
LCSD 410-272227/3-A	Lab Control Sample Dup	114	99	98	96	96	98	100	106
MB 410-272148/1-A	Method Blank	115	114	114	108	106	110	112	112
MB 410-272227/1-A	Method Blank	114	110	111	109	106	107	109	114
MB 410-273884/1-A	Method Blank	128	127	139	122	126	130	118	124

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		13C7PUA	PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	d3NMFOS	d5NEFOS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
410-88130-B-3-B MS	Matrix Spike	115	102	83	107	109	113	107	98
410-88130-B-3-C MSD	Matrix Spike Duplicate	107	100	69	117	115	112	110	93
620-5294-2	GZ-1	113	108	97	113	117	110	111	107
620-5294-3	GZ-2	0.1 *5-	0.07 *5-	0.02 *5-	95	35 *5-	1 *5-	0.3 *5-	0.3 *5-
620-5294-3 - RE	GZ-2	79	61	28 *5-	107	110	100	86	69
620-5294-4	GZ-3	110	108	93	110	111	109	98	95
620-5294-5	GZ-4	111	109	94	109	113	111	110	98
620-5294-6	GZ-5	0.8 *5-	0.4 *5-	0.2 *5-	94	41 *5-	3 *5-	1 *5-	0.9 *5-
620-5294-6 - RE	GZ-5	39 *5-	19 *5-	2 *5-	107	105	75	40 *5-	21 *5-
620-5294-7	GZ-6	62	37 *5-	10 *5-	111	109	95	69	54
620-5294-7 - RE	GZ-6	114	91	55	117	119	115	109	91
620-5294-8	GZ-7S	102	100	93	103	104	101	100	92
620-5294-8 - RE	GZ-7S	124	116	111	111	115	119	124	113
620-5294-9	GZ-7D	49 *5-	27 *5-	6 *5-	102	96	83	48 *5-	34 *5-
620-5294-9 - RE	GZ-7D	77	54	21 *5-	117	113	99	89	73
620-5294-10	GZ-8	99	94	72	89	94	96	99	91

Isotope Dilution Summary

Client: GZA GeoEnvironmental, Inc. Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	13C7PUA (50-150)	PFDoDA (50-150)	PFTDA (50-150)	C3PFBS (50-150)	C3PFHS (50-150)	C8PFOS (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)
620-5294-10 - RE	GZ-8	116	113	102	93	98	107	121	106
620-5294-11	GZ-9	60	39 *5-	10 *5-	100	99	86	51	38 *5-
620-5294-11 - RE	GZ-9	96	82	38 *5-	107	110	105	101	83
620-5294-13	Field Blank	95	100	95	100	105	105	99	92
620-5294-14	POT-1	85	77	47 *5-	91	88	84	79	70
620-5294-14 - RE	POT-1	102	94	76	96	102	102	107	92
LCS 410-272148/3-A	Lab Control Sample	116	107	105	112	119	110	114	107
LCS 410-272227/2-A	Lab Control Sample	111	112	105	111	113	111	111	101
LCS 410-273884/2-A	Lab Control Sample	115	120	109	112	121	115	122	110
LCSD 410-272148/4-A	Lab Control Sample Dup	114	103	100	105	108	106	113	101
LCSD 410-272227/3-A	Lab Control Sample Dup	107	110	97	99	104	101	107	96
MB 410-272148/1-A	Method Blank	111	105	96	99	105	106	107	103
MB 410-272227/1-A	Method Blank	115	111	101	108	115	112	112	100
MB 410-273884/1-A	Method Blank	126	125	117	119	122	118	124	115

		Percent Isotope Dilution Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	PFOSA (50-150)	PFBA (50-150)	PFPeA (50-150)	d3NMFSA (50-150)
410-88130-B-3-B MS	Matrix Spike	26 *5-	84	100	3 *5-
410-88130-B-3-C MSD	Matrix Spike Duplicate	23 *5-	87	108	3 *5-
620-5294-2	GZ-1	110	106	108	68
620-5294-3	GZ-2	0.2 *5-	75	92	0.01 *5-
620-5294-3 - RE	GZ-2	17 *5-	74	94	2 *5-
620-5294-4	GZ-3	95	93	99	67
620-5294-5	GZ-4	103	102	103	51
620-5294-6	GZ-5	0.8 *5-	100	96	0.07 *5-
620-5294-6 - RE	GZ-5	10 *5-	98	100	1 *5-
620-5294-7	GZ-6	49 *5-	104	109	4 *5-
620-5294-7 - RE	GZ-6	112	115	116	52
620-5294-8	GZ-7S	83	78	89	54
620-5294-8 - RE	GZ-7S	99	90	103	76
620-5294-9	GZ-7D	54	93	99	18 *5-
620-5294-9 - RE	GZ-7D	76	101	110	27 *5-
620-5294-10	GZ-8	91	50	63	56
620-5294-10 - RE	GZ-8	108	53	71	57
620-5294-11	GZ-9	65	100	97	25 *5-
620-5294-11 - RE	GZ-9	86	112	108	27 *5-
620-5294-13	Field Blank	84	92	91	49 *5-
620-5294-14	POT-1	26 *5-	89	88	4 *5-
620-5294-14 - RE	POT-1	90	98	100	28 *5-
LCS 410-272148/3-A	Lab Control Sample	106	113	111	76
LCS 410-272227/2-A	Lab Control Sample	97	102	101	54
LCS 410-273884/2-A	Lab Control Sample	111	112	112	75
LCSD 410-272148/4-A	Lab Control Sample Dup	103	107	107	74
LCSD 410-272227/3-A	Lab Control Sample Dup	93	97	94	54
MB 410-272148/1-A	Method Blank	104	106	104	61
MB 410-272227/1-A	Method Blank	95	104	103	58
MB 410-273884/1-A	Method Blank	122	111	117	78

Surrogate Legend

M242FTS = M2-4:2 FTS

Isotope Dilution Summary

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
d3NMFSA = d3-NMePFOSA

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-269853/6
Matrix: Drinking Water
Analysis Batch: 269853

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.500		ug/L			06/27/22 15:47	1
1,1,1-Trichloroethane	ND		0.500		ug/L			06/27/22 15:47	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			06/27/22 15:47	1
1,1,2-Trichloroethane	ND		0.500		ug/L			06/27/22 15:47	1
1,1-Dichloroethane	ND		0.500		ug/L			06/27/22 15:47	1
1,1-Dichloroethene	ND		0.500		ug/L			06/27/22 15:47	1
1,1-Dichloropropene	ND		0.500		ug/L			06/27/22 15:47	1
1,2,3-Trichlorobenzene	ND		0.500		ug/L			06/27/22 15:47	1
1,2,3-Trichloropropane	ND		0.500		ug/L			06/27/22 15:47	1
1,2,4-Trichlorobenzene	ND		0.500		ug/L			06/27/22 15:47	1
1,2,4-Trimethylbenzene	ND		0.500		ug/L			06/27/22 15:47	1
1,2-Dibromo-3-Chloropropane	ND		1.00		ug/L			06/27/22 15:47	1
1,2-Dibromoethane	ND		0.500		ug/L			06/27/22 15:47	1
1,2-Dichlorobenzene	ND		0.500		ug/L			06/27/22 15:47	1
1,2-Dichloroethane	ND		0.500		ug/L			06/27/22 15:47	1
1,2-Dichloropropane	ND		0.500		ug/L			06/27/22 15:47	1
1,3,5-Trimethylbenzene	ND		0.500		ug/L			06/27/22 15:47	1
1,3-Dichlorobenzene	ND		0.500		ug/L			06/27/22 15:47	1
1,3-Dichloropropane	ND		0.500		ug/L			06/27/22 15:47	1
1,4-Dichlorobenzene	ND		0.500		ug/L			06/27/22 15:47	1
2,2-Dichloropropane	ND		0.500		ug/L			06/27/22 15:47	1
2-Butanone (MEK)	ND		5.00		ug/L			06/27/22 15:47	1
2-Chlorotoluene	ND		0.500		ug/L			06/27/22 15:47	1
2-Hexanone	ND		5.00		ug/L			06/27/22 15:47	1
4-Chlorotoluene	ND		0.500		ug/L			06/27/22 15:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.00		ug/L			06/27/22 15:47	1
Acetone	ND		10.0		ug/L			06/27/22 15:47	1
Acrylonitrile	ND		10.0		ug/L			06/27/22 15:47	1
Benzene	ND		0.500		ug/L			06/27/22 15:47	1
Bromobenzene	ND		0.500		ug/L			06/27/22 15:47	1
Bromochloromethane	ND		0.500		ug/L			06/27/22 15:47	1
Bromodichloromethane	ND		0.500		ug/L			06/27/22 15:47	1
Bromoform	ND		0.500		ug/L			06/27/22 15:47	1
Bromomethane	ND		0.500		ug/L			06/27/22 15:47	1
Carbon disulfide	ND		2.00		ug/L			06/27/22 15:47	1
Carbon tetrachloride	ND		0.500		ug/L			06/27/22 15:47	1
Chlorobenzene	ND		0.500		ug/L			06/27/22 15:47	1
Chloroethane	ND		0.500		ug/L			06/27/22 15:47	1
Chloroform	ND		0.500		ug/L			06/27/22 15:47	1
Chloromethane	ND		0.500		ug/L			06/27/22 15:47	1
cis-1,2-Dichloroethene	ND		0.500		ug/L			06/27/22 15:47	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			06/27/22 15:47	1
Dibromochloromethane	ND		0.500		ug/L			06/27/22 15:47	1
Dibromomethane	ND		0.500		ug/L			06/27/22 15:47	1
Dichlorodifluoromethane	ND		0.500		ug/L			06/27/22 15:47	1
di-Isopropyl ether	ND		0.500		ug/L			06/27/22 15:47	1
Ethyl ether	ND		0.500		ug/L			06/27/22 15:47	1
Tert-butyl ethyl ether	ND		0.500		ug/L			06/27/22 15:47	1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-269853/6
Matrix: Drinking Water
Analysis Batch: 269853

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.500		ug/L			06/27/22 15:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.500		ug/L			06/27/22 15:47	1
Hexachlorobutadiene	ND		0.500		ug/L			06/27/22 15:47	1
Isopropylbenzene	ND		0.500		ug/L			06/27/22 15:47	1
m,p-Xylene	ND		1.00		ug/L			06/27/22 15:47	1
Methylene Chloride	ND		0.500		ug/L			06/27/22 15:47	1
Naphthalene	ND		0.500		ug/L			06/27/22 15:47	1
n-Butylbenzene	ND		0.500		ug/L			06/27/22 15:47	1
N-Propylbenzene	ND		0.500		ug/L			06/27/22 15:47	1
o-Xylene	ND		0.500		ug/L			06/27/22 15:47	1
4-Isopropyltoluene	ND		0.500		ug/L			06/27/22 15:47	1
sec-Butylbenzene	ND		0.500		ug/L			06/27/22 15:47	1
Styrene	ND		0.500		ug/L			06/27/22 15:47	1
Tert-amyl methyl ether	ND		0.500		ug/L			06/27/22 15:47	1
tert-Butyl alcohol	ND		25.0		ug/L			06/27/22 15:47	1
tert-Butylbenzene	ND		0.500		ug/L			06/27/22 15:47	1
Tetrachloroethene	ND		0.500		ug/L			06/27/22 15:47	1
Tetrahydrofuran	ND		7.00		ug/L			06/27/22 15:47	1
Toluene	ND		0.500		ug/L			06/27/22 15:47	1
trans-1,2-Dichloroethene	ND		0.500		ug/L			06/27/22 15:47	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			06/27/22 15:47	1
Trichloroethene	ND		0.500		ug/L			06/27/22 15:47	1
Trichlorofluoromethane	ND		0.500		ug/L			06/27/22 15:47	1
Vinyl chloride	ND		0.500		ug/L			06/27/22 15:47	1
Xylene (total)	ND		0.500		ug/L			06/27/22 15:47	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*06/27/22 15:47*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichlorobenzene-d4 (Surr)	*91*		*80 - 120*		*06/27/22 15:47*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*06/27/22 15:47*	*1*

Lab Sample ID: LCS 410-269853/4
Matrix: Drinking Water
Analysis Batch: 269853

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	5.00	4.623		ug/L		92	70 - 130
1,1,1-Trichloroethane	5.00	4.269		ug/L		85	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.375		ug/L		87	70 - 130
1,1,2-Trichloroethane	5.00	4.488		ug/L		90	70 - 130
1,1-Dichloroethane	5.00	4.329		ug/L		87	70 - 130
1,1-Dichloroethene	5.00	4.718		ug/L		94	70 - 130
1,1-Dichloropropene	5.00	4.358		ug/L		87	70 - 130
1,2,3-Trichlorobenzene	5.00	4.208		ug/L		84	70 - 130
1,2,3-Trichloropropane	5.00	4.385		ug/L		88	70 - 130
1,2,4-Trichlorobenzene	5.00	4.257		ug/L		85	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-269853/4
Matrix: Drinking Water
Analysis Batch: 269853

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trimethylbenzene	5.00	4.434		ug/L		89	70 - 130
1,2-Dibromo-3-Chloropropane	5.00	4.308		ug/L		86	70 - 130
1,2-Dibromoethane	5.00	4.401		ug/L		88	70 - 130
1,2-Dichlorobenzene	5.00	4.643		ug/L		93	70 - 130
1,2-Dichloroethane	5.00	4.185		ug/L		84	70 - 130
1,2-Dichloropropane	5.00	4.365		ug/L		87	70 - 130
1,3,5-Trimethylbenzene	5.00	4.375		ug/L		87	70 - 130
1,3-Dichlorobenzene	5.00	4.669		ug/L		93	70 - 130
1,3-Dichloropropane	5.00	4.339		ug/L		87	70 - 130
1,4-Dichlorobenzene	5.00	4.743		ug/L		95	70 - 130
2,2-Dichloropropane	5.00	4.465		ug/L		89	70 - 130
2-Butanone (MEK)	62.5	53.31		ug/L		85	70 - 130
2-Chlorotoluene	5.00	4.505		ug/L		90	70 - 130
2-Hexanone	62.5	53.95		ug/L		86	70 - 130
4-Chlorotoluene	5.00	4.662		ug/L		93	70 - 130
4-Methyl-2-pentanone (MIBK)	62.5	53.17		ug/L		85	70 - 130
Acetone	62.5	53.42		ug/L		85	70 - 130
Acrylonitrile	113	97.23		ug/L		86	70 - 130
Benzene	5.00	4.404		ug/L		88	70 - 130
Bromobenzene	5.00	4.854		ug/L		97	70 - 130
Bromochloromethane	5.00	4.641		ug/L		93	70 - 130
Bromodichloromethane	5.00	4.473		ug/L		89	70 - 130
Bromoform	5.00	4.992		ug/L		100	70 - 130
Bromomethane	2.00	1.929		ug/L		96	70 - 130
Carbon disulfide	5.00	4.958		ug/L		99	70 - 130
Carbon tetrachloride	5.00	4.532		ug/L		91	70 - 130
Chlorobenzene	5.00	4.637		ug/L		93	70 - 130
Chloroethane	2.00	1.865		ug/L		93	70 - 130
Chloroform	5.00	4.379		ug/L		88	70 - 130
Chloromethane	2.00	1.940		ug/L		97	70 - 130
cis-1,2-Dichloroethene	5.00	4.573		ug/L		91	70 - 130
cis-1,3-Dichloropropene	5.00	4.217		ug/L		84	70 - 130
Dibromochloromethane	5.00	4.573		ug/L		91	70 - 130
Dibromomethane	5.00	4.383		ug/L		88	70 - 130
Dichlorodifluoromethane	2.00	2.051		ug/L		103	70 - 130
di-Isopropyl ether	5.00	4.515		ug/L		90	70 - 130
Ethyl ether	5.00	4.460		ug/L		89	70 - 130
Tert-butyl ethyl ether	5.00	4.262		ug/L		85	70 - 130
Ethylbenzene	5.00	4.487		ug/L		90	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	4.794		ug/L		96	70 - 130
Hexachlorobutadiene	5.00	4.759		ug/L		95	70 - 130
Isopropylbenzene	5.00	4.357		ug/L		87	70 - 130
m,p-Xylene	10.0	9.220		ug/L		92	70 - 130
Methylene Chloride	5.00	5.158		ug/L		103	70 - 130
Naphthalene	5.00	3.709		ug/L		74	70 - 130
n-Butylbenzene	5.00	4.283		ug/L		86	70 - 130
N-Propylbenzene	5.00	4.445		ug/L		89	70 - 130
o-Xylene	5.00	4.246		ug/L		85	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-269853/4
Matrix: Drinking Water
Analysis Batch: 269853

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4-Isopropyltoluene	5.00	4.476		ug/L		90	70 - 130
sec-Butylbenzene	5.00	4.469		ug/L		89	70 - 130
Styrene	5.00	4.578		ug/L		92	70 - 130
Tert-amyl methyl ether	5.00	3.904		ug/L		78	70 - 130
tert-Butyl alcohol	50.0	40.10		ug/L		80	70 - 130
tert-Butylbenzene	5.00	4.654		ug/L		93	70 - 130
Tetrachloroethene	5.00	4.798		ug/L		96	70 - 130
Tetrahydrofuran	46.9	39.55		ug/L		84	70 - 130
Toluene	5.00	4.425		ug/L		89	70 - 130
trans-1,2-Dichloroethene	5.00	4.443		ug/L		89	70 - 130
trans-1,3-Dichloropropene	5.00	4.303		ug/L		86	70 - 130
Trichloroethene	5.00	4.240		ug/L		85	70 - 130
Trichlorofluoromethane	2.00	1.927		ug/L		96	70 - 130
Vinyl chloride	2.00	1.868		ug/L		93	70 - 130
Xylene (total)	15.0	13.47		ug/L		90	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichlorobenzene-d4 (Surr)	*98*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*

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

Lab Sample ID: MB 620-12474/7
Matrix: Water
Analysis Batch: 12474

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			06/29/22 12:54	1
Acetone	ND		10.0		ug/L			06/29/22 12:54	1
Acrylonitrile	ND		0.500		ug/L			06/29/22 12:54	1
Benzene	ND		1.00		ug/L			06/29/22 12:54	1
Bromobenzene	ND		1.00		ug/L			06/29/22 12:54	1
Bromochloromethane	ND		1.00		ug/L			06/29/22 12:54	1
Bromodichloromethane	ND		0.500		ug/L			06/29/22 12:54	1
Bromoform	ND		1.00		ug/L			06/29/22 12:54	1
Bromomethane	ND		2.00		ug/L			06/29/22 12:54	1
2-Butanone (MEK)	ND		2.00		ug/L			06/29/22 12:54	1
n-Butylbenzene	ND		1.00		ug/L			06/29/22 12:54	1
sec-Butylbenzene	ND		1.00		ug/L			06/29/22 12:54	1
tert-Butylbenzene	ND		1.00		ug/L			06/29/22 12:54	1
Carbon disulfide	ND		2.00		ug/L			06/29/22 12:54	1
Carbon tetrachloride	ND		1.00		ug/L			06/29/22 12:54	1
Chlorobenzene	ND		1.00		ug/L			06/29/22 12:54	1
Chloroethane	ND		2.00		ug/L			06/29/22 12:54	1
Chloroform	ND		1.00		ug/L			06/29/22 12:54	1
Chloromethane	ND		2.00		ug/L			06/29/22 12:54	1
2-Chlorotoluene	ND		1.00		ug/L			06/29/22 12:54	1
4-Chlorotoluene	ND		1.00		ug/L			06/29/22 12:54	1

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

Lab Sample ID: MB 620-12474/7
Matrix: Water
Analysis Batch: 12474

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	ND		2.00		ug/L			06/29/22 12:54	1
Dibromochloromethane	ND		0.500		ug/L			06/29/22 12:54	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			06/29/22 12:54	1
Dibromomethane	ND		1.00		ug/L			06/29/22 12:54	1
1,2-Dichlorobenzene	ND		1.00		ug/L			06/29/22 12:54	1
1,3-Dichlorobenzene	ND		1.00		ug/L			06/29/22 12:54	1
1,4-Dichlorobenzene	ND		1.00		ug/L			06/29/22 12:54	1
Dichlorodifluoromethane (Freon 12)	ND		2.00		ug/L			06/29/22 12:54	1
1,1-Dichloroethane	ND		1.00		ug/L			06/29/22 12:54	1
1,2-Dichloroethane	ND		1.00		ug/L			06/29/22 12:54	1
1,1-Dichloroethene	ND		1.00		ug/L			06/29/22 12:54	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 12:54	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 12:54	1
1,2-Dichloropropane	ND		1.00		ug/L			06/29/22 12:54	1
1,3-Dichloropropane	ND		1.00		ug/L			06/29/22 12:54	1
2,2-Dichloropropane	ND		1.00		ug/L			06/29/22 12:54	1
1,1-Dichloropropene	ND		1.00		ug/L			06/29/22 12:54	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 12:54	1
trans-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 12:54	1
Ethylbenzene	ND		1.00		ug/L			06/29/22 12:54	1
Hexachlorobutadiene	ND		1.00		ug/L			06/29/22 12:54	1
2-Hexanone (MBK)	ND		2.00		ug/L			06/29/22 12:54	1
Isopropylbenzene	ND		1.00		ug/L			06/29/22 12:54	1
4-Isopropyltoluene	ND		1.00		ug/L			06/29/22 12:54	1
Methyl tert-butyl ether	ND		1.00		ug/L			06/29/22 12:54	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			06/29/22 12:54	1
Methylene Chloride	ND		2.00		ug/L			06/29/22 12:54	1
Naphthalene	ND		2.00		ug/L			06/29/22 12:54	1
N-Propylbenzene	ND		1.00		ug/L			06/29/22 12:54	1
Styrene	ND		1.00		ug/L			06/29/22 12:54	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L			06/29/22 12:54	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			06/29/22 12:54	1
Tetrachloroethene	ND		1.00		ug/L			06/29/22 12:54	1
Toluene	ND		1.00		ug/L			06/29/22 12:54	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			06/29/22 12:54	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			06/29/22 12:54	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			06/29/22 12:54	1
1,1,1-Trichloroethane	ND		1.00		ug/L			06/29/22 12:54	1
1,1,2-Trichloroethane	ND		1.00		ug/L			06/29/22 12:54	1
Trichloroethene	ND		1.00		ug/L			06/29/22 12:54	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			06/29/22 12:54	1
1,2,3-Trichloropropane	ND		1.00		ug/L			06/29/22 12:54	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			06/29/22 12:54	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			06/29/22 12:54	1
Vinyl chloride	ND		1.00		ug/L			06/29/22 12:54	1
m,p-Xylene	ND		1.00		ug/L			06/29/22 12:54	1
o-Xylene	ND		1.00		ug/L			06/29/22 12:54	1
Tetrahydrofuran	ND		2.00		ug/L			06/29/22 12:54	1
Ethyl ether	ND		1.00		ug/L			06/29/22 12:54	1

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

Lab Sample ID: MB 620-12474/7
Matrix: Water
Analysis Batch: 12474

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-amyl methyl ether	ND		1.00		ug/L			06/29/22 12:54	1
Tert-butyl ethyl ether	ND		1.00		ug/L			06/29/22 12:54	1
di-Isopropyl ether	ND		1.00		ug/L			06/29/22 12:54	1
tert-Butyl alcohol	ND		10.0		ug/L			06/29/22 12:54	1
1,4-Dioxane	ND		50.0		ug/L			06/29/22 12:54	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			06/29/22 12:54	1
Ethanol	ND		200		ug/L			06/29/22 12:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*06/29/22 12:54*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*06/29/22 12:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*06/29/22 12:54*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*06/29/22 12:54*	*1*

Lab Sample ID: LCS 620-12474/4
Matrix: Water
Analysis Batch: 12474

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichlorotrifluoroethane (Freon 113)	17.0	16.20		ug/L		95	85 - 124
Acetone	17.0	13.02		ug/L		77	14 - 133
Acrylonitrile	17.0	18.11		ug/L		107	62 - 134
Benzene	17.0	15.00		ug/L		88	86 - 111
Bromobenzene	17.0	15.89		ug/L		93	82 - 120
Bromochloromethane	17.0	15.24		ug/L		90	83 - 123
Bromodichloromethane	17.0	16.51		ug/L		97	83 - 137
Bromoform	17.0	16.14		ug/L		95	91 - 137
Bromomethane	17.0	7.129		ug/L		42	29 - 148
2-Butanone (MEK)	17.0	16.34		ug/L		96	10 - 200
n-Butylbenzene	17.0	18.39		ug/L		108	85 - 138
sec-Butylbenzene	17.0	16.79		ug/L		99	75 - 118
tert-Butylbenzene	17.0	16.97		ug/L		100	85 - 122
Carbon disulfide	17.0	17.12		ug/L		101	69 - 150
Carbon tetrachloride	17.0	14.84		ug/L		87	84 - 123
Chlorobenzene	17.0	15.38	*-	ug/L		90	93 - 115
Chloroethane	17.0	13.08		ug/L		77	56 - 155
Chloroform	17.0	15.09		ug/L		89	84 - 116
Chloromethane	17.0	11.55		ug/L		68	45 - 138
2-Chlorotoluene	17.0	16.48		ug/L		97	88 - 116
4-Chlorotoluene	17.0	16.08		ug/L		95	81 - 128
1,2-Dibromo-3-Chloropropane	17.0	16.45		ug/L		97	70 - 139
Dibromochloromethane	17.0	17.17		ug/L		101	83 - 132
1,2-Dibromoethane (EDB)	17.0	16.69		ug/L		98	82 - 125
Dibromomethane	17.0	15.54		ug/L		91	80 - 125
1,2-Dichlorobenzene	17.0	16.78		ug/L		99	84 - 128
1,3-Dichlorobenzene	17.0	16.20		ug/L		95	85 - 120
1,4-Dichlorobenzene	17.0	15.52		ug/L		91	86 - 116

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

Lab Sample ID: LCS 620-12474/4
Matrix: Water
Analysis Batch: 12474

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorodifluoromethane (Freon 12)	17.0	6.827		ug/L		40	36 - 131
1,1-Dichloroethane	17.0	15.41		ug/L		91	81 - 120
1,2-Dichloroethane	17.0	14.55		ug/L		86	82 - 116
1,1-Dichloroethene	17.0	15.95		ug/L		94	83 - 120
cis-1,2-Dichloroethene	17.0	16.31		ug/L		96	81 - 124
trans-1,2-Dichloroethene	17.0	16.29		ug/L		96	81 - 127
1,2-Dichloropropane	17.0	16.62		ug/L		98	76 - 132
1,3-Dichloropropane	17.0	15.32		ug/L		90	74 - 122
2,2-Dichloropropane	17.0	15.42		ug/L		91	77 - 130
1,1-Dichloropropene	17.0	14.90		ug/L		88	81 - 115
cis-1,3-Dichloropropene	17.0	15.98		ug/L		94	74 - 129
trans-1,3-Dichloropropene	17.0	16.45		ug/L		97	78 - 126
Ethylbenzene	17.0	15.88		ug/L		93	89 - 117
Hexachlorobutadiene	17.0	16.53		ug/L		97	77 - 118
2-Hexanone (MBK)	17.0	13.49		ug/L		79	37 - 123
Isopropylbenzene	17.0	15.46		ug/L		91	83 - 117
4-Isopropyltoluene	17.0	16.74		ug/L		98	83 - 124
Methyl tert-butyl ether	17.0	14.99		ug/L		88	70 - 126
4-Methyl-2-pentanone (MIBK)	17.0	15.77		ug/L		93	59 - 118
Methylene Chloride	17.0	14.71		ug/L		87	75 - 121
Naphthalene	17.0	19.50		ug/L		115	67 - 123
N-Propylbenzene	17.0	17.25		ug/L		101	84 - 128
Styrene	17.0	16.68		ug/L		98	78 - 127
1,1,1,2-Tetrachloroethane	17.0	15.17	*-	ug/L		89	91 - 118
1,1,2,2-Tetrachloroethane	17.0	15.64		ug/L		92	77 - 129
Tetrachloroethene	17.0	16.09		ug/L		95	85 - 116
Toluene	17.0	15.80		ug/L		93	88 - 109
1,2,3-Trichlorobenzene	17.0	18.37		ug/L		108	67 - 134
1,2,4-Trichlorobenzene	17.0	18.23		ug/L		107	78 - 133
1,3,5-Trichlorobenzene	17.0	17.40		ug/L		102	77 - 127
1,1,1-Trichloroethane	17.0	15.49		ug/L		91	83 - 124
1,1,2-Trichloroethane	17.0	16.84		ug/L		99	84 - 132
Trichloroethene	17.0	15.15		ug/L		89	74 - 118
Trichlorofluoromethane (Freon 11)	17.0	14.64		ug/L		86	82 - 126
1,2,3-Trichloropropane	17.0	15.37		ug/L		90	77 - 124
1,2,4-Trimethylbenzene	17.0	17.35		ug/L		102	89 - 126
1,3,5-Trimethylbenzene	17.0	16.92		ug/L		100	89 - 125
Vinyl chloride	17.0	11.34		ug/L		67	62 - 130
m,p-Xylene	34.0	33.91		ug/L		100	85 - 123
o-Xylene	17.0	16.16		ug/L		95	85 - 119
Tetrahydrofuran	17.0	15.07		ug/L		89	60 - 133
Ethyl ether	17.0	14.39		ug/L		85	69 - 122
Tert-amyl methyl ether	17.0	14.85		ug/L		87	50 - 140
Tert-butyl ethyl ether	17.0	14.93		ug/L		88	60 - 131
di-Isopropyl ether	17.0	14.66		ug/L		86	67 - 125
tert-Butyl alcohol	170	168.4		ug/L		99	50 - 169
1,4-Dioxane	170	160.1		ug/L		94	28 - 150

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

Lab Sample ID: LCS 620-12474/4
Matrix: Water
Analysis Batch: 12474

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
trans-1,4-Dichloro-2-butene			17.0	16.13		ug/L		95	48 - 153		
Ethanol			340	294.7		ug/L		87	47 - 170		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 620-12474/5
Matrix: Water
Analysis Batch: 12474

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
1,1,2-Trichlorotrifluoroethane (Freon 113)			17.0	16.47		ug/L		97	85 - 124	2	20
Acetone			17.0	13.17		ug/L		77	14 - 133	1	20
Acrylonitrile			17.0	17.89		ug/L		105	62 - 134	1	20
Benzene			17.0	15.27		ug/L		90	86 - 111	2	20
Bromobenzene			17.0	15.82		ug/L		93	82 - 120	0	20
Bromochloromethane			17.0	15.64		ug/L		92	83 - 123	3	20
Bromodichloromethane			17.0	17.09		ug/L		101	83 - 137	3	20
Bromoform			17.0	16.28		ug/L		96	91 - 137	1	20
Bromomethane			17.0	7.319		ug/L		43	29 - 148	3	20
2-Butanone (MEK)			17.0	17.11		ug/L		101	10 - 200	5	20
n-Butylbenzene			17.0	18.35		ug/L		108	85 - 138	0	20
sec-Butylbenzene			17.0	16.74		ug/L		98	75 - 118	0	20
tert-Butylbenzene			17.0	17.34		ug/L		102	85 - 122	2	20
Carbon disulfide			17.0	17.37		ug/L		102	69 - 150	1	20
Carbon tetrachloride			17.0	15.21		ug/L		89	84 - 123	2	20
Chlorobenzene			17.0	15.53	*-	ug/L		91	93 - 115	1	20
Chloroethane			17.0	13.34		ug/L		78	56 - 155	2	20
Chloroform			17.0	15.22		ug/L		90	84 - 116	1	20
Chloromethane			17.0	11.31		ug/L		67	45 - 138	2	20
2-Chlorotoluene			17.0	16.42		ug/L		97	88 - 116	0	20
4-Chlorotoluene			17.0	16.33		ug/L		96	81 - 128	2	20
1,2-Dibromo-3-Chloropropane			17.0	16.62		ug/L		98	70 - 139	1	20
Dibromochloromethane			17.0	17.53		ug/L		103	83 - 132	2	20
1,2-Dibromoethane (EDB)			17.0	17.37		ug/L		102	82 - 125	4	20
Dibromomethane			17.0	15.28		ug/L		90	80 - 125	2	20
1,2-Dichlorobenzene			17.0	16.70		ug/L		98	84 - 128	0	20
1,3-Dichlorobenzene			17.0	15.93		ug/L		94	85 - 120	2	20
1,4-Dichlorobenzene			17.0	15.64		ug/L		92	86 - 116	1	20
Dichlorodifluoromethane (Freon 12)			17.0	6.775		ug/L		40	36 - 131	1	20
1,1-Dichloroethane			17.0	15.61		ug/L		92	81 - 120	1	20
1,2-Dichloroethane			17.0	15.03		ug/L		88	82 - 116	3	20
1,1-Dichloroethene			17.0	16.35		ug/L		96	83 - 120	2	20
cis-1,2-Dichloroethene			17.0	16.39		ug/L		96	81 - 124	1	20

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

Lab Sample ID: LCSD 620-12474/5
Matrix: Water
Analysis Batch: 12474

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
trans-1,2-Dichloroethene			17.0	16.66		ug/L		98	81 - 127	2	20
1,2-Dichloropropane			17.0	16.43		ug/L		97	76 - 132	1	20
1,3-Dichloropropane			17.0	15.82		ug/L		93	74 - 122	3	20
2,2-Dichloropropane			17.0	15.70		ug/L		92	77 - 130	2	20
1,1-Dichloropropene			17.0	15.00		ug/L		88	81 - 115	1	20
cis-1,3-Dichloropropene			17.0	16.38		ug/L		96	74 - 129	2	20
trans-1,3-Dichloropropene			17.0	16.84		ug/L		99	78 - 126	2	20
Ethylbenzene			17.0	15.81		ug/L		93	89 - 117	0	20
Hexachlorobutadiene			17.0	16.35		ug/L		96	77 - 118	1	20
2-Hexanone (MBK)			17.0	14.12		ug/L		83	37 - 123	5	20
Isopropylbenzene			17.0	15.44		ug/L		91	83 - 117	0	20
4-Isopropyltoluene			17.0	16.67		ug/L		98	83 - 124	0	20
Methyl tert-butyl ether			17.0	15.78		ug/L		93	70 - 126	5	20
4-Methyl-2-pentanone (MIBK)			17.0	16.39		ug/L		96	59 - 118	4	20
Methylene Chloride			17.0	15.19		ug/L		89	75 - 121	3	20
Naphthalene			17.0	19.92		ug/L		117	67 - 123	2	20
N-Propylbenzene			17.0	17.28		ug/L		102	84 - 128	0	20
Styrene			17.0	16.69		ug/L		98	78 - 127	0	20
1,1,1,2-Tetrachloroethane			17.0	15.20	*-	ug/L		89	91 - 118	0	20
1,1,2,2-Tetrachloroethane			17.0	15.93		ug/L		94	77 - 129	2	20
Tetrachloroethene			17.0	16.30		ug/L		96	85 - 116	1	20
Toluene			17.0	16.01		ug/L		94	88 - 109	1	20
1,2,3-Trichlorobenzene			17.0	18.63		ug/L		110	67 - 134	1	20
1,2,4-Trichlorobenzene			17.0	18.25		ug/L		107	78 - 133	0	20
1,3,5-Trichlorobenzene			17.0	17.46		ug/L		103	77 - 127	0	20
1,1,1-Trichloroethane			17.0	15.70		ug/L		92	83 - 124	1	20
1,1,2-Trichloroethane			17.0	17.48		ug/L		103	84 - 132	4	20
Trichloroethene			17.0	15.40		ug/L		91	74 - 118	2	20
Trichlorofluoromethane (Freon 11)			17.0	14.81		ug/L		87	82 - 126	1	20
1,2,3-Trichloropropane			17.0	15.57		ug/L		92	77 - 124	1	20
1,2,4-Trimethylbenzene			17.0	17.16		ug/L		101	89 - 126	1	20
1,3,5-Trimethylbenzene			17.0	16.99		ug/L		100	89 - 125	0	20
Vinyl chloride			17.0	11.12		ug/L		65	62 - 130	2	20
m,p-Xylene			34.0	34.04		ug/L		100	85 - 123	0	20
o-Xylene			17.0	16.24		ug/L		96	85 - 119	0	20
Tetrahydrofuran			17.0	15.12		ug/L		89	60 - 133	0	20
Ethyl ether			17.0	14.98		ug/L		88	69 - 122	4	20
Tert-amyl methyl ether			17.0	14.72		ug/L		87	50 - 140	1	20
Tert-butyl ethyl ether			17.0	14.98		ug/L		88	60 - 131	0	20
di-Isopropyl ether			17.0	15.04		ug/L		88	67 - 125	3	20
tert-Butyl alcohol			170	167.8		ug/L		99	50 - 169	0	20
1,4-Dioxane			170	179.4		ug/L		106	28 - 150	11	20
trans-1,4-Dichloro-2-butene			17.0	16.73		ug/L		98	48 - 153	4	20
Ethanol			340	357.8		ug/L		105	47 - 170	19	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*

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

Lab Sample ID: LCSD 620-12474/5
Matrix: Water
Analysis Batch: 12474

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*103*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*
Dibromofluoromethane (Surr)	*101*		*70 - 130*

Lab Sample ID: MB 620-12494/7
Matrix: Water
Analysis Batch: 12494

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		1.00		ug/L			06/29/22 22:43	1
Acetone	ND		10.0		ug/L			06/29/22 22:43	1
Acrylonitrile	ND		0.500		ug/L			06/29/22 22:43	1
Benzene	ND		1.00		ug/L			06/29/22 22:43	1
Bromobenzene	ND		1.00		ug/L			06/29/22 22:43	1
Bromochloromethane	ND		1.00		ug/L			06/29/22 22:43	1
Bromodichloromethane	ND		0.500		ug/L			06/29/22 22:43	1
Bromoform	ND		1.00		ug/L			06/29/22 22:43	1
Bromomethane	ND		2.00		ug/L			06/29/22 22:43	1
2-Butanone (MEK)	ND		2.00		ug/L			06/29/22 22:43	1
n-Butylbenzene	ND		1.00		ug/L			06/29/22 22:43	1
sec-Butylbenzene	ND		1.00		ug/L			06/29/22 22:43	1
tert-Butylbenzene	ND		1.00		ug/L			06/29/22 22:43	1
Carbon disulfide	ND		2.00		ug/L			06/29/22 22:43	1
Carbon tetrachloride	ND		1.00		ug/L			06/29/22 22:43	1
Chlorobenzene	ND		1.00		ug/L			06/29/22 22:43	1
Chloroethane	ND		2.00		ug/L			06/29/22 22:43	1
Chloroform	ND		1.00		ug/L			06/29/22 22:43	1
Chloromethane	ND		2.00		ug/L			06/29/22 22:43	1
2-Chlorotoluene	ND		1.00		ug/L			06/29/22 22:43	1
4-Chlorotoluene	ND		1.00		ug/L			06/29/22 22:43	1
1,2-Dibromo-3-Chloropropane	ND		2.00		ug/L			06/29/22 22:43	1
Dibromochloromethane	ND		0.500		ug/L			06/29/22 22:43	1
1,2-Dibromoethane (EDB)	ND		0.500		ug/L			06/29/22 22:43	1
Dibromomethane	ND		1.00		ug/L			06/29/22 22:43	1
1,2-Dichlorobenzene	ND		1.00		ug/L			06/29/22 22:43	1
1,3-Dichlorobenzene	ND		1.00		ug/L			06/29/22 22:43	1
1,4-Dichlorobenzene	ND		1.00		ug/L			06/29/22 22:43	1
Dichlorodifluoromethane (Freon 12)	ND		2.00		ug/L			06/29/22 22:43	1
1,1-Dichloroethane	ND		1.00		ug/L			06/29/22 22:43	1
1,2-Dichloroethane	ND		1.00		ug/L			06/29/22 22:43	1
1,1-Dichloroethene	ND		1.00		ug/L			06/29/22 22:43	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 22:43	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			06/29/22 22:43	1
1,2-Dichloropropane	ND		1.00		ug/L			06/29/22 22:43	1
1,3-Dichloropropane	ND		1.00		ug/L			06/29/22 22:43	1
2,2-Dichloropropane	ND		1.00		ug/L			06/29/22 22:43	1
1,1-Dichloropropene	ND		1.00		ug/L			06/29/22 22:43	1
cis-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 22:43	1

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

Lab Sample ID: MB 620-12494/7
Matrix: Water
Analysis Batch: 12494

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		0.500		ug/L			06/29/22 22:43	1
Ethylbenzene	ND		1.00		ug/L			06/29/22 22:43	1
Hexachlorobutadiene	ND		1.00		ug/L			06/29/22 22:43	1
2-Hexanone (MBK)	ND		2.00		ug/L			06/29/22 22:43	1
Isopropylbenzene	ND		1.00		ug/L			06/29/22 22:43	1
4-Isopropyltoluene	ND		1.00		ug/L			06/29/22 22:43	1
Methyl tert-butyl ether	ND		1.00		ug/L			06/29/22 22:43	1
4-Methyl-2-pentanone (MIBK)	ND		2.00		ug/L			06/29/22 22:43	1
Methylene Chloride	ND		2.00		ug/L			06/29/22 22:43	1
Naphthalene	ND		2.00		ug/L			06/29/22 22:43	1
N-Propylbenzene	ND		1.00		ug/L			06/29/22 22:43	1
Styrene	ND		1.00		ug/L			06/29/22 22:43	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L			06/29/22 22:43	1
1,1,2,2-Tetrachloroethane	ND		0.500		ug/L			06/29/22 22:43	1
Tetrachloroethene	ND		1.00		ug/L			06/29/22 22:43	1
Toluene	ND		1.00		ug/L			06/29/22 22:43	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			06/29/22 22:43	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			06/29/22 22:43	1
1,3,5-Trichlorobenzene	ND		1.00		ug/L			06/29/22 22:43	1
1,1,1-Trichloroethane	ND		1.00		ug/L			06/29/22 22:43	1
1,1,2-Trichloroethane	ND		1.00		ug/L			06/29/22 22:43	1
Trichloroethene	ND		1.00		ug/L			06/29/22 22:43	1
Trichlorofluoromethane (Freon 11)	ND		1.00		ug/L			06/29/22 22:43	1
1,2,3-Trichloropropane	ND		1.00		ug/L			06/29/22 22:43	1
1,2,4-Trimethylbenzene	ND		1.00		ug/L			06/29/22 22:43	1
1,3,5-Trimethylbenzene	ND		1.00		ug/L			06/29/22 22:43	1
Vinyl chloride	ND		1.00		ug/L			06/29/22 22:43	1
m,p-Xylene	ND		1.00		ug/L			06/29/22 22:43	1
o-Xylene	ND		1.00		ug/L			06/29/22 22:43	1
Tetrahydrofuran	ND		2.00		ug/L			06/29/22 22:43	1
Ethyl ether	ND		1.00		ug/L			06/29/22 22:43	1
Tert-amyl methyl ether	ND		1.00		ug/L			06/29/22 22:43	1
Tert-butyl ethyl ether	ND		1.00		ug/L			06/29/22 22:43	1
di-Isopropyl ether	ND		1.00		ug/L			06/29/22 22:43	1
tert-Butyl alcohol	ND		10.0		ug/L			06/29/22 22:43	1
1,4-Dioxane	ND		50.0		ug/L			06/29/22 22:43	1
trans-1,4-Dichloro-2-butene	ND		5.00		ug/L			06/29/22 22:43	1
Ethanol	ND		200		ug/L			06/29/22 22:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*06/29/22 22:43*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/29/22 22:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*06/29/22 22:43*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*06/29/22 22:43*	*1*

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

Lab Sample ID: LCS 620-12494/4
Matrix: Water
Analysis Batch: 12494

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichlorotrifluoroethane (Freon 113)	20.0	22.81		ug/L		114	85 - 124
Acetone	20.0	10.98		ug/L		55	14 - 133
Acrylonitrile	20.0	22.14		ug/L		111	62 - 134
Benzene	20.0	20.68		ug/L		103	86 - 111
Bromobenzene	20.0	20.87		ug/L		104	82 - 120
Bromochloromethane	20.0	21.71		ug/L		109	83 - 123
Bromodichloromethane	20.0	23.65		ug/L		118	83 - 137
Bromoform	20.0	21.10		ug/L		105	91 - 137
Bromomethane	20.0	16.98		ug/L		85	29 - 148
2-Butanone (MEK)	20.0	23.68		ug/L		118	10 - 200
n-Butylbenzene	20.0	24.35		ug/L		122	85 - 138
sec-Butylbenzene	20.0	22.38		ug/L		112	75 - 118
tert-Butylbenzene	20.0	23.01		ug/L		115	85 - 122
Carbon disulfide	20.0	24.26		ug/L		121	69 - 150
Carbon tetrachloride	20.0	20.64		ug/L		103	84 - 123
Chlorobenzene	20.0	20.64		ug/L		103	93 - 115
Chloroethane	20.0	18.97		ug/L		95	56 - 155
Chloroform	20.0	20.80		ug/L		104	84 - 116
Chloromethane	20.0	16.55		ug/L		83	45 - 138
2-Chlorotoluene	20.0	21.91		ug/L		110	88 - 116
4-Chlorotoluene	20.0	21.91		ug/L		110	81 - 128
1,2-Dibromo-3-Chloropropane	20.0	19.90		ug/L		100	70 - 139
Dibromochloromethane	20.0	23.27		ug/L		116	83 - 132
1,2-Dibromoethane (EDB)	20.0	21.92		ug/L		110	82 - 125
Dibromomethane	20.0	21.44		ug/L		107	80 - 125
1,2-Dichlorobenzene	20.0	22.79		ug/L		114	84 - 128
1,3-Dichlorobenzene	20.0	21.37		ug/L		107	85 - 120
1,4-Dichlorobenzene	20.0	21.15		ug/L		106	86 - 116
Dichlorodifluoromethane (Freon 12)	20.0	10.62		ug/L		53	36 - 131
1,1-Dichloroethane	20.0	21.20		ug/L		106	81 - 120
1,2-Dichloroethane	20.0	20.01		ug/L		100	82 - 116
1,1-Dichloroethene	20.0	22.34		ug/L		112	83 - 120
cis-1,2-Dichloroethene	20.0	22.86		ug/L		114	81 - 124
trans-1,2-Dichloroethene	20.0	22.66		ug/L		113	81 - 127
1,2-Dichloropropane	20.0	22.83		ug/L		114	76 - 132
1,3-Dichloropropane	20.0	20.39		ug/L		102	74 - 122
2,2-Dichloropropane	20.0	19.65		ug/L		98	77 - 130
1,1-Dichloropropene	20.0	20.09		ug/L		100	81 - 115
cis-1,3-Dichloropropene	20.0	21.46		ug/L		107	74 - 129
trans-1,3-Dichloropropene	20.0	21.80		ug/L		109	78 - 126
Ethylbenzene	20.0	21.32		ug/L		107	89 - 117
Hexachlorobutadiene	20.0	20.87		ug/L		104	77 - 118
2-Hexanone (MBK)	20.0	15.51		ug/L		78	37 - 123
Isopropylbenzene	20.0	20.44		ug/L		102	83 - 117
4-Isopropyltoluene	20.0	22.07		ug/L		110	83 - 124
Methyl tert-butyl ether	20.0	20.04		ug/L		100	70 - 126
4-Methyl-2-pentanone (MIBK)	20.0	18.93		ug/L		95	59 - 118

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

Lab Sample ID: LCS 620-12494/4
Matrix: Water
Analysis Batch: 12494

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	20.0	21.21		ug/L		106	75 - 121
Naphthalene	20.0	23.19		ug/L		116	67 - 123
N-Propylbenzene	20.0	23.38		ug/L		117	84 - 128
Styrene	20.0	22.59		ug/L		113	78 - 127
1,1,1,2-Tetrachloroethane	20.0	20.51		ug/L		103	91 - 118
1,1,2,2-Tetrachloroethane	20.0	19.93		ug/L		100	77 - 129
Tetrachloroethene	20.0	21.38		ug/L		107	85 - 116
Toluene	20.0	21.38		ug/L		107	88 - 109
1,2,3-Trichlorobenzene	20.0	23.09		ug/L		115	67 - 134
1,2,4-Trichlorobenzene	20.0	22.59		ug/L		113	78 - 133
1,3,5-Trichlorobenzene	20.0	22.58		ug/L		113	77 - 127
1,1,1-Trichloroethane	20.0	21.07		ug/L		105	83 - 124
1,1,2-Trichloroethane	20.0	22.59		ug/L		113	84 - 132
Trichloroethene	20.0	20.63		ug/L		103	74 - 118
Trichlorofluoromethane (Freon 11)	20.0	21.17		ug/L		106	82 - 126
1,2,3-Trichloropropane	20.0	19.29		ug/L		96	77 - 124
1,2,4-Trimethylbenzene	20.0	23.04		ug/L		115	89 - 126
1,3,5-Trimethylbenzene	20.0	22.58		ug/L		113	89 - 125
Vinyl chloride	20.0	17.86		ug/L		89	62 - 130
m,p-Xylene	40.0	45.62		ug/L		114	85 - 123
o-Xylene	20.0	21.92		ug/L		110	85 - 119
Tetrahydrofuran	20.0	18.64		ug/L		93	60 - 133
Ethyl ether	20.0	19.79		ug/L		99	69 - 122
Tert-amyl methyl ether	20.0	19.21		ug/L		96	50 - 140
Tert-butyl ethyl ether	20.0	19.77		ug/L		99	60 - 131
di-Isopropyl ether	20.0	20.10		ug/L		101	67 - 125
tert-Butyl alcohol	200	197.3		ug/L		99	50 - 169
1,4-Dioxane	200	186.4		ug/L		93	28 - 150
trans-1,4-Dichloro-2-butene	20.0	19.81		ug/L		99	48 - 153
Ethanol	400	401.3		ug/L		100	47 - 170

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*
Dibromofluoromethane (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 620-12494/5
Matrix: Water
Analysis Batch: 12494

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
1,1,2-Trichlorotrifluoroethane (Freon 113)	20.0	22.60		ug/L		113	85 - 124	1	20
Acetone	20.0	12.13		ug/L		61	14 - 133	10	20
Acrylonitrile	20.0	22.08		ug/L		110	62 - 134	0	20
Benzene	20.0	20.27		ug/L		101	86 - 111	2	20
Bromobenzene	20.0	20.97		ug/L		105	82 - 120	1	20

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

Lab Sample ID: LCSD 620-12494/5
Matrix: Water
Analysis Batch: 12494

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
Bromochloromethane	20.0	21.06		ug/L		105	83 - 123	3	20
Bromodichloromethane	20.0	23.24		ug/L		116	83 - 137	2	20
Bromoform	20.0	21.37		ug/L		107	91 - 137	1	20
Bromomethane	20.0	16.27		ug/L		81	29 - 148	4	20
2-Butanone (MEK)	20.0	22.95		ug/L		115	10 - 200	3	20
n-Butylbenzene	20.0	24.36		ug/L		122	85 - 138	0	20
sec-Butylbenzene	20.0	22.38		ug/L		112	75 - 118	0	20
tert-Butylbenzene	20.0	22.53		ug/L		113	85 - 122	2	20
Carbon disulfide	20.0	23.80		ug/L		119	69 - 150	2	20
Carbon tetrachloride	20.0	20.33		ug/L		102	84 - 123	1	20
Chlorobenzene	20.0	20.50		ug/L		103	93 - 115	1	20
Chloroethane	20.0	18.37		ug/L		92	56 - 155	3	20
Chloroform	20.0	20.28		ug/L		101	84 - 116	3	20
Chloromethane	20.0	16.37		ug/L		82	45 - 138	1	20
2-Chlorotoluene	20.0	21.92		ug/L		110	88 - 116	0	20
4-Chlorotoluene	20.0	21.55		ug/L		108	81 - 128	2	20
1,2-Dibromo-3-Chloropropane	20.0	20.51		ug/L		103	70 - 139	3	20
Dibromochloromethane	20.0	23.34		ug/L		117	83 - 132	0	20
1,2-Dibromoethane (EDB)	20.0	22.00		ug/L		110	82 - 125	0	20
Dibromomethane	20.0	21.14		ug/L		106	80 - 125	1	20
1,2-Dichlorobenzene	20.0	22.54		ug/L		113	84 - 128	1	20
1,3-Dichlorobenzene	20.0	21.50		ug/L		108	85 - 120	1	20
1,4-Dichlorobenzene	20.0	20.94		ug/L		105	86 - 116	1	20
Dichlorodifluoromethane (Freon 12)	20.0	10.40		ug/L		52	36 - 131	2	20
1,1-Dichloroethane	20.0	20.64		ug/L		103	81 - 120	3	20
1,2-Dichloroethane	20.0	20.00		ug/L		100	82 - 116	0	20
1,1-Dichloroethene	20.0	22.27		ug/L		111	83 - 120	0	20
cis-1,2-Dichloroethene	20.0	21.97		ug/L		110	81 - 124	4	20
trans-1,2-Dichloroethene	20.0	22.29		ug/L		111	81 - 127	2	20
1,2-Dichloropropane	20.0	22.52		ug/L		113	76 - 132	1	20
1,3-Dichloropropane	20.0	20.25		ug/L		101	74 - 122	1	20
2,2-Dichloropropane	20.0	19.09		ug/L		95	77 - 130	3	20
1,1-Dichloropropene	20.0	20.25		ug/L		101	81 - 115	1	20
cis-1,3-Dichloropropene	20.0	21.18		ug/L		106	74 - 129	1	20
trans-1,3-Dichloropropene	20.0	22.10		ug/L		110	78 - 126	1	20
Ethylbenzene	20.0	21.19		ug/L		106	89 - 117	1	20
Hexachlorobutadiene	20.0	21.37		ug/L		107	77 - 118	2	20
2-Hexanone (MBK)	20.0	16.21		ug/L		81	37 - 123	4	20
Isopropylbenzene	20.0	20.40		ug/L		102	83 - 117	0	20
4-Isopropyltoluene	20.0	22.20		ug/L		111	83 - 124	1	20
Methyl tert-butyl ether	20.0	20.01		ug/L		100	70 - 126	0	20
4-Methyl-2-pentanone (MIBK)	20.0	19.30		ug/L		97	59 - 118	2	20
Methylene Chloride	20.0	21.14		ug/L		106	75 - 121	0	20
Naphthalene	20.0	24.01		ug/L		120	67 - 123	3	20
N-Propylbenzene	20.0	23.40		ug/L		117	84 - 128	0	20
Styrene	20.0	22.37		ug/L		112	78 - 127	1	20
1,1,1,2-Tetrachloroethane	20.0	20.46		ug/L		102	91 - 118	0	20
1,1,2,2-Tetrachloroethane	20.0	20.10		ug/L		101	77 - 129	1	20

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

Lab Sample ID: LCSD 620-12494/5
Matrix: Water
Analysis Batch: 12494

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
Tetrachloroethene			20.0	20.93		ug/L		105	85 - 116	2	20
Toluene			20.0	21.06		ug/L		105	88 - 109	1	20
1,2,3-Trichlorobenzene			20.0	23.35		ug/L		117	67 - 134	1	20
1,2,4-Trichlorobenzene			20.0	22.91		ug/L		115	78 - 133	1	20
1,3,5-Trichlorobenzene			20.0	22.91		ug/L		115	77 - 127	1	20
1,1,1-Trichloroethane			20.0	21.02		ug/L		105	83 - 124	0	20
1,1,2-Trichloroethane			20.0	22.32		ug/L		112	84 - 132	1	20
Trichloroethene			20.0	19.53		ug/L		98	74 - 118	6	20
Trichlorofluoromethane (Freon 11)			20.0	20.77		ug/L		104	82 - 126	2	20
1,2,3-Trichloropropane			20.0	19.34		ug/L		97	77 - 124	0	20
1,2,4-Trimethylbenzene			20.0	23.06		ug/L		115	89 - 126	0	20
1,3,5-Trimethylbenzene			20.0	22.88		ug/L		114	89 - 125	1	20
Vinyl chloride			20.0	17.47		ug/L		87	62 - 130	2	20
m,p-Xylene			40.0	45.36		ug/L		113	85 - 123	1	20
o-Xylene			20.0	21.66		ug/L		108	85 - 119	1	20
Tetrahydrofuran			20.0	19.65		ug/L		98	60 - 133	5	20
Ethyl ether			20.0	19.63		ug/L		98	69 - 122	1	20
Tert-amyl methyl ether			20.0	19.18		ug/L		96	50 - 140	0	20
Tert-butyl ethyl ether			20.0	19.80		ug/L		99	60 - 131	0	20
di-Isopropyl ether			20.0	20.31		ug/L		102	67 - 125	1	20
tert-Butyl alcohol			200	198.3		ug/L		99	50 - 169	1	20
1,4-Dioxane			200	193.4		ug/L		97	28 - 150	4	20
trans-1,4-Dichloro-2-butene			20.0	19.91		ug/L		100	48 - 153	1	20
Ethanol			400	400.2		ug/L		100	47 - 170	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Lab Sample ID: MB 410-272148/1-A
Matrix: Water
Analysis Batch: 272545

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272148

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluoroheptanoic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluorooctanoic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluorononanoic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluorodecanoic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluorotridecanoic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluorotetradecanoic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluorobutanesulfonic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluorohexanesulfonic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluorooctanesulfonic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Lab Sample ID: MB 410-272148/1-A
Matrix: Water
Analysis Batch: 272545

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272148

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NEtFOSAA	ND		3.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
NMeFOSAA	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluoropentanesulfonic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluoroheptanesulfonic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluorononanesulfonic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluorodecanesulfonic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluorooctanesulfonamide	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluorobutanoic acid	ND		5.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluoropentanoic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluoroundecanoic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
Perfluorododecanoic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
6:2 Fluorotelomer sulfonic acid	ND		5.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
8:2 Fluorotelomer sulfonic acid	ND		3.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
4:2 Fluorotelomer sulfonic acid	ND		2.00		ng/L		07/05/22 08:31	07/06/22 16:58	1
NMeFOSA	ND		3.00		ng/L		07/05/22 08:31	07/06/22 16:58	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*115*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
M2-8:2 FTS	*114*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
M2-6:2 FTS	*114*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
13C5 PFHxA	*108*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
13C4 PFHpA	*106*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
13C8 PFOA	*110*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
13C9 PFNA	*112*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
13C6 PFDA	*112*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
13C7 PFUnA	*111*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
13C2-PFDoDA	*105*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
13C2 PFTeDA	*96*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
13C3 PFBS	*99*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
13C3 PFHxS	*105*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
13C8 PFOS	*106*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
d3-NMeFOSAA	*107*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
d5-NEtFOSAA	*103*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
13C8 FOSA	*104*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
13C4 PFBA	*106*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
13C5 PFPeA	*104*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*
d3-NMePFOSA	*61*		*50 - 150*	*07/05/22 08:31*	*07/06/22 16:58*	*1*

Lab Sample ID: LCS 410-272148/3-A
Matrix: Water
Analysis Batch: 272545

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272148

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid	25.6	22.73		ng/L		89	72 - 129
Perfluoroheptanoic acid	25.6	22.92		ng/L		90	72 - 130
Perfluorooctanoic acid	25.6	21.88		ng/L		85	71 - 133
Perfluorononanoic acid	25.6	23.04		ng/L		90	69 - 130
Perfluorodecanoic acid	25.6	23.97		ng/L		94	71 - 129
Perfluorotridecanoic acid	25.6	23.61		ng/L		92	65 - 144

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Lab Sample ID: LCS 410-272148/3-A
Matrix: Water
Analysis Batch: 272545

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272148

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorotetradecanoic acid			25.6	22.08		ng/L		86	71 - 132		
Perfluorobutanesulfonic acid			22.7	20.07		ng/L		89	72 - 130		
Perfluorohexanesulfonic acid			23.3	19.06		ng/L		82	68 - 131		
Perfluorooctanesulfonic acid			23.7	21.10		ng/L		89	65 - 140		
NEtFOSAA			25.6	23.76		ng/L		93	61 - 135		
NMeFOSAA			25.6	20.87		ng/L		82	65 - 136		
Perfluoropentanesulfonic acid			24.0	21.19		ng/L		88	71 - 127		
Perfluoroheptanesulfonic acid			24.4	19.56		ng/L		80	69 - 134		
Perfluorononanesulfonic acid			24.6	20.87		ng/L		85	69 - 127		
Perfluorodecanesulfonic acid			24.7	19.50		ng/L		79	53 - 142		
Perfluorooctanesulfonamide			25.6	21.14		ng/L		83	67 - 137		
Perfluorobutanoic acid			25.6	21.86		ng/L		85	73 - 129		
Perfluoropentanoic acid			25.6	22.26		ng/L		87	72 - 129		
Perfluoroundecanoic acid			25.6	22.05		ng/L		86	69 - 133		
Perfluorododecanoic acid			25.6	22.37		ng/L		87	72 - 134		
6:2 Fluorotelomer sulfonic acid			24.3	21.95		ng/L		90	64 - 140		
8:2 Fluorotelomer sulfonic acid			24.5	21.97		ng/L		90	67 - 138		
4:2 Fluorotelomer sulfonic acid			23.9	19.78		ng/L		83	63 - 143		
NMeFOSA			25.6	25.08		ng/L		98	68 - 141		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-4:2 FTS	*125*		*50 - 150*
M2-8:2 FTS	*111*		*50 - 150*
M2-6:2 FTS	*117*		*50 - 150*
13C5 PFHxA	*114*		*50 - 150*
13C4 PFHpA	*114*		*50 - 150*
13C8 PFOA	*116*		*50 - 150*
13C9 PFNA	*115*		*50 - 150*
13C6 PFDA	*117*		*50 - 150*
13C7 PFUnA	*116*		*50 - 150*
13C2-PFDoDA	*107*		*50 - 150*
13C2 PFTeDA	*105*		*50 - 150*
13C3 PFBS	*112*		*50 - 150*
13C3 PFHxS	*119*		*50 - 150*
13C8 PFOS	*110*		*50 - 150*
d3-NMeFOSAA	*114*		*50 - 150*
d5-NEtFOSAA	*107*		*50 - 150*
13C8 FOSA	*106*		*50 - 150*
13C4 PFBA	*113*		*50 - 150*
13C5 PFPeA	*111*		*50 - 150*
d3-NMePFOSA	*76*		*50 - 150*

Lab Sample ID: LCSD 410-272148/4-A
Matrix: Water
Analysis Batch: 272545

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272148

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanoic acid			25.6	21.28		ng/L		83	72 - 129	7	30
Perfluoroheptanoic acid			25.6	22.90		ng/L		89	72 - 130	0	30

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Lab Sample ID: LCSD 410-272148/4-A
Matrix: Water
Analysis Batch: 272545

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272148

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanoic acid			25.6	21.13		ng/L		83	71 - 133	4	30
Perfluorononanoic acid			25.6	22.58		ng/L		88	69 - 130	2	30
Perfluorodecanoic acid			25.6	22.63		ng/L		88	71 - 129	6	30
Perfluorotridecanoic acid			25.6	22.75		ng/L		89	65 - 144	4	30
Perfluorotetradecanoic acid			25.6	22.01		ng/L		86	71 - 132	0	30
Perfluorobutanesulfonic acid			22.7	20.35		ng/L		90	72 - 130	1	30
Perfluorohexanesulfonic acid			23.3	19.56		ng/L		84	68 - 131	3	30
Perfluorooctanesulfonic acid			23.7	20.89		ng/L		88	65 - 140	1	30
NEtFOSAA			25.6	23.94		ng/L		94	61 - 135	1	30
NMeFOSAA			25.6	19.17		ng/L		75	65 - 136	8	30
Perfluoropentanesulfonic acid			24.0	21.04		ng/L		88	71 - 127	1	30
Perfluoroheptanesulfonic acid			24.4	20.17		ng/L		83	69 - 134	3	30
Perfluorononanesulfonic acid			24.6	19.31		ng/L		79	69 - 127	8	30
Perfluorodecanesulfonic acid			24.7	20.11		ng/L		81	53 - 142	3	30
Perfluorooctanesulfonamide			25.6	22.11		ng/L		86	67 - 137	4	30
Perfluorobutanoic acid			25.6	21.73		ng/L		85	73 - 129	1	30
Perfluoropentanoic acid			25.6	21.50		ng/L		84	72 - 129	3	30
Perfluoroundecanoic acid			25.6	21.95		ng/L		86	69 - 133	0	30
Perfluorododecanoic acid			25.6	22.61		ng/L		88	72 - 134	1	30
6:2 Fluorotelomer sulfonic acid			24.3	21.17		ng/L		87	64 - 140	4	30
8:2 Fluorotelomer sulfonic acid			24.5	20.83		ng/L		85	67 - 138	5	30
4:2 Fluorotelomer sulfonic acid			23.9	19.46		ng/L		81	63 - 143	2	30
NMeFOSA			25.6	24.78		ng/L		97	68 - 141	1	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
M2-4:2 FTS	*119*		*50 - 150*
M2-8:2 FTS	*107*		*50 - 150*
M2-6:2 FTS	*109*		*50 - 150*
13C5 PFHxA	*111*		*50 - 150*
13C4 PFHpA	*106*		*50 - 150*
13C8 PFOA	*111*		*50 - 150*
13C9 PFNA	*109*		*50 - 150*
13C6 PFDA	*111*		*50 - 150*
13C7 PFUnA	*114*		*50 - 150*
13C2-PFDoDA	*103*		*50 - 150*
13C2 PFTeDA	*100*		*50 - 150*
13C3 PFBS	*105*		*50 - 150*
13C3 PFHxS	*108*		*50 - 150*
13C8 PFOS	*106*		*50 - 150*
d3-NMeFOSAA	*113*		*50 - 150*
d5-NEtFOSAA	*101*		*50 - 150*
13C8 FOSA	*103*		*50 - 150*
13C4 PFBA	*107*		*50 - 150*
13C5 PFPeA	*107*		*50 - 150*
d3-NMePFOSA	*74*		*50 - 150*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Lab Sample ID: MB 410-272227/1-A
Matrix: Water
Analysis Batch: 272994

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272227

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluoroheptanoic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluorooctanoic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluorononanoic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluorodecanoic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluorotridecanoic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluorotetradecanoic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluorobutanesulfonic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluorohexanesulfonic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluorooctanesulfonic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
NEtFOSAA	ND		3.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
NMeFOSAA	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluoropentanesulfonic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluoroheptanesulfonic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluorononanesulfonic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluorodecanesulfonic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluorooctanesulfonamide	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluorobutanoic acid	ND		5.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluoropentanoic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluoroundecanoic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
Perfluorododecanoic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
6:2 Fluorotelomer sulfonic acid	ND		5.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
8:2 Fluorotelomer sulfonic acid	ND		3.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
4:2 Fluorotelomer sulfonic acid	ND		2.00		ng/L		07/05/22 09:51	07/07/22 09:49	1
NMeFOSA	ND		3.00		ng/L		07/05/22 09:51	07/07/22 09:49	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*114*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
M2-8:2 FTS	*110*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
M2-6:2 FTS	*111*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
13C5 PFHxA	*109*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
13C4 PFHpA	*106*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
13C8 PFOA	*107*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
13C9 PFNA	*109*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
13C6 PFDA	*114*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
13C7 PFUnA	*115*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
13C2-PFDoDA	*111*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
13C2 PFTeDA	*101*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
13C3 PFBS	*108*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
13C3 PFHxS	*115*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
13C8 PFOS	*112*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
d3-NMeFOSAA	*112*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
d5-NEtFOSAA	*100*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
13C8 FOSA	*95*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
13C4 PFBA	*104*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
13C5 PFPeA	*103*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*
d3-NMePFOSA	*58*		*50 - 150*	*07/05/22 09:51*	*07/07/22 09:49*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Lab Sample ID: LCS 410-272227/2-A
Matrix: Water
Analysis Batch: 272994

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272227

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorohexanoic acid			25.6	22.44		ng/L		88	72 - 129		
Perfluoroheptanoic acid			25.6	23.76		ng/L		93	72 - 130		
Perfluorooctanoic acid			25.6	22.05		ng/L		86	71 - 133		
Perfluorononanoic acid			25.6	22.86		ng/L		89	69 - 130		
Perfluorodecanoic acid			25.6	22.91		ng/L		90	71 - 129		
Perfluorotridecanoic acid			25.6	21.97		ng/L		86	65 - 144		
Perfluorotetradecanoic acid			25.6	22.18		ng/L		87	71 - 132		
Perfluorobutanesulfonic acid			22.7	20.52		ng/L		91	72 - 130		
Perfluorohexanesulfonic acid			23.3	21.12		ng/L		90	68 - 131		
Perfluorooctanesulfonic acid			23.7	21.47		ng/L		91	65 - 140		
NEtFOSAA			25.6	24.56		ng/L		96	61 - 135		
NMeFOSAA			25.6	20.95		ng/L		82	65 - 136		
Perfluoropentanesulfonic acid			24.0	21.59		ng/L		90	71 - 127		
Perfluoroheptanesulfonic acid			24.4	21.33		ng/L		88	69 - 134		
Perfluorononanesulfonic acid			24.6	20.04		ng/L		82	69 - 127		
Perfluorodecanesulfonic acid			24.7	20.36		ng/L		82	53 - 142		
Perfluorooctanesulfonamide			25.6	22.73		ng/L		89	67 - 137		
Perfluorobutanoic acid			25.6	22.14		ng/L		86	73 - 129		
Perfluoropentanoic acid			25.6	21.98		ng/L		86	72 - 129		
Perfluoroundecanoic acid			25.6	23.80		ng/L		93	69 - 133		
Perfluorododecanoic acid			25.6	21.95		ng/L		86	72 - 134		
6:2 Fluorotelomer sulfonic acid			24.3	22.29		ng/L		92	64 - 140		
8:2 Fluorotelomer sulfonic acid			24.5	23.34		ng/L		95	67 - 138		
4:2 Fluorotelomer sulfonic acid			23.9	20.19		ng/L		84	63 - 143		
NMeFOSA			25.6	25.11		ng/L		98	68 - 141		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-4:2 FTS	*120*		*50 - 150*
M2-8:2 FTS	*102*		*50 - 150*
M2-6:2 FTS	*114*		*50 - 150*
13C5 PFHxA	*104*		*50 - 150*
13C4 PFHpA	*102*		*50 - 150*
13C8 PFOA	*108*		*50 - 150*
13C9 PFNA	*109*		*50 - 150*
13C6 PFDA	*113*		*50 - 150*
13C7 PFUnA	*111*		*50 - 150*
13C2-PFDoDA	*112*		*50 - 150*
13C2 PFTeDA	*105*		*50 - 150*
13C3 PFBS	*111*		*50 - 150*
13C3 PFHxS	*113*		*50 - 150*
13C8 PFOS	*111*		*50 - 150*
d3-NMeFOSAA	*111*		*50 - 150*
d5-NEtFOSAA	*101*		*50 - 150*
13C8 FOSA	*97*		*50 - 150*
13C4 PFBA	*102*		*50 - 150*
13C5 PFPeA	*101*		*50 - 150*
d3-NMePFOSA	*54*		*50 - 150*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Lab Sample ID: LCSD 410-272227/3-A
Matrix: Water
Analysis Batch: 272994

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272227

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanoic acid			25.6	22.72		ng/L		89	72 - 129	1	30
Perfluoroheptanoic acid			25.6	23.70		ng/L		93	72 - 130	0	30
Perfluorooctanoic acid			25.6	22.63		ng/L		88	71 - 133	3	30
Perfluorononanoic acid			25.6	23.22		ng/L		91	69 - 130	2	30
Perfluorodecanoic acid			25.6	23.07		ng/L		90	71 - 129	1	30
Perfluorotridecanoic acid			25.6	21.75		ng/L		85	65 - 144	1	30
Perfluorotetradecanoic acid			25.6	22.51		ng/L		88	71 - 132	1	30
Perfluorobutanesulfonic acid			22.7	21.08		ng/L		93	72 - 130	3	30
Perfluorohexanesulfonic acid			23.3	20.97		ng/L		90	68 - 131	1	30
Perfluorooctanesulfonic acid			23.7	21.68		ng/L		92	65 - 140	1	30
NEtFOSAA			25.6	24.98		ng/L		98	61 - 135	2	30
NMeFOSAA			25.6	20.83		ng/L		81	65 - 136	1	30
Perfluoropentanesulfonic acid			24.0	21.14		ng/L		88	71 - 127	2	30
Perfluoroheptanesulfonic acid			24.4	21.09		ng/L		87	69 - 134	1	30
Perfluorononanesulfonic acid			24.6	20.23		ng/L		82	69 - 127	1	30
Perfluorodecanesulfonic acid			24.7	20.40		ng/L		83	53 - 142	0	30
Perfluorooctanesulfonamide			25.6	22.15		ng/L		87	67 - 137	3	30
Perfluorobutanoic acid			25.6	21.87		ng/L		85	73 - 129	1	30
Perfluoropentanoic acid			25.6	21.95		ng/L		86	72 - 129	0	30
Perfluoroundecanoic acid			25.6	22.90		ng/L		89	69 - 133	4	30
Perfluorododecanoic acid			25.6	21.02		ng/L		82	72 - 134	4	30
6:2 Fluorotelomer sulfonic acid			24.3	24.42		ng/L		101	64 - 140	9	30
8:2 Fluorotelomer sulfonic acid			24.5	22.34		ng/L		91	67 - 138	4	30
4:2 Fluorotelomer sulfonic acid			23.9	19.58		ng/L		82	63 - 143	3	30
NMeFOSA			25.6	24.71		ng/L		97	68 - 141	2	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
M2-4:2 FTS	*114*		*50 - 150*
M2-8:2 FTS	*99*		*50 - 150*
M2-6:2 FTS	*98*		*50 - 150*
13C5 PFHxA	*96*		*50 - 150*
13C4 PFHpA	*96*		*50 - 150*
13C8 PFOA	*98*		*50 - 150*
13C9 PFNA	*100*		*50 - 150*
13C6 PFDA	*106*		*50 - 150*
13C7 PFUnA	*107*		*50 - 150*
13C2-PFDoDA	*110*		*50 - 150*
13C2 PFTeDA	*97*		*50 - 150*
13C3 PFBS	*99*		*50 - 150*
13C3 PFHxS	*104*		*50 - 150*
13C8 PFOS	*101*		*50 - 150*
d3-NMeFOSAA	*107*		*50 - 150*
d5-NEtFOSAA	*96*		*50 - 150*
13C8 FOSA	*93*		*50 - 150*
13C4 PFBA	*97*		*50 - 150*
13C5 PFPeA	*94*		*50 - 150*
d3-NMePFOSA	*54*		*50 - 150*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Lab Sample ID: MB 410-273884/1-A
Matrix: Water
Analysis Batch: 273999

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 273884

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluoroheptanoic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluorooctanoic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluorononanoic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluorodecanoic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluorotridecanoic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluorotetradecanoic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluorobutanesulfonic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluorohexanesulfonic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluorooctanesulfonic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
NEtFOSAA	ND		3.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
NMeFOSAA	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluoropentanesulfonic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluoroheptanesulfonic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluorononanesulfonic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluorodecanesulfonic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluorooctanesulfonamide	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluorobutanoic acid	ND		5.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluoropentanoic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluoroundecanoic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
Perfluorododecanoic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
6:2 Fluorotelomer sulfonic acid	ND		5.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
8:2 Fluorotelomer sulfonic acid	ND		3.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
4:2 Fluorotelomer sulfonic acid	ND		2.00		ng/L		07/10/22 12:17	07/11/22 23:57	1
NMeFOSA	ND		3.00		ng/L		07/10/22 12:17	07/11/22 23:57	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*128*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
M2-8:2 FTS	*127*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
M2-6:2 FTS	*139*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
13C5 PFHxA	*122*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
13C4 PFHpA	*126*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
13C8 PFOA	*130*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
13C9 PFNA	*118*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
13C6 PFDA	*124*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
13C7 PFUnA	*126*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
13C2-PFDoDA	*125*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
13C2 PFTeDA	*117*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
13C3 PFBS	*119*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
13C3 PFHxS	*122*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
13C8 PFOS	*118*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
d3-NMeFOSAA	*124*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
d5-NEtFOSAA	*115*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
13C8 FOSA	*122*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
13C4 PFBA	*111*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
13C5 PFPeA	*117*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*
d3-NMePFOSA	*78*		*50 - 150*	*07/10/22 12:17*	*07/11/22 23:57*	*1*

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Lab Sample ID: LCS 410-273884/2-A
Matrix: Water
Analysis Batch: 273999

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 273884

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid	25.6	24.32		ng/L		95	72 - 129
Perfluoroheptanoic acid	25.6	24.68		ng/L		96	72 - 130
Perfluorooctanoic acid	25.6	24.65		ng/L		96	71 - 133
Perfluorononanoic acid	25.6	25.27		ng/L		99	69 - 130
Perfluorodecanoic acid	25.6	24.19		ng/L		95	71 - 129
Perfluorotridecanoic acid	25.6	23.16		ng/L		90	65 - 144
Perfluorotetradecanoic acid	25.6	25.28		ng/L		99	71 - 132
Perfluorobutanesulfonic acid	22.7	22.59		ng/L		100	72 - 130
Perfluorohexanesulfonic acid	23.3	21.07		ng/L		90	68 - 131
Perfluorooctanesulfonic acid	23.7	23.09		ng/L		97	65 - 140
NEtFOSAA	25.6	26.52		ng/L		104	61 - 135
NMeFOSAA	25.6	23.93		ng/L		93	65 - 136
Perfluoropentanesulfonic acid	24.0	22.94		ng/L		96	71 - 127
Perfluoroheptanesulfonic acid	24.4	21.88		ng/L		90	69 - 134
Perfluorononanesulfonic acid	24.6	20.11		ng/L		82	69 - 127
Perfluorodecanesulfonic acid	24.7	21.35		ng/L		87	53 - 142
Perfluorooctanesulfonamide	25.6	22.34		ng/L		87	67 - 137
Perfluorobutanoic acid	25.6	23.44		ng/L		92	73 - 129
Perfluoropentanoic acid	25.6	23.06		ng/L		90	72 - 129
Perfluoroundecanoic acid	25.6	24.96		ng/L		97	69 - 133
Perfluorododecanoic acid	25.6	23.20		ng/L		91	72 - 134
6:2 Fluorotelomer sulfonic acid	24.3	22.78		ng/L		94	64 - 140
8:2 Fluorotelomer sulfonic acid	24.5	23.70		ng/L		97	67 - 138
4:2 Fluorotelomer sulfonic acid	23.9	20.63		ng/L		86	63 - 143
NMeFOSA	25.6	28.34		ng/L		111	68 - 141

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-4:2 FTS	*119*		*50 - 150*
M2-8:2 FTS	*112*		*50 - 150*
M2-6:2 FTS	*128*		*50 - 150*
13C5 PFHxA	*117*		*50 - 150*
13C4 PFHpA	*118*		*50 - 150*
13C8 PFOA	*121*		*50 - 150*
13C9 PFNA	*115*		*50 - 150*
13C6 PFDA	*119*		*50 - 150*
13C7 PFUnA	*115*		*50 - 150*
13C2-PFDoDA	*120*		*50 - 150*
13C2 PFTeDA	*109*		*50 - 150*
13C3 PFBS	*112*		*50 - 150*
13C3 PFHxS	*121*		*50 - 150*
13C8 PFOS	*115*		*50 - 150*
d3-NMeFOSAA	*122*		*50 - 150*
d5-NEtFOSAA	*110*		*50 - 150*
13C8 FOSA	*111*		*50 - 150*
13C4 PFBA	*112*		*50 - 150*
13C5 PFPeA	*112*		*50 - 150*
d3-NMePFOSA	*75*		*50 - 150*

Method: 200.8 Rev 5.4 - Metals (ICP/MS)

Lab Sample ID: MB 410-270943/1-A
Matrix: Drinking Water
Analysis Batch: 271527

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 270943

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.03		ug/L		06/29/22 19:21	06/30/22 23:29	1
Arsenic	ND		5.15		ug/L		06/29/22 19:21	06/30/22 23:29	1
Barium	ND		2.06		ug/L		06/29/22 19:21	06/30/22 23:29	1
Beryllium	ND		0.515		ug/L		06/29/22 19:21	06/30/22 23:29	1
Cadmium	ND		0.515		ug/L		06/29/22 19:21	06/30/22 23:29	1
Chromium	ND		2.06		ug/L		06/29/22 19:21	06/30/22 23:29	1
Copper	ND		10.3		ug/L		06/29/22 19:21	06/30/22 23:29	1
Lead	ND		1.03		ug/L		06/29/22 19:21	06/30/22 23:29	1
Nickel	ND		2.06		ug/L		06/29/22 19:21	06/30/22 23:29	1
Selenium	ND		2.06		ug/L		06/29/22 19:21	06/30/22 23:29	1
Silver	ND		0.515		ug/L		06/29/22 19:21	06/30/22 23:29	1
Thallium	ND		0.515		ug/L		06/29/22 19:21	06/30/22 23:29	1
Zinc	ND		15.5		ug/L		06/29/22 19:21	06/30/22 23:29	1

Lab Sample ID: LCS 410-270943/2-A
Matrix: Drinking Water
Analysis Batch: 271527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 270943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	6.00	6.049		ug/L		101	85 - 115
Arsenic	5.00	4.960	J	ug/L		99	85 - 115
Barium	2000	2276	E	ug/L		114	85 - 115
Beryllium	4.00	3.940		ug/L		99	85 - 115
Cadmium	5.00	5.421		ug/L		108	85 - 115
Chromium	99.9	98.70		ug/L		99	85 - 115
Copper	984	1060	E	ug/L		108	85 - 115
Lead	5.00	5.250		ug/L		105	85 - 115
Nickel	500	508.2		ug/L		102	85 - 115
Selenium	50.0	51.12		ug/L		102	85 - 115
Silver	100	106.8	E	ug/L		107	85 - 115
Thallium	2.00	2.130		ug/L		107	85 - 115
Zinc	1000	1114	E	ug/L		111	85 - 115

Lab Sample ID: LCSD 410-270943/3-A
Matrix: Drinking Water
Analysis Batch: 271527

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 270943

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	6.00	6.241		ug/L		104	85 - 115	3	20
Arsenic	5.00	4.553	J	ug/L		91	85 - 115	9	20
Barium	2000	2283	E	ug/L		114	85 - 115	0	20
Beryllium	4.00	4.040		ug/L		101	85 - 115	3	20
Cadmium	5.00	5.429		ug/L		109	85 - 115	0	20
Chromium	99.9	101.7		ug/L		102	85 - 115	3	20
Copper	984	1048	E	ug/L		107	85 - 115	1	20
Lead	5.00	5.294		ug/L		106	85 - 115	1	20
Nickel	500	511.0		ug/L		102	85 - 115	1	20
Selenium	50.0	51.31		ug/L		103	85 - 115	0	20
Silver	100	107.2	E	ug/L		107	85 - 115	0	20

Method: 200.8 Rev 5.4 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 410-270943/3-A
Matrix: Drinking Water
Analysis Batch: 271527

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 270943

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thallium	2.00	2.079		ug/L		104	85 - 115	2	20
Zinc	1000	1119	E	ug/L		112	85 - 115	0	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-270497/1-A
Matrix: Water
Analysis Batch: 272787

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 270497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		06/29/22 05:40	07/06/22 11:14	1
Arsenic	ND		0.00200		mg/L		06/29/22 05:40	07/06/22 11:14	1
Barium	ND		0.00200		mg/L		06/29/22 05:40	07/06/22 11:14	1
Beryllium	ND		0.000500		mg/L		06/29/22 05:40	07/06/22 11:14	1
Cadmium	ND		0.000500		mg/L		06/29/22 05:40	07/06/22 11:14	1
Chromium	ND		0.00200		mg/L		06/29/22 05:40	07/06/22 11:14	1
Cobalt	ND		0.000500		mg/L		06/29/22 05:40	07/06/22 11:14	1
Copper	ND		0.00100		mg/L		06/29/22 05:40	07/06/22 11:14	1
Lead	ND		0.000500		mg/L		06/29/22 05:40	07/06/22 11:14	1
Nickel	ND		0.00100		mg/L		06/29/22 05:40	07/06/22 11:14	1
Selenium	ND		0.00100		mg/L		06/29/22 05:40	07/06/22 11:14	1
Silver	ND		0.000500		mg/L		06/29/22 05:40	07/06/22 11:14	1
Thallium	ND		0.000500		mg/L		06/29/22 05:40	07/06/22 11:14	1
Vanadium	ND		0.00400		mg/L		06/29/22 05:40	07/06/22 11:14	1
Zinc	ND		0.0100		mg/L		06/29/22 05:40	07/06/22 11:14	1

Lab Sample ID: MB 410-270497/1-A
Matrix: Water
Analysis Batch: 272924

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 270497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	ND		0.000500		mg/L		06/29/22 05:40	07/06/22 18:38	1
Nickel	ND		0.00100		mg/L		06/29/22 05:40	07/06/22 18:38	1

Lab Sample ID: LCS 410-270497/2-A
Matrix: Water
Analysis Batch: 272787

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 270497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.09778		mg/L		98	80 - 120
Arsenic	0.500	0.4739		mg/L		95	85 - 120
Barium	0.500	0.4889		mg/L		98	80 - 120
Beryllium	0.0500	0.04827		mg/L		97	90 - 112
Cadmium	0.0500	0.04953		mg/L		99	86 - 113
Chromium	0.500	0.4640		mg/L		93	90 - 115
Cobalt	0.500	0.4554		mg/L		91	90 - 113
Copper	0.500	0.4625		mg/L		92	80 - 120
Lead	0.0500	0.04830		mg/L		97	90 - 115
Nickel	0.500	0.4671		mg/L		93	90 - 114
Selenium	0.100	0.09510		mg/L		95	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-270497/2-A
Matrix: Water
Analysis Batch: 272787

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 270497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	0.0500	0.04778		mg/L		96	88 - 113
Thallium	0.100	0.09500		mg/L		95	80 - 120
Vanadium	0.500	0.4655		mg/L		93	90 - 115
Zinc	0.500	0.4736		mg/L		95	90 - 115

Lab Sample ID: LCS 410-270497/2-A
Matrix: Water
Analysis Batch: 272924

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 270497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	0.500	0.4789		mg/L		96	90 - 113
Nickel	0.500	0.4789		mg/L		96	90 - 114

Lab Sample ID: MB 410-271524/1-A
Matrix: Water
Analysis Batch: 272482

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 271524

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 18:32	1
Arsenic	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 18:32	1
Barium	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 18:32	1
Beryllium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 18:32	1
Cadmium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 18:32	1
Chromium	ND		0.00200		mg/L		07/01/22 05:50	07/05/22 18:32	1
Cobalt	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 18:32	1
Copper	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 18:32	1
Lead	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 18:32	1
Nickel	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 18:32	1
Selenium	ND		0.00100		mg/L		07/01/22 05:50	07/05/22 18:32	1
Silver	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 18:32	1
Thallium	ND		0.000500		mg/L		07/01/22 05:50	07/05/22 18:32	1
Vanadium	ND		0.00400		mg/L		07/01/22 05:50	07/05/22 18:32	1
Zinc	ND		0.0100		mg/L		07/01/22 05:50	07/05/22 18:32	1

Lab Sample ID: LCS 410-271524/2-A
Matrix: Water
Analysis Batch: 272482

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 271524

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.1006		mg/L		101	80 - 120
Arsenic	0.500	0.4933		mg/L		99	85 - 120
Barium	0.500	0.5111		mg/L		102	80 - 120
Beryllium	0.0500	0.05038		mg/L		101	90 - 112
Cadmium	0.0500	0.05047		mg/L		101	86 - 113
Chromium	0.500	0.4949		mg/L		99	90 - 115
Cobalt	0.500	0.4737		mg/L		95	90 - 113
Copper	0.500	0.4767		mg/L		95	80 - 120
Lead	0.0500	0.05019		mg/L		100	90 - 115
Nickel	0.500	0.4879		mg/L		98	90 - 114

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-271524/2-A
Matrix: Water
Analysis Batch: 272482

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 271524

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Selenium	0.100	0.09625		mg/L		96	80 - 120
Silver	0.0500	0.04991		mg/L		100	88 - 113
Thallium	0.100	0.09889		mg/L		99	80 - 120
Vanadium	0.500	0.4911		mg/L		98	90 - 115
Zinc	0.500	0.4962		mg/L		99	90 - 115

Method: EPA 200.7Rev4.4 - Metals (ICP)

Lab Sample ID: MB 410-270943/1-A
Matrix: Drinking Water
Analysis Batch: 280740

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 270943

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	ND		0.00515		mg/L		06/29/22 19:21	07/28/22 19:08	1
Vanadium	ND		0.0103		mg/L		06/29/22 19:21	07/28/22 19:08	1

Lab Sample ID: LCS 410-270943/2-A
Matrix: Drinking Water
Analysis Batch: 280740

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 270943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	0.500	0.5387		mg/L		108	85 - 115
Vanadium	0.500	0.5280		mg/L		106	85 - 115

Lab Sample ID: LCSD 410-270943/3-A
Matrix: Drinking Water
Analysis Batch: 280740

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 270943

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt	0.500	0.5480		mg/L		110	85 - 115	2	20
Vanadium	0.500	0.5324		mg/L		106	85 - 115	1	20

Method: NO2 - Nitrate / Nitrite

Lab Sample ID: B2F1324-BLK1
Matrix: Drinking water
Analysis Batch: B2F1324

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: B2F1324_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.007		mg/L		06/24/22 11:10	06/24/22 11:10	1

Lab Sample ID: B2F1324-BLK2
Matrix: Drinking water
Analysis Batch: B2F1324

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: B2F1324_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.007		mg/L		06/24/22 17:50	06/24/22 17:50	1

Method: NO2 - Nitrate / Nitrite (Continued)

Lab Sample ID: B2F1324-BS1
Matrix: Drinking water
Analysis Batch: B2F1324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: B2F1324_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrite as N	0.100	0.106		mg/L		106	90 - 110

Lab Sample ID: B2F1324-BS2
Matrix: Drinking water
Analysis Batch: B2F1324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: B2F1324_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrite as N	0.100	0.102		mg/L		102	90 - 110

Method: NO2+NO3 - Nitrate / Nitrite

Lab Sample ID: B2F1323-BLK1
Matrix: Drinking water
Analysis Batch: B2F1323

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: B2F1323_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate and Nitrite as N	ND		0.03		mg/L		06/24/22 10:25	06/24/22 10:25	1

Lab Sample ID: B2F1323-BLK2
Matrix: Drinking water
Analysis Batch: B2F1323

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: B2F1323_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate and Nitrite as N	ND		0.03		mg/L		06/24/22 18:00	06/24/22 18:00	1

Lab Sample ID: B2F1323-BS1
Matrix: Drinking water
Analysis Batch: B2F1323

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: B2F1323_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate and Nitrite as N	0.800	0.77		mg/L		96.5	90 - 110

Lab Sample ID: B2F1323-BS2
Matrix: Drinking water
Analysis Batch: B2F1323

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: B2F1323_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate and Nitrite as N	0.800	0.79		mg/L		98.9	90 - 110

Method: Total Coliforms - 9222B Total Coliforms

Lab Sample ID: B2F1311-BLK1
Matrix: Drinking water
Analysis Batch: B2F1311

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: B2F1311_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total coliform	<		1.00		Col./100ml		06/23/22 14:40	06/23/22 14:40	1

QC Association Summary

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

GC/MS VOA

Analysis Batch: 12474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-2	GZ-1	Total/NA	Water	8260C	
620-5294-3	GZ-2	Total/NA	Water	8260C	
620-5294-4	GZ-3	Total/NA	Water	8260C	
620-5294-5	GZ-4	Total/NA	Water	8260C	
620-5294-6	GZ-5	Total/NA	Water	8260C	
620-5294-7	GZ-6	Total/NA	Water	8260C	
620-5294-8	GZ-7S	Total/NA	Water	8260C	
620-5294-9	GZ-7D	Total/NA	Water	8260C	
MB 620-12474/7	Method Blank	Total/NA	Water	8260C	
LCS 620-12474/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 620-12474/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 12494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-10	GZ-8	Total/NA	Water	8260C	
MB 620-12494/7	Method Blank	Total/NA	Water	8260C	
LCS 620-12494/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 620-12494/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 269853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-1	POT-1	Total/NA	Drinking Water	524.2	
620-5294-12	TB	Total/NA	Drinking Water	524.2	
MB 410-269853/6	Method Blank	Total/NA	Drinking Water	524.2	
LCS 410-269853/4	Lab Control Sample	Total/NA	Drinking Water	524.2	

LCMS

Prep Batch: 272148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-2	GZ-1	Total/NA	Water	537 IDA	
MB 410-272148/1-A	Method Blank	Total/NA	Water	537 IDA	
LCS 410-272148/3-A	Lab Control Sample	Total/NA	Water	537 IDA	
LCSD 410-272148/4-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	

Prep Batch: 272227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-3	GZ-2	Total/NA	Water	537 IDA	
620-5294-4	GZ-3	Total/NA	Water	537 IDA	
620-5294-5	GZ-4	Total/NA	Water	537 IDA	
620-5294-6	GZ-5	Total/NA	Water	537 IDA	
620-5294-7	GZ-6	Total/NA	Water	537 IDA	
620-5294-8	GZ-7S	Total/NA	Water	537 IDA	
620-5294-9	GZ-7D	Total/NA	Water	537 IDA	
620-5294-10	GZ-8	Total/NA	Water	537 IDA	
620-5294-11	GZ-9	Total/NA	Water	537 IDA	
620-5294-13	Field Blank	Total/NA	Water	537 IDA	
620-5294-14	POT-1	Total/NA	Water	537 IDA	
MB 410-272227/1-A	Method Blank	Total/NA	Water	537 IDA	
LCS 410-272227/2-A	Lab Control Sample	Total/NA	Water	537 IDA	
LCSD 410-272227/3-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	

LCMS

Analysis Batch: 272545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-2	GZ-1	Total/NA	Water	EPA 537(Mod)	272148
MB 410-272148/1-A	Method Blank	Total/NA	Water	EPA 537(Mod)	272148
LCS 410-272148/3-A	Lab Control Sample	Total/NA	Water	EPA 537(Mod)	272148
LCSD 410-272148/4-A	Lab Control Sample Dup	Total/NA	Water	EPA 537(Mod)	272148

Analysis Batch: 272994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-3	GZ-2	Total/NA	Water	EPA 537(Mod)	272227
620-5294-4	GZ-3	Total/NA	Water	EPA 537(Mod)	272227
620-5294-5	GZ-4	Total/NA	Water	EPA 537(Mod)	272227
620-5294-6	GZ-5	Total/NA	Water	EPA 537(Mod)	272227
620-5294-7	GZ-6	Total/NA	Water	EPA 537(Mod)	272227
620-5294-8	GZ-7S	Total/NA	Water	EPA 537(Mod)	272227
620-5294-9	GZ-7D	Total/NA	Water	EPA 537(Mod)	272227
620-5294-10	GZ-8	Total/NA	Water	EPA 537(Mod)	272227
620-5294-11	GZ-9	Total/NA	Water	EPA 537(Mod)	272227
620-5294-13	Field Blank	Total/NA	Water	EPA 537(Mod)	272227
620-5294-14	POT-1	Total/NA	Water	EPA 537(Mod)	272227
MB 410-272227/1-A	Method Blank	Total/NA	Water	EPA 537(Mod)	272227
LCS 410-272227/2-A	Lab Control Sample	Total/NA	Water	EPA 537(Mod)	272227
LCSD 410-272227/3-A	Lab Control Sample Dup	Total/NA	Water	EPA 537(Mod)	272227

Prep Batch: 273884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-3 - RE	GZ-2	Total/NA	Water	537 IDA	
620-5294-6 - RE	GZ-5	Total/NA	Water	537 IDA	
620-5294-7 - RE	GZ-6	Total/NA	Water	537 IDA	
620-5294-8 - RE	GZ-7S	Total/NA	Water	537 IDA	
620-5294-9 - RE	GZ-7D	Total/NA	Water	537 IDA	
620-5294-10 - RE	GZ-8	Total/NA	Water	537 IDA	
620-5294-11 - RE	GZ-9	Total/NA	Water	537 IDA	
620-5294-14 - RE	POT-1	Total/NA	Water	537 IDA	
MB 410-273884/1-A	Method Blank	Total/NA	Water	537 IDA	
LCS 410-273884/2-A	Lab Control Sample	Total/NA	Water	537 IDA	

Analysis Batch: 273999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-3 - RE	GZ-2	Total/NA	Water	EPA 537(Mod)	273884
620-5294-6 - RE	GZ-5	Total/NA	Water	EPA 537(Mod)	273884
620-5294-7 - RE	GZ-6	Total/NA	Water	EPA 537(Mod)	273884
620-5294-8 - RE	GZ-7S	Total/NA	Water	EPA 537(Mod)	273884
620-5294-9 - RE	GZ-7D	Total/NA	Water	EPA 537(Mod)	273884
620-5294-10 - RE	GZ-8	Total/NA	Water	EPA 537(Mod)	273884
620-5294-11 - RE	GZ-9	Total/NA	Water	EPA 537(Mod)	273884
620-5294-14 - RE	POT-1	Total/NA	Water	EPA 537(Mod)	273884
MB 410-273884/1-A	Method Blank	Total/NA	Water	EPA 537(Mod)	273884
LCS 410-273884/2-A	Lab Control Sample	Total/NA	Water	EPA 537(Mod)	273884

Metals

Prep Batch: 270497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-2	GZ-1	Total Recoverable	Water	3005A	
MB 410-270497/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-270497/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 270943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-1	POT-1	Total/NA	Drinking Water	Non-Digest Prep	
MB 410-270943/1-A	Method Blank	Total/NA	Drinking Water	Non-Digest Prep	
LCS 410-270943/2-A	Lab Control Sample	Total/NA	Drinking Water	Non-Digest Prep	
LCSD 410-270943/3-A	Lab Control Sample Dup	Total/NA	Drinking Water	Non-Digest Prep	

Prep Batch: 271524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-3	GZ-2	Total Recoverable	Water	3005A	
620-5294-4	GZ-3	Total Recoverable	Water	3005A	
620-5294-5	GZ-4	Total Recoverable	Water	3005A	
620-5294-6	GZ-5	Total Recoverable	Water	3005A	
620-5294-7	GZ-6	Total Recoverable	Water	3005A	
620-5294-8	GZ-7S	Total Recoverable	Water	3005A	
620-5294-9	GZ-7D	Total Recoverable	Water	3005A	
620-5294-10	GZ-8	Total Recoverable	Water	3005A	
620-5294-11	GZ-9	Total Recoverable	Water	3005A	
MB 410-271524/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-271524/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 271527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-1	POT-1	Total/NA	Drinking Water	200.8 Rev 5.4	270943
MB 410-270943/1-A	Method Blank	Total/NA	Drinking Water	200.8 Rev 5.4	270943
LCS 410-270943/2-A	Lab Control Sample	Total/NA	Drinking Water	200.8 Rev 5.4	270943
LCSD 410-270943/3-A	Lab Control Sample Dup	Total/NA	Drinking Water	200.8 Rev 5.4	270943

Analysis Batch: 272482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-3	GZ-2	Total Recoverable	Water	6020B	271524
620-5294-4	GZ-3	Total Recoverable	Water	6020B	271524
620-5294-5	GZ-4	Total Recoverable	Water	6020B	271524
620-5294-6	GZ-5	Total Recoverable	Water	6020B	271524
620-5294-7	GZ-6	Total Recoverable	Water	6020B	271524
620-5294-8	GZ-7S	Total Recoverable	Water	6020B	271524
620-5294-9	GZ-7D	Total Recoverable	Water	6020B	271524
620-5294-10	GZ-8	Total Recoverable	Water	6020B	271524
620-5294-11	GZ-9	Total Recoverable	Water	6020B	271524
MB 410-271524/1-A	Method Blank	Total Recoverable	Water	6020B	271524
LCS 410-271524/2-A	Lab Control Sample	Total Recoverable	Water	6020B	271524

Analysis Batch: 272787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-2	GZ-1	Total Recoverable	Water	6020B	270497
MB 410-270497/1-A	Method Blank	Total Recoverable	Water	6020B	270497
LCS 410-270497/2-A	Lab Control Sample	Total Recoverable	Water	6020B	270497

QC Association Summary

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Metals

Analysis Batch: 272924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-2	GZ-1	Total Recoverable	Water	6020B	270497
MB 410-270497/1-A	Method Blank	Total Recoverable	Water	6020B	270497
LCS 410-270497/2-A	Lab Control Sample	Total Recoverable	Water	6020B	270497

Analysis Batch: 280740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-1	POT-1	Total/NA	Drinking Water	EPA 200.7Rev4.4	270943
MB 410-270943/1-A	Method Blank	Total/NA	Drinking Water	EPA 200.7Rev4.4	270943
LCS 410-270943/2-A	Lab Control Sample	Total/NA	Drinking Water	EPA 200.7Rev4.4	270943
LCSD 410-270943/3-A	Lab Control Sample Dup	Total/NA	Drinking Water	EPA 200.7Rev4.4	270943

Subcontract

Analysis Batch: B2F1287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-1	POT-1	Total/NA	Drinking Water	Nitrate	B2F1287_P

Analysis Batch: B2F1311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-1	POT-1	Total/NA	Drinking Water	Total Coliforms	B2F1311_P
B2F1311-BLK1	Method Blank	Total/NA	Drinking water	Total Coliforms	B2F1311_P

Analysis Batch: B2F1323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-1	POT-1	Total/NA	Drinking Water	NO2+NO3	B2F1323_P
B2F1323-BLK1	Method Blank	Total/NA	Drinking water	NO2+NO3	B2F1323_P
B2F1323-BLK2	Method Blank	Total/NA	Drinking water	NO2+NO3	B2F1323_P
B2F1323-BS1	Lab Control Sample	Total/NA	Drinking water	NO2+NO3	B2F1323_P
B2F1323-BS2	Lab Control Sample	Total/NA	Drinking water	NO2+NO3	B2F1323_P

Analysis Batch: B2F1324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-1	POT-1	Total/NA	Drinking Water	NO2	B2F1324_P
B2F1324-BLK1	Method Blank	Total/NA	Drinking water	NO2	B2F1324_P
B2F1324-BLK2	Method Blank	Total/NA	Drinking water	NO2	B2F1324_P
B2F1324-BS1	Lab Control Sample	Total/NA	Drinking water	NO2	B2F1324_P
B2F1324-BS2	Lab Control Sample	Total/NA	Drinking water	NO2	B2F1324_P

Prep Batch: B2F1287_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-1	POT-1	Total/NA	Drinking Water	General Chemistry DW	

Prep Batch: B2F1311_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-1	POT-1	Total/NA	Drinking Water	Microbiology	
B2F1311-BLK1	Method Blank	Total/NA	Drinking water	Microbiology	

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Subcontract

Prep Batch: B2F1323_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-1	POT-1	Total/NA	Drinking Water	General Chemistry DW	
B2F1323-BLK1	Method Blank	Total/NA	Drinking water	General Chemistry DW	
B2F1323-BLK2	Method Blank	Total/NA	Drinking water	General Chemistry DW	
B2F1323-BS1	Lab Control Sample	Total/NA	Drinking water	General Chemistry DW	
B2F1323-BS2	Lab Control Sample	Total/NA	Drinking water	General Chemistry DW	

Prep Batch: B2F1324_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5294-1	POT-1	Total/NA	Drinking Water	General Chemistry DW	
B2F1324-BLK1	Method Blank	Total/NA	Drinking water	General Chemistry DW	
B2F1324-BLK2	Method Blank	Total/NA	Drinking water	General Chemistry DW	
B2F1324-BS1	Lab Control Sample	Total/NA	Drinking water	General Chemistry DW	
B2F1324-BS2	Lab Control Sample	Total/NA	Drinking water	General Chemistry DW	

Lab Chronicle

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: POT-1
Lab Sample ID: 620-5294-1
Date Collected: 06/22/22 13:03
Matrix: Drinking Water
Date Received: 06/22/22 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	269853	06/27/22 16:34	UJML	ELLE
Total/NA	Prep	Non-Digest Prep			270943	06/29/22 19:21	UJLA	ELLE
Total/NA	Analysis	200.8 Rev 5.4		1	271527	06/30/22 23:34	S4PD	ELLE
Total/NA	Prep	Non-Digest Prep			270943	06/29/22 19:21	UJLA	ELLE
Total/NA	Analysis	EPA 200.7Rev4.4		1	280740	07/28/22 19:18	T8CQ	ELLE
Total/NA	Prep	General Chemistry DW		1	B2F1287_P	06/24/22 12:45		NETL
Total/NA	Analysis	Nitrate		1	B2F1287	06/24/22 12:45	DAC	NETL
Total/NA	Prep	General Chemistry DW		1	B2F1324_P	06/24/22 12:45		NETL
Total/NA	Analysis	NO2		1	B2F1324	06/24/22 12:45	MH	NETL
Total/NA	Prep	General Chemistry DW		1	B2F1323_P	06/24/22 12:20		NETL
Total/NA	Analysis	NO2+NO3		1	B2F1323	06/24/22 12:20	MH	NETL
Total/NA	Prep	Microbiology		1	B2F1311_P	06/23/22 14:40		NETL
Total/NA	Analysis	Total Coliforms		1	B2F1311	06/23/22 14:40	ASW	NETL

Client Sample ID: GZ-1
Lab Sample ID: 620-5294-2
Date Collected: 06/22/22 14:53
Matrix: Water
Date Received: 06/22/22 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	12474	06/29/22 16:37	CLR	ENE
Total/NA	Prep	537 IDA			272148	07/05/22 08:31	RC3V	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	272545	07/06/22 19:16	OLN7	ELLE
Total Recoverable	Prep	3005A			270497	06/29/22 05:40	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	272924	07/06/22 18:46	UCIG	ELLE
Total Recoverable	Prep	3005A			270497	06/29/22 05:40	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	272787	07/06/22 12:40	S4PD	ELLE

Client Sample ID: GZ-2
Lab Sample ID: 620-5294-3
Date Collected: 06/22/22 11:09
Matrix: Water
Date Received: 06/22/22 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	12474	06/29/22 17:03	CLR	ENE
Total/NA	Prep	537 IDA			272227	07/05/22 09:51	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	272994	07/07/22 11:56	OLN7	ELLE
Total/NA	Prep	537 IDA	RE		273884	07/10/22 12:17	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)	RE	1	273999	07/12/22 02:59	OLN7	ELLE
Total Recoverable	Prep	3005A			271524	07/01/22 05:50	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	272482	07/05/22 19:03	UCIG	ELLE

Lab Chronicle

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-3
Lab Sample ID: 620-5294-4
Date Collected: 06/22/22 10:02
Matrix: Water
Date Received: 06/22/22 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	12474	06/29/22 17:30	CLR	ENE
Total/NA	Prep	537 IDA			272227	07/05/22 09:51	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	272994	07/07/22 12:17	OLN7	ELLE
Total Recoverable	Prep	3005A			271524	07/01/22 05:50	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	272482	07/05/22 19:05	UCIG	ELLE

Client Sample ID: GZ-4
Lab Sample ID: 620-5294-5
Date Collected: 06/22/22 11:59
Matrix: Water
Date Received: 06/22/22 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	12474	06/29/22 17:56	CLR	ENE
Total/NA	Prep	537 IDA			272227	07/05/22 09:51	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	272994	07/07/22 12:27	OLN7	ELLE
Total Recoverable	Prep	3005A			271524	07/01/22 05:50	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	272482	07/05/22 19:07	UCIG	ELLE

Client Sample ID: GZ-5
Lab Sample ID: 620-5294-6
Date Collected: 06/22/22 13:45
Matrix: Water
Date Received: 06/22/22 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	12474	06/29/22 18:22	CLR	ENE
Total/NA	Prep	537 IDA			272227	07/05/22 09:51	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	272994	07/07/22 12:38	OLN7	ELLE
Total/NA	Prep	537 IDA	RE		273884	07/10/22 12:17	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)	RE	1	273999	07/12/22 03:09	OLN7	ELLE
Total Recoverable	Prep	3005A			271524	07/01/22 05:50	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	272482	07/05/22 19:09	UCIG	ELLE

Client Sample ID: GZ-6
Lab Sample ID: 620-5294-7
Date Collected: 06/22/22 13:24
Matrix: Water
Date Received: 06/22/22 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	12474	06/29/22 18:48	CLR	ENE
Total/NA	Prep	537 IDA			272227	07/05/22 09:51	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	272994	07/07/22 12:49	OLN7	ELLE
Total/NA	Prep	537 IDA	RE		273884	07/10/22 12:17	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)	RE	1	273999	07/12/22 03:20	OLN7	ELLE
Total Recoverable	Prep	3005A			271524	07/01/22 05:50	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	272482	07/05/22 19:11	UCIG	ELLE

Lab Chronicle

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: GZ-7S
Lab Sample ID: 620-5294-8
Date Collected: 06/22/22 09:28
Matrix: Water
Date Received: 06/22/22 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	12474	06/29/22 19:14	CLR	ENE
Total/NA	Prep	537 IDA			272227	07/05/22 09:51	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	272994	07/07/22 12:59	OLN7	ELLE
Total/NA	Prep	537 IDA	RE		273884	07/10/22 12:17	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)	RE	1	273999	07/12/22 03:41	OLN7	ELLE
Total Recoverable	Prep	3005A			271524	07/01/22 05:50	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	272482	07/05/22 19:13	UCIG	ELLE

Client Sample ID: GZ-7D
Lab Sample ID: 620-5294-9
Date Collected: 06/22/22 09:41
Matrix: Water
Date Received: 06/22/22 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	12474	06/29/22 19:40	CLR	ENE
Total/NA	Prep	537 IDA			272227	07/05/22 09:51	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	272994	07/07/22 13:10	OLN7	ELLE
Total/NA	Prep	537 IDA	RE		273884	07/10/22 12:17	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)	RE	1	273999	07/12/22 03:52	OLN7	ELLE
Total Recoverable	Prep	3005A			271524	07/01/22 05:50	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	272482	07/05/22 19:19	UCIG	ELLE

Client Sample ID: GZ-8
Lab Sample ID: 620-5294-10
Date Collected: 06/22/22 10:37
Matrix: Water
Date Received: 06/22/22 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	12494	06/30/22 02:38	CLR	ENE
Total/NA	Prep	537 IDA			272227	07/05/22 09:51	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	272994	07/07/22 13:20	OLN7	ELLE
Total/NA	Prep	537 IDA	RE		273884	07/10/22 12:17	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)	RE	1	273999	07/12/22 04:02	OLN7	ELLE
Total Recoverable	Prep	3005A			271524	07/01/22 05:50	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	272482	07/05/22 19:21	UCIG	ELLE

Client Sample ID: GZ-9
Lab Sample ID: 620-5294-11
Date Collected: 06/22/22 11:24
Matrix: Water
Date Received: 06/22/22 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 IDA			272227	07/05/22 09:51	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	272994	07/07/22 13:31	OLN7	ELLE
Total/NA	Prep	537 IDA	RE		273884	07/10/22 12:17	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)	RE	1	273999	07/12/22 04:13	OLN7	ELLE
Total Recoverable	Prep	3005A			271524	07/01/22 05:50	UAMX	ELLE
Total Recoverable	Analysis	6020B		1	272482	07/05/22 19:23	UCIG	ELLE

Lab Chronicle

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Client Sample ID: TB
Lab Sample ID: 620-5294-12
Date Collected: 06/22/22 10:00
Matrix: Drinking Water
Date Received: 06/22/22 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	269853	06/27/22 16:10	UJML	ELLE

Client Sample ID: Field Blank
Lab Sample ID: 620-5294-13
Date Collected: 06/22/22 10:00
Matrix: Water
Date Received: 06/22/22 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 IDA			272227	07/05/22 09:51	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	272994	07/07/22 13:41	OLN7	ELLE

Client Sample ID: POT-1
Lab Sample ID: 620-5294-14
Date Collected: 06/22/22 13:03
Matrix: Water
Date Received: 06/22/22 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 IDA			272227	07/05/22 09:51	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)		1	272994	07/07/22 13:52	OLN7	ELLE
Total/NA	Prep	537 IDA	RE		273884	07/10/22 12:17	D5VP	ELLE
Total/NA	Analysis	EPA 537(Mod)	RE	1	273999	07/12/22 04:23	OLN7	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

ENE = Eurofins New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

NETL = New England Testing Laboratories, 59 Greenhill Street, West Warwick, RI 02893

Accreditation/Certification Summary

Client: GZA GeoEnvironmental, Inc. Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Laboratory: Eurofins New England

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Rhode Island	State	LAI00368	12-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,1,1,2-Tetrachloroethane
8260C		Water	1,1,1-Trichloroethane
8260C		Water	1,1,2,2-Tetrachloroethane
8260C		Water	1,1,2-Trichloroethane
8260C		Water	1,1,2-Trichlorotrifluoroethane (Freon 113)
8260C		Water	1,1-Dichloroethane
8260C		Water	1,1-Dichloroethene
8260C		Water	1,1-Dichloropropene
8260C		Water	1,2,3-Trichlorobenzene
8260C		Water	1,2,3-Trichloropropane
8260C		Water	1,2,4-Trichlorobenzene
8260C		Water	1,2,4-Trimethylbenzene
8260C		Water	1,2-Dibromo-3-Chloropropane
8260C		Water	1,2-Dibromoethane (EDB)
8260C		Water	1,2-Dichlorobenzene
8260C		Water	1,2-Dichloroethane
8260C		Water	1,2-Dichloropropane
8260C		Water	1,3,5-Trichlorobenzene
8260C		Water	1,3,5-Trimethylbenzene
8260C		Water	1,3-Dichlorobenzene
8260C		Water	1,3-Dichloropropane
8260C		Water	1,4-Dichlorobenzene
8260C		Water	1,4-Dioxane
8260C		Water	2,2-Dichloropropane
8260C		Water	2-Butanone (MEK)
8260C		Water	2-Chlorotoluene
8260C		Water	2-Hexanone (MBK)
8260C		Water	4-Chlorotoluene
8260C		Water	4-Isopropyltoluene
8260C		Water	4-Methyl-2-pentanone (MIBK)
8260C		Water	Acetone
8260C		Water	Acrylonitrile
8260C		Water	Benzene
8260C		Water	Bromobenzene
8260C		Water	Bromochloromethane
8260C		Water	Bromodichloromethane
8260C		Water	Bromoform
8260C		Water	Bromomethane
8260C		Water	Carbon disulfide
8260C		Water	Carbon tetrachloride
8260C		Water	Chlorobenzene
8260C		Water	Chloroethane
8260C		Water	Chloroform
8260C		Water	Chloromethane
8260C		Water	cis-1,2-Dichloroethene

Client: GZA GeoEnvironmental, Inc. Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Laboratory: Eurofins New England (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	cis-1,3-Dichloropropene
8260C		Water	Dibromochloromethane
8260C		Water	Dibromomethane
8260C		Water	Dichlorodifluoromethane (Freon 12)
8260C		Water	di-Isopropyl ether
8260C		Water	Ethanol
8260C		Water	Ethyl ether
8260C		Water	Ethylbenzene
8260C		Water	Hexachlorobutadiene
8260C		Water	Isopropylbenzene
8260C		Water	m,p-Xylene
8260C		Water	Methyl tert-butyl ether
8260C		Water	Methylene Chloride
8260C		Water	Naphthalene
8260C		Water	n-Butylbenzene
8260C		Water	N-Propylbenzene
8260C		Water	o-Xylene
8260C		Water	sec-Butylbenzene
8260C		Water	Styrene
8260C		Water	Tert-amyl methyl ether
8260C		Water	tert-Butyl alcohol
8260C		Water	Tert-butyl ethyl ether
8260C		Water	tert-Butylbenzene
8260C		Water	Tetrachloroethene
8260C		Water	Tetrahydrofuran
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	trans-1,4-Dichloro-2-butene
8260C		Water	Trichloroethene
8260C		Water	Trichlorofluoromethane (Freon 11)
8260C		Water	Vinyl chloride

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-22
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	07-01-23
Alaska (UST)	State	17-027	02-28-23
Arizona	State	AZ0780	03-12-23
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	11-30-22
Colorado	State	PA00009	06-30-23
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-23

Accreditation/Certification Summary

Client: GZA GeoEnvironmental, Inc. Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

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

Authority	Program	Identification Number	Expiration Date
Delaware (DW)	State	N/A	01-31-23
Florida	NELAP	E87997	06-30-22 *
Georgia (DW)	State	C048	01-31-23
Hawaii	State	N/A	01-31-23
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22 *
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-22
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	01-01-23
Louisiana	NELAP	02055	06-30-23
Maine	State	2019012	03-12-23
Maryland	State	100	06-30-23
Massachusetts	State	M-PA009	06-30-23
Michigan	State	9930	01-31-23
Minnesota	NELAP	042-999-487	12-31-22
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-23
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-23
New Hampshire	NELAP	2730	01-10-23
New Jersey	NELAP	PA011	06-30-23
New York	NELAP	10670	04-01-23
North Carolina (DW)	State	42705	07-31-23
North Carolina (WW/SW)	State	521	12-31-22
North Dakota	State	R-205	01-31-23
Oklahoma	NELAP	R-205	08-31-22
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-31-23
Rhode Island	State	LAO00338	12-30-22
South Carolina	State	89002	01-31-23
Tennessee	State	02838	01-31-23
Texas	NELAP	T104704194-21-40	08-31-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	06-15-23
Washington	State	C457	04-11-23
West Virginia (DW)	State	9906 C	12-31-22
West Virginia DEP	State	055	07-31-22
Wyoming	State	8TMS-L	01-31-23
Wyoming (UST)	A2LA	1.01	11-30-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: GZA GeoEnvironmental, Inc.
Job ID: 620-5294-1
Project/Site: Jamestown Landfill - Jamestown, RI

Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	ELLE
8260C	Volatile Organic Compounds by GC/MS	SW846	ENE
EPA 537(Mod)	PFAS for QSM 5.3, Table B-15	EPA	ELLE
200.8 Rev 5.4	Metals (ICP/MS)	EPA	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
EPA 200.7Rev4.4	Metals (ICP)	EPA	ELLE
353.2	Nitrate / Nitrite	EPA	NETL
9222B	9222B Total Coliforms	SM	NETL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
5030C	Purge and Trap	SW846	ENE
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
6010C	Preparation, Non-Digested Aqueous Metals	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

ENE = Eurofins New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

NETL = New England Testing Laboratories, 59 Greenhill Street, West Warwick, RI 02893

Sample Summary

Client: GZA GeoEnvironmental, Inc.
Project/Site: Jamestown Landfill - Jamestown, RI

Job ID: 620-5294-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-5294-1	POT-1	Drinking Water	06/22/22 13:03	06/22/22 15:47
620-5294-2	GZ-1	Water	06/22/22 14:53	06/22/22 15:47
620-5294-3	GZ-2	Water	06/22/22 11:09	06/22/22 15:47
620-5294-4	GZ-3	Water	06/22/22 10:02	06/22/22 15:47
620-5294-5	GZ-4	Water	06/22/22 11:59	06/22/22 15:47
620-5294-6	GZ-5	Water	06/22/22 13:45	06/22/22 15:47
620-5294-7	GZ-6	Water	06/22/22 13:24	06/22/22 15:47
620-5294-8	GZ-7S	Water	06/22/22 09:28	06/22/22 15:47
620-5294-9	GZ-7D	Water	06/22/22 09:41	06/22/22 15:47
620-5294-10	GZ-8	Water	06/22/22 10:37	06/22/22 15:47
620-5294-11	GZ-9	Water	06/22/22 11:24	06/22/22 15:47
620-5294-12	TB	Drinking Water	06/22/22 10:00	06/22/22 15:47
620-5294-13	Field Blank	Water	06/22/22 10:00	06/22/22 15:47
620-5294-14	POT-1	Water	06/22/22 13:03	06/22/22 15:47

5294

620-5294 Chain of Custody

nent Testing
New England

CHAIN OF CUSTODY RECORD

Page 1 of 2

Special Handling:

- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed. ______

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: Erik Beloff
Telephone #: 401-421-4140
Project Mgr: Erik Beloff

Invoice To: GZA
PO No. ______ Quote # ______

Project No: 32220.31
Site Name: Jamestown LF
Location: Jamestown (JT) State: RI
Sampler(s): Ben Barnes (BVB), Jake Vestfield (JAW)

F=Field Filtered 1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=______ 12=______

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= Lab Provided X2=______ X3=______

G= Grab C=Compsite

List Preservative Code below:

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	VOC	Metals	PFAS	Total Col.	Nitrate	Check if chlorinated
01	POT-1	6/22/22	1303	G	GW	3			3	X	X	X	X	X	☐
02	GZ-1	↓	1453	↓	↓	3			3	X	X	X	X	X	☐
03	GZ-2	↓	1109	↓	↓	3			3	X	X	X	X	X	☐
04	GZ-3	↓	1002	↓	↓	3			3	X	X	X	X	X	☐
05	GZ-4	↓	1159	↓	↓	3			3	X	X	X	X	X	☐
06	GZ-5	↓	1345	↓	↓	3			3	X	X	X	X	X	☐
07	GZ-6	↓	1324	↓	↓	3			3	X	X	X	X	X	☐
08	GZ-7S	↓	928	↓	↓	3			3	X	X	X	X	X	☐
09	GZ-7D	↓	941	↓	↓	3			3	X	X	X	X	X	☐
10	GZ-8	↓	1037	↓	↓	3			3	X	X	X	X	X	☐

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☐ No
CT DPH RCP Report? ☐ Yes ☐ No
☐ Standard ☐ No QC
☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☐ Other ______
State-specific reporting standards.

Relinquished by:	Received by:	Date:	Time:	Temp °C
JW	[signature]	6/22/22	15:47	Observed 7.8
				Correction Factor +0.4
				Corrected 8.2
				IR ID # 6

- [x] EDD format: Excel, PDF
- [x] E-mail to: erik.beloff@gza.com

JW

Condition upon receipt: ☐ Ambient ☐ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen
Custody Seals: ☐ Present ☐ Intact ☐ Broken

Sample Shipping Address: 126 Myron Street • West Springfield, MA 01089 • 413-789-9018
Lab Address: 646 Camp Ave • North Kingstown, RI 02852
www.EurofinsUS.com/Spectrum

Rev Jan 2020

5294

eurofins | Environment Testing New England

CHAIN OF CUSTODY RECORD

Page 2 of 2

Special Handling:
- [X] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed. _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: Erik Beloff
Telephone #: 401-421-4140
Project Mgr: Erik Beloff

Invoice To: GZA
PO No. _____ Quote #: _____

Project No: 32220.31
Site Name: Jamestown LF
Location: Jamestown State: RI
Sampler(s): BWB / JAW

F=Field Filtered 1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= _____ 12= _____

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= Lab Provided X2= _____ X3= _____

G= Grab C=Composite

List Preservative Code below:

QA/QC Reporting Notes:
* additional charges may appply
MA DEP MCP CAM Report? [ ] Yes [ ] No
CT DPH RCP Report? [ ] Yes [ ] No
[ ] Standard [ ] No QC [ ] DQA*
[ ] ASP A* [ ] ASP B*
[ ] NJ Reduced* [ ] NJ Full*
[ ] Tier II* [ ] Tier IV*
[ ] Other _____
State-specific reporting standards.

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analysis: VOC	Methyls	PFAS	Check if chlorinated
11	GZ-9	6/22/22	1124	G	GW	3	1	1	3	X	X	X	
12	TB	↓	1000	-	X1	-	-	-	2	X			
13	Field Blank		1000	-	X1	-	-	-	1			X	

Relinquished by:	Received by:	Date:	Time:	Temp °C
JW		6/22/22	15:47	Observed 8.6
				Correction Factor +0.4
				Corrected 9.0
				IR ID # 6

[X] EDD format: PDF, Excel
[X] E-mail to: ewk.beloff@gza.com
JW

Condition upon receipt: Custody Seals: [ ] Present [ ] Intact [ ] Broken
[ ] Ambient [ ] Iced [ ] Refrigerated [ ] DI VOA Frozen [ ] Soil Jar Frozen

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8/1/2022

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Phone: 413-789-9018

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Huntley, Agnes R	Carrier Tracking No(s):	COC No: 620-4794.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Agnes.Huntley@et.eurofinsus.com	State of Origin: Rhode Island	Page: Page 1 of 2
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): State - Rhode Island		Job #: 620-5294-1
Address: 2425 New Holland Pike,	Due Date Requested: 6/30/2022			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: Jamestown Landfill - Jamestown, RI	Project #: 62000117			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, 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, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	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)	524.2_Preserved/ (MOD) Custom Analyte List	200.8/200.8_P_TOT RI15	6020B/3005A RI (ICPMS)	PFC_IDA_D5.3/3535_PFC DoD list of 25	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
POT-1 (620-5294-1)	6/22/22	13:03 Eastern		Drinking Wate			X	X			4	
GZ-1 (620-5294-2)	6/22/22	14:53 Eastern		Water					X	X	3	
GZ-2 (620-5294-3)	6/22/22	11:09 Eastern		Water					X	X	3	
GZ-3 (620-5294-4)	6/22/22	10:02 Eastern		Water					X	X	3	
GZ-4 (620-5294-5)	6/22/22	11:59 Eastern		Water					X	X	3	
GZ-5 (620-5294-6)	6/22/22	13:45 Eastern		Water					X	X	3	
GZ-6 (620-5294-7)	6/22/22	13:24 Eastern		Water					X	X	3	
GZ-7S (620-5294-8)	6/22/22	09:28 Eastern		Water					X	X	3	
GZ-7D (620-5294-9)	6/22/22	09:41 Eastern		Water					X	X	3	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ ~~*Months*~~
~~Deliverable Requested~~: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		6/23/22 17:57				
	Relinquished by:	Date/Time:	Company	~~Received by:~~	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/24/22 10:48	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.1

Ver: 06/08/2021

MB

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Phone: 413-789-9018

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Huntley, Agnes R	Carrier Tracking No(s):	COC No: 620-4794.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Agnes.Huntley@et.eurofinsus.com	State of Origin: Rhode Island	Page: Page 2 of 2
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): State - Rhode Island		Job #: 620-5294-1
Address: 2425 New Holland Pike,	Due Date Requested: 6/30/2022			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601	PO #:			
Phone: 717-656-2300(Tel)	WO #:			
Email:				
Project Name: Jamestown Landfill - Jamestown, RI	Project #: 62000117			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; 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; Y - Trizma; Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	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)	524.2_Preserved/ (MOD) Custom Analyte List	200.8/200.8_P_TOT RI15	6020B/3005A RI (ICPMS)	PFC_IDA_D5.3/3535_PFC DoD list of 25	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
GZ-8 (620-5294-10)	6/22/22	10:37 Eastern		Water					X	X	3	
GZ-9 (620-5294-11)	6/22/22	11:24 Eastern		Water					X	X	3	
Field Blank (620-5294-13)	6/22/22	10:00 Eastern		Water						X	1	
POT-1 (620-5294-14)	6/22/22	13:03 Eastern		Water						X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification: Unconfirmed	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)	Primary Deliverable Rank: 2
	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	6/23/22 12:53	ENE			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/24/22 10:08	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 620-5294-1

Login Number: 5294
List Number: 1
Creator: Makhoul, Elie

List Source: Eurofins New England

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

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 620-5294-1

Login Number: 5294
List Number: 2
Creator: Ballard, Megan

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 06/24/22 02:51 PM

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Received Trip Blank(s) not listed on COC.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	True	

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 620-5294-1

Login Number: 5294
List Number: 4
Creator: Alamos, Tshina

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 07/28/22 10:48 AM

Question	Answer	Comment
The cooler's custody seal is intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable (</=6C, not frozen).		
Cooler Temperature is recorded.		
WV: Container Temperature is acceptable (</=6C, not frozen).		
WV: Container Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
There are no discrepancies between the containers received and the COC.		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
There is sufficient vol. for all requested analyses.		
Is the Field Sampler's name present on COC?		
Sample custody seals are intact.		
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?		