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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]

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[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

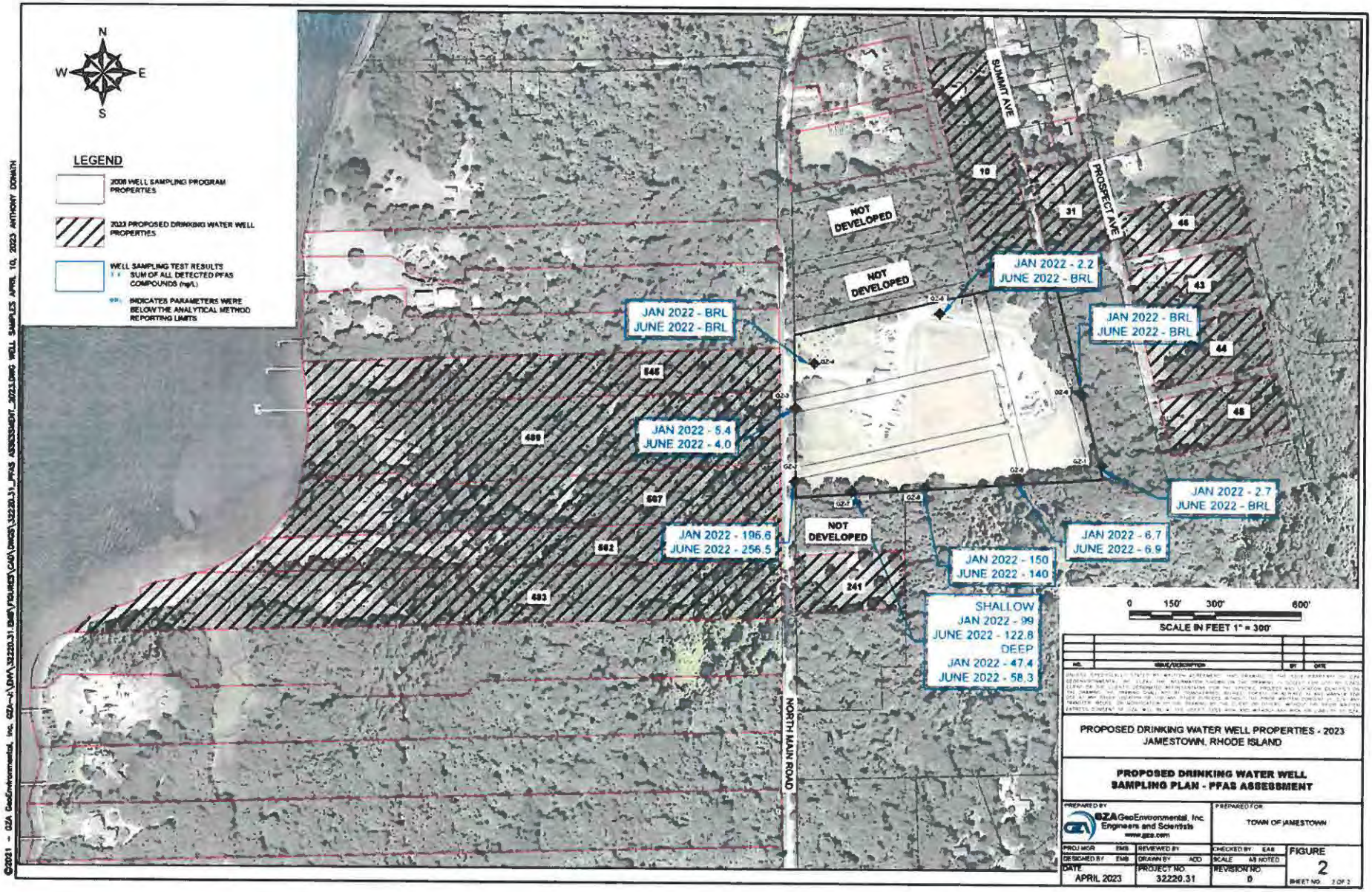
Richard J. Desrosiers, P.G.[NH, TN], CT-LEP
Consultant / Reviewer

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



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

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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

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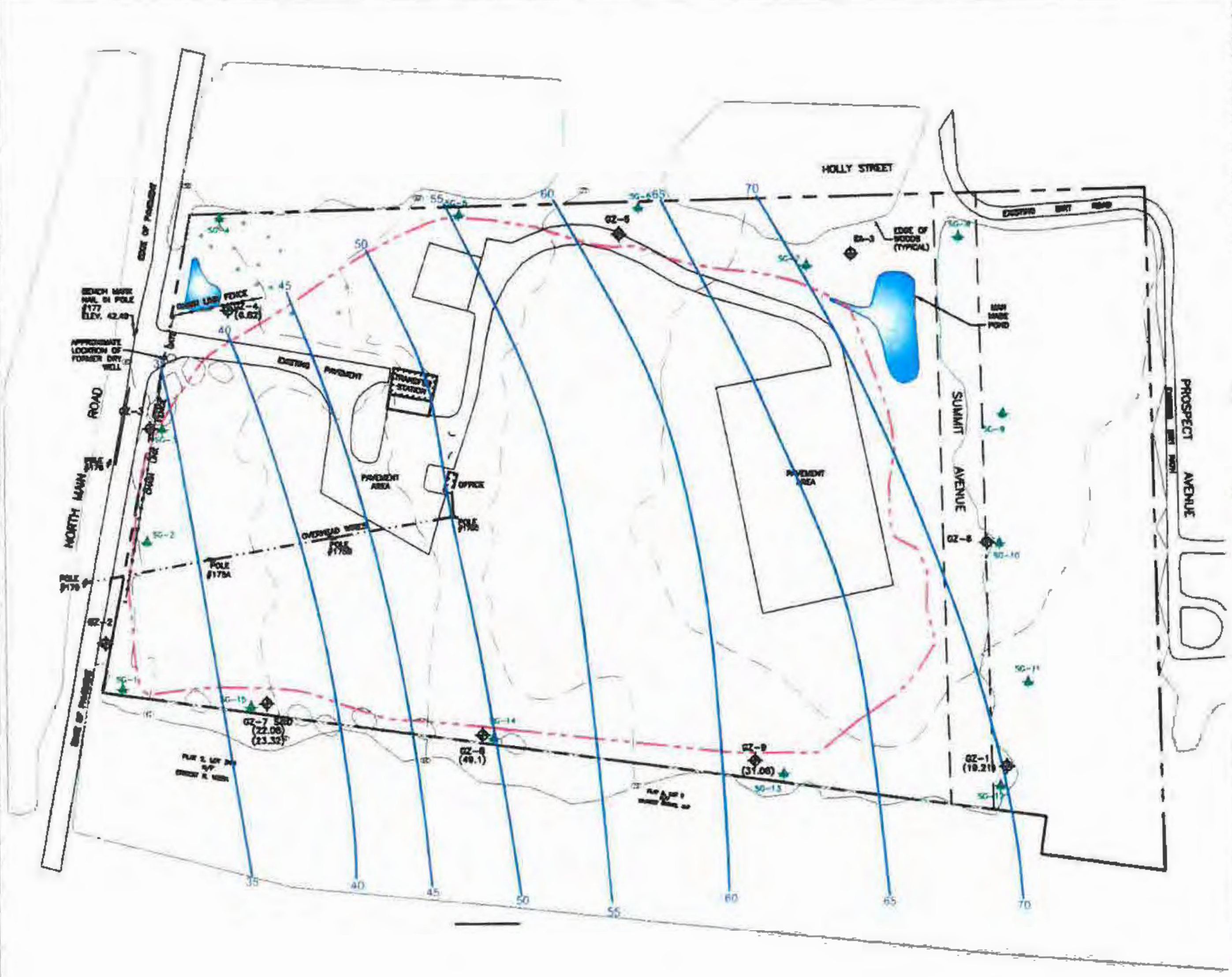
TABLES

TABLE 1
SUMMARY OF PFAS IN GW JANUARY AND JUNE 2022
FORMER ANNISTON LANDFILL
Anniston, AL

Parameter	CAS #	Units	GZ-1 Upgradient		GZ-2 Downgradient		GZ-3 Downgradient		GZ-4 Cross-gradient		GZ-5 Cross-gradient		GZ-6 Upgradient		GZ-7S Downgradient		GZ-7D Downgradient		GZ-8 Downgradient		GZ-9 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**	**190.0**	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
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
Perfluorotridecanoic 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
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
10:2 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	-	367.4	329.3	5.4	4.0	-	-	2.2	-	-	-	147.8	177.0	72.1	85.5	309.8	288.4	17.1	18.6

Notes
(1) "BRL" indicates parameter was below the method reporting limit (MRL).
(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 PFOA and/or PFOS.

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

(38.3) — 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

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
DESIGNED BY: EMB	DRAWN BY: ADG	SCALE: AS NOTED	2
DATE: AUGUST, 2022	PROJECT NO. 32220.31	REVISION NO. 0	SHEET NO. 1 OF 2