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October 8, 2024
File No. 01.0175200.10

Ms. Amy Green
Conservation Agent
Littleton Conservation Commission
37 Shattuck Street
PO Box 1305/Room B100
Littleton, Massachusetts 01460

Re: September 2024 Groundwater Quality Monitoring Results
151 and 153 Taylor Street
Littleton, Massachusetts

Dear Ms. Green:

On behalf of NorthBridge Partners (NorthBridge), GZA GeoEnvironmental, Inc. (GZA) is submitting this quarterly groundwater quality monitoring report to the Town of Littleton summarizing the results of the September 2024 groundwater quality monitoring round performed at the above-referenced property (the "Site"). Please note that this report is subject to the Limitations presented in **Attachment A**.

BACKGROUND

NorthBridge developed the Site in 2020-2021 as a commercial warehouse facility, currently occupied and operated as an Amazon regional distribution facility. The Site is abutted by Taylor Street to the east, by Monarch Drive to the south, and by wet areas associated with Beaver Brook to the north and west. Near the Site, Beaver Brook flows toward the east/northeast. A Site Locus Plan is included as **Figure 1.**

As a condition of permitting by the Town of Littleton (Town), and pursuant to the terms of a letter from Beals Associates, Inc. (Beals) to the Town dated November 10, 2020, NorthBridge agreed to implement a groundwater quality monitoring program at the Site[1] to monitor for potential future impacts to groundwater quality resulting from the application of pavement deicing chemicals. Four monitoring wells were subsequently installed in June 2021 at locations specified by the Town and shown on **Figure 2.**

The agreement with the Town specified that after an initial year of "baseline" quarterly monitoring, the subsequent quarterly groundwater quality data would be evaluated by comparison to the following project-specific criteria:

Objective	Criteria	Consequential Actions
Assess Seasonal Variation	Current monitoring season not to exceed 15% greater than corresponding prior season (i.e., fall of 2024 v. fall of 2023)	• Adjust deicing program for upcoming season • Extend monitoring period for a minimum of 3 years, unless the original 5-year period will run longer
Assess Total Project Impact	Current monitoring season not to exceed 25% greater than the corresponding baseline seasonal data	• Adjust deicing program for upcoming season • Extend monitoring period for a minimum of 3 years, unless the original 5-year period will run longer

[1] Beals Associates, Inc., November 10, 2020, letter to the Town of Littleton Conservation Commission Re: MassDEP File No. 204-0917, 153 Taylor Street, Littleton, MA.

The four initial baseline groundwater monitoring rounds were performed between June 2021 and March 2022. This report presents the results of the tenth post-baseline quarterly groundwater quality monitoring round, conducted on September 13, 2024.

Note that beginning with the winter of 2023-2024, the Site tenant had initiated a program of reduced deicing chemical usage in accordance with the requirements presented above. Additional details about the adjusted deicing program were previously provided to the Town in our report dated December 11, 2023, as well as during a Town Conservation Commission meeting on December 5, 2023.

RESULTS

The salient findings of the September 2024 monitoring event are presented below.

GROUNDWATER ELEVATIONS AND FLOW DIRECTIONS

A groundwater elevation contour and flow direction map prepared using the data from the September 2024 monitoring round is provided as **Figure 2**. As shown, the recent data are consistent with the historical data and continue to reflect a northerly to northeasterly groundwater flow direction. Note that during the September 2024 monitoring round, the water table at upgradient well GZ-4, located near Monarch Drive, had dropped below the bottom of the well during the sampling round and consequently could not be measured. Based on monthly precipitation data for Littleton[2], the monthly rainfall amounts for May, June, and July 2024 were 25% to 50% below the 30-year average, which resulted in the lower water table elevation.

WATER QUALITY MONITORING

On September 13, 2024, GZA collected groundwater samples from monitoring wells GZ-1 through GZ-3 using a peristaltic pump and following low-flow purging and sampling procedures. The low-flow purging process included monitoring and screening the groundwater purge stream from each well for pH, specific conductance (SC), temperature, oxidation-reduction potential (ORP), and dissolved oxygen (DO) using a YSI multimeter in conjunction with a flow-through cell. In addition, turbidity was monitored using a portable turbidity meter, and groundwater levels were periodically monitored with an electronic water level meter. The groundwater samples were collected shortly after the field screening parameters stabilized and without adjustment to the stabilized flow rate.

The stabilized field screening parameter data are summarized in **Table 1**. After sampling, the purged water was returned to the well from which it had been generated.

The groundwater samples were submitted to ESS Laboratory in Cranston, Rhode Island, under chain-of-custody protocol for analysis of chloride, dissolved calcium, dissolved sodium, and total hardness. Groundwater testing results are summarized in **Table 2** and graphically presented in **Attachment B**. The laboratory report for the September 2024 monitoring round is provided in **Attachment C**. As shown in **Table 2,** the target constituent concentrations detected in September were generally similar or lower in GZ-2 as compared to the prior monitoring rounds. As discussed below, certain constituents detected in wells GZ-1 and GZ-3 continued to be elevated relative to the applicable baseline data.

The June 2024 monitoring round marked the beginning of the third post-baseline monitoring year, and thus the project-specific Seasonal Variation criteria are evaluated by comparing the current monitoring data to the second post-baseline monitoring year (i.e., September 2023), while the Total Project Impact criteria are evaluated by comparing the current monitoring data to the baseline data (i.e., September 2021).

At well GZ-1, located off the northern edge and hydraulically downgradient of the parking lot, the September 2024 concentrations of chloride, dissolved calcium, dissolved sodium, and hardness all exceeded the respective results of the baseline monitoring event by over 25% and the prior season by over 15%.

[2] Data from Littleton Precipitation Report 2024, Littleton Water Department (https://www.lelwd.com/littleton-precipitation-totals/).

At well GZ-2, located off the southeastern edge and hydraulically downgradient of the parking lot, the September 2024 concentrations of chloride, dissolved calcium, and hardness were consistent with, or showed a decrease from, the September 2021 baseline concentrations and the concentrations measured during the prior (September 2023) season. The concentrations of dissolved sodium were both 15% higher than the previous September 2023 concentrations and 25% higher than the baseline September 2021 concentrations. The concentration of chloride continued to be below the detection level of 3.0 mg/L.

At well GZ-3, located northwest and hydraulically downgradient of the on-Site Amazon distribution building, concentrations of chloride and dissolved sodium were elevated above the 25% threshold compared to the baseline September 2021 season and the 15% threshold compared to the September 2023 concentration. Concentrations of dissolved sodium and hardness were below both the September 2021 baseline concentrations and the previous September 2023 concentrations. Well GZ-3 is also located hydraulically downgradient of both well GZ-4 and interstate highway I-495, and it is likely that the elevated concentrations observed at well GZ-3 are impacted by the continued application of deicing chemicals on the highway.

SEASONAL DEICING CHEMICAL USAGE

Seasonal deicing chemicals were not applied to the Site during the current monitoring period. Deicing chemical usage during the previous winter season (November 2023 through April 2024) were presented in our June 2024 monitoring report.

We hope and trust that this report is consistent with your needs and expectations. However, please do not hesitate to contact John Paquin at 781-278-3867 if you have questions or comments.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Flora Su
Assistant Project Manager

Lawrence Feldman, Ph.D.
Consultant/Reviewer

John R. Paquin
Associate Principal

cc: Tim Ervin, NorthBridge
Owen Hall, NorthBridge
Brian Orr, NorthBridge
Ryan Carroll, NorthBridge

Attachments: Table 1 – Stabilized Low-Flow Groundwater Sampling Field Parameters
Table 2 – Groundwater Analytical Data
Table 3 – Salt Usage Data

Figure 1 – Locus Plan
Figure 2 – Site Plan with Groundwater Elevation Contours

Attachment A – Limitations
Attachment B – Time-Series Concentration Plots
Attachment C – Laboratory Analytical Results

Table 1 – Stabilized Low-Flow Groundwater Sampling Field Parameters

Well ID	Date	Temperature (°C)	Dissolved Oxygen (mg/L)	pH (S.U.)	Specific Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)
GZ-1	6/4/2021	14.8	7.60	6.93	276.5	116.9	7.26
	9/13/2021	17.1	6.31	6.47	340.6	138.0	1.04
	12/29/2021	12.9	4.83	6.32	381.0	184.3	6.31
	3/28/2022	11.4	5.98	6.58	221.9	153.2	8.44
	6/30/2022	13.9	3.21	6.45	322.9	115.2	0.88
	10/18/2022	14.7	6.78	6.76	892.0	116.6	7.40
	12/13/2022	14.1	6.21	6.34	337.0	59.0	0.34
	3/9/2023	11.2	6.99	6.06	359.0	118.1	10.3
	6/12/2023	13.2	6.40	6.43	581.7	107.7	2.22
	9/20/2023	16.7	4.95	12.4	325.0	14.2	2.88
	12/29/2023	13.7	6.39	6.97	386.6	15.2	0.02
	4/22/2024	11.4	6.69	6.95	602.8	127.9	0.72
	6/3/2024	13.7	5.64	6.55	955.0	44.4	3.68
	9/13/2024	16.3	6.55	6.60	752.0	61.0	2.55
GZ-2	6/4/2021	13.9	9.28	6.67	109.9	152.3	3.99
	9/13/2021	15.6	9.58	6.50	140.6	140.3	0.63
	12/29/2021	12.8	8.26	6.59	202.0	172.6	1.48
	3/28/2022	10.6	11.22	6.74	199.5	146.0	6.05
	6/30/2022	12.5	4.39	6.83	227.3	103.4	0.23
	10/18/2022	14.0	5.33	6.93	238.2	114.8	5.81
	12/13/2022	14.3	8.16	6.39	237.0	34.7	1.00
	3/9/2023	12.4	9.21	6.14	186.0	131.2	4.34
	6/12/2023	13.9	6.42	6.47	214.7	105.7	0.83
	9/20/2023	15.7	6.39	11.9	192.0	38.1	1.33
	12/29/2023	12.6	7.25	6.84	185.7	10.9	0.02
	4/22/2024	11.0	8.46	6.67	145.1	149.3	0.38
	6/3/2024	14.0	7.13	6.50	143.0	28.7	1.44
	9/13/2024	16.1	1.61	6.58	203.3	35.9	2.19
GZ-3	6/4/2021	15.9	0.25	5.44	125.2	245.4	15.6
	9/13/2021	20.1	0.14	5.44	195.2	142.3	0.39
	12/29/2021	10.6	4.76	6.01	515.0	210.1	27.9
	3/28/2022	5.9	1.81	5.55	145.1	174.8	9.53
	6/30/2022	13.0	0.73	5.39	155.6	258.3	2.93
	10/18/2022	15.2	1.68	5.51	144.6	230.5	7.32
	12/13/2022	12.9	0.44	5.64	187.0	32.1	13.7
	3/9/2023	7.49	6.58	6.05	107.0	128.2	6.16
	6/12/2023	12.3	0.69	5.23	182.1	157.1	3.82
	9/20/2023	19.4	0.12	8.39	184.0	-17.7	1.46
	12/29/2023	8.9	3.50	6.04	124.2	16.7	0.02
	4/22/2024	8.7	2.18	5.84	162.0	158.8	0.50
	6/3/2024	13.4	1.69	5.35	177.2	28.8	4.29
	9/13/2024	17.5	2.01	5.34	197.0	62.2	2.09
GZ-4	6/4/2021	12.8	8.48	6.04	2,061	172.0	3.56
	9/13/2021	14.6	4.04	6.05	742.0	175.8	13.9
	12/29/2021	9.83	1.16	5.36	175.0	243.6	2.18
	3/28/2022	6.00	5.51	6.08	2,636	191.7	7.97
	6/30/2022	NM	NM	NM	NM	NM	NM
	10/18/2022	NM	NM	NM	NM	NM	NM
	12/13/2022	11.9	0.15	5.95	733.0	56.7	308
	3/9/2023	7.42	0.16	6.55	1,492	945.0	9.49
	6/12/2023	13.8	4.31	5.85	954.0	147.9	22.3
	9/20/2023	14.3	3.87	13.0	805.0	16.0	4.3
	12/29/2023	10.8	4.31	6.51	1,596	12.8	0.02
	4/22/2024	7.3	4.00	6.06	978.0	182.6	1.28
	6/3/2024	12.7	4.00	5.99	501.0	31.4	3.44
	9/13/2024	NM	NM	NM	NM	NM	NM

Notes:

1. Temperature, dissolved oxygen, pH, specific conductivity, and ORP were measured using a YSI multimeter.
2. On June 30, 2022, due to low standing well volume and recharge rate, GZ-4 ran dry during low-flow purging, and thus no stabilized field parameters could be measured.
3. On October 18, 2022, and on September 13, 2024, no groundwater was detected in well GZ-4, and thus no groundwater field parameters could be measured.
4. On September 20, 2023, the pH meter readings appeared to be consistently measuring pH values higher than typically measured for groundwater. Additionally, the ORP meter was providing readings significantly lower than typical. This likely indicates the pH and ORP meters may have been out of calibration during the sampling event. Although the absolute values may not accurately reflect pH and ORP values for this sampling round, the readings were used to evaluate parameter stabilization during low-flow purging.

Abbreviations:

ORP = Oxidation-reduction potential

Table 2 – Groundwater Analytical Data

TABLE 2
GROUNDWATER ANALYTICAL DATA
151 and 153 Taylor Street
Littleton, Massachusetts

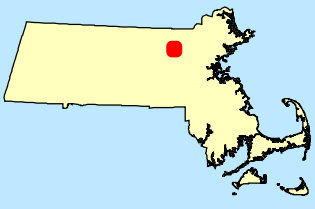
Well ID	Well Screen Interval (ft bgs)	Sample Date	Groundwater Elevation (ft NAVD88)	Chloride (mg/L)	Total Calcium (mg/L)	Dissolved Calcium (mg/L)	Total Sodium (mg/L)	Dissolved Sodium (mg/L)	Total Hardness (mg/L)	Hardness, filtered (mg/L)
Available Regulatory Standards				**250 (1)**	**NS**	**NS**	**20 (2)**	**20 (2)**	**NS**	**NS**
GZ-1	9-24	6/5/2021	221.71	10.4	23.1	--	31.3	--	70.4	--
		9/13/2021	221.64	9.4	22.3	--	44.2	--	65.4	--
		12/29/2021	222.28	8.4	25.1	--	47.4	--	74.9	--
		3/28/2022	221.75	12.5	16.0	--	24.4	--	49.1	--
		6/30/2022	220.84	**61.7**	24.7	--	20.2	--	77.5	--
		10/18/2022	221.15	**198**	**70.1**	--	**60.1**	--	**213**	--
		12/13/2022	221.55	**21.6**	20.6	--	39.7	--	60.4	--
		3/9/2023	221.72	**64.9**	**36.2**	**38.1**	**44.4**	**46.9**	**112**	**117**
		6/12/2023	221.44	**133**	--	**56.1**	--	**54.8**	--	**168**
		9/20/2023	222.18	14.5	--	24.6	--	34.2	--	69.3
		12/29/2023	222.11	ND(<3.0)	--	**37.4**	--	37.9	--	**113**
		4/22/2024	221.84	**85.5**	--	**52.8**	--	**53.5**	--	**166**
		6/3/2024	221.67	**202**	--	41.6	--	**123**	--	132.0
		9/13/2024	220.55	**169**	--	**30.8**	--	**114**	--	**96.4**
GZ-2	8-23	6/5/2021	221.85	ND(<3.0)	3.0	--	23.7	--	9.46	--
		9/13/2021	221.75	6.8	5.2	--	25	--	14.5	--
		12/29/2021	221.66	16.7	7.12	--	29.3	--	19.5	--
		3/28/2022	221.80	12.4	6.91	--	33.3	--	20.1	--
		6/30/2022	220.79	**13.5**	**11.7**	--	23.9	--	**31.1**	--
		10/18/2022	220.73	**20.1**	**26.3**	--	25.4	--	**70.0**	--
		12/13/2022	221.36	**23**	**13.8**	--	30.0	--	**48.6**	--
		3/9/2023	221.69	**15.4**	**11.1**	**11.0**	36.8	36.6	**30.2**	**30**
		6/12/2023	221.32	10.5	--	12.5	--	**35.5**	--	33.4
		9/20/2023	222.12	3.7	--	5.24	--	**30.8**	--	15.1
		12/29/2023	222.53	ND(<3.0)	--	5.18	--	33.8	--	15.1
		4/22/2024	222.27	ND(<3.0)	--	3.71	--	26.1	--	10.7
		6/3/2024	221.67	ND(<3.0)	--	4.0	--	2.56	--	10.9
		9/13/2024	220.39	ND(<3.0)	--	5.2	--	**42.1**	--	13.6
GZ-3	3-14	6/5/2021	224.95	4.4	7.23	--	9.59	--	29.7	--
		9/13/2021	225.70	10.3	15.5	--	11.9	--	57.4	--
		12/29/2021	224.68	7.1	9.9	--	8.05	--	36.2	--
		3/28/2022	225.12	7.0	14.1	--	8.51	--	46.3	--
		6/30/2022	222.83	**14.0**	5.89	--	**28.8**	--	25.6	--
		10/18/2022	223.44	8.3	6.78	--	12.7	--	27.9	--
		12/13/2022	223.67	**9.4**	9.41	--	**15.0**	--	38.1	--
		3/9/2023	224.28	5.0	11.5	11.5	8.6	9.0	42.7	43.1
		6/12/2023	223.70	9.7	--	**15.5**	--	12.1	--	**54.5**
		9/20/2023	226.80	9.4	--	**17.7**	--	5.65	--	**56.8**
		12/29/2023	226.54	3.7	--	**14.6**	--	ND(<5.0)	--	**47.1**
		4/22/2024	225.77	**7.4**	--	**15.2**	--	5.98	--	**55.3**
		6/3/2024	224.32	**11.9**	--	12.3	--	12.3	--	45.0
		9/13/2024	221.99	**34.3**	--	11	--	**21.4**	--	40.1
GZ-4	6-21	6/5/2021	259.35	640	23.7	--	406	--	67.9	--
		9/13/2021	255.48	178	9.28	--	139	--	28	--
		12/29/2021	255.85	117	7.99	--	107	--	41	--
		3/28/2022	259.28	718	44.0	--	459	--	125	--
		6/30/2022	252.75	201	14.2	--	112	--	50.1	--
		10/18/2022	NM [8]	NM	NM	--	NM	--	NM	--
		12/13/2022	253.72	**157**	**13.1**	--	**160**	--	**47.2**	--
		3/9/2023	258.39	694	24.6	25.0	452	454	71.5	72.7
		6/12/2023	255.22	**252**	--	10.9	--	**182**	--	31.1
		9/20/2023	255.73	221	--	8.45	--	180	--	24.2
		12/29/2023	259.89	**437**	--	**19.3**	--	**326**	--	**57.8**
		4/22/2024	260.11	256	--	11.0	--	162	--	34.3
		6/3/2024	256.41	125	--	5.1	--	91.8	--	15.6
		9/13/2024	NM [8]	NM	--	NM	--	NM	--	NM

Notes:

1. From the EPA Secondary Drinking Water Standards.
2. From the EPA guidance level for people requiring reduced salt intake (i.e. 500 mg/day).
3. NS = No applicable standard.
4. ND = Not Detected. Individual laboratory detection limits vary by compound.
5. Blue shaded rows indicate seasonal baseline monitoring rounds.
6. **Bold** values indicate results that were above 15% greater than concentrations measured in the previous season.
7. Yellow highlighted values indicate results that were above 25% greater than concentrations measured during the corresponding seasonal baseline sampling round.
8. NM = Not Measured. GZ-4 was dry during the gauging and sampling rounds on October 18, 2022, and September 13, 2024.
9. The September 2023 results were compared only against the baseline data, since no samples were collected the previous season (October 2022) because the well was dry.

Figure 1 – Locus Plan

MASSACHUSETTS



QUADRANGLE LOCATION

BASE MAP FOR THE FOLLOWING USGS QUADRANGLE MAP

DIGITAL TOPOGRAPHIC MAPS PROVIDED BY
COPYRIGHT:© 2013 NATIONAL GEOGRAPHIC

CONTOUR ELEVATIONS REFERENCE NGVD 29

CONTOURS ARE SHOWN IN METERS AT 10' INTERVALS

0 1,150 2,300 4,600

SCALE IN FEET 1" = 4000'

N
W E
S

151 & 153 TAYLOR STREET
LITTLETON, MA

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
NORTHBRIDGE PARTNERS 401
EDGEWATER PLACE, SUITE 265
WAKEFIELD, MASSACHUSETTS 01880

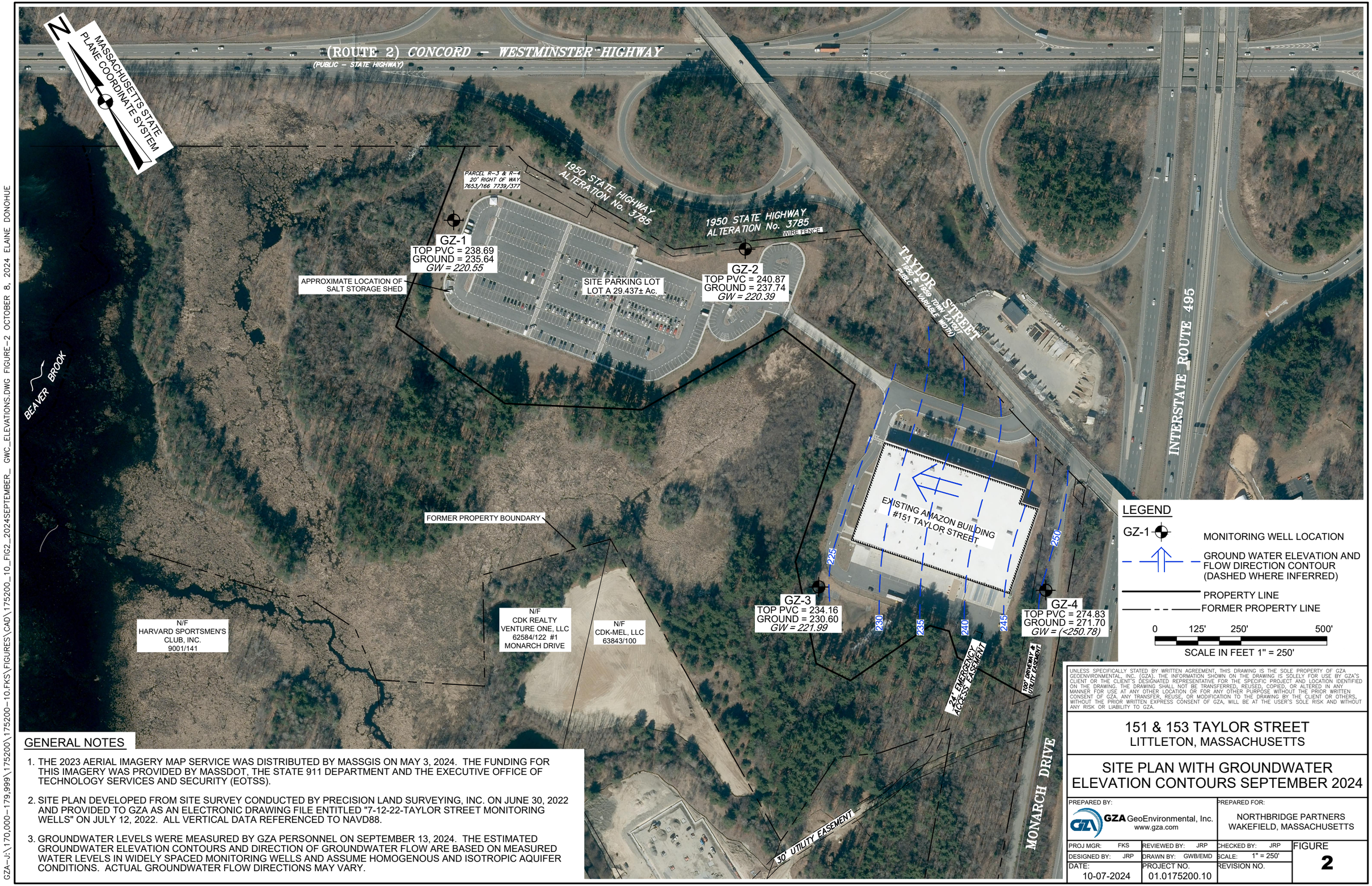
LOCUS PLAN

PROJ MGR:	FKS	REVIEWED BY:	JRP	CHECKED BY:	JLC
DESIGNED BY:	FKS	DRAWN BY:	GWB	SCALE:	1 in = 2,333 ft
DATE:	10/08/2024	PROJECT NO:	01.0175200.10	REVISION NO:	

FIGURE
1

 J:\170,000-179,999\175200\175200-10.FKS\Figures\GIS\175200_10_Fig1_LocusPlan.mxd, 10/8/2024, 1:41:55 PM, elaine.donohue

Figure 2 – Site Plan with Groundwater Elevation Contours



GENERAL NOTES

1. THE 2023 AERIAL IMAGERY MAP SERVICE WAS DISTRIBUTED BY MASSGIS ON MAY 3, 2024. THE FUNDING FOR THIS IMAGERY WAS PROVIDED BY MASSDOT, THE STATE 911 DEPARTMENT AND THE EXECUTIVE OFFICE OF TECHNOLOGY SERVICES AND SECURITY (EOTSS).
2. SITE PLAN DEVELOPED FROM SITE SURVEY CONDUCTED BY PRECISION LAND SURVEYING, INC. ON JUNE 30, 2022 AND PROVIDED TO GZA AS AN ELECTRONIC DRAWING FILE ENTITLED "7-12-22-TAYLOR STREET MONITORING WELLS" ON JULY 12, 2022. ALL VERTICAL DATA REFERENCED TO NAVD88.
3. GROUNDWATER LEVELS WERE MEASURED BY GZA PERSONNEL ON SEPTEMBER 13, 2024. THE ESTIMATED GROUNDWATER ELEVATION CONTOURS AND DIRECTION OF GROUNDWATER FLOW ARE BASED ON MEASURED WATER LEVELS IN WIDELY SPACED MONITORING WELLS AND ASSUME HOMOGENOUS AND ISOTROPIC AQUIFER CONDITIONS. ACTUAL GROUNDWATER FLOW DIRECTIONS MAY VARY.

151 & 153 TAYLOR STREET
LITTLETON, MASSACHUSETTS

SITE PLAN WITH GROUNDWATER ELEVATION CONTOURS SEPTEMBER 2024

PREPARED BY: GZA GeoEnvironmental, Inc. www.gza.com		PREPARED FOR: NORTHBRIDGE PARTNERS WAKEFIELD, MASSACHUSETTS	
PROJ MGR: FKS	REVIEWED BY: JRP	CHECKED BY: JRP	FIGURE 2
DESIGNED BY: JRP	DRAWN BY: GWB/EMD	SCALE: 1" = 250'	
DATE: 10-07-2024	PROJECT NO. 01.0175200.10	REVISION NO.	

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 the party's sole risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on 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 similar property. No warranty, express 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, were developed utilizing interpolation/extrapolation methods, 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 extend 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 the specified 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 and heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table and hydraulic heads 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 noted otherwise, 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 and data as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support he opinions provided in the Report.

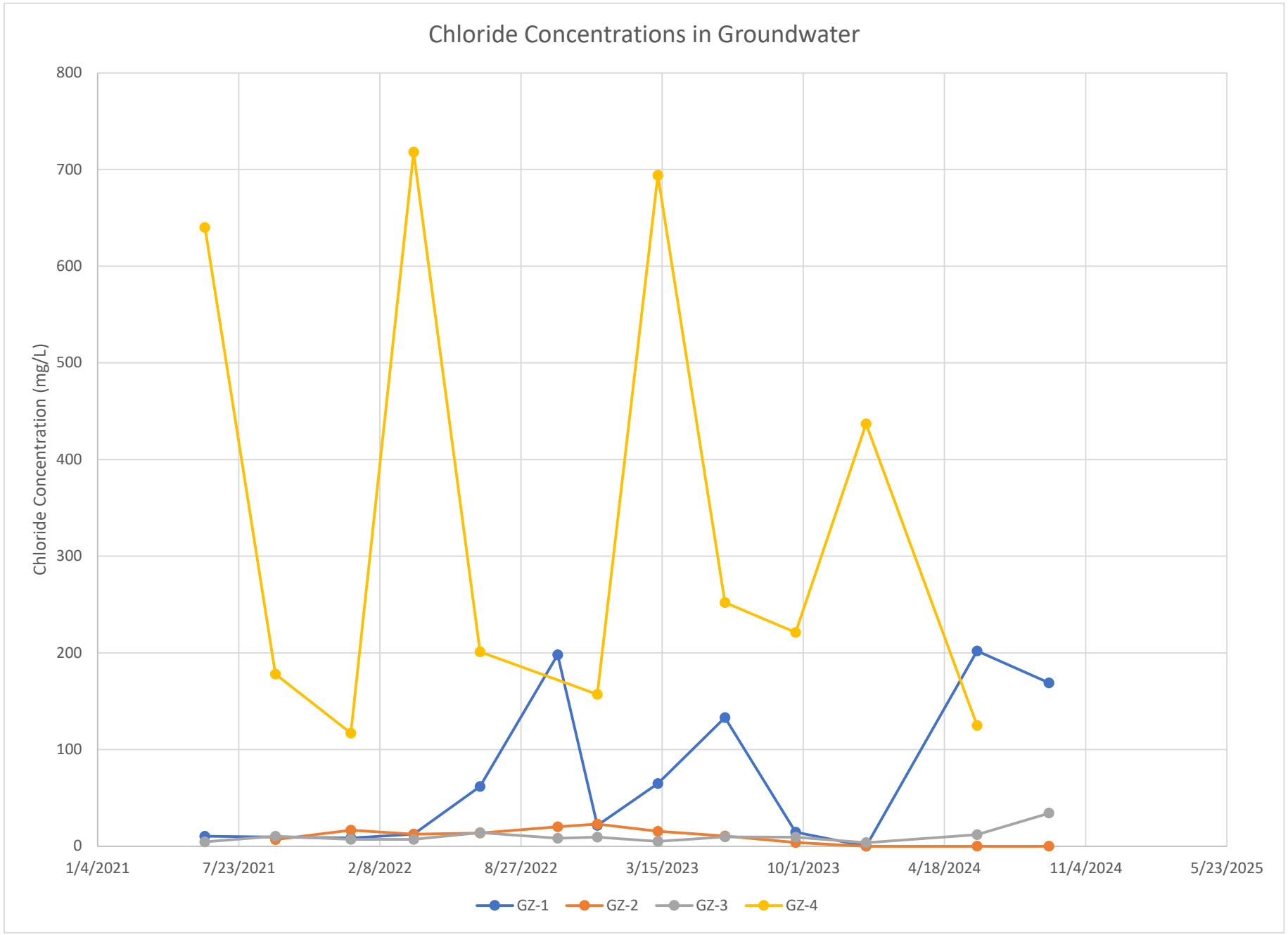
ADDITIONAL INFORMATION

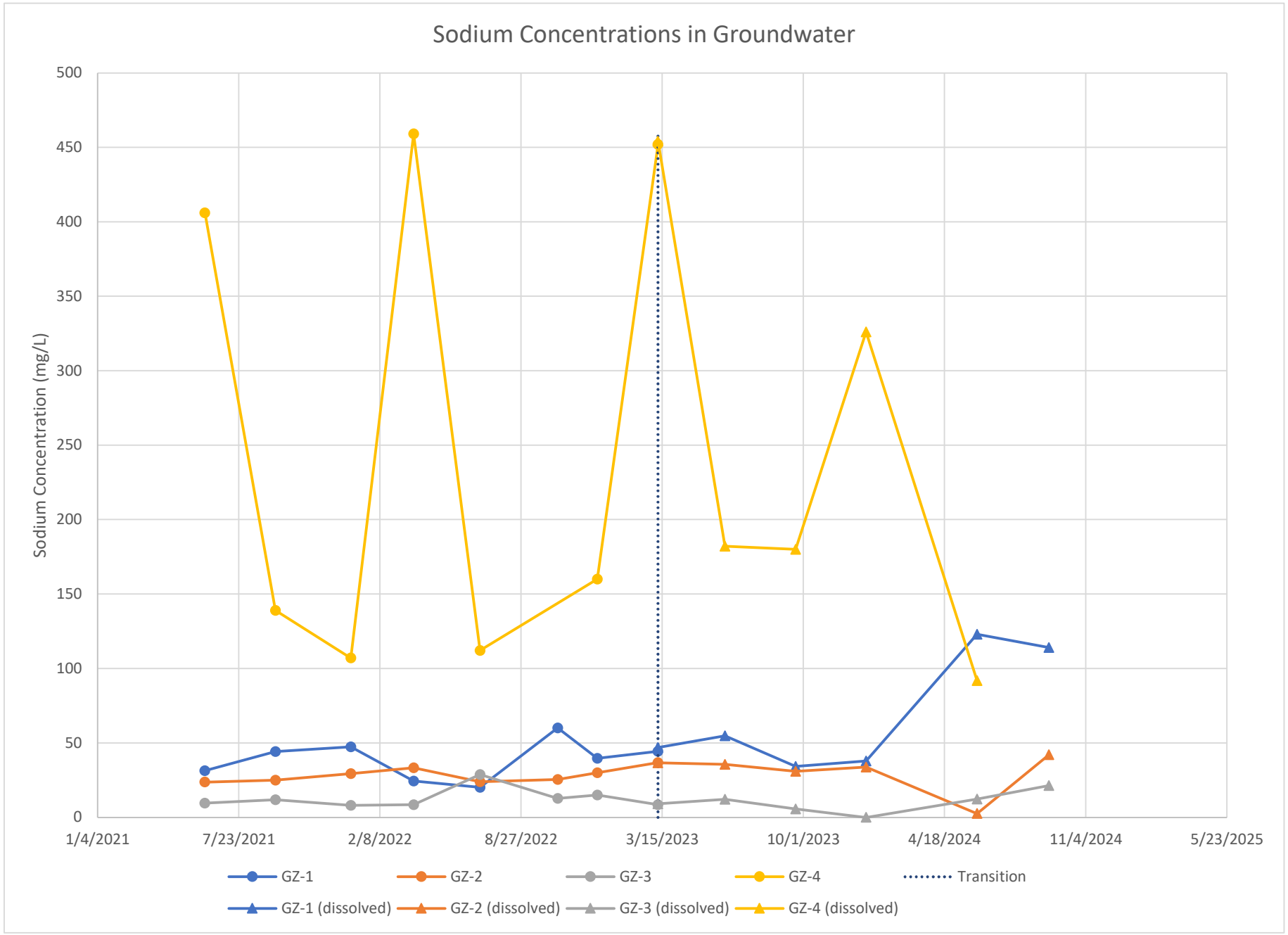
12. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this Report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis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

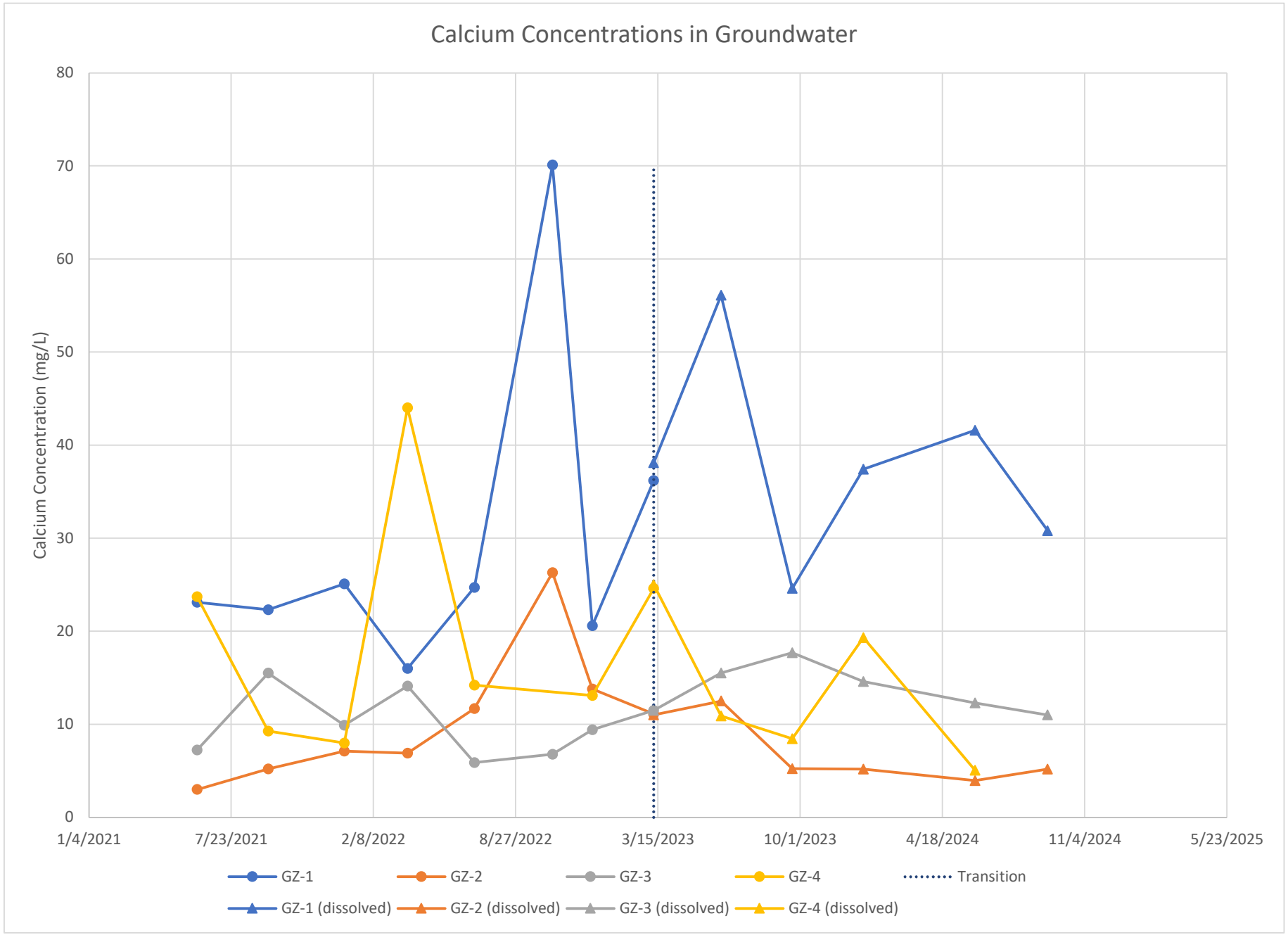
ADDITIONAL SERVICES

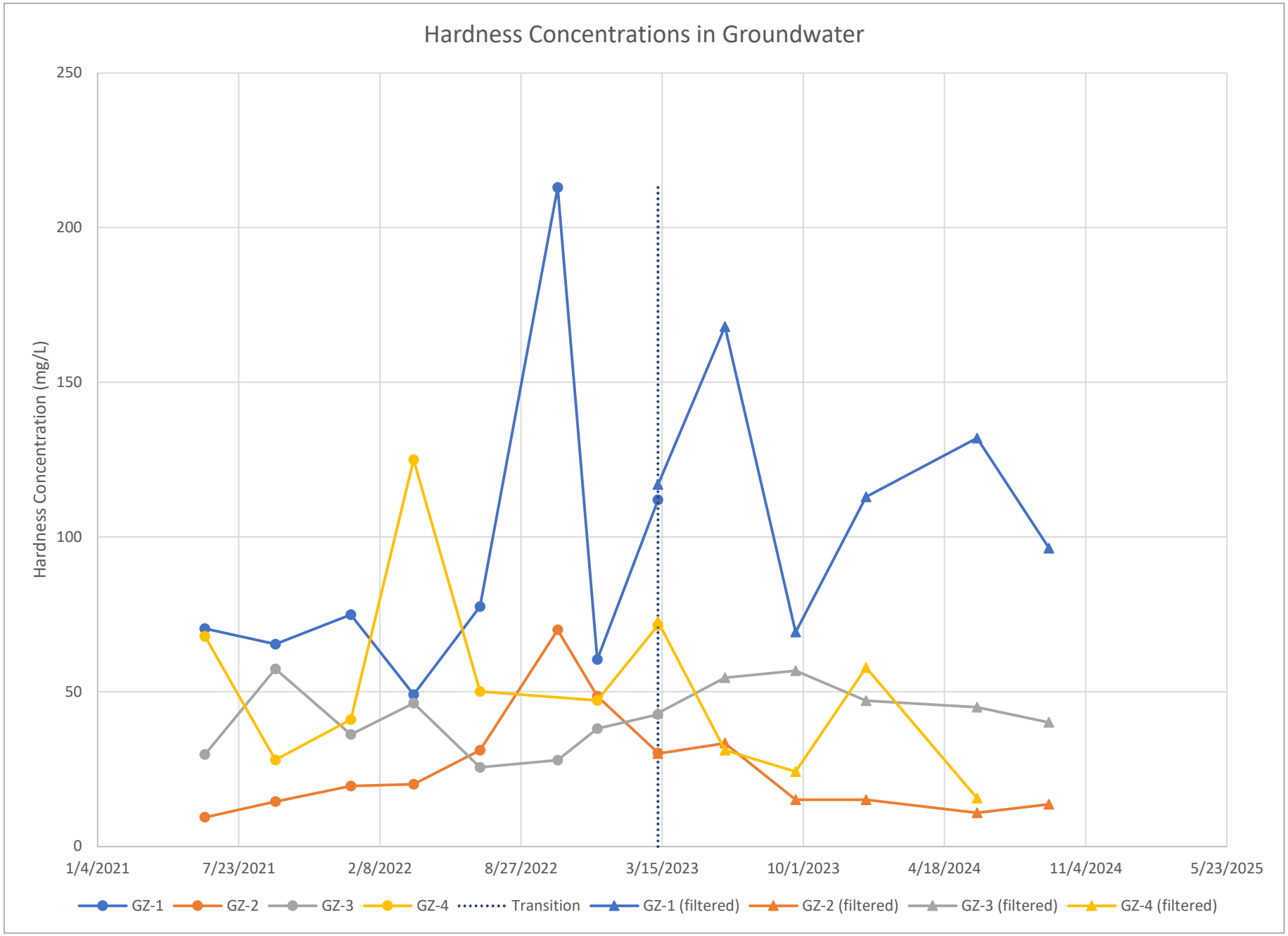
13. GZA recommends that we be retained to provide services during any future investigations, design, implementation, activities, construction, and/or property development/redevelopment of the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and 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 – Time-Series Concentration Plots


Chloride Concentrations in Groundwater
Chloride Concentration (mg/L)
800
700
600
500
400
300
200
100
0
1/4/2021
7/23/2021
2/8/2022
8/27/2022
3/15/2023
10/1/2023
4/18/2024
11/4/2024
5/23/2025
GZ-1
GZ-2
GZ-3
GZ-4


Sodium Concentrations in Groundwater
Sodium Concentration (mg/L)
500
450
400
350
300
250
200
150
100
50
0
1/4/2021
7/23/2021
2/8/2022
8/27/2022
3/15/2023
10/1/2023
4/18/2024
11/4/2024
5/23/2025
GZ-1
GZ-2
GZ-3
GZ-4
Transition
GZ-1 (dissolved)
GZ-2 (dissolved)
GZ-3 (dissolved)
GZ-4 (dissolved)


Calcium Concentrations in Groundwater
Calcium Concentration (mg/L)
80
70
60
50
40
30
20
10
0
1/4/2021
7/23/2021
2/8/2022
8/27/2022
3/15/2023
10/1/2023
4/18/2024
11/4/2024
5/23/2025
GZ-1
GZ-2
GZ-3
GZ-4
Transition
GZ-1 (dissolved)
GZ-2 (dissolved)
GZ-3 (dissolved)
GZ-4 (dissolved)


Hardness Concentrations in Groundwater
Hardness Concentration (mg/L)
250
200
150
100
50
0
1/4/2021
7/23/2021
2/8/2022
8/27/2022
3/15/2023
10/1/2023
4/18/2024
11/4/2024
5/23/2025
GZ-1
GZ-2
GZ-3
GZ-4
Transition
GZ-1 (filtered)
GZ-2 (filtered)
GZ-3 (filtered)
GZ-4 (filtered)

Attachment C – Laboratory Analytical Results

CERTIFICATE OF ANALYSIS

Flora Su
GZA GeoEnvironmental, Inc.
249 Vanderbilt Avenue
Norwood, MA 02062

RE: 151-153 Taylor St Littleton MA - MCP (01.0175200.10)
ESS Laboratory Work Order Number: 24I0511

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 2:08 pm, Sep 24, 2024

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with TNI and relative state standards, and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 151-153 Taylor St Littleton MA - MCP ESS Laboratory Work Order: 24I0511

SAMPLE RECEIPT

The following samples were received on September 17, 2024 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been performed and achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Limit Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	Sample Name	Matrix	Analysis
24I0511-01	GZ-1	Ground Water	6010D, 9250, CALC
24I0511-02	GZ-2	Ground Water	6010D, 9250, CALC
24I0511-03	GZ-3	Ground Water	6010D, 9250, CALC

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 151-153 Taylor St Littleton MA - MCP ESS Laboratory Work Order: 24I0511

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

To ensure you are viewing the most current version of the documents below, please clear your internet cookies for www.ESSLaboratory.com. Consult your IT Support personnel for information on how to clear your internet cookies.

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 151-153 Taylor St Littleton MA - MCP ESS Laboratory Work Order: 24I0511

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010D - ICP
6020B - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015C - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260D - VOA
8270E - SVOA
8270E SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 19-2.1 - EPH
MADEP 18-2.1 - VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035A - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 151-153 Taylor St Littleton MA - MCP
Client Sample ID: GZ-1
Date Sampled: 09/13/24 13:40
Percent Solids: N/A

ESS Laboratory Work Order: 24I0511
ESS Laboratory Sample ID: 24I0511-01
Sample Matrix: Ground Water
Units: ug/L

Extraction Method: 3005A

Dissolved Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	IV / FV	Batch
Calcium	**30800** (100)	---	6010D	---	1	KJB	09/18/24 17:57	50 25	DI41804
Sodium	**114000** (2500)	---	6010D	---	1	KJB	09/18/24 17:57	50 25	DI41804
Hardness	**96400** (662)	---	CALC	---	1	KJB	09/18/24 17:57	50 25	DI41804

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 151-153 Taylor St Littleton MA - MCP
Client Sample ID: GZ-1
Date Sampled: 09/13/24 13:40
Percent Solids: N/A

ESS Laboratory Work Order: 24I0511
ESS Laboratory Sample ID: 24I0511-01
Sample Matrix: Ground Water

Classical Chemistry

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	Units	Batch
Chloride	**169** (30.0)	---	9250	---	10	EAM	09/18/24 15:59	mg/L	DI41828

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 151-153 Taylor St Littleton MA - MCP
Client Sample ID: GZ-2
Date Sampled: 09/13/24 12:30
Percent Solids: N/A

ESS Laboratory Work Order: 24I0511
ESS Laboratory Sample ID: 24I0511-02
Sample Matrix: Ground Water
Units: ug/L

Extraction Method: 3005A

Dissolved Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	IV / FV	Batch
Calcium	**5170** (100)	---	6010D	---	1	KJB	09/18/24 18:04	50 25	DI41804
Sodium	**42100** (2500)	---	6010D	---	1	KJB	09/18/24 18:04	50 25	DI41804
Hardness	**13600** (662)	---	CALC	---	1	KJB	09/18/24 18:04	50 25	DI41804

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 151-153 Taylor St Littleton MA - MCP
Client Sample ID: GZ-2
Date Sampled: 09/13/24 12:30
Percent Solids: N/A

ESS Laboratory Work Order: 24I0511
ESS Laboratory Sample ID: 24I0511-02
Sample Matrix: Ground Water

Classical Chemistry

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	Units	Batch
Chloride	ND (3.0)	---	9250	---	1	EAM	09/18/24 15:46	mg/L	DI41828

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 151-153 Taylor St Littleton MA - MCP
Client Sample ID: GZ-3
Date Sampled: 09/13/24 11:20
Percent Solids: N/A

ESS Laboratory Work Order: 24I0511
ESS Laboratory Sample ID: 24I0511-03
Sample Matrix: Ground Water
Units: ug/L

Extraction Method: 3005A

Dissolved Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	IV / FV	Batch
Calcium	**11000** (100)	---	6010D	---	1	KJB	09/18/24 18:07	50 25	DI41804
Sodium	**21400** (2500)	---	6010D	---	1	KJB	09/18/24 18:07	50 25	DI41804
Hardness	**40100** (662)	---	CALC	---	1	KJB	09/18/24 18:07	50 25	DI41804

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 151-153 Taylor St Littleton MA - MCP
Client Sample ID: GZ-3
Date Sampled: 09/13/24 11:20
Percent Solids: N/A

ESS Laboratory Work Order: 24I0511
ESS Laboratory Sample ID: 24I0511-03
Sample Matrix: Ground Water

Classical Chemistry

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	Units	Batch
Chloride	**34.3** (3.0)	---	9250	---	1	EAM	09/18/24 15:47	mg/L	DI41828

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 151-153 Taylor St Littleton MA - MCP ESS Laboratory Work Order: 24I0511

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Dissolved Metals										
Batch DI41804 - 3005A										
Blank										
Calcium	ND	100	ug/L							
Calcium	ND	100	ug/L							
Magnesium	ND	100	ug/L							
Sodium	ND	2500	ug/L							
LCS										
Calcium	2650	100	ug/L	2500		106	85-115			
Calcium	2650	100	ug/L	2500		106	80-120			
Magnesium	2640	100	ug/L	2500		106	85-115			
Sodium	12900	2500	ug/L	12500		103	80-120			
LCS Dup										
Calcium	2580	100	ug/L	2500		103	85-115	3	20	
Calcium	2580	100	ug/L	2500		103	80-120	3	20	
Magnesium	2570	100	ug/L	2500		103	85-115	3	20	
Sodium	12500	2500	ug/L	12500		100	80-120	3	20	
Classical Chemistry										
Batch DI41828 - General Preparation										
Blank										
Chloride	ND	3.0	mg/L							
LCS										
Chloride	31.0		mg/L	30.00		103	90-110			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 151-153 Taylor St Littleton MA - MCP ESS Laboratory Work Order: 24I0511

Notes and Definitions

U	Analyte included in the analysis, but not detected
D	Diluted.
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report
RL	Reporting Limit
EDL	Estimated Detection Limit
MF	Membrane Filtration
MPN	Most Probable Number
TNTC	Too numerous to Count
CFU	Colony Forming Units

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 151-153 Taylor St Littleton MA - MCP ESS Laboratory Work Order: 24I0511

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/partners/labCert.shtml

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

Pennsylvania: 68-01752
http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx

ESS Laboratory Sample and Cooler Receipt Checklist

Client: GZA - Norwood, MA - GZA/TB

Shipped/Delivered Via: ESS Courier

ESS Project ID: 24I0511
Date Received: 9/17/2024
Project Due Date: 9/24/2024
Days for Project: 5 Day

Air bill manifest present? No
Air No.: NA

Were custody seals present? No

Is radiation count <100 CPM? Yes

. Is a Cooler Present? Yes
Temp: 4.4 Iced with: Ice

. Was COC signed and dated by client? Yes

6. Does COC match bottles? Yes

7. Is COC complete and correct? Yes

8. Were samples received intact? Yes

9. Were labs informed about short holds & rushes? Yes / No / (NA)

10. Were any analyses received outside of hold time? Yes / (No)

11. Any Subcontracting needed? Yes / (No)
ESS Sample IDs:
Analysis:
TAT:

12. Were VOAs received? Yes / (No)
a. Air bubbles in aqueous VOAs? Yes / (No)
b. Does methanol cover soil completely? Yes / No / (NA)

13. Are the samples properly preserved? (Yes) / No
a. If metals preserved upon receipt: Date: Time: By/Acid Lot#:
b. If dissolved metals are requested, are they: (Yes) / No Field Filtered Yes / No To Be Lab Filtered
c. Low Level VOA vials frozen: Date: Time: By:

Sample Receiving Notes:

14. Was there a need to contact Project Manager? Yes / (No)
a. Was there a need to contact the client? Yes / (No)
Who was contacted: Date: Time: By:

Resolution:

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
1	591913	Yes	N/A	Yes	250 mL Poly	NP	
1	591916	Yes	N/A	Yes	250 mL Poly	HNO3	
1	591917	Yes	N/A	Yes	250 mL Poly	HNO3	
2	591914	Yes	N/A	Yes	250 mL Poly	NP	
2	591918	Yes	N/A	Yes	250 mL Poly	HNO3	
2	591919	Yes	N/A	Yes	250 mL Poly	HNO3	
3	591915	Yes	N/A	Yes	250 mL Poly	NP	
3	591920	Yes	N/A	Yes	250 mL Poly	HNO3	
3	591921	Yes	N/A	Yes	250 mL Poly	HNO3	

2nd Review Initials BB

Were all containers scanned into storage/lab? (Yes) / No
Are barcode labels on correct containers? Yes / No / NA
Are all Flashpoint stickers attached/container ID # circled? Yes / No / NA
Are all Hex Chrome stickers attached? Yes / No / NA
Are all QC stickers attached? Yes / No / NA
Are VOA stickers attached if bubbles noted? Yes / No / NA

Completed By:
Reviewed

Date & Time: 9/17/24 16:11

ESS Laboratory Sample and Cooler Receipt Checklist

Client: GZA - Norwood, MA - GZA/TB

ESS Project ID: 24I0511

Date Received: 9/17/2024

By: Taylor Davis

Date & Time: 9/17/24 1631

CHAIN OF CUSTODY

ESS Lab # 24AI0511 | Page 1 of 1

ESS LABORATORY
185 Frances Avenue
Cranston, RI 02910
Phone: 401-461-7181
[redacted]
www.esslaboratory.com

Turn Time (Days): ☒ > 5 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ Same Day

Regulatory State: MA Criteria:

Is this project for any of the following?: ☐ CT RCP ☐ MA MCP ☐ RGP ☐ Permit ☐ 401 WQ

ELECTRONIC DELIVERABLES (Final Reports are PDF)

☐ Limit Checker ☐ State Forms ☒ EQuIS
☒ Excel ☐ Hard Copy ☐ Enviro Data
☐ CLP-Like Package ☒ Other (Specify) → PDF

CLIENT INFORMATION

Client: GZA GeoEnvironmental
Address: 249 Vanderbilt ave.
Norwood MA, 02062
Phone: 781-278-3700
Email Distribution List: John.Paquin@GZA.com
flora.su@gza.com
Nicholas.loden@gza.com

PROJECT INFORMATION

Project Name: NB Littleton
Project Location: 151-153 Taylor St.
Project Number: 175200.10
Project Manager: Flora Su
Bill to:
PO#:
Quote#:

Client acknowledges that sampling is compliant with all EPA / State regulatory programs

REQUESTED ANALYSES

ESS Lab ID	Collection Date	Collection Time	Sample Type	Sample Matrix	Sample ID	Chloride	Total Hardness	Dissolved metals (Mg,Ca)	Total Number of Bottles
1	9/13/24	1340	Grab	GW	GZ-1	X	X	X	3
2	9/13/24	1230	Grab	GW	GZ-2	X	X	X	3
3	9/13/24	1120	Grab	GW	GZ-3	X	X	X	3

Container Type: AC-Air Cassette AG-Amber Glass B-BOD Bottle C-Cubitainer J-Jar O-Other P-Poly S-Sterile V-Vial — P P P
Container Volume: 1-100 mL 2-2.5 gal 3-250 mL 4-300 mL 5-500 mL 6-1L 7-VOA 8-2 oz 9-4 oz 10-8 oz 11-Other* — 3 3 3
Preservation Code: 1-Non Preserved 2-HCl 3-H2SO4 4-HNO3 5-NaOH 6-Methanol 7-Na2S2O3 8-ZnAce, NaOH 9-NH4Cl 10-DI H2O 11-Other* — 1 4 4

Sampled by : NCL

Chain needs to be filled out neatly and completely for on time delivery.

Laboratory Use Only

Cooler Temperature (°C): 4.4 / 1 Cu

Comments: * Please specify "Other" preservative and containers types in this space
- total Hardness & dissolved metals were field filtered with an in-line 0.45-micron field filter.

All samples submitted are subject to ESS Laboratory's payment terms and conditions.

Dissolved Filtration
☐ Lab Filter

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Nicholas Loden			9/17/24 11:19		9/17/24	15:39	
Relinquished by (Signature)	**Date**	**Time**	**Received by (Signature)**	**Relinquished by (Signature)**	**Date**	**Time**	**Received by (Signature)**