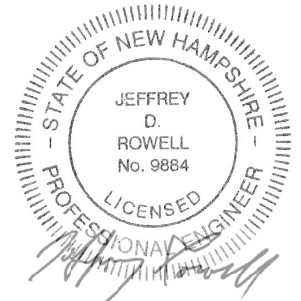


**DES Waste Management Division
29 Hazen Drive; PO Box 95
Concord, NH 03302-0095**

**ANNUAL SUMMARY REPORT
CALENDAR YEAR 2020
CROSS ROAD LANDFILL
EXETER, NEW HAMPSHIRE
NHDES SITE # 198401081
GROUNDWATER MANAGEMENT PERMIT #198401081-E-005
PROJECT NO. 978**

Prepared For:
Town of Exeter, New Hampshire
10 Front Street
Exeter, New Hampshire 03833
Contact Name: Ms. Jennifer Mates, P.E.
Contact Phone No. (603) 773-6157



Prepared by:
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GZA File No.: 04.0021270.32

Date of Report: January 29, 2021

Groundwater Monitoring Report Cover Sheet

Site Name: Cross Road Landfill and Stump Dump

Town: Exeter, New Hampshire

Permit #: GWP-198401081-E-005

Type of Submittal *(Check all that apply)*

- ☒ Periodic Summary Report (year): 2020
 - ☐ Data Submittal *(per Condition #7 of Permit)*:
-

Check each box where the answer to any of the following questions is "YES"

Sampling Results

- ☐ During the most recent monitoring event, were any new compounds detected at any sampling point?
Well/Compound:
- ☐ Are there any detections of contamination in drinking water that is untreated prior to use?
Well/Compound:
 - ☐ Do compounds detected exceed AGQS?
- ☐ Was free product detected for the first time in any monitoring point?
 - ☐ Surface Water *(visible sheen)*
 - ☐ Groundwater *(1/8" or greater thickness)*
Location/Thickness:

Contaminant Trends

- ☐ Do sampling results show an increasing concentration trend in any source area monitoring well?
Well/Compound:
- ☒ Do sampling results indicate an AGQS violation in any of the GMZ boundary wells?
Well/Compound: 1,4-Dioxane: RFW-3, GZ-102, GZ-106; Manganese: RFW-3, GZ-102, GZ-106, GZ-201

Recommendations

- ☒ Does the report include any recommendations requiring DES action? *(Do not check this box if the only recommendation is to continue with existing permit conditions.)*

This form is to be completed for groundwater monitoring data submittals and periodic summary reports submitted to the New Hampshire Department of Environmental Services Waste Management Division.



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January 29, 2021
File No. 04.0021270.32

Groundwater Management Permit Coordinator
New Hampshire Department of Environmental Services
Waste Management Division
29 Hazen Drive, P.O. Box 95
Concord, New Hampshire 03302-0095

Re: Annual Summary Report Year 2020
Cross Road Landfill
Exeter, New Hampshire
Groundwater Management Permit No. GWP-198401081-E-005

Dear Permit Coordinator:

On behalf of the Town of Exeter (Town), GZA GeoEnvironmental, Inc. (GZA) is pleased to provide the New Hampshire Department of Environmental Services (NHDES) this report summarizing water quality monitoring at the Cross Road Landfill (Landfill; Site) in Exeter, New Hampshire during calendar year 2020. This report has been submitted to fulfill the requirement of an Annual Summary Report for the Landfill for calendar year 2020, as required by Condition No. 7 of the Groundwater Management Permit (Permit; GWP-198401081-E-005) issued on February 26, 2019.

This report includes GZA's conclusions and recommendations regarding the Landfill water quality monitoring completed in accordance with the Permit and includes the analytical laboratory reports from the November 2020 sampling round. The analytical laboratory reports from the April 2020 sampling were submitted to NHDES in GZA's data transmittal¹ dated June 1, 2020. GZA's work and this report are subject to the attached **Limitations**.

The following are attached:

- **Table 1** – summarizing the results of analytical laboratory analyses and field screening measurements associated with the Landfill from May 1992 through November 2020;
- **Table 2** – summarizing recent and historical surface water and groundwater level elevation data;
- **Table 3** – summarizing per- and polyfluoroalkyl substances (PFAS) concentration data associated with groundwater samples collected during April and November 2018, and November 2020;

¹ April 2020 Data Transmittal, Cross Road Landfill, Exeter, New Hampshire, prepared by GZA dated June 1, 2020.



- **Plots 1A through 6C** – illustrating primary indicator water quality parameter concentration trends;
- **Figure 1** – depicting Landfill and vicinity features including water quality and level monitoring locations;
- **Figure 2** – summarizing selected recent Landfill water quality data and depicting GZA’s estimated groundwater hydraulic head contours and inferred directions of groundwater flow proximate to the Landfill;
- **Figure 3** – depicting an overburden hydrogeologic cross-section from the Landfill to the Exeter River; and
- **Figure 4** – depicting the proposed expanded GMZ and summarizing included properties.

The following sections summarize recent work performed, results, water quality trends, and GZA’s conclusions and recommendations.

WORK PERFORMED

PERMIT-RELATED LANDFILL WATER QUALITY MONITORING

In accordance with Condition No. 7 of the Permit, water quality monitoring during the reporting period included sampling in April and November 2020 at the following sampling locations depicted on **Figure 1**:

- Ten groundwater monitoring wells (RFW-2, RFW-3, RFW-4, GMW-11RR, GZ-1L, GZ-2L, GZ-3L, GZ-104, GZ-201 and GZ-202A);
- One piezometer (P-9R [a.k.a., SW-P-9, P-9, and north spring]); and
- One surface water sampling location (SW-17 [groundwater seep located proximate to the Exeter River]).

Water quality monitoring has historically included volatile organic compounds (VOCs), arsenic, barium, cadmium, chloride, chromium, iron, lead, mercury, manganese, nitrate, total kjeldahl nitrogen (TKN), selenium, silver, and thallium. Sampling frequencies for individual water quality parameters and locations have been modified over time, based on monitoring results.

As required by the Permit (GWP-198401081-E-005), current water quality monitoring includes sample collection and analyses for specific conductance, pH, chloride, nitrate, TKN, iron, manganese, arsenic, and 1,4-Dioxane biannually during November and April. Per the Permit, VOC and drinking water metals sampling and analysis is also required at certain locations during the 2019 and 2022 rounds, and sampling and analysis for Per- and Polyfluoroalkyl Substances (PFAS) is required at certain locations during the November 2020 and 2022 sampling rounds.

With the exception of wells GZ-1L, GZ-2L, and GZ-3L, each of the Permit-related Landfill groundwater quality monitoring wells and piezometers are screened within overburden. Consistent with the Permit and standard NHDES requirements, overburden groundwater and groundwater seep samples collected for analytical laboratory analysis of metals concentrations are field-filtered, and the data represent dissolved concentrations. Surface water and bedrock groundwater samples collected for analytical laboratory analysis of metals concentrations are not field-filtered, and the data represent total concentrations.

To further assess the subsurface water quality of in the vicinity of the landfill, supplemental samples (*i.e.*, samples not required under the Permit monitoring program) were collected during both the April and November sampling events from groundwater monitoring wells GZ-102, GZ-103, GZ-105, GZ-106, GZ-107, and surface water locations SW-14 and



SW-15. Samples were also collected from directly upstream of the seep (SW-14) in the Exeter River. Additional field screening was completed for dissolved oxygen (DO) and oxidation-reduction potential (ORP) at all locations sampled during 2020.

Except as noted, Civil & Environmental Consultants, Inc. (CEC) performs sample collection and field screening on behalf of the Town. Water quality samples are submitted by CEC to Eastern Analytical, Inc. (EAI), of Concord, New Hampshire for analytical laboratory analyses. GZA provides environmental consulting support to the Town and is provided with copies of CEC's field screening and EAI's laboratory reports for summary and evaluation of the data.

REVISED CONCEPTUAL SITE MODEL

The following describes GZA's Conceptual Site Model for the Landfill. The conceptual model provides a summary of our understanding of site hydrogeology and contaminant distribution and transport and is described in the following subsections.

HYDROGEOLOGY

Geology

Based on the results of subsurface explorations at and within the vicinity of the Landfill² and published information, the geology beneath the Landfill includes a sequence of glacially derived sediments overlying a fractured metasedimentary bedrock. A hydrostratigraphic cross section through the Landfill and the area east of the Landfill is depicted on **Figure 3**. Overburden geology includes up to 99 feet (RFW-3) of glacial outwash sand and gravel overlying a thin (about 4 feet thick) discontinuous layer of glacial till. The thickness of the sand and gravel deposit beneath the Landfill area varies, in part, due to historical sand and gravel mining. Up to 11 feet of silt and clay were encountered in certain borings drilled along the western side of the Landfill. The silt and clay unit may be associated with glaciolacustrine deposits identified to the west of the site underlying the Jones Swamp or may be the result of a temporary ice damming on the surface of the glacial outwash sand and gravel during deglaciation.

Overburden borings drilled along the eastern side of the Landfill and further east of the Landfill encountered between 10 feet to 31 feet of primarily fine sand glacial outwash deposits. A fine sand, silt, and clay deposit interbedded with sand and gravel layers was encountered at a depth of 31 feet below ground surface (bgs) within one boring that was drilled to a total depth of 57 feet bgs at a location east of the Landfill (GZ-107). Sand and gravel deposits were also encountered within the generally fine sand outwash deposits encountered to the east of the Landfill.

Bedrock cored beneath the site includes metasedimentary rock consisting of a generally fresh and slightly fractured fine-grained gray to purple-gray phyllite. Weston described bedrock cores drilled from borings RFW-1 and RFW-4 as gray, fine-grained schist belonging to the Eliot Formation. Based on review of the USGS map titled "Bedrock Geologic Map of New Hampshire," dated 1997, both of the rock types cored beneath the site are consistent with the description provided for the Eliot Formation. The bedrock surface encountered in the borings generally slopes downward from a high of about elevation 82 feet (GZ-2L) to the north (about elevation 47 feet [RFW-4]) and east (about elevation 35 feet [RFW-1]). South of boring GZ-2L, the bedrock surface slopes downward to the south as suggested by the elevation of the bedrock surface encountered in boring GZ-3L (about 69 feet). East of RFW-1 the bedrock surface appears to slope upward, as suggested by the elevation of the bedrock surface encountered in boring GZ-1L (about 44 feet) and bedrock outcrops observed in the area of SW-17.

² Supplemental Hydrogeologic Investigation, 2002 Annual Water Quality Monitoring, Cross Road Landfill, prepare by GZA dated May 2002.



Based on review of the USGS map titled “Lineament Map of Area 1 of the New Hampshire Bedrock Aquifer Assessment, Southeastern New Hampshire,” dated 1997, a lineament, identified using 1:250,000-scale side-looking airborne radar imagery, transects the site as shown on **Figure 1**. If this lineament is indicative of the presence of an interconnected set of fractures in bedrock (i.e., a potential fracture zone) located beneath the site, it may represent a preferential pathway for groundwater flow. Notwithstanding, the presence of a bedrock fracture zone at this location has not been confirmed, and the shallow bedrock cored within boring GZ-1L was not highly fractured. No other lineaments were identified crossing or adjacent to the site.

Groundwater Flow

Groundwater within outwash sands is estimated to flow radially away from the Landfill. The estimated horizontal component of the direction of groundwater flow ranges from north-northeast beneath the central and eastern portions of the Landfill to northwest beneath the northwestern portion of the Landfill near the Jones Swamp. Groundwater surface elevation contours, developed based on water level measurements made during November 2020 by CEC, are summarized on **Figure 2**. Historical depth-to-water and water surface elevation data collected by GZA and others are summarized in **Table 2**. Historical water quality data are generally consistent with the estimated radial flow pattern and indicate contaminant transport in overburden toward the north with transport locally northwest and northeast.

Based on the November 2018 data, the calculated estimate of the average horizontal component of the overburden hydraulic gradient beneath the site is approximately 0.01 and varies from approximately 0.024 (beneath the northeast portion of site) to 0.008 (beneath the central portion of site).

As discussed in GZA’s May 2002 Supplemental Hydrogeologic Investigation Report, recharge from the sedimentation ponds located along the southern site boundary may cause a local reversal in the direction of shallow overburden groundwater flow south of the Landfill. The extent of this effect has not been evaluated but would likely have a limited effect on the overall direction of groundwater flow due to the relatively high hydraulic conductivity of the sand and gravel unit underlying the ponds.

Upward vertical components of hydraulic head gradient beneath the Landfill have been historically measured between the bedrock and overburden. This upward vertical gradient suggests groundwater discharge from bedrock to overburden may occur. The measured difference in hydraulic head between overburden and bedrock at the GZ-1 and GZ-3 locations on July 23, 2001 and August 9, 2001 was 2.0 feet (GZ-1) and greater than 4.6 feet and 0.1 feet (GZ-3), respectively.

Historical estimates of hydraulic conductivity for the sand and gravel unit based on slug testing range from 4.7×10^{-3} centimeter per second (cm/sec) to 7.0×10^{-3} cm/sec. Based on an average estimated hydraulic conductivity of 5.5×10^{-3} cm/sec, an average hydraulic gradient of about 0.01, and an assumed effective porosity of 0.30, the estimated average seepage velocity for the sand and gravel unit beneath the Landfill is approximately 0.6 feet per day. Based on an average estimated hydraulic conductivity of 5.5×10^{-3} cm/sec, and average hydraulic gradient from the eastern side of the Landfill to the seep located east of the Landfill of about 0.024, and an assumed effective porosity of 0.30, the estimated average seepage velocity for the sand and gravel unit beneath the Landfill is approximately 1.2 feet per day.

Based on historical constant head pumping tests of bedrock well GZ-3L, an effective hydraulic conductivity of about 2.2×10^{-4} cm/sec is estimated for the upper 20 feet of the bedrock at this location. This value provides a measure of how rapidly groundwater can flow to the well under pumping conditions relative to flow in a porous media. Due to the nature of groundwater flow through fractured rock, this value, which assumes porous media flow, should not be used to calculate estimates of seepage velocities for fractured bedrock.



Based on this understanding of the horizontal and vertical direction of groundwater flow beneath the site, the areas located to the southwest, south, and southeast of the Landfill that are currently not supplied with municipal water are considered upgradient of the Landfill. The effects of bedrock groundwater extraction could alter the direction of groundwater flow in bedrock beneath the site. Similarly, the presence of interconnected bedrock fractures or fracture zones may create preferential pathways for groundwater flow and Landfill contaminant transport. As indicated above, the presence of significant zones of interconnected fractures or fracture zones has not been identified beneath the site.

CONTAMINANT DISTRIBUTION/TRANSPORT

Routine water quality monitoring has been on-going at the Landfill since May 1992, and Landfill post-closure water quality monitoring has been on-going in accordance with a Permit since November 1996. The term contaminant as used herein refers to dissolved-phase VOCs, metals, and inorganic parameters with a Landfill source. Contaminant concentration trends are described in the water quality trend evaluation section of this report.

In general, the results of historical and recent Landfill groundwater quality and elevation data indicate contaminants are transported in overburden toward the north with transport locally toward the northwest and northeast, discharging to the Exeter River. Therefore, sampling locations RFW-3, RFW-4, and SW-P-9 are downgradient of the Landfill; RFW-2 is located hydraulically side gradient of the Landfill; and GZ-3L (bedrock) is assumed to be upgradient of the Landfill. Certain wells installed to the northeast of the Landfill are also estimated to be downgradient of the Landfill (GZ-101, GZ-102, GZ-103, GZ-104, GZ-106, and GZ-201).

Supplemental hydrogeologic investigations to the east of the Landfill and descriptions of the work performed are included in GZA's October 16, 2009 and January 18, 2013 reports.³ These off-site investigations focused on evaluating the source of Landfill-related groundwater contaminants discharged through a seep located proximate to the Exeter River and concluded that while other sources may be possible, the most likely source is the Landfill.

The areas located north and east of the Landfill are zoned for residential purposes and are supplied with municipal water. While GZA found evidence of residential bedrock groundwater supply wells within the study area, the residences were reportedly connected to the municipal water supply, and wells were reportedly not used as drinking water sources. Three of these wells were sampled and analyzed for landfill-related contaminants during 2013; however, the results of the analyses did not indicate that the groundwater intersected by the open borehole portion of the wells had been impacted by the Landfill.

To evaluate off-site impacts, shallow overburden groundwater monitoring wells GZ-101 through GZ-107 were installed during 2009. Based on the results of the shallow overburden well sampling, potential Landfill-related impacts to overburden groundwater quality were identified in the vicinity of the groundwater seep (GZ-102 and GZ-104). The general direction of groundwater flow and limited surficial geophysical (electrical conductivity methods) evidence suggested a Landfill source. Monitoring wells were subsequently installed along Juniper Ridge Road (GZ-201) and immediately east of the Landfill (GZ-202 and GZ-202A) to further evaluate the source of the Landfill-related contaminants in groundwater in the vicinity of the seep.

To assess potential effects of arsenic, iron, and manganese from groundwater seepage discharging in the area of SW-14, GZA installed a temporary weir on May 25, 2017 in an approximately 2-foot-wide stream channel downgradient of the groundwater seepage in the area of SW-14 (refer to **Figure 1**). Streamflow measurements and water quality samples were collected by GZA personnel on an approximately monthly frequency between June and December 2017. Dissolved

³ Reports by GZA titled "Calendar Year 2007/2008 Annual Report, Cross Road Landfill, Exeter, New Hampshire, Groundwater Management Permit No. GWP-198401081-E-003," and "Annual Summary Report Calendar Year 2012, Application for Groundwater Management Permit Renewal, Cross Road Landfill, Exeter, New Hampshire, Groundwater Management Permit No. GWP-198401081-E-003," dated October 16, 2009 and January 18, 2013, respectively.



and total iron, arsenic, and manganese were detected above the analytical laboratory reporting limits in the majority of the samples. GZA personnel also gauged and sampled the Exeter River and groundwater seep during the spring and late summer of 2019. Samples collected from upstream and downstream of the seep in the Exeter River exceeded the WQTS for arsenic, iron, and manganese. The results of the sampling and gauging activities during 2019 are included in GZA's 2019 Annual Summary Report⁴ (ASR).

April and November 2020 total arsenic, iron, and manganese concentration data are summarized on **Figure 2** to illustrate the spatial distribution of these landfill-related contaminants. The data summarized on **Figure 2** are consistent with a Landfill source migrating north-northeastward toward the seep and also suggest a background contribution (evidenced by the presence of manganese and iron at concentrations exceeding the New Hampshire Ambient Groundwater Standards [NH AQGS] in monitoring well GZ-2L). The historical presence of 1,4-Dioxane in monitoring wells (GZ-104, GZ-202A, and RFW-4) is consistent with a landfill source. While background and/or other sources may be present for other Landfill contaminants including metals, chloride, and nitrate, no potential sources of 1,4-Dioxane, other than the Landfill, have been identified.

GZA anticipates that the presence of the groundwater seep and apparent direction of Landfill-related contaminant transport may be due to variations in hydraulic conductivity within the subsurface between the Landfill and the seep. **Figure 3** illustrates a hydrogeologic cross section from the Landfill to the seep. The location of the cross section is illustrated on **Figure 1**.

SUMMARY OF RECENT LANDFILL WATER QUALITY MONITORING RESULTS

Overall calendar year 2020 Permit-related groundwater quality data are consistent with historical Landfill water quality monitoring, indicating that groundwater quality improved or has remained relatively stable following closure of the Landfill during 1994. Recent and historical monitoring indicates limited exceedances of New Hampshire Ambient Groundwater Quality Standard⁵ (NH AGQS) and/or Secondary Maximum Concentration Limits (SMCLs),⁶ primarily for certain parameters typical of Landfill-related water quality (i.e., arsenic, iron, and manganese). Note that the NH AGQS for Manganese was revised on January 1, 2021 to 300 µg/L.

Historical landfill-related groundwater contaminants routinely detected in groundwater sampled from monitoring locations located downgradient of the Landfill include arsenic, barium, chloride, iron, manganese, and 1,4-Dioxane. It is GZA's opinion, based on the date of closure of the Landfill, and distribution and concentrations of 1,4-Dioxane, that the presence of 1,4-Dioxane is the result of historical waste disposal and does not indicate a recent release of 1,4-Dioxane at the Landfill.

Certain other metals, inorganic parameters, and VOCs have been intermittently detected in groundwater sampled from monitoring points located downgradient of the Landfill, including cadmium, chromium, lead, mercury, selenium, and silver. Significantly, only arsenic, iron, manganese, and 1,4-Dioxane are routinely detected in Landfill groundwater samples at concentrations exceeding AGQS (arsenic, manganese, and 1,4-Dioxane) or SMCLs (iron). Detected concentrations of the other water quality parameters have infrequently exceeded AGQS, SMCLs, or surface water quality criteria. The following table summarizes post-closure (i.e., since September 1994) exceedances of applicable

⁴ *Annual Summary Report Calendar Year 2019, Cross Road Landfill, Exeter, New Hampshire*, Prepared by GZA, dated January 31, 2020.

⁵ As defined in State of New Hampshire Code of Administrative Rules Env-Or 603.04 (Ambient Groundwater Quality Standards), Table 600-1.

⁶ SMCLs are aesthetic-based secondary maximum contaminant-level water quality standards used to regulate public water systems (Env-Dw 706 [Regulated Secondary Maximum Contaminant Levels]).



water quality standards for Landfill-related contaminants other than arsenic, manganese, iron, VOCs (including 1,4-Dioxane) and PFAS.

PARAMETER	LOCATION	CONCENTRATION (mg/L)	SAMPLING DATE	WATER QUALITY STANDARDS (mg/L)
Cadmium	SW-P-2/P-2R	0.007	4/99	AGQS – 0.005 WQCTS – 0.00095
		0.0078	4/01	
	SW-1	0.0022	4/01	
		0.005	4/02	
	RFW-2	0.01	4/03	
	SW-13	0.010	11/10	
	GZ-1U	0.006	4/12	
Chromium	SW-1	0.26	4/06	AGQS – 0.10 WQCTS – NE
Lead	SW-P-2/P-2R	0.18	4/97	AGQS – 0.015 WQCTS – NE
		0.041	11/15	
		0.028	11/17	
	RFW-2	0.053	7/96	
	RFW-3	18	4/98	
	SW-1	0.36	4/06	
	SW-13	0.058	11/10	
Barium	SW-1	1.9	11/01	WQCTS – 1
		2.3	4/06	
Chloride	RFW-1	420	7/00	SMCL – 250 AGQS – NE
	GZ-6	460	7/01	
Nitrate	RFW-4	19	11/96	AGQS – 10
Selenium	RFW-3	0.06	11/03	AGQS – 0.05 WQCTS – 0.170
	GZ-1U	0.0711	8/01	
	GZ-1L	0.082	8/01	
	GZ-2L	0.101	8/01	
	SW-1	0.13	4/06	
Mercury	SW-5	0.0012	7/96	WQCTS – 0.00005

Notes:

1. WQCTS indicates surface water quality criteria, protection of human health, water and fish ingestion standard shown.⁷
2. mg/L indicates milligrams per liter.
3. NE indicates not established.

The results of the year 2020 Permit-related groundwater quality monitoring indicate exceedances of AGQS for arsenic (RFW-4, P-9R, GZ-104, GZ-202A, SW-15, SW-16, and SW-17) and for manganese (RFW-2, RFW-3, RFW-4, GZ-2L, GZ-102, GZ-104, GZ-106, GZ-201, GZ-202A, P-9R, SW-15, SW-16, and SW-17) in water quality samples collected during one or more of the sampling rounds. Detected concentrations of iron exceeded the SMCL during one or more of the 2020 sampling events in monitoring wells RFW-3, RFW-4, GZ-3L, GZ-104, GZ-202A, P-9R, SW-15, SW-16, and SW-17.

⁷ As defined in New Hampshire Code of Administrative Rules Env-Ws 1703.21 (Water Quality Criteria for Toxic Substances, Protection of Human Health). Refer to **Table 1** for further information.



pH Field Measurements

Field screening measurements of groundwater samples for pH collected from monitoring wells located at the site during 2020 ranged from 4.47 standard units (S.U.) (GZ-104; November) to 12.41 S.U. (GZ-2L; April).

The pH field measurement for the groundwater sample collected in November 2020 from monitoring well GZ-2L continued to be elevated, compared to previously measured ranges at that location prior to April 2017. The reason for the elevated results is not known at this time. Measurements of pH during the subject period from samples collected on site are generally consistent with previous measurements from respective locations. No spatial or temporal trends were identified in the pH data.

Specific Conductance Field Measurements

Field screening measurements of groundwater samples for specific conductance collected from monitoring wells located at the site range from 47 micro siemens per centimeter ($\mu\text{S}/\text{cm}$) (GZ-103; April) to 2,815 $\mu\text{S}/\text{cm}$ (GZ-2L; April). The arithmetic average of the measurements of specific conductance measured in samples collected from on-site groundwater monitoring wells during 2020 is 522 $\mu\text{S}/\text{cm}$. Measurements of specific conductance during the subject period are generally consistent with previous measurements from respective locations. No spatial or temporal trends were identified in the specific conductance data.

ORP Field Measurements

Field measurements of ORP in samples collected from overburden and bedrock monitoring wells during 2020 ranged between -37 mV (millivolts) (RFW-4, November) to +339 mV (GZ-103, April) and -174.6 mV (GZ-2L, November) to 158.1 mV (GZ-3L, November), respectively. ORP measurements of samples from overburden wells made during April (arithmetic average 275.4 mV) were relatively higher than measurements made in November (arithmetic average 93.3 mV) and may be higher due to the influence of spring precipitation and snow melt infiltrating into overburden groundwater. Additional monitoring is needed to characterize and evaluate seasonal variations in ORP and DO. The November ORP measurements generally support a Landfill impact (lowering) on ORP with ORP measurements in downgradient areas with anticipated Landfill impacts such as RFW-3 (68.1 mV), RFW-4 (-36.9 mV), GZ-104 (-12.6 mV), GZ-202A (-66.4 mV), and groundwater seep SW-P-9 (-44.9 mV), lower than upgradient and less impacted downgradient areas.

In general, ORP values of +50 mV and lower are indicative of reducing conditions which could result in the mobilization of certain metals. Arsenic, iron, and manganese are most likely to be mobilized within an ORP range of 0 mV to -150 mV; however, ORP measurements alone cannot predict the mobilization of these metals.

DO Field Measurements

Field measurements of DO concentration in samples collected from overburden and bedrock monitoring wells during 2020 ranged between 2.71 mg/L (GZ-202A, November) to 10.75 mg/L (GZ-103, November) and 3.30 mg/L (GZ-1L, November) to 10.40 mg/L (GZ-2L, April), respectively. Collectively, the field measurements of DO concentration indicate generally aerobic chemically oxidizing groundwater conditions, with no apparent seasonal variation. The measurements of DO concentration at individual locations are consistent between the two measurement rounds for the majority of the monitoring locations, with measurements of DO concentration varying by less than 1 mg/L at 10 of the 15 monitoring locations. The DO concentration data also do not appear to be correlated with the distribution of Landfill contaminants.



While the lack of Landfill impacts on DO concentrations and lack of consistency with the ORP measurement data suggests the DO measurements may not be representative of groundwater conditions, the consistency between rounds for the majority of the monitoring locations suggest that the data may be representative.

DO measurements of surface water range between 7.23 mg/L and 9.94 mg/L and are generally consistent with anticipated DO concentrations for surface water.

1,4-Dioxane

Samples were collected for laboratory analysis of 1,4-Dioxane from each of the locations included in the November 2020 sampling round.

1,4-Dioxane has been historically detected in groundwater quality samples collected from RFW-2, RFW-3, RFW-4, SW-P2 (P-2R), SW-P-9 (P-9R), GZ-P-5R, GZ-102, GZ-104, GZ-106, GZ-202A, GZ-1L, SW-15, SW-16, and SW-17 at concentrations up to 6 µg/L. 1,4-Dioxane was detected in water quality samples collected during the November 2020 sampling round from P-9R, RFW-3, RFW-4, GZ-102, GZ-104, GZ-106, GZ-202A, SW-14, SW-15, SW-16, and SW-17. Monitoring locations included in the GMP from which samples have been collected during 2020 with detected concentrations of 1,4-Dioxane exceeding the AGQS of 0.32 µg/L include:

- wells RFW-3, RFW-4, GZ-102, GZ-104, GZ-106, and GZ-202A;
- piezometer P-9R; and
- surface water sampling locations SW-17.

Monitoring wells RFW-3, GZ-102, and GZ-104 are screened in overburden and located downgradient of the landfill at the perimeter of the Ground Water Management Zone (GMZ). The concentrations of 1,4-Dioxane detected in samples collected from each of these wells exceed the currently established AGQS.

Monitoring well GZ-106 and surface water SW-16 are located downgradient and beyond the boundary of the GMZ. These locations were sampled during both the April and November 2020 sampling rounds. The concentrations of 1,4-Dioxane detected in samples collected from these locations exceed the currently established AGQS. The 2020 sampling data for these locations is presented in the table below:

Monitoring Location	1,4-Dioxane Concentration (µg/L)	
Date	April 2020	November 2020
GZ-106	0.9	2.0
SW-16	0.52	1.6

Note:

The bolded numbers represent an exceedance of the AGQS at the time of sample collection.

PFAS

Monitoring wells RFW-3, RFW-4, and GZ-202A were sampled and analyzed for the presence of nine PFAS during the November 2020 sampling round. Samples were submitted to EAI and analysis of PFAS was subcontracted by EAI to Vista Analytical Laboratory of El Dorado Hills, California for analysis using EPA method 537 (9 compounds). Results of the PFAS screening are summarized in **Table 3**. The laboratory report provided by EAI is included in **Appendix B**.



The results of the laboratory analyses results indicate the presence of 3 PFAS at concentrations below the established NH AGQS. Perfluoro-n-octanoic acid (PFOA) was detected in the samples collected from RFW-3, RFW-4 and GZ-202A at concentrations of 6.42 nanograms per liter (ng/L), 4.62 ng/L, and 5.55 ng/L, respectively. Perfluorooctane Sulfonate (PFOS) was detected in the sample collected from RFW-3 at a concentration of 6.16 ng/L.

Non-regulated PFAS compounds were also detected as summarized in **Table 3**.

GROUNDWATER SEEP AND EXETER RIVER SURFACE WATER MONITORING

Based on the results of the metals loading analysis included in GZA's 2019 ASR, GZA recommended continued sampling and analysis of surface water at upstream and downstream locations within the Exeter River relative to the confluence of outlet from the groundwater seep (SW-15), as well as the seep itself (SW-14) to monitor the transport of metals to the river and potential impact to metals concentrations within the river.

The results of the analysis of the samples collected during April and November 2020 are summarized in the table below.

Sample Location	Date	Dissolved	Total	Dissolved	Total	Dissolved	Total
		Diss. Fe	Total Fe	Diss. Mn	Total Mn	Diss. As	Total As
		(µg/L)		(µg/L)		(µg/L)	
WQTS Standard		300		50		0.018	
Upstream	4/16/2020	140	270	33	46	<1	<1
	11/5/2020	100	800	76	410	<1	2.1
Seep (SW-14)	4/16/2020	<50	160	370	1,300	<1	<1
	11/5/2020	66	120	1,500	1,500	1.3	1.7
Downstream (SW-15)	4/16/2020	320	1,300	1,800	2,100	5.1	9.6
	11/5/2020	75	130	1,500	1,600	1.3	1.7

Total iron, arsenic, and manganese concentrations were compared to the Water Quality for Toxic Substances (WQTS) surface water standards for human protection associated with water and fish ingestion listed in the New Hampshire Code of Administrative Rules Chapter Env-Wq 1700. Standards for the iron, arsenic, and manganese are 300 µg/L, 0.018 µg/L, and 50 µg/L, respectively. Bolded concentrations shown above indicate the concentration exceeds its WQTS standard. Detected concentrations of total metals for Mn and As exceed their respective WQTS standards for the samples collected at each of the three sampling locations for the November 2020 sampling round.

The previously reported mass transport rates associated with the discharge from the seep to the river and downstream mass transport rates were compared to the 2020 sample concentrations to further evaluate mass transport to the river. The 2020 data suggest while potential Landfill-related contaminants are transported to the River from the seep, the concentrations of iron and arsenic detected in the upstream samples are higher than the concentrations detected in the seep samples. While the concentrations of manganese detected in the seep samples are one to two orders of magnitude greater than the concentrations detected in the upstream samples, the prior flow monitoring suggests that effect on the concentration of manganese in the river would be limited. Specifically, the flow in the river when gauged during 2019 was 500 to 1,000 times the flow rate of the groundwater seep measured at SW-14. The results of the flow monitoring are summarized in GZA's 2019 ASR.⁸ Compared to data collected in 2019, metals concentrations are generally similar to samples collected in 2020 with the exception of manganese at the downstream location. Given the

⁸ Annual Summary Report Calendar Year 2019, Cross Road Landfill, Exeter, New Hampshire, Prepared by GZA, dated January 31, 2020.



dilution of the flow from the seep and generally greater concentrations of total metals in the downstream samples, the 2020 metals data suggest a potential contribution of metals in the river other than the flow from the seep.

WATER QUALITY TREND EVALUATION

Time series charts of arsenic, iron, manganese, chloride, and 1,4-Dioxane concentrations were prepared using data from selected water quality monitoring locations for graphical evaluation. Copies of these plots are attached and described below. Please note that where concentrations are reported as less than the laboratory reporting limits (RL), one half of the RL is shown.

GZA performed a concentration trend analysis to identify increasing or decreasing concentration trends. The trend analysis was performed on iron, manganese, arsenic, and 1,4-dioxane data. Based on the analysis, the general concentration trend for these Landfill contaminants is stable to decreasing. However, the concentration trends for monitoring locations GZ-104, GZ-201, and GZ-202 appear to indicate increasing metals concentrations at these locations. However, the concentrations of the contaminants fluctuate to varying degrees at each of the monitoring locations and may have influenced the analysis. Fluctuations are likely due to variations in groundwater flow due to seasonal variations in infiltration. These monitoring locations are generally located along the anticipated contaminant transport pathway from the Landfill to the groundwater seep located east-northeast of the Landfill.

Chloride and Nitrate concentrations on site appear to be stable, with fluctuations at GZ-2L during 2020. Surface water SW-17 exhibited a downward trend in historic data until 2019 when concentrations started increasing but has decreased during 2020.

1,4-Dioxane concentrations onsite overburden monitoring wells exhibit a potential increase since 2017. Surface water samples collected are relatively stable with the exception of a recent increase during November 2020.

CONCLUSIONS/DISCUSSION

The following summarize our primary findings regarding the Permit-related and supplemental Landfill water quality monitoring performed in 2020.

- Data for the current reporting period are generally consistent with the historical concentration ranges and temporal trends for the water quality parameters and locations monitored in accordance with the Permit.
- Data collected during the 2020 monitoring rounds indicate that the concentrations of arsenic, manganese, and 1,4-dioxane at certain locations downgradient of the landfill continue to exceed their respective AGQS. The remainder of the potential Landfill-related contaminants (i.e., chloride, iron, nitrate, and TKN) included in the monitoring program were detected in one or more of the water quality samples collected during the reporting period. However, the concentrations of these parameters are below the applicable AGQS or WQCTS.

The concentrations of 1,4-dioxane, manganese, arsenic, and iron detected in samples collected from monitoring wells RFW-3 and GZ-106 and surface water location SW-16 indicate the presence of these potential Landfill contaminants at concentrations exceeding AGQS beyond the existing downgradient GMZ boundary northeast of the Landfill. The presence and concentrations of 1,4-dioxane detected in the groundwater samples collected from the referenced locations are consistent with the results of historical monitoring prior to the establishment of the current AGQS of 0.32 µg/L. Six properties are located between the existing downgradient GMZ boundary and the Exeter River.



The remainder of the Permit-monitoring and supplemental water quality data indicate compliance with Standard Management Permit Condition No. 1⁹ Permit.

- Results of the recent water quality monitoring associated with the seep located downgradient of the landfill suggests the seep discharge contributes metals to the river. Downstream concentrations of some metals are higher or equal to the seep. This would potentially indicate an additional contribution to the river other than present in the seep. While the elevated contributions in the seep compare to upstream, they are overall insignificant with respect to the low flow volume of the seep. Continued monitoring is needed to further evaluate the source of the metals detected in the Exeter River.
- Calculated groundwater elevations for wells sampled during November 2020 are consistent with historical data indicating radial groundwater flow from the Landfill toward the northwest, north, northeast, and east of the Landfill within the shallow overburden outwash deposits underlying the area.

RECOMMENDATIONS

Based on the results of the monitoring performed during 2020 and our understanding of site/Landfill hydrogeology and contaminant conditions, GZA recommends the following:

- Continued groundwater and surface water quality monitoring during 2021 as described in the Permit;
- Continued field analysis of groundwater samples collected during the April and November 2021 sampling rounds for DO and ORP to provide data for evaluation of the geochemical conditions beneath the Landfill relative to the increase in the mobilization of metals suggested by fluctuating arsenic, iron, and manganese concentration trends in groundwater observed at RFW-3, GZ-104, P-2, and P-9R; and
- Collection of samples for total and dissolved arsenic, manganese, iron, and 1,4-Dioxane from SW-14, SW-15, and directly upstream of the seep during the 2021 permit related sampling rounds to monitor Seep and River concentrations.

PROPOSED PERMIT MODIFICATIONS

The concentrations of 1,4-dioxane, manganese, arsenic, and iron detected in samples collected from monitoring wells RFW-3 and GZ-106 and surface water locations SW-15 and SW-16 indicate the presence of these potential Landfill contaminants at concentrations exceeding AGQS beyond the existing downgradient GMZ boundary northeast of the Landfill. The presence and concentrations of 1,4-dioxane detected in the groundwater samples collected from the referenced locations are consistent with the results of historical monitoring prior to the establishment of the current AGQS of 0.32 µg/L.

To address the exceedances at and beyond the GMZ boundary, GZA recommends including the six additional properties (98/7, 98/22, 99/2, 99/3, 99/4, 99/5) within the GMZ to include the areas between the GMZ and the Exeter River to the northeast of the Landfill that are not already included in the GMZ. The proposed GMZ boundary and included properties are depicted on **Figure 4**. Based on our understanding of stratigraphy beneath and downgradient of the Landfill, the Exeter River north and east of the Landfill represents a convergent zone and discharge point for overburden

⁹ The permittee shall not violate Ambient Groundwater Quality Standards adopted by the Department (N.H. Admin. Rules Env-Or 600) in groundwater outside the boundaries of the Groundwater Management Zone, as shown on the referenced site plan.



groundwater flow and a hydraulic barrier to lateral overburden groundwater flow and contaminant transport toward the north and east. Therefore, further transport in groundwater beyond the Exeter River is not proposed.

Consistent with the modification of the GMZ, GZA recommends modification of the Permit water quality monitoring program to include monitoring wells GZ-105, GZ-106, and GZ-107 during the November monitoring round including sampling and analysis for dissolved arsenic, manganese, iron, and 1,4-Dioxane to confirm compliance with the GMZ boundary. GZA also recommends removing GZ-102 from the monitoring program based on limited contaminant concentrations and its proximity to other monitoring wells. Water level monitoring in each of the off-site downgradient monitoring wells is also recommended.

On behalf of the Town, we greatly appreciate your review of this report and trust the information contained herein and attached meet the needs of the NHDES. Should you have any questions, please contact the undersigned at (603) 232-8724.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.


Erik B. Dyrness
Engineer I


James M. Wieck, P.G.
Consultant/Reviewer


Jeffrey D. Rowell, P.E.
Principal

EBD/JDR/JMW:kr

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Attachments: Limitations
 Tables
 Figures
 Plots
 November 2020 Analytical Laboratory Data
 CEC Summary Letter Report

cc: Ms. Jennifer Mates, P.E., Department of Public Works; Town of Exeter



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 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.

CONCEPTUAL SITE MODEL

14. Our opinions were developed, in part, based upon a comparison of site data to conditions anticipated within our Conceptual Site Model (CSM). The CSM is based on available information, and professional judgment. There are rarely sufficient data to develop a unique CSM. Therefore observations over time, and/or space, may vary from those depicted in the CSM provided in this report. In addition, the CSM should be evaluated and refined (as appropriate) whenever significant new information and/or data is obtained.



Tables

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Arsenic (mg/L)

NH AGQS = 0.01 mg/L
WQCTS (Water and Fish Ingestion) = 0.000018 mg/L

	Sampling Date	Overburden Monitoring Wells																			Bedrock Monitoring and Residential Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations											Leachate Monitoring Well						
		RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-103	GZ-104	GZ-105	GZ-106	GZ-107	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GZ-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-14	SW-15	SW-16	SW-17	Exeter River	MW-6					
PRE-CLOSURE	5/27/1992	0.02	0.04	0.02	0.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.04			
	11/12/1992	<0.01	<0.01	<0.01	0.0284	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	4/6/1993	0.001	0.17	0.025	0.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03			
	7/1/1993	0.001	0.001	0.001	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-			
	11/5/1993	0.001	0.002	0.002	0.015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.007	-	-	-	-	-	-	-	-	-	-	-	-	0.048			
	4/14/1994	<0.005	0.06	0.058	0.263	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.034	-	-	-	-	-	-	-	-	-	-	-	-	-			
	7/15/1994	<0.100	<0.100	<0.100	0.245	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	8/30/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.057			
	9/6/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.002		
	10/11/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.001	
POST-CLOSURE	11/18/1994	0.001	0.059	0.038	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/23/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05
	2/2/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.005
	4/12/1995	<0.005	0.039	0.022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005
	7/28/1995	<0.005	0.021	0.011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.018
	12/8/1995	<0.01	<0.01	0.042	0.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.099	
	4/26/1996	<0.01	<0.01	0.01	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	
	7/25/1996	<0.005	<0.005	<0.005	0.21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/14/1996	-	0.015	0.17	0.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	0.017	<0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4/21/1997	-	<0.005	0.024	0.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	0.012	0.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	7/22/1997	<0.005	<0.005	0.014	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.005	-	0.006	<0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/11/1997	<0.005	0.011	0.04	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	0.15	0.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4/15/1998	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	-	-	<0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	7/6/1998	-	<0.005	0.021	0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.75	-	4.9	<0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/16/1998	<0.005	0.012	0.001	0.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	0.58	<0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4/19/1999	<0.005	<0.005	0.037	0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	0.66	<0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	7/27/1999	<0.005	<0.005	0.026	0.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	12	0.009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/18/1999	0.01	0.018	0.2	0.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	-	5.9	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5/5/2000	<0.005	<0.005	0.054	0.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	7/7/2000	<0.005	0.008	0.008	0.46	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.009	-	0.71	0.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/16/2000	<0.01	<0.01	0.13	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.023	-	0.013	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4/25/2001	<0.01	0.014	0.21	0.28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.91	-	0.032	0.047	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	7/25/2001	<0.005	0.009	0.22	0.19	0.0124	-	-	<0.004	0.0102	0.0062	-	-	-	-	-	-	-	-	-	-	<0.004	<0.004	<0.004	-	0.015	-	27	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	8/9/2001	-	-	-	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.008	0.006	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/28/2001																																												

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Arsenic (mg/L)

WQCTS (Water and Fish Ingestion) = 0.000018 mg/L

Sampling Date	Overburden Monitoring Wells																				Bedrock Monitoring and Residential Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations												Leachate Monitoring Well		
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-103	GZ-104	GZ-105	GZ-106	GZ-107	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GZ-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-14	SW-15	SW-16	SW-17	Exeter River	MW-6			
11/2/2016	-	0.007	0.015	0.09	-	-	-	-	-	-	-	-	-	0.160	-	-	-	<0.001	0.15	-	0.005	0.003	0.006	-	-	-	0.055	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/24/2017	-	0.002	0.024	0.14	-	-	-	-	-	-	-	-	-	0.097	-	-	-	0.19	0.002	-	0.004	0.004	0.006	-	-	-	0.022	-	-	-	-	-	-	-	-	-	-	0.093	-	-	-	
11/7/2017	-	<0.001	0.038	0.13	-	-	-	-	-	-	-	-	-	0.160	-	-	-	0.009	0.14	-	0.003	0.004	0.007	-	0.053	-	0.23	-	-	-	-	-	-	0.027	-	-	-	-	0.004	-	-	-
4/25/2018	-	<0.001	0.017	0.14	-	-	-	-	-	-	-	-	-	0.10	-	-	-	<0.001	0.086	-	0.002	0.005	0.009	-	-	-	0.030	-	-	-	-	-	-	-	-	-	-	-	0.016	-	-	-
11/12/2018	-	<0.001	0.014	0.14	-	-	-	-	-	-	-	-	-	0.13	-	-	-	0.0017	0.15	-	0.0051	0.0071	0.0062	-	0.0081	-	0.038	-	-	-	-	-	-	-	-	-	-	-	0.047	-	-	-
4/24/2019	-	0.0017	0.018	0.12	-	-	-	-	-	-	-	-	-	0.014	-	-	-	0.0030	0.19	-	0.0051	0.0014	0.0076	-	-	-	0.065	-	-	-	-	-	-	-	-	-	-	-	0.0018	-	-	-
11/4/2019	-	<0.001	0.011	0.11	-	-	-	-	-	-	-	<0.001	-	0.075	-	<0.001	-	<0.001	0.059	<0.001	0.0051	0.0025	0.0050	-	0.0056	-	0.014	-	-	-	-	-	-	0.0084	-	0.0021	0.016	0.32	-	-	-	
4/16/2020	-	<0.001	0.0042	0.087	-	-	-	-	-	-	-	0.0011	<0.001	0.014	<0.001	<0.001	<0.001	<0.001	0.25	<0.001	0.0029	<0.001	0.0067	-	-	-	0.030	-	-	-	-	-	-	-	<0.001	0.0096	0.0031	0.045	-	-	-	
11/5/2020	-	<0.001	0.0085	0.096	-	-	-	-	-	-	-	<0.001	<0.001	0.15	<0.001	<0.001	<0.001	<0.001	0.24	<0.001	0.0041	0.0012	0.0081	-	-	-	0.11	-	-	-	-	-	-	-	0.0017	0.0017	0.0042	0.017	-	-	-	-

See last page for notes.

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Iron (mg/L)

Sampling Date	Overburden Monitoring Wells																				Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations		
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-103	GZ-104	GZ-105	GZ-106	GZ-107	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GZ-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)
5/27/1992	9.3	42	19	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/12/1992	0.06	0.35	0.21	2.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/6/1993	0.16	22.8	9.8	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/1/1993	0.93	3.01	25.59	4.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/5/1993	0.81	1.6	4.4	15.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/14/1994	2.55	8.82	3.22	46.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/15/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/30/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/6/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/11/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/18/1994	0.98	1.75	1.28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/23/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/2/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/12/1995	<0.1	4.1	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/28/1995	<0.1	1.32	0.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/8/1995	<0.04	0.41	3.7	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/26/1996	<0.02	0.55	0.55	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/25/1996	0.015	0.37	0.038	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/14/1996	-	0.45	12	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3	-	5.9
4/21/1997	-	0.34	1.5	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	-	3.3
7/22/1997	3.4	0.66	0.036	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.095	-	0.065
11/11/1997	0.024	0.48	4.8	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.41	-	26
4/15/1998	0.012	0.59	18	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-
7/6/1998	-	0.24	4.1	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	130	-	280
11/16/1998	0.041	0.51	0.28	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.74	-	63
4/19/1999	0.018	0.48	2.96	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.85	-	110
7/27/1999	0.032	0.29	3.8	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.62	-	1500
11/18/1999	0.019	0.51	410	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.36	-	1900
5/5/2000	0.071	0.53	12	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/7/2000	0.028	0.35	62	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	-	160
11/16/2000	0.046	0.16	10	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	6.8
4/25/2001	0.2	2.2	16	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120	-	10
7/25/2001	<0.03	0.34	22	38	<0.004	-	-	<0.044	<0.044	<0.044	<0.044	-	-	-	-	-	-	-	-	-	0.291	<0.044	<0.044	-	32	-	3,700
8/9/2001	-	-	-	-	<0.044	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.044	0.578	0.054	-	-	-
11/28/2001	<0.05	0.29	7.4	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.45	-	-
1/17/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/24/2002	<0.03	0.78	15	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/20/2002	<0.05	3.6	58	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/29/2003	<0.05	2.2	100	38	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	28	<0.05	-	0.78	-	15
11/17/2003	-	3.1	38	25	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	26	0.06	-	-	-	7.0
4/28/2004	-	1.9	22	37	<0.05	-	-	-	-	-	2.1	-	-	-	-	-	-	-	-	-	<0.05	0.21	<0.05	0.05	0.35	2.4	0.06
11/15/2004	-	5.2	8.7	32	<0.05	-	-	-	-	-	5.4	-	-	-	-	-	-	-	-	-	<0.05	2.5	0.09	-	5.0	0.53	7.0
4/28/2005	-	2.0	8.6	26	<0.05	-	-	-	-	-	7.1	<0.05	-	-	-	-	-	-	-	-	<0.05	3.2	<0.05	-	0.72	0.27	2.4
11/8/2005	-	3.0	1.8	38	<0.05	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	<0.05	10	<0.05	-	2.3	0.98	6.0
4/17/2006	-	0.68	1.6	32	<0.05	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	<0.05	6.8	<0.05	-	0.58	0.57	2.9
11/20/2006	-	1.1	2.9	25	<0.05	-	-	-	-	-	11	<0.05	-	-	-	-	-	-	-	-	<0.05	0.08	<0.05	-	2.0	0.39	0.45
5/2/2007	-	2.4	2.2	25	<0.05	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	2.4	-	-	4.7	0.87	5.30
11/14/2007	-	1.4	2.7	37	<0.05	-	-	-	-	-	21	-	-	1.7	-	-	-	-	-	-	0.43	<0.05	0.10	-	0.67	0.23	6.0
4/25/2008	-	0.73	3.8	37	<0.05	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	0.32	-	-	5.4	<0.05	4.7
11/18/2008	-	0.85	0.50	48	<0.05	-	-	-	-	-	Dry	-	-	0.84	-	-	-	-	-	-	<0.05	<0.05	-	-	Dry	2.3	9.3
4/27/2009	-	0.44	0.07	32	<0.05	-	-	-	-	-	3.2	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	3.4	0.39	4.2
11/4/2009	-	2.0	<0.05	40	<0.05	-	-	-	-	-	-	-	-	0.68	-	-	-	-	-	-	<0.05	0.69	<0.05	-	6.2	0.48	8.2
4/20/2010	-	1.0	0.31	36	<0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	-	3.2	0.16	3
11/11/2010	-	3.7	0.17	29	<0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	3.4	0.41	11
4/22/2011	-	0.62	0.27	20	<0.05	-	-	-	-	-	-	-	-	0.07	-	-	-	-	-	-	-	<0.05	-	-	1.9	<0.05	7
11/14/2011	-	0.43	1.1	26	<0.05	-	-	-	-	-	-	-	-	2.6	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	0.08	<0.05	3.3
4/30/2012	-	1.8	2.1	37	0.27	-	-	-	-	-	-	-	-	5.9	-	-	-	-	-	-	-	<0.05	-	-	6.5	0.38	15
11/5/2012	-	0.15	0.90	31	<0.05	-	-	-	-	-	-	-	-	6.3	-	-	-	<0.05	46	-	<0.05	0.09	-	-	4.1	0.12	15
5/7/2013	-	-	-	-	-	-	-	-	-	-	-	0.55	-	14	-	-	-	0.09	58	-	-	-	-	-	-	-	-
12/19/2013	-	2.4	3.1	20	<0.05	-	-	-	-	-	-	3.1	-	16	-	-	-	2.8	38	-	<0.05	1.4	0.46	-	6.6	-	7.8
4/15/2014	-	5.3	4.7	24	<0.05	-	-	-	-	-	-	<0.05	-	8.7	-	0.06	-	0.81	66	-	1.1	2.3	-	-	-	-	14
11/3/2014	-	3.0	7.0	20	-	-	-	-	-	-	-	<0.05	-	8.9	-	0.05	-	0.98	48	-	1.7	2.3	4.0	-	-	-	8.3
4/6/2015	-	2.1	10.0	41	-	-	-	-	-	-	-	-	-	18	-	-	-	7.3	43	-	0.96	2.2	8.3	-	-	-	1.6
11/17/2015	-	1.6	59.0	19	-	-	-	-	-	-	-	-	-	24	-	-	-	0.2	35	-	0.91	0.81	1.9	-	31	-	6.7
4/14/2016	-	0.19	6.0	22	-	-	-	-	-	-	-	-	-	6.1	-	-	-	3.1	21	-	0.27	1.5	6.3	-	-	-	3.0

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Iron (mg/L)

Sampling Date	Overburden Monitoring Wells																				Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations		
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-103	GZ-104	GZ-105	GZ-106	GZ-107	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GZ-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)
11/2/2016	-	4.9	16.0	55	-	-	-	-	-	-	-	-	-	20.0	-	-	-	<0.05	30	-	2.2	1.9	9.9	-	-	-	14.0
4/24/2017	-	0.62	21	27	-	-	-	-	-	-	-	-	-	6.9	-	-	-	41	0.58	-	0.50	3.2	12	-	-	-	2.5
11/7/2017	-	0.10	21	32	-	-	-	-	-	-	-	-	-	16	-	-	-	7.4	51	-	0.95	0.42	9.4	-	42	-	43
4/25/2018	-	0.14	16	45	-	-	-	-	-	-	-	-	-	14	-	-	-	0.14	29	-	0.20	1.4	15	-	-	-	9.1
11/12/2018	-	0.063	18	24	-	-	-	-	-	-	-	-	-	17	-	-	-	0.57	38	-	0.52	0.41	5.8	-	2.3	-	7.8
4/24/2019	-	0.16	17	41	-	-	-	-	-	-	-	-	-	1.6	-	-	-	1.3	77	-	0.40	0.13	7.6	-	-	-	32
11/4/2019	-	0.093	3.7	34	-	-	-	-	-	-	-	<0.05	-	8.4	-	<0.05	-	<0.05	48	<0.05	0.41	0.21	8.5	-	<0.05	-	0.29
4/16/2020	-	<0.05	5.5	22	-	-	-	-	-	-	-	<0.05	<0.05	1.3	0.079	<0.05	<0.05	<0.05	53	<0.05	0.06	<0.05	8.1	-	-	-	8.10
11/5/2020	-	0.26	8.7	26	-	-	-	-	-	-	-	0.25	0.13	23	0.059	<0.05	<0.05	<0.05	48	<0.05	<0.05	0.18	6.1	-	-	-	28

See last page for notes.

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Iron (mg/L)

NH AGQS = NE
SMCL = 0.30 mg/L

Sampling Date	Surface Water Monitoring Stations											Leachate Monitoring Well
	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-14	SW-15	SW-16	SW-17	Exeter River	MW-6
5/27/1992	-	-	-	-	-	-	-	-	-	-	-	110
11/12/1992	-	0.24	-	-	-	-	-	-	-	-	-	-
4/6/1993	-	0.15	-	-	-	-	-	-	-	-	-	174
7/1/1993	-	3.07	-	-	-	-	-	-	-	-	-	-
11/5/1993	-	0.37	-	-	-	-	-	-	-	-	-	49
4/14/1994	-	2.25	-	-	-	-	-	-	-	-	-	-
7/15/1994	-	-	-	-	-	-	-	-	-	-	-	-
8/30/1994	-	-	-	-	-	-	-	-	-	-	-	400
9/6/1994	-	-	-	-	-	-	-	-	-	-	-	470
10/11/1994	-	-	-	-	-	-	-	-	-	-	-	135
11/18/1994	-	0.04	-	-	-	-	-	-	-	-	-	-
12/23/1994	-	-	-	-	-	-	-	-	-	-	-	-
2/2/1995	-	-	-	-	-	-	-	-	-	-	-	43
4/12/1995	-	<0.1	-	-	-	-	-	-	-	-	-	85
7/28/1995	-	<0.1	-	-	-	-	-	-	-	-	-	11
12/8/1995	-	0.91	-	-	-	-	-	-	-	-	-	66
4/26/1996	-	0.06	-	-	-	-	-	-	-	-	-	3.5
7/25/1996	-	2.8	-	-	-	-	-	-	-	-	-	-
11/14/1996	3.7	-	-	-	-	-	-	-	-	-	-	-
4/21/1997	0.49	-	-	-	-	-	-	-	-	-	-	-
7/22/1997	0.67	-	-	-	-	-	-	-	-	-	-	-
11/11/1997	0.4	-	-	-	-	-	-	-	-	-	-	-
4/15/1998	0.34	-	-	-	-	-	-	-	-	-	-	-
7/6/1998	1.1	-	-	-	-	-	-	-	-	-	-	-
11/16/1998	0.53	-	-	-	-	-	-	-	-	-	-	-
4/19/1999	0.64	-	-	-	-	-	-	-	-	-	-	-
7/27/1999	1.3	-	-	-	-	-	-	-	-	-	-	-
11/18/1999	420	-	-	-	-	-	-	-	-	-	-	-
5/5/2000	0.22	-	-	-	-	-	-	-	-	-	-	-
7/7/2000	1	-	-	-	-	-	-	-	-	-	-	-
11/16/2000	122	-	-	-	-	-	-	-	-	-	-	-
4/25/2001	7.3	-	-	-	-	-	-	-	-	-	-	-
7/25/2001	21	-	-	-	-	-	-	-	-	-	-	-
8/9/2001	-	-	-	-	-	-	-	-	-	-	-	-
11/28/2001	510	-	-	-	-	-	-	-	-	-	-	-
1/17/2002	-	-	-	-	-	-	-	-	-	-	-	-
4/24/2002	0.77	-	-	-	-	-	-	-	-	-	-	-
11/20/2002	0.24	-	-	-	-	-	-	-	-	-	-	-
4/29/2003	0.14	-	-	-	-	-	-	-	-	-	-	-
11/17/2003	0.18	-	-	-	-	-	-	-	-	-	-	-
4/28/2004	0.49	-	-	-	-	-	-	-	-	-	-	-
11/15/2004	1.8	-	-	-	-	-	-	-	-	-	-	-
4/28/2005	0.59	-	-	-	-	-	-	-	-	-	-	-
11/8/2005	4.0	-	-	-	-	-	-	-	-	-	-	-
4/17/2006	380.0	-	-	-	-	-	-	-	-	-	-	-
11/20/2006	0.49	-	-	-	-	-	-	-	-	-	-	-
5/2/2007	5.40	-	-	-	-	-	-	-	-	-	0.03	-
11/14/2007	0.32	-	-	-	-	-	-	-	-	-	0.29	-
4/25/2008	0.31	-	-	-	-	0.64	-	-	-	-	0.38	-
11/18/2008	0.57	-	-	-	-	1.7	-	-	-	-	0.7	-
4/27/2009	2.7	-	-	-	-	0.31	-	-	-	0.22	0.34	-
11/4/2009	-	-	-	-	-	0.61	-	-	-	26	0.39	-
4/20/2010	-	-	-	-	-	0.69	-	-	-	4.5	0.20	-
11/11/2010	-	-	-	-	-	0.32	-	-	-	2.8	0.30	-
4/22/2011	-	-	-	-	-	2.6	-	-	-	5.1	0.23	-
11/14/2011	-	-	-	-	0.26	0.12	-	-	-	0.53	0.25	-
4/30/2012	-	-	-	-	-	0.42	-	-	-	0.37	0.36	-
11/5/2012	-	-	-	-	-	2.4	-	-	-	8.5	0.35	-
5/7/2013	-	-	-	-	-	-	-	-	-	-	-	-
12/19/2013	-	-	-	-	-	-	-	-	6.0	3.5	-	-
4/15/2014	-	-	-	-	-	-	-	-	4.7	24	-	-
11/3/2014	-	-	-	-	-	-	-	-	<0.05	5.4	-	-
4/6/2015	-	-	-	-	-	-	-	-	0.17	3.4	-	-
11/17/2015	-	-	-	-	-	0.09	-	-	-	0.12	-	-
4/14/2016	-	-	-	-	-	-	-	-	-	0.76	-	-

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Iron (mg/L)

SMCL = 0.30 mg/L

Sampling Date	Surface Water Monitoring Stations											Leachate Monitoring Well
	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-14	SW-15	SW-16	SW-17	Exeter River	MW-6
11/2/2016	-	-	-	-	-	-	-	-	-	0.18	-	-
4/24/2017	-	-	-	-	-	-	-	-	-	28	-	-
11/7/2017	-	-	-	-	-	5.6	-	-	-	0.24	-	-
4/25/2018	-	-	-	-	-	-	-	-	-	3.7	-	-
11/12/2018	-	-	-	-	-	-	-	-	-	9.8	-	-
4/24/2019	-	-	-	-	-	-	-	-	-	0.084	-	-
11/4/2019	-	-	-	-	-	2.2	-	0.25	2.8	97	-	-
4/16/2020	-	-	-	-	-	-	0.16	1.30	0.37	13	-	-
11/5/2020	-	-	-	-	-	-	0.12	0.13	0.59	3.0	-	-

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Manganese (mg/L)

	Sampling Date	Overburden Monitoring Wells																			Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			
		RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-103	GZ-104	GZ-105	GZ-106	GZ-107	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GW-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)
PRE-CLOSURE	5/27/1992	0.14	0.93	4.9	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16
	11/12/1992	0.01	0.01	4.75	0.965	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4/6/1993	<0.01	0.56	6.62	4.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	7/1/1993	0.59	0.39	6.24	5.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/5/1993	0.12	0.34	10.8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4/14/1994	1.31	1.07	11.3	4.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	7/15/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	8/30/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9/6/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	10/11/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/18/1994	0.05	0.19	9.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
12/23/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2/2/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
4/12/1995	<0.05	0.68	10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
7/28/1995	<0.05	0.26	12.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
12/8/1995	<0.01	0.56	13	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
4/26/1996	<0.01	0.61	9.2	3.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
7/25/1996	<0.02	0.66	15	5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11/14/1996	-	0.77	16	3.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.37	-	1.8	
4/21/1997	-	0.4	14	3.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	1.4	
7/22/1997	0.8	0.47	0.36	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.42	-	2.8	
11/11/1997	<0.005	0.73	19	3.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.031	-	4.4	
4/15/1998	<0.005	0.67	14	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	-	-	
7/6/1998	-	0.52	21	4.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	3.6	
11/16/1998	<0.005	0.64	3.9	3.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.028	-	3	
4/19/1999	<0.005	0.57	6.8	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	3.4	
7/27/1999	<0.005	0.51	6.3	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	54	
11/18/1999	<0.005	0.61	7.8	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.32	-	320	
5/5/2000	0.018	0.55	7.8	4.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7/7/2000	0.16	0.56	7	5.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.5	-	50	
11/16/2000	<0.005	0.51	4.8	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.5	-	2.6	
4/25/2001	<0.005	0.97	2.9	5.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.6	-	1.7	
7/25/2001	<0.003	0.62	2.5	4.8	1.53	-	-	0.0946	0.893	0.0834	-	-	-	-	-	-	-	-	-	-	-	0.413	0.404	0.175	-	1.2	-	100
8/9/2001	-	-	-	-	0.902	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.399	1.730	0.195	-	-	-	
11/28/2001	<0.03	0.42	1.2	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	
1/17/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/24/2002	<0.03	0.81	2.1	6.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/20/2002	<0.03	1.1	4.8	5.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/29/2003	<0.03	0.89	6.8	2.8	0.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.34	9.9	0.11	-	0.52	-	3.5
11/17/2003	-	1.1	3.0	3.6	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.45	19	0.16	-	-	2.5	
4/28/2004	-	0.75	1.9	5.5	0.08	-	-	-	-	-	4.9	-	-	-	-	-	-	-	-	-	-	0.48	5.8	0.12	<0.05	0.84	1.1	0.64
11/15/2004	-	0.81	1.0	5.2	<0.03	-	-	-	-	-	4.6	-	-	-	-	-	-	-	-	-	-	0.09	14	0.17	-	1.1	0.66	2.0
4/28/2005	-	0.86	0.88	4.7	0.04	-	-	-	-	-	6.8	-	-	-	-	-	-	-	-	-	-	0.05	18	0.16	-	0.53	0.29	1.1
11/8/2005	-	0.71	0.21	3.8	<0.03	-	-	-	-	-	5.3	-	-	-	-	-	-	-	-	-	-	<0.03	10	0.10	-	1.1	0.63	2.5
4/17/2006	-	0.72	0.33	3.0	<0.03	-	-	-	-	-	4.2	-	-	-	-	-	-	-	-	-	-	<0.03	11	0.07	-	0.94	0.68	1.4
11/20/2006	-	0.78	0.36	2.3	1.5	-	-	-	-	-	2.7	-	-	-	-	-	-	-	-	-	-	0.03	7.5	0.10	-	1.1	0.48	1.5
5/2/2007	-	1	4.1	2.5	1.1	-	-	-	-	-	3.2	-	-	-	-	-	-	-	-	-	-	-	8.5	-	-	1.6	0.74	2.3
11/14/2007	-	1	1.9	3.4	0.54	-	-	-	-	-	3.8	-	-	4.0	-	-	-	-	-	-	-	0.13	4	0.12	-	1.0	0.39	2.8
4/25/2008	-	1.1	6.1	3.9	2.9	-	-	-	-	-	4.0	-	-	-	-	-	-	-	-	-	-	-	6.1	-	-	1.8	0.41	2.4
11/18/2008	-	1.2	0.75	4.7	4.2	-	-	-	-	-	Dry	-	-	0.27	-	-	-	-	-	-	-	<0.03	0.70	-	-	Dry	0.63	2.5
4/27/2009	-	1.2	0.35	3.5	3.7	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	0.93	-	-	1.2	0.31	1.5
11/4/2009	-	1.2	0.11	4.2	2.2	-	-	-	-	-	-	-	0.94	-	-	-	-	-	-	-	-	0.038	4.9	0.11	-	1.8	0.48	2.8
4/20/2010	-	1.0	0.89	3.2	0.24	-	-	-	-	-	-	-	0.037	-	-	-	-	-	-	-	-	-	0.60	-	-	0.85	0.29	0.92
11/11/2010	-	0.91	0.27	3.2	4.6	-	-	-	-	-	-	-	0.31	-	-	-	-	-	-	-	-	0.007	1.7	0.028	-	1.2	0.27	2.6
4/22/2011	-	0.7	0.42																									

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Manganese (mg/L)

Sampling Date	Overburden Monitoring Wells																				Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations		
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-103	GZ-104	GZ-105	GZ-106	GZ-107	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GW-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)
11/2/2016	-	0.76	2.8	3.9	-	-	-	-	-	-	-	-	-	3.0	-	-	-	0.71	2.2	-	0.16	11	0.26	-	-	-	1.2
4/24/2017	-	0.81	2.3	2.3	-	-	-	-	-	-	-	-	-	1.1	-	-	-	3.1	0.80	-	0.11	3.6	0.24	-	-	-	0.67
11/7/2017	-	0.72	2.4	5.2	-	-	-	-	-	-	-	-	-	3.7	-	-	-	2.4	4.3	-	0.22	15	0.28	-	4.8	-	4.1
4/25/2018	-	0.90	2.0	5.7	-	-	-	-	-	-	-	-	-	1.6	-	-	-	0.52	3.9	-	0.12	2.0	0.37	-	-	-	1.8
11/12/2018	-	0.77	1.8	4.8	-	-	-	-	-	-	-	-	-	2.2	-	-	-	1.3	3.8	-	0.080	1.1	0.16	-	1.4	-	1.2
4/24/2019	-	3.0	2.0	6.0	-	-	-	-	-	-	-	-	-	0.25	-	-	-	2.9	5.5	-	0.089	0.37	0.20	-	-	-	3.1
11/4/2019	-	0.70	0.20	4.0	-	-	-	-	-	-	-	0.11	-	1.5	-	0.58	-	0.53	3.8	0.055	0.065	1.7	0.32	-	2.1	-	2.7
4/16/2020	-	0.53	0.32	3.4	-	-	-	-	-	-	-	0.0079	0.027	0.19	<0.005	0.20	0.016	0.72	3.5	0.013	0.43	0.027	0.17	-	-	-	1.4
11/5/2020	-	0.40	0.31	3.0	-	-	-	-	-	-	-	0.61	0.024	2.2	<0.005	0.30	<0.005	0.35	3.0	<0.005	0.13	0.50	0.23	-	-	-	2.3

See last page for notes.

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Manganese (mg/L)

NH AGQS = 0.300 mg/L
WQCTS (Water and Fish Ingestion) = 0.05 mg/L

Sampling Date	Surface Water Monitoring Stations												Leachate Monitoring Well
	RFW-1	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-14	SW-15	SW-16	SW-17	Exeter River	MW-6
5/27/1992	0.14	-	-	-	-	-	-	-	-	-	-	-	6.4
11/12/1992	0.01	-	2.53	-	-	-	-	-	-	-	-	-	-
4/6/1993	<0.01	-	0.04	-	-	-	-	-	-	-	-	-	1.56
7/1/1993	0.59	-	<0.01	-	-	-	-	-	-	-	-	-	-
11/5/1993	0.12	-	3.7	-	-	-	-	-	-	-	-	-	0.78
4/14/1994	1.31	-	4.29	-	-	-	-	-	-	-	-	-	-
7/15/1994	-	-	-	-	-	-	-	-	-	-	-	-	-
8/30/1994	-	-	-	-	-	-	-	-	-	-	-	-	-
9/6/1994	-	-	-	-	-	-	-	-	-	-	-	-	-
10/11/1994	-	-	-	-	-	-	-	-	-	-	-	-	-
11/18/1994	0.05	-	0.08	-	-	-	-	-	-	-	-	-	-
12/23/1994	-	-	-	-	-	-	-	-	-	-	-	-	-
2/2/1995	-	-	-	-	-	-	-	-	-	-	-	-	-
4/12/1995	<0.05	-	<0.05	-	-	-	-	-	-	-	-	-	-
7/28/1995	<0.05	-	7.3	-	-	-	-	-	-	-	-	-	-
12/8/1995	<0.01	-	6.1	-	-	-	-	-	-	-	-	-	-
4/26/1996	<0.01	-	<0.01	-	-	-	-	-	-	-	-	-	-
7/25/1996	<0.02	-	8.4	-	-	-	-	-	-	-	-	-	-
11/14/1996	-	0.54	-	-	-	-	-	-	-	-	-	-	-
4/21/1997	-	0.11	-	-	-	-	-	-	-	-	-	-	-
7/22/1997	0.8	0.8	-	-	-	-	-	-	-	-	-	-	-
11/11/1997	<0.005	0.14	-	-	-	-	-	-	-	-	-	-	-
4/15/1998	<0.005	0.055	-	-	-	-	-	-	-	-	-	-	-
7/6/1998	-	0.17	-	-	-	-	-	-	-	-	-	-	-
11/16/1998	<0.005	0.065	-	-	-	-	-	-	-	-	-	-	-
4/19/1999	<0.005	3.8	-	-	-	-	-	-	-	-	-	-	-
7/27/1999	<0.005	1.8	-	-	-	-	-	-	-	-	-	-	-
11/18/1999	<0.005	94	-	-	-	-	-	-	-	-	-	-	-
5/5/2000	0.018	0.096	-	-	-	-	-	-	-	-	-	-	-
7/7/2000	0.16	2.1	-	-	-	-	-	-	-	-	-	-	-
11/16/2000	<0.005	51	-	-	-	-	-	-	-	-	-	-	-
4/25/2001	<0.005	1.8	-	-	-	-	-	-	-	-	-	-	-
7/25/2001	<0.003	5.7	-	-	-	-	-	-	-	-	-	-	-
8/9/2001	-	-	-	-	-	-	-	-	-	-	-	-	-
11/28/2001	<0.03	110	-	-	-	-	-	-	-	-	-	-	-
1/17/2002	-	-	-	-	-	-	-	-	-	-	-	-	-
4/24/2002	<0.03	0.39	-	-	-	-	-	-	-	-	-	-	-
11/20/2002	<0.03	0.05	-	-	-	-	-	-	-	-	-	-	-
4/29/2003	<0.03	0.05	-	-	-	-	-	-	-	-	-	-	-
11/17/2003	-	0.1	-	-	-	-	-	-	-	-	-	-	-
4/28/2004	-	<0.05	-	-	-	-	-	-	-	-	-	-	-
11/15/2004	-	0.17	-	-	-	-	-	-	-	-	-	-	-
4/28/2005	-	<0.03	-	-	-	-	-	-	-	-	-	-	-
11/8/2005	-	1.9	-	-	-	-	-	-	-	-	-	-	-
4/17/2006	-	260	-	-	-	-	-	-	-	-	-	-	-
11/20/2006	-	0.19	-	-	-	-	-	-	-	-	-	-	-
5/2/2007	-	2.7	-	-	-	-	-	-	-	-	-	0.05	-
11/14/2007	-	0.26	-	-	-	-	-	-	-	-	-	0.06	-
4/25/2008	-	0.13	-	-	-	-	0.30	-	-	-	-	0.10	-
11/18/2008	-	0.05	-	-	-	-	3.2	-	-	-	-	0.15	-
4/27/2009	-	0.77	-	-	-	-	0.11	-	-	-	0.17	0.12	-
11/4/2009	-	-	-	-	-	-	0.29	-	-	-	3.6	0.035	-
4/20/2010	-	-	-	-	-	-	0.15	-	-	-	0.69	0.031	-
11/11/2010	-	-	-	-	-	-	0.15	-	-	-	0.14	0.045	-
4/22/2011	-	-	-	-	-	-	0.054	-	-	-	0.39	0.042	-
11/14/2011	-	-	-	-	-	0.026	0.061	-	-	-	0.082	0.031	-
4/30/2012	-	-	-	-	-	-	0.13	-	-	-	0.069	0.066	-
11/5/2012	-	-	-	-	-	-	1.1	-	-	-	1.1	0.036	-
5/7/2013	-	-	-	-	-	-	-	-	-	-	-	-	-
12/19/2013	-	-	-	-	-	-	-	-	-	1.3	0.25	-	-
4/15/2014	-	-	-	-	-	-	-	-	-	1.6	3.9	-	-
11/3/2014	-	-	-	-	-	-	-	-	-	<0.005	2.2	-	-
4/6/2015	-	-	-	-	-	-	-	-	-	0.59	1.4	-	-
11/17/2015	-	-	-	-	-	-	0.018	-	-	-	1.7	-	-
4/14/2016	-	-	-	-	-	-	-	-	-	-	1.5	-	-

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Manganese (mg/L)

WQCTS (Water and Fish Ingestion) = 0.05 mg/L

Sampling Date		Surface Water Monitoring Stations											Leachate Monitoring Well
	RFW-1	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-14	SW-15	SW-16	SW-17	Exeter River	MW-6
11/2/2016	-	-	-	-	-	-	-	-	-	-	2.2	-	-
4/24/2017	-	-	-	-	-	-	-	-	-	-	390	-	-
11/7/2017	-	-	-	-	-	-	2.9	-	-	-	2.2	-	-
4/25/2018	-	-	-	-	-	-	-	-	-	-	1.1	-	-
11/12/2018	-	-	-	-	-	-	-	-	-	-	11	-	-
4/24/2019	-	-	-	-	-	-	-	-	-	-	0.14	-	-
11/4/2019	-	-	-	-	-	-	0.97	-	1.7	3.9	17	-	-
4/16/2020	-	-	-	-	-	-	-	1.3	2.1	3.0	2.9	-	-
11/5/2020	-	-	-	-	-	-	-	1.5	1.6	3.8	3.6	-	-

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Chloride (mg/L)

NH AGQS = NE
SMCL = 250 mg/L
WQTS (Protection of Aquatic Life - Fresh Water Acute) = 230 mg/L

Sampling Date	Overburden Monitoring Wells																	Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations												Leachate Monitoring Well
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GW-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6		
5/27/1992	17	56	78	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	-	-	-	-	-	-	-	-	-	-	-	-	900
11/12/1992	24	70	78	188	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	-	-	-	-	-	-	-	-	-	-	-	-
4/6/1993	32	70	34	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	-	-	-	-	-	-	-	-	-	-	1,150	
7/1/1993	900	700	650	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,200	-	-	-	-	-	-	-	-	-	-	-	-
11/5/1993	18	52	66	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62	-	-	-	-	-	-	-	-	-	-	700	
4/14/1994	6.6	56	52.6	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	-	-	-	-	-	-	-	-	-	-	-	
7/15/1994	5.24	49.7	46.6	147	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50.1	-	-	-	-	-	-	-	-	-	-	-	
8/30/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350	
9/6/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	950	
10/11/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	450	
11/18/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12/23/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	470	
2/2/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500	
4/12/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	490	
7/28/1995	10	54	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	-	-	-	-	-	-	-	-	-	-	-	510
12/8/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,200	
4/26/1996	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	550	
7/25/1996	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/14/1996	-	66	35	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-	49	52	-	-	-	-	-	-	-	-	-	-	-	
4/21/1997	-	60	32	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	23	8	-	-	-	-	-	-	-	-	-	-	-	
7/22/1997	17	37	29	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69	-	49	39	-	-	-	-	-	-	-	-	-	-	-	
11/11/1997	78	103	36	220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	80	40	-	-	-	-	-	-	-	-	-	-	-	
4/15/1998	52	56	22	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	-	-	25	-	-	-	-	-	-	-	-	-	-	-	
7/6/1998	-	39	31	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	-	90	17	-	-	-	-	-	-	-	-	-	-	-	
11/16/1998	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/19/1999	28	50	140	7.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	-	27	44	-	-	-	-	-	-	-	-	-	-	-	
7/27/1999	9.9	37	21	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	-	51	67	-	-	-	-	-	-	-	-	-	-	-	
11/18/1999	40	47	28	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-	47	53	-	-	-	-	-	-	-	-	-	-	-	
5/5/2000	83	51	8.1	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	
7/7/2000	420	53	14	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46	-	54	43	-	-	-	-	-	-	-	-	-	-	-	
11/16/2000	120	73	44	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	-	62	60	-	-	-	-	-	-	-	-	-	-	-	
4/25/2001	72	63	34	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	-	42	39	-	-	-	-	-	-	-	-	-	-	-	
7/25/2001	42	63	17	100	94	-	-	77	45	460	-	-	-	-	-	-	-	81	<5	26	-	11	-	41	37	-	-	-	-	-	-	-	-	-	-	-	
8/9/2001	-	-	-	-	51	-	-	-	-	-	-	-	-	-	-	-	-	120	13	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/28/2001	43	74	40	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	96	-	-	-	-	-	-	-	-	-	-	-	
1/17/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/24/2002	34	68	51	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	-	-	-	-	-	-	-	-	-	-	-	
11/20/2002	28	67	24	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	-	-	-	-	-	-	-	-	-	-	-	
4/29/2003	18	61	6.1	45	48	-	-	-	-	-	-	-	-	-	-	-	-	140	6.8	22	-	17	-	30	14	-	-	-	-	-	-	-	-	-	-	-	
11/17/2003	-	71	33	160	53	-	-	-	-	-	-	-	-	-	-	-	-	140	5.4	27	-	27	-	62	22	-	-	-	-	-	-	-	-	-	-	-	
4/28/2004	-	51	<0.5	94	64	-	-	-	-	-	41	-	-	-	-	-	-	120	5.5	21	6.8	19	22	45	24	-	-	-	-	-	-	-	-	-	-	-	
11/15/2004	-	38	8.8	79	31	-	-	-	-	-	19	-	-	-	-	-	-	67	7.3	20	-	20	4.0	74	57	-	-	-	-	-	-	-	-	-	-	-	
4/28/2005	-	65	24	130	70	-	-	-	-	-	36	-	-	-	-	-	-	130	14	26	-	11	8.8														

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Chloride (mg/L)

SMCL = 250 mg/L
WQTS (Protection of Aquatic Life - Fresh Water Acute) = 230 mg/L

Sampling Date	Overburden Monitoring Wells																Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations											Leachate Monitoring Well	
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GW-P-SR	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6	
4/25/2018	-	89	40	85	-	-	-	-	-	-	-	-	50	-	96	45	-	120	8.6	20	-	-	-	56	-	-	-	-	-	-	-	-	-	55	-	-
11/12/2018	-	83	46	170	-	-	-	-	-	-	-	-	53	-	160	49	-	110	7.6	21	-	20	-	21	-	-	-	-	-	-	-	-	-	47	-	-
4/24/2019	-	200	42	160	-	-	-	-	-	-	-	-	11	-	140	51	-	93	16	28	-	-	-	43	-	-	-	-	-	-	-	-	-	49	-	-
11/4/2019	-	69	48	130	-	-	-	-	-	-	-	89	53	83	98	50	120	100	30	42	-	26	-	98	-	-	-	-	-	17	65	69	78	-	-	
4/16/2020	-	81	55	110	-	-	-	-	-	-	-	-	35	-	180	49	77	93	8.2	28	-	-	-	34	-	-	-	-	-	-	-	-	-	64	-	-
11/5/2020	-	89	58	95	-	-	-	-	-	-	-	-	48	-	120	56	120	99	15	34	-	-	-	98	-	-	-	-	-	-	-	-	61	-	-	

See last page for notes.

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Nitrate (mg/L)

NH AGQS = 10 mg/L
WQCTS (Water and Fish Ingestion) = 10 mg/L

	Sampling Date	Overburden Monitoring Wells																Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations											Leachate Monitoring Well	
		RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GW-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6	
PRE-CLOSURE	5/27/1992	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
	11/12/1992	1.35	0.36	2.15	0.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.34	-	-	-	-	-	-	-	-	-	-	-
	4/6/1993	0.5	0.5	0.5	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	1.5	
	7/1/1993	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	
	11/5/1993	0.6	0.5	0.5	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	1.5	
	4/14/1994	0.197	0.091	0.226	<0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.03	-	-	-	-	-	-	-	-	-	-	-
	7/15/1994	<0.03	<0.03	<0.03	<0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.03	-	-	-	-	-	-	-	-	-	-	-
	8/30/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9/6/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	10/11/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/18/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12/23/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2/2/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/12/1995	0.52	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
7/28/1995	0.7	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
12/8/1995	0.17	<0.05	0.16	0.078	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-
4/26/1996	0.1	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-
7/25/1996	0.17	<0.05	<0.05	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-
11/14/1996	-	0.6	0.47	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.2	-	0.74	0.49	-	-	-	-	-	-	-	-	-	-	-
4/21/1997	-	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.34	-	2.1	1.4	-	-	-	-	-	-	-	-	-	-	-
7/22/1997	0.35	<0.05	0.06	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-
11/11/1997	0.89	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-
4/15/1998	0.46	<0.05	0.06	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-
7/6/1998	-	<0.05	<0.05	5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	-	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-
11/16/1998	0.52	<0.05	0.31	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.08	-	<0.05	0.12	-	-	-	-	-	-	-	-	-	-	-
4/19/1999	0.39	<0.05	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-
7/27/1999	0.096	<0.05	0.37	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	<0.05	0.18	-	-	-	-	-	-	-	-	-	-	-
11/18/1999	0.51	<0.05	<0.05	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.09	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-
5/5/2000	2.7	0.1	0.39	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	
7/7/2000	7	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.43	-	<0.05	0.06	-	-	-	-	-	-	-	-	-	-	
11/16/2000	2.1	0.051	0.55	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	<0.05	0.38	-	-	-	-	-	-	-	-	-	-	
4/25/2001	0.98	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	0.12	<0.05	-	-	-	-	-	-	-	-	-	-	-
7/25/2001	1	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	
8/9/2001	-	-	-	-	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.100	<0.100	0.140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/28/2001	1.3	0.16	0.44	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-
1/17/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/24/2002	1	0.2	0.3	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	
11/20/2002	0.8	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	
4/29/2003	0.7	<0.1	0.2	<0.1	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	0.2	-	-	-	<0.1	0.3	-	-	-	-	-	-	-	-	-	-	
11/17/2003	-	<0.1	<0.1	<0.1	3.6	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	<0.1	0.2	-	-	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	
4/28/2004	-	<																																			

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Nitrate (mg/L)

WQCTS (Water and Fish Ingestion) = 10 mg/L

Sampling Date	Overburden Monitoring Wells																Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations										Leachate Monitoring Well	
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GW-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6
11/2/2016	-	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	<0.5	-	2	<0.5	-	1	1.4	1.1	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	-
4/24/2017	-	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	<0.5	-	1.0	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	-
11/7/2017	-	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	<0.5	-	1.2	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	-	<0.5	-	-	-	-	-	<0.5	-	-	<0.5	-	-
4/25/2018	-	<0.5	0.54	<0.5	-	-	-	-	-	-	-	-	<0.5	-	0.61	<0.5	-	<0.5	<0.5	1.1	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	-
11/12/2018	-	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	<0.5	-	1.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	-
4/24/2019	-	0.50	<0.5	<0.5	-	-	-	-	-	-	-	-	1.2	-	1.3	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	-
11/4/2019	-	0.79	<0.5	<0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	1.8	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	<0.5	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-
4/16/2020	-	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	<0.5	-	<0.5	<0.5	0.62	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	-
11/5/2020	-	0.78	<0.5	<0.5	-	-	-	-	-	-	-	-	<0.5	-	1.4	<0.5	0.50	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	-

See last page for notes.

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

TKN (mg/L)

NH AGQS = NE
WQCTS = NE

Sampling Date	Overburden Monitoring Wells																	Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations													Leachate Monitoring Well
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/ South Spring)	GZ-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6			
PRE-CLOSURE	5/27/1992	0.5	0.5	1.2	8.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	150		
	11/12/1992	0.665	0.904	0.477	7.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.425	-	-	-	-	-	-	-	-	-	-		
	4/6/1993	2.09	1.39	1.39	7.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.39	-	-	-	-	-	-	-	-	-	207		
	7/1/1993	<1.0	<1.0	24	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.1	-	-	-	-	-	-	-	-	-	-		
	11/5/1993	0.164	0.164	0.789	8.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	213		
	4/14/1994	0.393	0.241	1.24	7.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.685	-	-	-	-	-	-	-	-	-	-		
	7/15/1994	0.317	0.099	0.404	6.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.343	-	-	-	-	-	-	-	-	-	-		
	8/30/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	9/6/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	10/11/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
POST-CLOSURE	11/18/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	12/23/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	2/2/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	4/12/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	7/28/1995	1.64	<1	3.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-		
	12/8/1995	0.56	0.31	3.8	7.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.7	-	-	-	-	-	-	-	-	-	-		
	4/26/1996	<1	0.24	2.5	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.28	-	-	-	-	-	-	-	-	-	-		
	7/25/1996	0.05	0.15	2.6	7.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	-	-	-	-	-		
	11/14/1996	-	0.69	11	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	-	0.74	0.52	-	-	-	-	-	-	-	-	-	-		
	4/21/1997	-	0.61	1.5	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.34	-	2.1	1.4	-	-	-	-	-	-	-	-	-	-		
	7/22/1997	0.27	0.61	1.29	10.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.45	-	3.36	0.44	-	-	-	-	-	-	-	-	-	-		
	11/11/1997	0.3	1.9	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	1.5	0.8	-	-	-	-	-	-	-	-	-	-		
	4/15/1998	<0.1	0.95	1.5	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-	-	1.1	-	-	-	-	-	-	-	-	-	-		
	7/6/1998	-	1.8	1.4	2.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.2	-	4.3	0.3	-	-	-	-	-	-	-	-	-	-		
	11/16/1998	2.2	0.27	1.8	6.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	0.47	3.6	-	-	-	-	-	-	-	-	-	-		
	4/19/1999	<0.5	<0.5	1.6	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-		
	7/27/1999	<0.01	<0.01	1.9	5.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-	1.5	0.8	-	-	-	-	-	-	-	-	-	-		
	11/18/1999	<0.5	<0.5	5.3	4.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	2.4	2	-	-	-	-	-	-	-	-	-	-		
	5/5/2000	<0.5	<0.5	2.7	5.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-		
	7/7/2000	<0.5	<0.5	3.5	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	0.5	<0.5	-	-	-	-	-	-	-	-	-	-		
	11/16/2000	1.3	0.5	2.5	3.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	4.1	45.2	-	-	-	-	-	-	-	-	-	-		
	4/25/2001	0.7	ND	1.8	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	5	2.2	-	-	-	-	-	-	-	-	-	-		
	7/25/2001	0.8	<0.3	1.1	4.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	4	16	-	-	-	-	-	-	-	-	-	-		
	8/9/2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	11/28/2001	0.6	0.3	1.2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	77	-	-	-	-	-	-	-	-	-		
	1/17/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	4/24/2002	0.4	0.2	1.1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-	-	-	-	-	-	-	-	-	-		
	11/20/2002	0.4	0.5	1.3	3.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-	-	-	-	-	-	-	-	-	-		
	4/29/2003	<0.3	<0.3	1.2	3.8	0.4	-	-	-	-	-	-	-	-	-	-	-	-	1.1	0.5	<0.3	-	1.3	-	1.1	<0.3	-	-	-	-	-	-	-	-	-	-		
	11/17/2003	-	0.7	1.2	2.6	1.1	-	-	-	-	-	-	-	-	-	-	-	-	1.1	3.1	<0.3	-	-	-	3.5	0.4	-	-	-	-	-	-						

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

TKN (mg/L)

Sampling Date	Overburden Monitoring Wells																	Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations											Leachate Monitoring Well
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/ South Spring)	GZ-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6	
11/2/2016	-	4.2	0.6	5.1	-	-	-	-	-	-	-	-	0.9	-	<0.5	0.9	-	<0.5	3.1	<0.5	-	-	-	2.4	-	-	-	-	-	-	-	-	<0.5	-	-	-
4/24/2017	-	<0.5	<0.5	2.8	-	-	-	-	-	-	-	-	<0.5	-	<0.5	1.0	-	<0.5	0.8	<0.5	-	-	-	0.6	-	-	-	-	-	-	-	-	0.6	-	-	-
11/7/2017	-	<0.5	<0.5	1.3	-	-	-	-	-	-	-	-	0.7	-	<0.5	0.9	-	<0.5	0.7	<0.5	-	1.3	-	1.3	-	-	-	-	-	1.2	-	-	<0.5	-	-	-
4/25/2018	-	<0.5	<0.5	2.3	-	-	-	-	-	-	-	-	<0.5	-	0.54	1.3	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	-	-
11/12/2018	-	<0.5	<0.5	1.1	-	-	-	-	-	-	-	-	<0.5	-	<0.5	1.3	-	<0.5	0.69	<0.5	-	0.65	-	0.52	-	-	-	-	-	-	-	-	<0.5	-	-	-
4/24/2019	-	<0.5	<0.5	2.3	-	-	-	-	-	-	-	-	<0.5	-	<0.5	1.3	-	<0.5	0.8	<0.5	-	-	-	2.0	-	-	-	-	-	-	-	-	<0.5	-	-	-
11/4/2019	-	<0.5	<0.5	2.6	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	0.7	1.3	<0.5	<0.5	<0.5	<0.5	-	1.4	-	0.9	-	-	-	-	-	1.1	<0.5	<0.5	0.5	-	-	-
4/16/2020	-	<0.5	0.6	1.2	-	-	-	-	-	-	-	-	<0.5	-	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	-	-	-	0.88	-	-	-	-	-	-	-	-	<0.5	-	-	-
11/5/2020	-	<0.5	<0.5	1.5	-	-	-	-	-	-	-	-	<0.5	-	<0.5	0.83	<0.5	1.1	19	<0.5	-	-	-	0.63	-	-	-	-	-	-	-	-	<0.5	-	-	-

See last page for notes.

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

1,4-Dioxane (mg/L)

NH AGQS = 0.32 µg/L
WQCTS (Water and Fish Ingestion) = NE

Sampling Date	Overburden Monitoring Wells																				Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations											Leachate Monitoring Well		
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-103	GZ-104	GZ-105	GZ-106	GZ-107	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GZ-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-14	SW-15	SW-16	SW-17	Exeter River	MW-6		
4/27/2009	-	-	1	6	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	<1	-	-	1	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/4/2009	-	-	1	4	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	<1	-	-	1	-	2	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	
4/20/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/11/2010	-	<1	2	4	<1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	<1	<1	<1	-	1	<1	3	-	-	-	-	-	-	-	-	-	-	-	-	
4/22/2011	-	<0.25	1	1	<0.25	-	-	-	-	-	-	-	-	0.95	-	-	-	-	-	-	-	<0.25	-	-	0.58	<0.25	2	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/4/2011	-	<0.25	1.3	1.4	<0.25	-	-	-	-	-	-	-	-	1.6	-	-	-	-	-	-	-	<0.25	<0.25	<0.25	-	0.56	<0.25	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/30/2012	-	0.55	1.6	2.8	<0.25	-	-	-	-	-	-	-	-	0.83	-	-	-	-	-	-	-	<0.25	<0.25	-	-	1.2	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/5/2012	-	<0.25	1.5	1.3	<0.25	-	-	-	-	-	-	-	-	1.7	-	-	-	<0.25	2.8	-	-	<0.25	<0.25	-	-	1.4	0.55	2.1	-	-	-	-	-	<0.25	-	-	<0.25	<0.25	-	-	
5/7/2013	-	-	-	-	-	-	-	-	-	-	-	0.70	-	1.2	-	-	-	<0.25	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12/19/2013	-	<0.25	0.25	1.1	<0.25	-	-	-	-	-	-	0.79	-	1.2	-	-	-	<0.25	2.0	-	-	<0.25	<0.25	<0.25	-	-	-	1.1	-	-	-	-	-	-	-	1.3	<0.25	-	-		
4/15/2014	-	-	-	-	-	-	-	-	-	-	-	<0.25	-	-	-	<0.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.25	-	-	-		
11/3/2014	-	-	-	-	-	-	-	-	-	-	-	0.33	-	-	-	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.25	-	-	-		
11/17/2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-	-	-	-	-	-	-	-	<0.25	-	-	-	-	-	-	
11/2/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
4/24/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11/7/2017	-	<0.25	2.2	3.2	-	-	-	-	-	-	-	-	-	0.71	-	-	-	<0.25	2.0	-	-	<0.25	<0.25	<0.25	-	1.4	-	1.4	-	-	-	-	<0.25	-	-	-	1.3	-	-		
4/25/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.70	-	-	-		
4/24/2019	-	<0.2	2.1	4.2	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	<0.2	5.3	-	0.44	<0.2	<0.2	-	-	-	1.8	-	-	-	-	-	-	-	-	-	-	0.73	-	-	
11/4/2019	-	<0.2	2.0	2.9	-	-	-	-	-	-	-	0.89	-	1.4	-	1.2	-	<0.2	4.4	<0.2	<0.2	<0.2	<0.2	-	0.70	-	1.1	-	-	-	-	-	<0.2	-	1.0	1.3	0.81	-	-		
4/16/2020	-	<0.2	0.9	0.81	-	-	-	-	-	-	-	0.79	<0.2	1.0	<0.2	0.9	<0.2	<0.2	1.8	<0.2	<0.2	<0.2	<0.2	-	-	-	0.53	-	-	-	-	-	-	0.81	0.78	0.52	0.42	-	-		
11/5/2020	-	<0.2	1.5	1.5	-	-	-	-	-	-	-	1.0	<0.2	1.5	<0.2	2.0	<0.2	<0.2	2.1	<0.2	<0.2	<0.2	<0.2	-	-	-	1.1	-	<0.2	<0.2	<0.2	<0.2	-	1.2	1.6	1.6	1.9	-	-		

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

pH (S.U.)

Sampling Date	Overburden Monitoring Wells																				Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations				
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-103	GZ-104	GZ-105	GZ-106	GZ-107	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/ South Spring)	SW-P-2 (P-2/1P-2R Southern Spring)	GW-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	
5/27/1992	6.51	6.42	6.53	6.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.58	-	-	
11/12/1992	7.00	6.50	6.30	6.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/6/1993	6.95	6.41	6.51	6.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/25/1996	6.34	7.15	6.42	6.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7/25/1996	6.48	6.67	7.05	6.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/21/1997	-	6.70	6.70	6.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.10	7.10	-	6.60	
7/22/1997	6.42	6.96	6.46	6.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.19	7.08	-	6.72	
7/27/1999	6.68	6.52	6.37	6.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.92	7.04	-	7.36	
4/25/2001	6.81	6.86	6.60	6.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.44	6.77	-	7.02	
7/25/2001	6.40	6.61	6.51	6.43	5.90	-	-	5.80	5.90	5.50	-	-	-	-	-	-	-	-	-	-	-	7.10	7.40	7.10	-	7.08	7.03	-	6.63
8/9/2001	-	-	-	-	6.60	-	-	7.00	7.10	6.10	-	-	-	-	-	-	-	-	-	-	-	7.10	7.40	7.60	-	-	-	-	-
11/28/2001	6.22	6.41	6.40	6.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.69	6.96	-	6.90	
4/24/2002	6.94	6.88	6.70	6.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.10	
11/20/2002	6.19	6.29	6.26	6.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.94	
4/29/2003	6.37	6.19	6.51	6.57	6.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.20	6.95	6.78	-	6.37	6.38	-	6.77
11/17/2003	-	6.72	6.47	6.66	6.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.26	6.70	6.80	-	6.59	6.82	-	6.88
4/28/2004	-	6.43	6.46	6.90	6.53	-	-	-	-	-	6.80	-	-	-	-	-	-	-	-	-	-	7.46	8.23	7.62	7.69	-	6.76	6.58	6.81
11/15/2004	-	6.44	6.52	6.50	6.39	-	-	-	-	-	6.45	-	-	-	-	-	-	-	-	-	-	7.38	7.06	6.86	-	-	6.72	6.56	6.97
4/28/2005	-	6.39	6.33	6.81	6.48	-	-	-	-	-	6.77	-	-	-	-	-	-	-	-	-	-	7.44	8.04	7.51	-	-	6.70	6.49	6.74
11/8/2005	-	6.45	6.67	6.65	6.42	-	-	-	-	-	6.63	-	-	-	-	-	-	-	-	-	-	7.41	6.86	6.88	-	-	7.08	6.64	7.23
4/17/2006	-	6.29	6.60	6.46	6.24	-	-	-	-	-	6.43	-	-	-	-	-	-	-	-	-	-	6.98	7.36	6.77	-	-	6.64	6.41	7.06
11/20/2006	-	6.10	6.35	6.46	6.23	-	-	-	-	-	6.34	-	-	-	-	-	-	-	-	-	-	7.13	7.32	7.28	-	-	6.46	6.33	7.11
5/2/2007	-	6.40	6.35	6.54	6.41	-	-	-	-	-	6.50	-	-	-	-	-	-	-	-	-	-	-	6.90	-	-	-	6.76	6.56	6.91
11/14/2007	-	6.29	6.38	6.49	6.35	-	-	-	-	-	6.47	-	-	-	-	-	-	-	-	-	-	7.09	6.87	7.16	-	-	6.61	6.44	6.98
4/25/2008	-	6.01	5.91	6.05	6.33	-	-	-	-	-	6.64	-	-	-	-	-	-	-	-	-	-	6.65	-	-	-	-	6.37	6.39	6.77
11/18/2008	-	5.96	5.97	6.11	6.37	-	-	-	-	-	Dry	-	-	6.56	-	-	-	-	-	-	-	7.02	6.68	-	-	-	-	6.44	6.80
4/27/2009	-	6.00	5.89	6.08	6.26	-	-	-	-	-	6.70	-	-	-	-	-	-	-	-	-	-	-	6.61	-	-	-	6.38	6.41	6.73
11/4/2009	-	5.88	6.42	6.35	6.51	-	-	-	-	-	-	-	-	6.42	-	-	-	-	-	-	-	7.44	6.81	7.17	-	-	6.42	6.14	6.68
4/20/2010	-	5.84	6.45	6.31	6.57	-	-	-	-	-	-	-	-	6.49	-	-	-	-	-	-	-	-	6.87	-	-	-	6.40	6.12	6.73
11/11/2010	-	5.83	6.51	6.41	6.56	-	-	-	-	-	-	-	-	6.36	-	-	-	-	-	-	-	7.31	6.77	7.13	-	-	6.39	6.08	6.56
4/22/2011	-	5.93	6.55	6.39	6.61	-	-	-	-	-	-	-	-	6.44	-	-	-	-	-	-	-	-	6.83	-	-	-	6.38	6.06	6.67
11/14/2011	-	5.91	6.58	6.49	6.61	-	-	-	-	-	-	-	-	6.29	-	-	-	-	-	-	-	7.27	6.7	7.06	-	-	6.34	6.11	6.63
4/30/2012	-	5.96	6.38	6.41	6.38	-	-	-	-	-	-	-	-	6.44	-	-	-	-	-	-	-	-	6.84	-	-	-	6.49	6.4	6.83
11/5/2012	-	6.02	5.66	6.48	6.38	-	-	-	-	-	-	-	-	6.18	-	-	-	-	6.23	6.7	-	7.68	6.84	7.16	-	-	6.51	6.33	6.9
5/7/2013	-	-	-	-	-	-	-	-	-	-	-	6.40	-	6.53	-	-	-	6.29	6.65	-	-	-	-	-	-	-	-	-	-
12/19/2013	-	6.34	6.60	6.81	6.81	-	-	-	-	-	-	6.68	-	6.97	-	-	-	6.55	6.79	-	-	7.91	7.16	7.21	-	-	6.98	-	7.18
11/3/2014	-	6.35	6.15	6.53	-	-	-	-	-	-	-	6.55	-	6.77	-	6.92	-	6.19	6.67	-	-	7.50	6.72	7.02	-	-	-	-	6.94
4/6/2015	-	7.1	6.50	6.72	-	-	-	-	-	-	-	-	-	6.89	-	-	-	6.36	6.75	-	-	7.75	8.1	8.15	-	-	-	-	8.05
11/17/2015	-	6.91	6.77	6.89	-	-	-	-	-	-	-	-	-	7.03	-	-	-	7.03	6.97	-	-	7.27	6.99	7.58	-	-	6.99	-	7.64
4/14/2016	-	6.50	6.51	6.63	-	-	-	-	-	-	-	-	-	6.82	-	-	-	6.39	6.78	-	-	7.17	6.99	7.78	-	-	-	-	7.48
11/2/2016	-	6.91	6.40	7.41	-	-	-	-	-	-	-	-	-	6.56	-	-	-	6.37	6.78	-	-	6.92	6.70	7.12	-	-	-	-	8.95
4/24/2017	-	6.56	6.30	6.68	-	-	-	-	-	-	-	-	-	6.73	-	-	-	6.43	7.92	-	-	7.75	12.78	7.95	-	-	-	-	7.60
11/7/2017	-	6.78	6.45	7.48	-	-	-	-	-	-	-	-	-	7.34	-	-	-	6.88	7.18	-	-	8.22	7.44	7.29	-	-	7.36	-	7.38
4/25/2018	-	6.09	7.80	6.54	-	-	-	-	-	-	-	-	-	7.20	-	-	-	7.45	6.70	-	-	7.90	12.72	7.82	-	-	-	-	7.40
11/12/2018	-	6.19	6.25	6.72	-	-	-	-	-	-	-	-	-	6.94	-	-	-	6.86	6.90	-	-	7.52	12.00	7.05	-	-	6.93	-	7.10
4/24/2019	-	6.41	6.32	6.64	-	-	-	-	-	-	-	-	-	6.77	-	-	-	6.49	6.68	-	-	7.99	12.16	7.40	-	-	-	-	7.22
11/4/2019	-	6.06	6.24	6.58	-	-	-	-	-	-	-	6.38	-	6.40	-	6.67	-	6.52	6.54	6.38	-	8.24	9.05	7.04	-	-	7.22	-	6.71
4/16/2020	-	6.99	6.27	7.29	-	-	-	-	-	-	-	6.09	6.31	6.38	6.27	6.19	6.61	6.47	8.86	7.08	-	9.96	12.41	7.47	-	-	-	-	8.47
11/5/2020	-	5.88	6.07	6.67	-	-	-	-	-	-	-	6.29	5.97	4.47	6.60	8.16	6.32	6.36	6.43	6.15	-	6.58	10.68	6.09	-	-	-	-	7.96

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

pH (S.U.)

NH AGQS = NE
WQCTS (Water and Fish Ingestion) = NE

Sampling Date	Surface Water Monitoring Stations											Leachate Monitoring Well
	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-14	SW-15	SW-16	SW-17	Exeter River	MW-6
5/27/1992	-	-	-	-	-	-	-	-	-	-	-	-
11/12/1992	-	6.70	-	-	-	-	-	-	-	-	-	-
4/6/1993	-	7.15	-	-	-	-	-	-	-	-	-	6.90
4/25/1996	-	6.72	-	-	-	-	-	-	-	-	-	6.84
7/25/1996	-	6.58	-	-	-	-	-	-	-	-	-	-
4/21/1997	-		-	-	-	-	-	-	-	-	-	-
7/22/1997	-		-	-	-	-	-	-	-	-	-	-
7/27/1999	-		-	-	-	-	-	-	-	-	-	-
4/25/2001	-		-	-	-	-	-	-	-	-	-	-
7/25/2001	-		-	-	-	-	-	-	-	-	-	-
8/9/2001	-		-	-	-	-	-	-	-	-	-	-
11/28/2001	-		-	-	-	-	-	-	-	-	-	-
4/24/2002	-		-	-	-	-	-	-	-	-	-	-
11/20/2002	-		-	-	-	-	-	-	-	-	-	-
4/29/2003	-	-	-	-	-	-	-	-	-	-	-	-
11/17/2003	-	-	-	-	-	-	-	-	-	-	-	-
4/28/2004	-	-	-	-	-	-	-	-	-	-	-	-
11/15/2004	-	-	-	-	-	-	-	-	-	-	-	-
4/28/2005	-	-	-	-	-	-	-	-	-	-	-	-
11/8/2005	-	-	-	-	-	-	-	-	-	-	-	-
4/17/2006	7.12	-	-	-	-	-	-	-	-	-	-	-
11/20/2006	7.62	-	-	-	-	-	-	-	-	-	-	-
5/2/2007	6.95	-	-	-	-	-	-	-	-	-	7.09	-
11/14/2007	6.90	-	-	-	-	-	-	-	-	-	7.04	-
4/25/2008	6.65	-	-	-	-	6.83	-	-	-	-	6.71	-
11/18/2008	6.77	-	-	-	-	6.88	-	-	-	-	6.69	-
4/27/2009	6.81	-	-	-	-	6.88	-	-	-	6.69	6.76	-
11/4/2009	-	-	-	-	-	6.83	-	-	-	6.72	6.71	-
4/20/2010	-	-	-	-	-	6.86	-	-	-	6.70	6.70	-
11/11/2010	-	-	-	-	-	6.81	-	-	-	6.77	6.63	-
4/22/2011	-	-	-	-	-	6.8	-	-	-	6.72	6.63	-
11/14/2011	-	-	-	-	-	6.78	-	-	-	6.68	6.68	-
4/30/2012	-	-	-	-	-	6.59	-	-	-	6.77	6.68	-
11/5/2012	-	-	-	-	-	6.01	-	-	-	6.85	5.87	-
5/7/2013	-	-	-	-	-	-	-	-	-	-	-	-
12/19/2013	-	-	-	-	-	-	-	-	7.45	7.48	-	-
11/3/2014	-	-	-	-	-	-	-	-	7.22	7.35	-	-
4/6/2015	-	-	-	-	-	-	-	-	7.41	7.46	-	-
11/17/2015	-	-	-	-	-	8.24	-	-	-	7.83	-	-
4/14/2016	-	-	-	-	-	-	-	-	-	7.46	-	-
11/2/2016	-	-	-	-	-	-	-	-	-	6.37	-	-
4/24/2017	-	-	-	-	-	-	-	-	-	7.19	-	-
11/7/2017	-	-	-	-	-	7.38	-	-	-	7.46	-	-
4/25/2018	-	-	-	-	-	-	-	7.68	-	7.60	-	-
11/12/2018	-	-	-	-	-	-	-	-	-	7.04	-	-
4/24/2019	-	-	-	-	-	-	-	-	-	7.40	-	-
11/4/2019	-	-	-	-	-	6.97	-	7.33	6.87	6.68	-	-
4/16/2020	-	-	-	-	-	-	7.00	7.04	6.70	6.35	-	-
11/5/2020	-	-	-	-	-	-	7.11	6.90	6.52	6.40	-	-

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Specific Conductance (uS/cm)

Sampling Date	Overburden Monitoring Wells																				Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations				
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-103	GZ-104	GZ-105	GZ-106	GZ-107	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/ Southern Spring)	SW-P-2 (P-2/1P-2R Southern Spring)	GW-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	
5/27/1992	150	370	910	1,400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	510	-	-
11/12/1992	130	347	858	1,270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/6/1993	180	340	699	855	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/1/1993	134	368	991	1,350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/5/1993	136	352	943	1,310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/14/1994	69	350	710	958	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/15/1994	77	335	740	1,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/18/1994	140	340	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/22/1997	189	1,024	202	156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,274	1,107	-	-	166
7/22/1999	117	325	1,076	1,100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	615	1,045	-	-	610
4/25/2001	261	327	887	847	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	314	274	-	-	371
7/25/2001	229	301	1,390	982	810	-	-	504	296	805	-	-	-	-	-	-	-	-	-	-	530	290	585	-	131	494	-	-	261
8/9/2001	-	-	-	-	662	-	-	435	225	-	-	-	-	-	-	-	-	-	-	-	603	769	279	-	-	-	-	-	-
11/28/2001	590	387	1,610	984	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	470	477	-	-	398
4/24/2002	266	349	912	940	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	307
11/20/2002	192	355	822	782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	291
4/29/2003	535	94	1,003	431	346	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	586	696	224	-	259	573	-	-	140
11/17/2003	-	117	968	412	362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	613	712	242	-	230	508	-	-	103
4/28/2004	-	542	1,017	760	405	-	-	-	-	-	936	-	-	-	-	-	-	-	-	-	596	553	382	342	-	247	270	-	762
11/15/2004	-	226	1,262	794	251	-	-	-	-	-	580	-	-	-	-	-	-	-	-	-	436	402	204	-	-	199	180	-	406
4/28/2005	-	558	1,093	717	390	-	-	-	-	-	909	-	-	-	-	-	-	-	-	-	559	561	366	-	-	240	235	-	723
11/8/2005	-	268	1,330	905	554	-	-	-	-	-	855	-	-	-	-	-	-	-	-	-	623	711	284	-	-	265	397	-	581
4/17/2006	-	205	1,231	606	301	-	-	-	-	-	548	-	-	-	-	-	-	-	-	-	393	324	218	-	-	170	255	-	464
11/20/2006	-	274	796	756	1,050	-	-	-	-	-	718	-	-	-	-	-	-	-	-	-	582	308	257	-	-	197	363	-	442
5/2/2007	-	358	603	707	508	-	-	-	-	-	121	-	-	-	-	-	-	-	-	-	-	627	-	-	-	308	363	-	517
11/14/2007	-	303	633	715	510	-	-	-	-	-	975	-	-	-	-	-	-	-	-	-	525	605	229	-	-	217	344	-	485
4/25/2008	-	367	681	856	700	-	-	-	-	-	913	-	-	-	-	-	-	-	-	-	-	668	-	-	-	325	246	-	517
11/18/2008	-	341	634	871	765	-	-	-	-	-	-	-	-	417	-	-	-	-	-	-	487	677	-	-	-	-	255	-	492
4/27/2009	-	367	636	835	712	-	-	-	-	-	938	-	-	-	-	-	-	-	-	-	-	625	-	-	-	317	226	-	502
11/4/2009	-	350	1,062	1,070	338	-	-	-	-	-	-	-	-	607	-	-	-	-	-	-	668	554	217	-	-	330	264	-	481
4/20/2010	-	347	1,071	1,019	321	-	-	-	-	-	-	-	-	618	-	-	-	-	-	-	-	568	-	-	-	322	249	-	446
11/11/2010	-	344	1,138	1,048	322	-	-	-	-	-	-	-	-	592	-	-	-	-	-	-	683	561	202	-	-	338	246	-	456
4/22/2011	-	339	1033	987	337	-	-	-	-	-	-	-	-	641	-	-	-	-	-	-	-	554	-	-	-	308	228	-	461
11/14/2011	-	267	628	692	416	-	-	-	-	-	-	-	-	568	-	-	-	-	-	-	515	626	214	-	-	304	234	-	422
4/30/2012	-	290	918	844	301	-	-	-	-	-	-	-	-	509	-	-	-	-	-	-	-	500	-	-	-	288	251	-	426
11/5/2012	-	248	467	703	286	-	-	-	-	-	-	-	-	546	-	-	-	421	649	-	446	500	228	-	-	231	212	-	408
5/7/2013	-	-	-	-	-	-	-	-	-	-	559	-	-	579	-	-	-	449	691	-	-	-	-	-	-	-	-	-	-
12/19/2013	-	346	880	808	595	-	-	-	-	-	-	614	-	588	-	-	-	578	570	-	605	819	221	-	-	339	-	-	498
11/3/2014	-	344	612	786	-	-	-	-	-	-	-	547	-	688	-	329	-	676	610	-	583	839	241	-	-	-	-	-	577
4/6/2015	-	306	482	786	-	-	-	-	-	-	-	-	-	571	-	-	-	828	629	-	571	897	834	-	-	-	-	-	275
11/17/2015	-	235	469	537	-	-	-	-	-	-	-	-	-	495	-	-	-	625	482	-	404	239	155	-	-	239	-	-	410
4/14/2016	-	211	381	537	-	-	-	-	-	-	-	-	-	543	-	-	-	543	411	-	452	698	195.7	-	-	-	-	-	292
11/2/2016	-	277	435	632	-	-	-	-	-	-	-	-	-	538	-	-	-	762	383	-	490	518	190	-	-	-	-	-	518
4/24/2017	-	374	620	623	-	-	-	-	-	-	-	-	-	628	-	-	-	738	546	-	628	4,160	172.7	-	-	-	-	-	473
11/7/2017	-	288	632	828	-	-	-	-	-	-	-	-	-	600	-	-	-	929	535	-	617	1,058	236	-	-	369	-	-	636
4/25/2018	-	429	518	836	-	-	-	-	-	-	-	-	-	235	-	-	-	832	601	-	699	4,140	271	-	-	-	-	-	527
11/12/2018	-	346	412	777	-	-	-	-	-	-	-	-	-	433	-	-	-	782	508	-	524	546	215	-	-	194.1	-	-	181.2
4/24/2019	-	579	708	919	-	-	-	-	-	-	-	-	-	111	-	-	-	650	667	-	561	1,085	268	-	-	-	-	-	306
11/4/2019	-	360	575	735	-	-	-	-	-	-	-	619	-	552	-	539	-	599	521	513	541	398	349	-	-	294	-	-	614
4/16/2020	-	242	278	418	-	-	-	-	-	-	-	428	47	176	286	239	311	492	310	211	375	2,815	145	-	-	-	-	-	184
11/5/2020	-	393	447	652	-	-	-	-	-	-	-	496	142	679	497	546	450	655	536	443	535	2,134	280	-	-	-	-	-	548

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Specific Conductance (uS/cm)

NH AGQS = NE
WQCTS (Water and Fish Ingestion) = NE

Sampling Date	Surface Water Monitoring Stations											Leachate Monitoring Well
	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-14	SW-15	SW-16	SW-17	Exeter River	MW-6
5/27/1992	-	-	-	-	-	-	-	-	-	-	-	7,500
11/12/1992	-	630	-	-	-	-	-	-	-	-	-	-
4/6/1993	-	148	-	-	-	-	-	-	-	-	-	6,790
7/1/1993	-	721	-	-	-	-	-	-	-	-	-	-
11/5/1993	-	727	-	-	-	-	-	-	-	-	-	5,830
4/14/1994	-	280	-	-	-	-	-	-	-	-	-	-
7/15/1994	-	665	-	-	-	-	-	-	-	-	-	-
11/18/1994	-	800	-	-	-	-	-	-	-	-	-	-
7/22/1997	-	-	-	-	-	-	-	-	-	-	-	-
7/22/1999	-	-	-	-	-	-	-	-	-	-	-	-
4/25/2001	-	-	-	-	-	-	-	-	-	-	-	-
7/25/2001	-	-	-	-	-	-	-	-	-	-	-	-
8/9/2001	-	-	-	-	-	-	-	-	-	-	-	-
11/28/2001	-	-	-	-	-	-	-	-	-	-	-	-
4/24/2002	-	-	-	-	-	-	-	-	-	-	-	-
11/20/2002	-	-	-	-	-	-	-	-	-	-	-	-
4/29/2003	-	-	-	-	-	-	-	-	-	-	-	-
11/17/2003	-	-	-	-	-	-	-	-	-	-	-	-
4/28/2004	-	-	-	-	-	-	-	-	-	-	-	-
11/15/2004	-	-	-	-	-	-	-	-	-	-	-	-
4/28/2005	-	-	-	-	-	-	-	-	-	-	-	-
11/8/2005	-	-	-	-	-	-	-	-	-	-	-	-
4/17/2006	320	-	-	-	-	-	-	-	-	-	-	-
11/20/2006	113	-	-	-	-	-	-	-	-	-	-	-
5/2/2007	347	-	-	-	-	-	-	-	-	-	119	-
11/14/2007	208	-	-	-	-	-	-	-	-	-	97	-
4/25/2008	257	-	-	-	-	165	-	-	-	-	155	-
11/18/2008	249	-	-	-	-	137	-	-	-	-	131	-
4/27/2009	117	-	-	-	-	131	-	-	-	248	130	-
11/4/2009	-	-	-	-	-	114	-	-	-	262	106	-
4/20/2010	-	-	-	-	-	105	-	-	-	250	93	-
11/11/2010	-	-	-	-	-	119	-	-	-	240	98	-
4/22/2011	-	-	-	-	-	96	-	-	-	227	67	-
11/14/2011	-	-	-	-	-	174	-	-	-	212	151	-
4/30/2012	-	-	-	-	-	133	-	-	-	71	92	-
11/5/2012	-	-	-	-	-	151	-	-	-	88	100	-
5/7/2013	-	-	-	-	-	-	-	-	-	-	-	-
12/19/2013	-	-	-	-	-	-	-	-	496	520	-	-
11/3/2014	-	-	-	-	-	-	-	-	528	510	-	-
4/6/2015	-	-	-	-	-	-	-	-	712	478	-	-
11/17/2015	-	-	-	-	-	167	-	-	-	345	-	-
4/14/2016	-	-	-	-	-	-	-	-	-	407	-	-
11/2/2016	-	-	-	-	-	-	-	-	-	392	-	-
4/24/2017	-	-	-	-	-	-	-	-	-	529	-	-
11/7/2017	-	-	-	-	-	374	-	-	-	494	-	-
4/25/2018	-	-	-	-	-	-	-	570	-	454	-	-
11/12/2018	-	-	-	-	-	-	-	-	-	518	-	-
4/24/2019	-	-	-	-	-	-	-	-	-	570	-	-
11/4/2019	-	-	-	-	-	198	-	536	575	547	-	-
4/16/2020	-	-	-	-	-	-	229	338	410	345	-	-
11/5/2020	-	-	-	-	-	-	518	520	583	524	-	-

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

DO (mg/L)

Sampling Date	Overburden Monitoring Wells																			Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations				
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-103	GZ-104	GZ-105	GZ-106	GZ-107	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/ South Spring)	SW-P-2 (P-2/1P-2R Southern Spring)	GW-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)
4/16/2020	-	3.60	2.95	2.71	-	-	-	-	-	-	-	5.6	10.46	6.80	9.35	5.25	8.85	3.88	2.78	7.65	7.25	10.40	4.20	-	-	-	-	5.01
11/5/2020	-	2.54	2.72	2.50	-	-	-	-	-	-	-	8.77	10.75	7.15	8.62	7.17	8.22	3.28	2.27	7.14	3.30	5.02	4.46	-	-	-	-	3.64

See last page for notes.

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

DO (mg/L)

NH AGQS = NE
WQCTS (Water and Fish Ingestion) = NE

Sampling Date	Surface Water Monitoring Stations											Leachate Monitoring Well
	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-14	SW-15	SW-16	SW-17	Exeter River	MW-6
4/16/2020	-	-	-	-	-	-	9.94	9.59	9.34	9.22	-	-
11/5/2020	-	-	-	-	-	-	9.08	8.6	7.23	5.81	-	-

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

ORP (mV)

Sampling Date	Overburden Monitoring Wells																			Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations					
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-103	GZ-104	GZ-105	GZ-106	GZ-107	GZ-201	GZ-202A	GMW-11RR	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/ South Spring)	SW-P-2 (P-2/1P-2R Southern Spring)	GW-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	
4/16/2020	-	67.6	241.6	3.2	-	-	-	-	-	-	-	323.3	339.0	313.3	319.5	337.4	245.1	196.4	196.4	208.0	68.9	-9.1	82.9	-	-	-	-	-	-15.2
11/5/2020	-	153.7	68.1	-36.9	-	-	-	-	-	-	-	129.9	135.4	-12.6	161.3	62.3	97.4	144.8	-66.4	188.0	-62.8	-174.6	158.1	-	-	-	-	-	-44.9

See last page for notes.

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

ORP (mV)

NH AGQS = NE
WQCTS (Water and Fish Ingestion) = NE

Sampling Date	Surface Water Monitoring Stations											Leachate Monitoring Well
	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-14	SW-15	SW-16	SW-17	Exeter River	MW-6
4/16/2020	-	-	-	-	-	-	245.1	253.0	318.8	328.6	-	-
11/5/2020	-	-	-	-	-	-	47.2	56.6	60.5	59.7	-	-

Barium (mg/L)

NH AGQS= 2 mg/L

WQCTS (Water and Fish Ingestion) = 1.0 mg/L

[illegible]

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Barium (mg/L)

WQCTS (Water and Fish Ingestion) = 1.0 mg/L

Sampling Date	Overburden Monitoring Wells															Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations										Leachate Monitoring Well		
	RPW-1	RPW-2	RPW-3	RPW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GZ-P-SR	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6	
11/7/2017	-	0.024	0.065	0.15	-	-	-	-	-	-	-	-	0.041	-	0.23	0.069	0.028	0.064	0.055	-	0.49	-	0.082	-	-	-	-	-	0.033	-	-	0.022	-	-	
4/25/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/12/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/24/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/4/2019	-	-	-	-	-	-	-	-	-	-	-	0.014	-	0.046	-	-	-	-	-	-	0.019	-	-	-	-	-	-	-	0.023	0.018	0.039	-	-	-	-

See last page for notes.

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Cadmium (mg/L)

NH AGQS = 0.005 mg/L
WQCTS (Protection of Aquatic Life - Fresh Water Acute) = 0.21 ug/L

[illegible]

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Cadmium (mg/L)

NH AGQS = 0.005 mg/L
WQCTS (Protection of Aquatic Life - Fresh Water Acute) = 0.21 ug/L

Sampling Date	Overburden Monitoring Wells																Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations													Leachate Monitoring Well
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GW-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6			
4/24/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11/7/2017	-	<0.001	<0.001	<0.001	-	-	-	-	-	-	-	-	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	-	<0.001	-	-	-	-	-	<0.001	-	-	<0.001	-	-	-	-	
4/25/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/12/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/24/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/4/2019	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	<0.001	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	-	-	-	-	-	

See last page for notes.

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Chromium (mg/L)

NH AGQS= 0.10 mg/L
WQCTS (Water and Fish Ingestion) = NE

Sampling Date	Overburden Monitoring Wells																Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations											Leachate Monitoring Well
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GZ-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6	
5/27/1992	0.01	0.1	0.04	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	0.06
11/12/1992	0.1	<0.01	0.02	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-
4/6/1993	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	0.08
7/1/1993	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-
11/5/1993	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05
4/14/1994	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-
7/15/1994	<0.01	<0.01	0.016	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-
8/30/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.08	
9/6/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	
10/11/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	
11/18/1994	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-
12/23/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	
2/2/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	
4/12/1995	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.1
7/28/1995	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.1
12/8/1995	<0.03	<0.03	<0.03	<0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.03	-	-	-	-	-	-	-	-	-	0.018
4/26/1996	<0.03	<0.03	<0.03	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.03	-	-	-	-	-	-	-	-	-	<0.03
7/25/1996	<0.004	<0.004	<0.004	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004	-	-	-	-	-	-	-	-	-	-
11/14/1996	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/21/1997	-	<0.004	<0.004	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004	-	<0.004	<0.004	<0.004	-	-	-	-	-	-	-	-	-	-
7/22/1997	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/11/1997	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/15/1998	<0.004	<0.004	<0.004	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004	-	-	<0.004	<0.004	-	-	-	-	-	-	-	-	-	-
7/6/1998	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/16/1998	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/19/1999	<0.004	<0.004	<0.004	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004	-	<0.004	<0.004	<0.004	-	-	-	-	-	-	-	-	-	-
7/27/1999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/18/1999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5/5/2000	<0.004	<0.004	0.008	0.009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004	-	-	-	-	-	-	-	-	-	-	-
7/7/2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/16/2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/25/2001	<0.004	<0.004	<0.004	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.012	-	0.0045	<0.004	-	-	-	-	-	-	-	-	-	-	-
7/25/2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8/9/2001	-	-	-	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	<0.004	<0.004	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/28/2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1/17/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/24/2002	<0.01	<0.01	<0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-
11/20/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/29/2003	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-
11/17/2003	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	<0.05	-	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	
4/28/2004	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-
11/15/2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/28/2005	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	
11/8/2005	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	
4/17/2006	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	0.26	-	-	-	-	-	-	-	-	-	
11/20/2006	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	
5/2/2007	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	<0.05	<0.05	-	-	-	-	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	-	
11/14/2007	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	-	
4/25/2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/18/2008	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	Dry	-	<0.002	-	-	-	<0.05	<0.05	-	-	Dry	<0.05	<0.05	<0.05	-	-	-	-	-	<0.05	-	-	-	<0.05	-
11/4/2009	-	<0.001	0.002	<0.001	<0.001	-	-	-	-	-	-	-	<0.001	-	-	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	-	-	-	-	-	<0.001	-	-	0.007	<0.001	-	
4/20/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/11/2010	-	<0.001	<0.001	<0.001	<0.001	-	-	-	-	-	-	<0.001	-	-	-	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	-	-	-	-	-	-	0.001	-	<0.001	<0.001	-	
4/22/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/14/2011	-	<0.001	<0.																																

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Chromium (mg/L)

NH AGQS= 0.10 mg/L
WQCTS (Water and Fish Ingestion) = NE

Sampling Date	Overburden Monitoring Wells																Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations														Leachate Monitoring Well
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GZ-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6				
4/24/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
11/7/2017	-	<0.001	<0.001	0.003	-	-	-	-	-	-	-	-	<0.001	-	0.017	<0.001	0.003	<0.001	0.017	-	0.008	-	0.002	-	-	-	-	-	-	<0.001	-	-	<0.001	-	-	-		
4/25/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
11/12/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
4/24/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
11/4/2019	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	<0.001	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	0.0010	<0.001	<0.001	-	-	-	-			

See last page for notes.

Lead (mg/L)

WQCTS (Water and Fish Ingestion) = NE

PRE-CLOSURE

POST-CLOSURE

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Lead (mg/L)

WQCTS (Water and Fish Ingestion) = NE

Sampling Date	Overburden Monitoring Wells																Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations														Leachate Monitoring Well
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GZ-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6				
4/24/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
11/7/2017	-	<0.001	<0.001	0.003	-	-	-	-	-	-	-	-	<0.001	-	0.010	<0.001	0.001	<0.001	0.006	-	0.028	-	0.006	-	-	-	-	-	-	<0.001	-	-	<0.001	-	-	-		
4/25/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
11/12/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
4/24/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
11/4/2019	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	<0.001	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	0.0017	<0.001	<0.001	-	-	-			

See last page for notes.

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Mercury (mg/L)

NH AGQS = 0.002 mg/L
WQTS (Water and Fish Ingestion) = 0.00005 mg/L

	Sampling Date	Overburden Monitoring Wells															Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations												Leachate Monitoring Well	
		RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GW-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6		
PRE-CLOSURE	5/27/1992	<0.0003	<0.0003	<0.0003	<0.0003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0003	-	-	-	-	-	-	-	-	-	-	-	-	<0.0003	
	11/12/1992	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	4/6/1993	<0.0002	<0.0002	<0.0002	<0.0002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002	-	-	-	-	-	-	-	-	-	-	<0.0002	
	7/1/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	11/5/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	4/14/1994	<0.0002	<0.0002	<0.0002	<0.0002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002	-	-	-	-	-	-	-	-	-	-	
	7/15/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	8/30/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002		
	9/6/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002		
	10/11/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002		
POST-CLOSURE	11/18/1994	<0.0002	<0.0002	<0.0002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002	-	-	-	-	-	-	-	-	-	-	-
	12/23/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0003	
	2/2/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002		
	4/12/1995	<0.001	<0.001	<0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-	-	-	-	<0.001	
	7/28/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001		
	12/8/1995	<0.0002	<0.0002	<0.0002	<0.0002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002	-	-	-	-	-	-	-	-	-	<0.0002	
	4/26/1996	<0.0002	<0.0002	<0.0002	<0.0002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002	-	-	-	-	-	-	-	-	-	<0.0002	
	7/25/1996	0.0008	0.0007	0.0007	0.0012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0012	-	-	-	-	-	-	-	-	-	-	
	11/14/1996	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	4/21/1997	-	0.0003	<0.0002	0.0002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002	-	<0.0002	<0.0002	<0.0002	-	-	-	-	-	-	-	-	-	-	
	7/22/1997	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	11/11/1997	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	4/15/1998	<0.0002	<0.0002	<0.0003	<0.0005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002	-	<0.0002	<0.0002	<0.0002	-	-	-	-	-	-	-	-	-	-	
	7/6/1998	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	11/16/1998	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	4/19/1999	<0.0002	<0.0002	<0.0002	<0.0002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002	-	<0.0002	<0.0002	<0.0002	-	-	-	-	-	-	-	-	-	-	
	7/27/1999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	11/18/1999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	5/5/2000	<0.0002	<0.0002	<0.0002	<0.0002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002	-	-	-	-	-	-	-	-	-	-	
	7/7/2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	11/16/2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	4/25/2001	<0.00035	<0.00035	<0.00035	<0.00035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.00035	-	<0.00035	<0.00035	<0.00035	-	-	-	-	-	-	-	-	-	-	
	7/25/2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	8/9/2001	-	-	-	-	<0.0005	-	-	-	-	-	-	-	-	-	-	-	<0.0005	<0.0005	<0.0005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/28/2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1/17/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4/24/2002	<0.0004	<0.0004	<0.0004	<0.0004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0004	-	-	-	-	-	-	-	-	-	-	
	11/20/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4/29/2003	<0.0005	<0.0005	<0.0005	<0.0005	0.0005	-	-	-	-	-	-	-	-	-	-	-	<0.0005	<0.0005	<0.0005	-	<0.0005	-	<0.0005	<0.0005	<0.0005	-	-	-	-	-	-	-	-	-	-	
	11/17/2003	-	<0.0005	<0.0005	<0.0005	<0.0009	-	-	-	-	-	-	-	-	-	-	-	<0.0009	<0.0009	<0.0009	-	-															

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Mercury (mg/L)

WQCTS (Water and Fish Ingestion) = 0.00005 mg/L

Sampling Date	Overburden Monitoring Wells																Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations														Leachate Monitoring Well
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GW-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6				
4/24/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
11/7/2017	-	<0.0001	<0.0001	<0.0001	-	-	-	-	-	-	-	-	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	0.0002	-	<0.0001	-	<0.0001	-	-	-	-	-	-	<0.0001	-	-	<0.0001	-	-	-		
4/25/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11/12/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
4/24/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11/4/2019	-	-	-	-	-	-	-	-	-	-	-	<0.0001	-	<0.0001	-	-	-	-	-	-	<0.0001	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	-	-	-	-		

See last page for notes.

Selenium (mg/L)

WQCTS (Water and Fish Ingestion) = 0.170 mg/L

POST-CLOSURE

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Selenium (mg/L)

WQCTS (Water and Fish Ingestion) = 0.170 mg/L

Sampling Date	Overburden Monitoring Wells															Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations														Leachate Monitoring Well
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GW-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6			
4/24/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11/7/2017	-	<0.001	<0.001	<0.001	-	-	-	-	-	-	-	-	<0.001	-	0.002	<0.001	<0.001	<0.001	<0.001	-	0.003	-	<0.001	-	-	-	-	-	-	<0.001	-	-	<0.001	-	-	-	
4/25/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11/12/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
4/24/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11/4/2019	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	<0.001	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	-	-	-		

See last page for notes.

Silver (mg/L)

WQCTS (Water and Fish Ingestion) = 0.05 mg/L

PRE-CLOSURE

POST-CLOSURE

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

Silver (mg/L)

WQCTS (Water and Fish Ingestion) = 0.05 mg/L

Sampling Date	Overburden Monitoring Wells																Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations													Leachate Monitoring Well
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/1P-2R Southern Spring)	GW-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6			
4/24/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11/7/2017	-	<0.001	<0.001	<0.001	-	-	-	-	-	-	-	-	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	-	<0.001	-	-	-	-	-	-	<0.001	-	-	<0.001	-	-	-	
4/25/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/12/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/24/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/4/2019	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	<0.001	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	-	-	-	-	

See last page for notes.

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

VOCs (mg/L)

	Sampling Date	Overburden Monitoring Wells															Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations													Leachate Monitoring Well
		RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/ South Spring)	GZ-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6		
PRE-CLOSURE	5/27/1992	BDL	BDL	BDL	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,122	
	11/12/1992	BDL	BDL	BDL	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	-	-	-	
	4/6/1993	BDL	BDL	BDL	BDL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	-	-	1,338.6		
	7/1/1993	BDL	BDL	25.17	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	-	-	-		
	11/5/1993	BDL	BDL	BDL	BDL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	-	-	154.6		
	4/14/1994	BDL	BDL	3.5	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	-	-	-		
	7/15/1994	BDL	BDL	BDL	7.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	-	-	-		
	8/30/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	697.1		
	9/6/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	801.5		
	10/11/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	731.5	
11/18/1994	BDL	BDL	6.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	-	-	-	-	
12/23/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,443		
2/2/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	283.4		
4/12/1995	BDL	BDL	BDL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	-	-	-	235.5	
7/28/1995	BDL	BDL	DA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	DA	-	-	-	-	-	-	-	-	-	-	260.3	
12/8/1995	BDL	BDL	4	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	201.5	
4/26/1996	BDL	BDL	14.2	39.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	-	-	-	2,279.6	
7/25/1996	BDL	BDL	4.1	49.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	-	-	-	
11/14/1996	-	BDL	4.7	332.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	BDL	BDL	-	-	-	-	-	-	-	-	-	-	-	
4/21/1997	-	BDL	2.9	24.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	-	-	-	-	-	
7/22/1997	BDL	BDL	3	BDL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	-	-	-	-	-	
11/11/1997	4.6	BDL	BDL	26.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	-	-	-	-	-	
4/15/1998	BDL	3	BDL	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	BDL	-	-	-	-	-	-	-	-	-	-	
7/6/1998	-	4	BDL	93.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.2	-	2.1	BDL	-	-	-	-	-	-	-	-	-	-	-	
11/16/1998	DA	19.9	DA	27.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.2	-	DA	-	-	-	-	-	-	-	-	-	-	-	-	
4/19/1999	BDL	BDL	2.8	7.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	2.4	BDL	-	-	-	-	-	-	-	-	-	-	-	
7/27/1999	BDL	BDL	BDL	4.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	BDL	BDL	-	-	-	-	-	-	-	-	-	-	-	
11/18/1999	BDL	BDL	4.6	BDL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	2.1	BDL	-	-	-	-	-	-	-	-	-	-	-	
5/5/2000	BDL	BDL	BDL	10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	-	-	-		
7/7/2000	BDL	BDL	BDL	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	BDL	BDL	-	-	-	-	-	-	-	-	-	-	-	
11/16/2000	BDL	BDL	BDL	3.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	BDL	BDL	-	-	-	-	-	-	-	-	-	-	-	
4/25/2001	BDL	BDL	2.1	6.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	76	-	BDL	BDL	-	-	-	-	-	-	-	-	-	-	-	
7/25/2001	BDL	BDL	BDL	10	BDL	-	-	BDL	BDL	BDL	-	-	-	-	-	-	17	BDL	BDL	-	BDL	-	BDL	BDL	-	-	-	-	-	-	-	-	-	-	-	-	
8/9/2001	-	-	-	-	BDL	-	-	BDL	BDL	BDL	-	-	-	-	-	-	3.1	2	BDL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/28/2001	BDL	BDL	BDL	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	BDL	BDL	-	-	-	-	-	-	-	-	-	-	-	
1/17/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
4/24/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11/20/2002	BDL	BDL	BDL	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	-	-	-	-	
4/29/2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

TABLE 1
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

VOCs (mg/L)

Sampling Date	Overburden Monitoring Wells																Bedrock Monitoring Wells				Groundwater Seep Monitoring Stations			Surface Water Monitoring Stations														Leachate Monitoring Well
	RFW-1	RFW-2	RFW-3	RFW-4	GZ-1U	GZ-2	GZ-3	GZ-4	GZ-5	GZ-6	GZWP-1	GZ-102	GZ-104	GZ-106	GZ-201	GZ-202A	GZ-1L	GZ-2L	GZ-3L	Giancola Residence	SW-P-2 (P-2/ South Spring)	GZ-P-5R	SW-P-9 (P-9/1P-9R Northern Spring)	SW-1	SW-5	SW-10	SW-11	SW-12	SW-13	SW-15	SW-16	SW-17	Exeter River	MW-6				
4/24/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
11/7/2017	-	BDL	1	BDL	-	-	-	-	-	-	-	-	BDL	-	BDL	1	BDL	BDL	BDL	-	BDL	-	66	-	-	-	-	-	-	10	-	-	BDL	-	-			
4/25/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
11/12/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
4/24/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
11/4/2019	-	-	-	-	-	-	-	-	-	-	-	BDL	-	BDL	-	-	-	-	-	-	-	BDL	-	-	-	-	-	-	-	BDL	BDL	BDL	-	-	-			
4/16/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
11/5/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			

See last page for notes.

TABLE 1 - Notes
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

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NOTES:

1. Concentrations are in milligrams per liter (mg/L) or micrograms per liter (µg/L) as indicated.
2. "-" indicates that measurements were not made/not applicable.
3. "<" indicates the parameter was not detected above the detection limit shown.
4. **Bold** face print indicates detection.
5. "NH AGQS" indicates New Hampshire Ambient Groundwater Quality Standards as defined in the New Hampshire Code of Administrative Rules Env-Or 603.03 revised October 22, 2016.
6. **Shading** indicates that the measured level exceeds its NH AGQS, Secondary Maximum Contaminant Level (SMCL), or Water Quality Criteria for Toxic Substances (WQCTS) at time of sampling as defined by the New Hampshire Code of Administrative Rules Env-Wq 1703.23, adopted November 17, 2016. For groundwater monitoring locations where NH AGQS are not established for the referenced parameter SMCLs are used to shade data. For surface water monitoring locations where WQCTS are not established for the referenced parameter NH AGQS are used to shade data.
7. "NE" indicates none established.
8. "DA" indicates that the Chain-of-Custody indicates a sample taken and a volatile organic compound (VOC) laboratory report was not available.
9. Water quality data were compiled by GZA GeoEnvironmental, Inc. from analytical laboratory reports provided by the Town of Exeter.
10. "BDL" indicates target VOCs for the method used were below laboratory detection limits.
11. "µS/cm" indicates microseimens per centimeter.
12. "M" indicates that the percent recovery for the matrix was outside of the acceptance criteria. Refer to analytical reports for additional information.
13. The analytical laboratory reports provided by Resource Environmental Group for groundwater monitoring wells RFW-2, RFW-3 and RFW-4 during November 2006 are mislabeled GZ-2, GZ-3 and GZ-4, respectively.
14. The groundwater elevation data provided by Resource Environmental Group for GZ-2U during November 2006 is mislabeled GZ-2M.
15. For 11/14/2007 the percent recovery for sample P-9R for chloride was 85.
16. Please note that based on review of historical chain-of-custody forms, samples for metals analyses collected from groundwater monitoring wells have been field filtered and represent dissolved metals analyses. Samples collected from surface water location SW-1 have not been field filtered and represent total metals analyses. Samples collected at P-2 (southern spring) and P-9 (northern spring) through 2002 were also not field filtered and represent total metals analyses. Samples collected from the replacement well points (P-2R, P-5R, and P-9R) during 2006 were field filtered. For further information regarding historic sampling procedures, please refer to Section 5.2.4 (Review of Historic Total Metals and Dissolved Metals Analyses) of GZA's May 10, 2002 report.
17. Landfill water quality monitoring associated with the samples labeled P-2 and P-9 has been performed by Mr. Tom Walker of REG. Based on conversations with Mr. Walker during a site visit on April 17, 2002, the samples designated P-2 and P-9 on laboratory reports and chain-of-custody forms since November 1996 (the start of routine sampling of P-2 and P-9) were collected from surface water proximate to P-2 and about 300 feet south of P-9 from November 1996 through November 2001. The locations sampled from November 1996 through November 2001 are designated SW-P-2 and SW-P-9 on **Figure 1**. The data from these locations represent total metals analyses of surface water. Replacement groundwater well points designated P-2R and P-9R have been sampled since November 2001.
18. The NH AGQS for 1,4-dioxane was revised on September 1, 2018 to 0.32 µg/L.

TABLE 1 - Notes
WATER QUALITY DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081

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19. The NH AGQS for Manganese was revised on January 1, 2021 to 300 µg/L.

TABLE 2
REFERENCE/GROUNDWATER ELEVATION DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NH DES No. 198401081

Monitoring Location	Ground Surface Elevation	Bedrock Surface Elevation	Reference Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation
				04/25/01		07/23/01		07/25/01		08/09/01		11/28/01		04/24/02		11/20/02	
GZ-1U	97.1	-	99.68	-	-	22.6	77.1	-	-	22.8	76.9	-	-	-	-	-	-
GZ-1L	97.1	45.1	99.44	-	-	20.4	79.1	-	-	20.5	78.9	-	-	-	-	-	-
GMW-10	114.2	-	-	-	-	Dry	-	-	-	-	-	-	-	-	-	-	-
GZ-2U	113.8	-	116.29	-	-	Dry	<116.3	-	-	Dry	<116.3	-	-	-	-	-	-
GZ-2L	114.6	81.6	117.12	-	-	33.9	83.3	-	-	34.2	82.9	-	-	-	-	-	-
GMW-11RR	93.8	-	96.32	-	-	Dry	<81.32	-	-	10.9	85.4	-	-	-	-	-	-
GZ-3L	94.8	68.8	97.32	-	-	11.5	85.9	-	-	11.8	85.5	-	-	-	-	-	-
GZ-4	142.9	<85.9	142.29	-	-	50.1	92.2	-	-	50.3	92.0	-	-	-	-	-	-
GZ-5	141.1	<84.1	140.73	-	-	50.8	89.9	-	-	51.1	89.6	-	-	-	-	-	-
GZ-6	141.4	<84.4	141.16	-	-	50.0	91.2	-	-	51.2	89.9	-	-	-	-	-	-
GZ-101	69.4	-	72.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-102	77.0	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-103	78.3	-	81.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-104	72.4	-	75.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-105	65.4	-	67.89	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-106	73.5	-	76.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-107	108.7	-	103.66	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-201	123.3		122.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-202A	121.1		123.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-1	64.5	-	67.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-2 / P-2R	68.3	-	69.18	-	-	-	-	-	-	0.7	68.5	-	-	-	-	-	-
P-3	67.9	-	68.41	-	-	-	-	-	-	2.0	66.4	-	-	-	-	-	-
P-4	70.5	-	71.15	-	-	-	-	-	-	2.0	69.2	-	-	-	-	-	-
GW-P-5R/P-5	82.3	-	84.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-6	74.8	-	76.01	-	-	-	-	-	-	3.2	72.8	-	-	-	-	-	-
P-7	-	-	84.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-8	69.7	-	70.25	-	-	-	-	-	-	2.5	67.8	-	-	-	-	-	-
P-9 / P-9R	68	-	68.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RFW-1	85.6	34.6	88.11	3.23	84.88	-	-	4.95	83.16	5.3	82.8	7.5	80.6	7.9	80.2	8.0	80.2
RFW-2	118	-	119.72	41.34	78.38	-	-	43.02	76.7	-	-	44.9	74.8	45.2	74.5	45.7	74.0
RFW-3	140.6	-	143.48	72.95	70.53	-	-	72.89	70.59	73.2	70.3	74.9	68.6	75.6	67.9	76.2	67.3
RFW-4	116.9	46.9	118.71	45	73.71	-	-	45.75	72.96	46.0	72.8	47.5	71.3	47.9	70.8	48.5	70.3
WS-1	102	-	102.26	-	-	-	-	-	-	12.2	90.0	-	-	-	-	-	-
WS-2	93	-	93.57	-	-	-	-	-	-	4.3	89.3	-	-	-	-	-	-
SW-17/Seep	915.91	-	61.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-14	-	-	40.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bridge	917.07	-	60.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See last page for notes.

TABLE 2
REFERENCE/GROUNDWATER ELEVATION DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NH DES No. 198401081

Monitoring Location	Ground Surface Elevation	Bedrock Surface Elevation	Reference Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation
				04/29/03		06/17/03		11/17/03		04/28/04		11/15/04		04/28/05		11/08/05	
GZ-1U	97.1	-	99.68	23.5	76.2	23.2	76.5	23.5	76.2	22.6	77.1	22.3	77.4	21.3	78.4	21.9	77.8
GZ-1L	97.1	45.1	99.44	23.2	76.3	20.8	78.6	21.1	78.3	23.2	76.3	20.9	78.6	18.5	81.0	18.0	81.4
GMW-10	114.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-2U	113.8	-	116.29	dry	<116.3	dry	<116.3	dry	<116.3	-	-	-	-	-	-	-	-
GZ-2L	114.6	81.6	117.12	33.6	83.5	33.7	83.4	36.6	80.5	32.8	84.3	34.7	82.4	32.0	85.1	31.7	85.4
GMW-11RR	93.8	-	96.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-3L	94.8	68.8	97.32	13.9	83.4	12.2	85.2	13.0	84.4	10.8	86.5	12.4	84.9	8.8	88.5	8.7	88.6
GZ-4	142.9	<85.9	142.29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-5	141.1	<84.1	140.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-6	141.4	<84.4	141.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-101	69.4	-	72.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-102	77.0	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-103	78.3	-	81.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-104	72.4	-	75.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-105	65.4	-	67.89	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-106	73.5	-	76.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-107	108.7	-	103.66	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-201	123.3		122.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-202A	121.1		123.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-1	64.5	-	67.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-2 / P-2R	68.3	-	69.18	3.2	68.3	-	-	3.7	68.3	3.6	65.6	3.6	65.6	3.4	65.8	3.6	65.6
P-3	67.9	-	68.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-4	70.5	-	71.15	-	-	1.8	69.4	-	-	-	-	-	-	-	-	-	-
GW-P-5R/P-5	82.3	-	84.52	-	-	2.0	72.8	-	-	7.8	76.7	7.6	76.9	6.7	77.8	5.1	79.4
P-6	74.8	-	76.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-7	-	-	84.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-8	69.7	-	70.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-9 / P-9R	68	-	68.35	2.7	68.0	-	-	3.2	68.0	3.0	65.4	3.0	65.3	2.9	65.4	3.2	65.2
RFW-1	85.6	34.6	88.11	5.7	82.4	5.8	82.3	destroyed	-	-	-	-	-	-	-	-	-
RFW-2	118	-	119.72	43.5	76.2	43.6	76.1	43.8	75.9	42.3	77.4	43.5	76.2	41.2	78.5	40.2	79.5
RFW-3	140.6	-	143.48	74.3	69.2	-	-	74.6	68.9	73.6	69.9	73.9	69.6	72.0	71.5	72.0	71.5
RFW-4	116.9	46.9	118.71	46.4	72.3	-	-	47.0	71.8	45.8	73.0	46.5	72.2	44.5	74.2	44.5	74.2
WS-1	102	-	102.26	-	-	12.4	89.8	-	-	-	-	-	-	-	-	-	-
WS-2	93	-	93.57	-	-	destroyed	-	-	-	-	-	-	-	-	-	-	-
SW-17/Seep	915.91	-	61.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-14	-	-	40.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bridge	917.07	-	60.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See last page for notes.

TABLE 2
REFERENCE/GROUNDWATER ELEVATION DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NH DES No. 198401081

Monitoring Location	Ground Surface Elevation	Bedrock Surface Elevation	Reference Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation
				04/17/06		11/20/06		05/20/07		11/12/07		04/25/08		11/18/08		04/27/09	
GZ-1U	97.1	-	99.68	21.4	78.3	19.9	79.8	19.7	80.0	22.7	77.0	21.2	78.5	21.9	77.8	20.80	78.9
GZ-1L	97.1	45.1	99.44	18.6	80.9	16.8	82.6	16.4	83.0	27.0	72.5	-	-	19.3	80.2	-	-
GMW-10	114.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-2U	113.8	-	116.29	30.9	85.4	28.6	87.7	28.1	88.2	-	-	-	-	-	-	-	-
GZ-2L	114.6	81.6	117.12	32.5	84.7	31.5	85.6	30.7	86.5	35.2	81.9	32.2	84.9	33.2	83.9	31.76	85.4
GMW-11RR	93.8	-	96.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-3L	94.8	68.8	97.32	9.2	88.1	7.5	89.9	7.3	90.1	12.1	85.2	-	-	-	-	-	-
GZ-4	142.9	<85.9	142.29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-5	141.1	<84.1	140.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-6	141.4	<84.4	141.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-101	69.4	-	72.11	-	-	-	-	-	-	11.0	61.1	-	-	-	-	-	-
GZ-102	77.0	-	80	-	-	-	-	-	-	16.5	63.5	-	-	-	-	-	-
GZ-103	78.3	-	81.39	-	-	-	-	-	-	17.8	63.6	-	-	-	-	-	-
GZ-104	72.4	-	75.02	-	-	-	-	-	-	12.7	62.3	-	-	12.3	62.7	-	-
GZ-105	65.4	-	67.89	-	-	-	-	-	-	11.1	56.8	-	-	-	-	-	-
GZ-106	73.5	-	76.13	-	-	-	-	-	-	12.3	63.9	-	-	-	-	-	-
GZ-107	108.7	-	103.66	-	-	-	-	-	-	37.1	66.6	-	-	-	-	-	-
GZ-201	123.3		122.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-202A	121.1		123.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-1	64.5	-	67.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-2 / P-2R	68.3	-	69.18	3.8	65.4	3.5	65.7	3.6	65.5	4.0	65.2	3.5	65.6	3.5	65.7	3.51	65.7
P-3	67.9	-	68.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-4	70.5	-	71.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GW-P-5R/P-5	82.3	-	84.52	7.1	77.5	5.3	79.2	5.4	79.2	9.3	75.2	7.0	77.5	7.7	76.9	6.47	78.1
P-6	74.8	-	76.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-7	-	-	84.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-8	69.7	-	70.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-9 / P-9R	68	-	68.35	3.0	65.3	3.3	65.1	3.3	65.1	3.4	64.9	2.8	65.6	2.9	65.5	2.90	65.5
RFW-1	85.6	34.6	88.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RFW-2	118	-	119.72	41.5	78.2	39.3	80.4	39.4	80.3	43.3	76.4	41.4	78.3	41.9	77.8	40.67	79.1
RFW-3	140.6	-	143.48	71.6	71.9	70.8	72.7	70.5	73.0	73.9	69.6	71.8	71.7	71.7	71.8	71.87	71.6
RFW-4	116.9	46.9	118.71	44.7	74.0	43.9	74.9	43.4	75.3	46.8	71.9	44.5	74.2	45.4	73.3	44.19	74.5
WS-1	102	-	102.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WS-2	93	-	93.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-17/Seep	915.91	-	61.65	-	-	-	-	-	-	3.8	57.9	-	-	-	-	-	-
SW-14	-	-	40.47	-	-	-	-	-	-	2.9	37.6	-	-	-	-	-	-
Bridge	917.07	-	60.55	-	-	-	-	-	-	13.14	47.4	-	-	-	-	-	-

See last page for notes.

TABLE 2
REFERENCE/GROUNDWATER ELEVATION DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NH DES No. 198401081

Monitoring Location	Ground Surface Elevation	Bedrock Surface Elevation	Reference Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation
				11/04/09		04/20/10		11/11/10		04/22/11		11/14/11		04/30/12		11/05/12	
GZ-1U	97.1	-	99.68	22.15	77.5	17.42	82.3	22.18	77.5	21.97	77.7	22.17	77.5	22.87	76.8	24.20	75.5
GZ-1L	97.1	45.1	99.44	19.55	79.9	-	-	19.78	79.7	-	-	19.63	79.8	-	-	26.40	73.0
GMW-10	114.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-2U	113.8	-	116.29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-2L	114.6	81.6	117.12	33.68	83.4	29.2	87.9	34.31	82.8	32.54	84.6	33.40	83.7	33.92	83.2	36.85	80.3
GMW-11RR	93.8	-	96.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-3L	94.8	68.8	97.32	10.71	86.6	-	-	11.2	86.1	-	-	10.72	86.6	-	-	13.96	83.4
GZ-4	142.9	<85.9	142.29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-5	141.1	<84.1	140.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-6	141.4	<84.4	141.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-101	69.4	-	72.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-102	77.0	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-103	78.3	-	81.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-104	72.4	-	75.02	12.40	62.6	8.94	66.1	12.40	62.6	8.94	66.1	12.72	62.3	12.44	62.6	13.77	61.3
GZ-105	65.4	-	67.89	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-106	73.5	-	76.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-107	108.7	-	103.66	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-201	123.3		122.85	-	-	-	-	-	-	-	-	-	-	-	-	51.68	71.2
GZ-202A	121.1		123.99	-	-	-	-	-	-	-	-	-	-	-	-	52.48	71.5
P-1	64.5	-	67.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-2 / P-2R	68.3	-	69.18	3.46	65.7	3.61	65.6	3.41	65.8	3.55	65.6	3.48	65.7	3.50	65.7	3.47	65.7
P-3	67.9	-	68.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-4	70.5	-	71.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GW-P-5R/P-5	82.3	-	84.52	7.93	76.6	4.08	80.4	8.22	76.3	7.46	77.1	7.96	76.6	8.68	75.8	9.98	74.5
P-6	74.8	-	76.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-7	-	-	84.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-8	69.7	-	70.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-9 / P-9R	68	-	68.35	2.81	65.5	2.76	65.6	2.86	65.5	2.77	65.6	2.74	65.6	2.78	65.6	2.92	65.4
RFW-1	85.6	34.6	88.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RFW-2	118	-	119.72	42.16	77.6	37.81	81.9	42.37	77.4	41.82	77.9	42.06	77.7	43.10	76.6	44.48	75.2
RFW-3	140.6	-	143.48	72.75	70.7	71.68	71.8	73.66	69.8	73.09	70.4	73.97	69.5	73.31	70.2	74.9	68.6
RFW-4	116.9	46.9	118.71	45.68	73.0	42.04	76.7	45.74	73.0	45.35	73.4	45.68	73.0	46.03	72.7	47.4	71.3
WS-1	102	-	102.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WS-2	93	-	93.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-17/Seep	915.91	-	61.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-14	-	-	40.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bridge	917.07	-	60.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See last page for notes.

TABLE 2
REFERENCE/GROUNDWATER ELEVATION DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NH DES No. 198401081

Monitoring Location	Ground Surface Elevation	Bedrock Surface Elevation	Reference Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation
				05/07/13		12/19/2013		11/03/14		11/17/15		04/14/16		11/02/16		04/24/17	
GZ-1U	97.1	-	99.68	-	-	24.66	75.0	-	-	-	-	-	-	-	-	-	-
GZ-1L	97.1	45.1	99.44	-	-	22.44	77.0	22.63	76.8	22.90	76.5	21.94	77.5	23.52	75.9	22.95	76.5
GMW-10	114.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-2U	113.8	-	116.29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-2L	114.6	81.6	117.12	-	-	37.32	79.8	35.78	81.3	38.07	79.1	35.28	81.8	38.72	78.4	34.28	82.8
GMW-11RR	93.8	-	96.32	-	-	-	-	-	-	-	-	-	-	-	-	dry	-
GZ-3L	94.8	68.8	97.32	-	-	14.74	82.6	15.87	81.5	15.25	82.1	13.68	83.6	15.79	81.5	11.63	85.7
GZ-4	142.9	<85.9	142.29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-5	141.1	<84.1	140.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-6	141.4	<84.4	141.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-101	69.4	-	72.11	11.50	60.6	-	-	-	-	-	-	-	-	-	-	-	-
GZ-102	77.0	-	80	17.05	63.0	17.85	62.2	18.18	61.8	18.18	61.8	-	-	-	-	-	-
GZ-103	78.3	-	81.39	18.20	63.2	-	-	-	-	-	-	-	-	-	-	-	-
GZ-104	72.4	-	75.02	13.50	61.5	13.87	61.2	14.22	60.8	14.32	60.7	13.62	61.4	14.60	60.4	13.3	61.7
GZ-105	65.4	-	67.89	11.48	56.4	-	-	-	-	-	-	-	-	-	-	-	-
GZ-106	73.5	-	76.13	14.15	62.0	-	-	13.53	62.6	13.53	62.6	-	-	-	-	-	-
GZ-107	108.7	-	103.66	38.21	65.5	-	-	-	-	-	-	-	-	-	-	-	-
GZ-201	123.3		122.85	51.12	71.7	51.94	70.9	52.23	70.6	52.45	70.4	51.95	70.9	53.15	69.7	51.37	71.5
GZ-202A	121.1		123.99	51.58	72.4	52.38	71.6	52.76	71.2	52.95	71.0	52.40	71.6	53.58	70.4	51.83	72.2
P-1	64.5	-	67.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-2 / P-2R	68.3	-	69.18	-	-	3.55	65.6	-	-	3.7	65.5	-	-	-	-	-	-
P-3	67.9	-	68.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-4	70.5	-	71.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GW-P-5R/P-5	82.3	-	84.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-6	74.8	-	76.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-7	-	-	84.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-8	69.7	-	70.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-9 / P-9R	68	-	68.35	-	-	2.8	65.6	3.26	65.1	3.05	65.3	2.73	65.6	3.19	65.2	2.8	65.6
RFW-1	85.6	34.6	88.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RFW-2	118	-	119.72	-	-	45.11	74.6	44.27	75.5	44.27	75.5	44.35	75.4	45.83	73.9	42.9	76.8
RFW-3	140.6	-	143.48	-	-	75.90	67.6	75.48	68.0	75.66	67.8	74.93	68.6	76.32	67.2	74.5	69.0
RFW-4	116.9	46.9	118.71	-	-	47.71	71.0	47.84	70.9	48.08	70.6	47.26	71.5	48.55	70.2	46.39	72.3
WS-1	102	-	102.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WS-2	93	-	93.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-17/Seep	915.91	-	61.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-14	-	-	40.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bridge	917.07	-	60.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See last page for notes.

TABLE 2
REFERENCE/GROUNDWATER ELEVATION DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NH DES No. 198401081

Monitoring Location	Ground Surface Elevation	Bedrock Surface Elevation	Reference Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation	Depth-to-Water	Groundwater Surface Elevation
				11/07/17		04/25/18		11/12&13/2018		04/24/19		11/05/19		04/15/20		11/05/20	
GZ-1U	97.1	-	99.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-1L	97.1	45.1	99.44	21.39	78.1	20.65	78.8	20.22	79.2	27.70	71.7	26.60	72.8	19.36	80.1	21.87	77.6
GMW-10	114.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-2U	113.8	-	116.29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-2L	114.6	81.6	117.12	36.17	81.0	32.96	84.2	33.62	83.5	33.92	83.2	34.74	82.4	31.79	85.3	36.78	80.3
GMW-11RR	93.8	-	96.32	dry	-	dry	-	dry	-	dry	-	10.82	85.3	8.51	87.6	12.51	83.6
GZ-3L	94.8	68.8	97.32	12.94	84.4	10.43	86.9	11.46	85.9	8.91	88.4	13.80	83.5	10.05	87.3	15.27	82.1
GZ-4	142.9	<85.9	142.29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-5	141.1	<84.1	140.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-6	141.4	<84.4	141.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-101	69.4	-	72.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GZ-102	77.0	-	80	-	-	-	-	-	-	-	-	16.90	63.1	15.79	64.2	17.61	62.4
GZ-103	78.3	-	81.39	-	-	-	-	-	-	-	-	-	-	20.61	60.8	18.94	62.5
GZ-104	72.4	-	75.02	13.53	61.5	12.95	62.1	12.97	62.1	11.80	63.2	13.01	62.0	12.12	62.9	13.65	61.4
GZ-105	65.4	-	67.89	-	-	-	-	-	-	-	-	-	-	10.20	57.7	11.83	56.1
GZ-106	73.5	-	76.13	-	-	-	-	-	-	-	-	12.35	63.8	12.21	63.9	13.00	63.1
GZ-107	108.7	-	103.66	-	-	-	-	-	-	-	-	-	-	36.91	66.8	38.49	65.2
GZ-201	123.3		122.85	51.27	71.6	50.91	71.9	50.93	71.9	48.37	74.5	50.51	72.3	49.76	73.1	51.41	71.4
GZ-202A	121.1		123.99	51.69	72.3	51.34	72.7	51.28	72.7	48.76	75.2	50.93	73.1	50.12	73.9	51.78	72.2
P-1	64.5	-	67.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-2 / P-2R	68.3	-	69.18	3.04	66.14	-	-	3.81	65.4	-	-	4.08	65.1	-	-	-	-
P-3	67.9	-	68.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-4	70.5	-	71.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GW-P-5R/P-5	82.3	-	84.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-6	74.8	-	76.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-7	-	-	84.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-8	69.7	-	70.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-9 / P-9R	68	-	68.35	2.54	65.8	2.71	65.6	2.75	65.6	2.73	65.6	2.73	65.6	2.69	65.7	2.92	65.4
RFW-1	85.6	34.6	88.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RFW-2	118	-	119.72	43.82	75.9	42.75	77.0	42.32	77.4	41.18	78.5	43.11	76.6	41.44	78.3	44.52	75.2
RFW-3	140.6	-	143.48	74.43	69.1	74.13	69.4	74.08	69.4	71.72	71.8	73.82	69.7	73.03	70.5	74.64	68.8
RFW-4	116.9	46.9	118.71	38.98	79.7	46.23	72.5	46.34	72.4	44.59	74.1	46.51	72.2	45.42	73.3	47.24	71.5
WS-1	102	-	102.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WS-2	93	-	93.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-17/Seep	915.91	-	61.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-14	-	-	40.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bridge	917.07	-	60.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See last page for notes.

TABLE 2
REFERENCE/GROUNDWATER ELEVATION DATA SUMMARY
Cross Road Landfill - Exeter, New Hampshire
NH DES No. 198401081

04.0021270.31
Page 7 of 7

NOTES:

1. Groundwater elevation data were collected by GZA GeoEnvironmental, Inc. (GZA) on 7/23/01 and 8/9/01, and provided by the Town of Exeter for 4/25/01, 7/25/01, and 11/28/01 through the present.
2. Reference elevation is the top of PVC riser or top of well point casing.
3. Elevations are reported in feet above the National Geodetic Vertical Datum of 1929.
4. Reference elevations for wells RFW-1 through RFW-4 and piezometers P-1 through P-9 are based on Table 2 (Water Level Measurements, Exeter Landfill, Exeter, New Hampshire) of Weston's report dated June 1990.
5. Reference elevations for wells GZ-1U through GZ-3L, GZ-101 through GZ-107, and GZ-201 through GZ-202A were established by GZA using optical survey techniques and referenced to a benchmark established by TF Moran approximately 75 feet south of well GZ-2L (GZ-1U through GZ-3L) and top of PVC of selected wells (each of the other monitoring wells referenced in this note).
6. Reference elevations for former water supply wells WS-1 and WS-2 were established by GZA on using optical survey techniques and referenced to the top of PVC (reference elevation) for monitoring well RFW-1 [88.11 feet] as indicated on Table 2 (Water Level Measurements, Exeter Landfill, Exeter, New Hampshire) of Weston's report dated June 1990.
7. Wells GMW-10 and GMW-11 were installed for use as Landfill gas monitoring wells. Groundwater was encountered in GMW-11 during the August 9, 2001 monitoring round.
8. "-" indicates water level measurements were not performed at the location and date specified, or no data/not encountered.
9. Bedrock surface elevations are based on depth to bedrock encountered while drilling borings and as shown on boring logs RFW-1, RFW-2, RFW-3, and RFW-4 in Weston's 1990 report.
10. P-5 was replaced with GZ-P-5R during April 2004.
11. GMW-11RR was replaced on 8/6/19, new PVC reference elevation is 96.32'.

TABLE 3
SUMMARY OF DETECTED COMPOUNDS - PFAS IN GROUNDWATER
Cross Road Landfill - Exeter, New Hampshire
NH DES No. 198401081

Stratigraphic Unit	Monitoring Well ID	Sample Date	Carboxylic Acids ²						Sulfonates ²			Calculated Parameters		
			Perfluorobutanoic acid (PFBA) [4]	Perfluoropentanoic Acid (PFPeA) [5]	Perfluorohexanoic Acid (PFHxA) [6]	Perfluoroheptanoic Acid (PFHpA) [7]	Perfluoro-n-Octanoic Acid (PFOA) [8]	Perfluorononanoic Acid (PFNA) [9]	Perfluorobutane Sulfonate (PFBS) [4]	Perfluorohexane Sulfonate (PFHxS) [6]	Perfluorooctane Sulfonate (PFOS) [8]	PFOA and PFOS	Total Measured ¹ PFAS	% PFOS+PFOA vs. Total PFAS
		AGQS (ng/L)	na	na	na	na	12	11	na	18	15	na	na	na
		EPA Health Advisory (ng/L)	na	na	na	na	70	na	na	na	70	70	na	na
Overburden	RFW-3	11/12/2018	<4.42	<4.42	6.62	<4.42	4.47	<4.42	<4.42	<4.42	<4.42	4.5	11.1	40.3%
		11/5/2020	<4.73	<4.73	4.80	<4.73	6.42	<4.73	<4.73	<4.73	6.16	12.6	17.4	72.4%
	RFW-4	4/25/2018	<4.11	<4.11	5.07	<4.11	7.53	<4.11	<4.11	<4.11	7.04	14.6	19.6	74.2%
		11/12/2018	<4.45	<4.45	<4.45	<4.45	<4.45	<4.45	<4.45	<4.45	<4.45	ND	ND	N/A
		11/5/2020	<4.50	<4.50	4.97	<4.50	4.62	<4.50	<4.50	<4.50	<4.50	4.6	9.6	48.2%
	GZ-202A	4/25/2018	<4.10	<4.10	5.54	<4.10	<4.10	<4.10	<4.10	<4.10	<4.10	ND	5.5	N/A
		11/12/2018	<4.42	<4.42	5.61	<4.42	<4.42	<4.42	<4.42	<4.42	<4.42	ND	5.6	N/A
		11/5/2020	<4.57	<4.57	4.95	<4.57	5.55	<4.57	<4.57	<4.57	<4.57	5.6	10.5	52.9%
Groundwater Seep	P-2R	11/12/2018	<4.33	<4.33	<4.33	<4.33	<4.33	<4.33	<4.33	<4.33	<4.33	ND	ND	N/A

TABLE KEY:

PFAS = per- and polyfluoroalkyl substances

AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.03)

na = no current standard available

N/A = not applicable

< = analyte not detected above the laboratory reporting limit

ng/L = nanograms per liter

GENERAL NOTES:

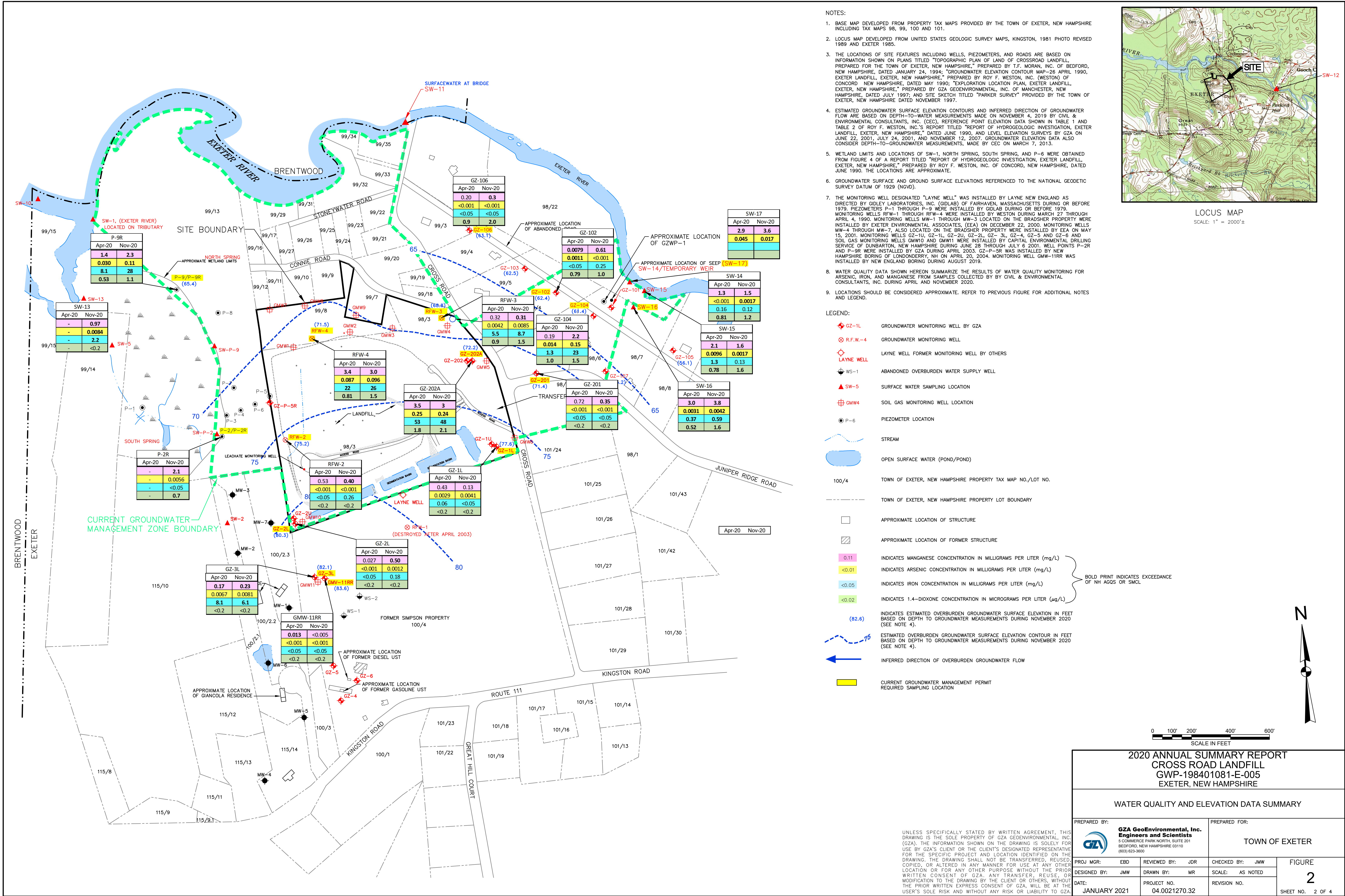
- * Civil & Environmental Consultants collected the groundwater samples for PFAS analysis and submitted the samples to Eastern Analytical who subcontracted the analysis to Vista Analytical Laboratory of El Dorado Hills, California.
- * All concentrations reported in nanograms per liter.
- * **Bold** indicates that the concentration was detected above the laboratory reporting detection limit. Shading indicates that concentration exceeds the AGQS.
- * The analytical test method for PFAS samples analyzed during 2020 is Modified EPA Method 537.
- * During May 2016, EPA issued a Lifetime Drinking Water Health Advisory (EPA Health Advisory) level of 70 ng/L for PFOA, PFOS, and for both PFOA and PFOS combined where these chemicals are present together.
- * Effective July 23, 2020, New Hampshire established AGQS for PFOA (12 ng/L), PFOS (15 ng/L), perfluorononanoic acid (PFNA, 11 ng/L), and perfluorohexane sulfonic acid (PFHxS, 18 ng/L).

SPECIFIC NOTES:

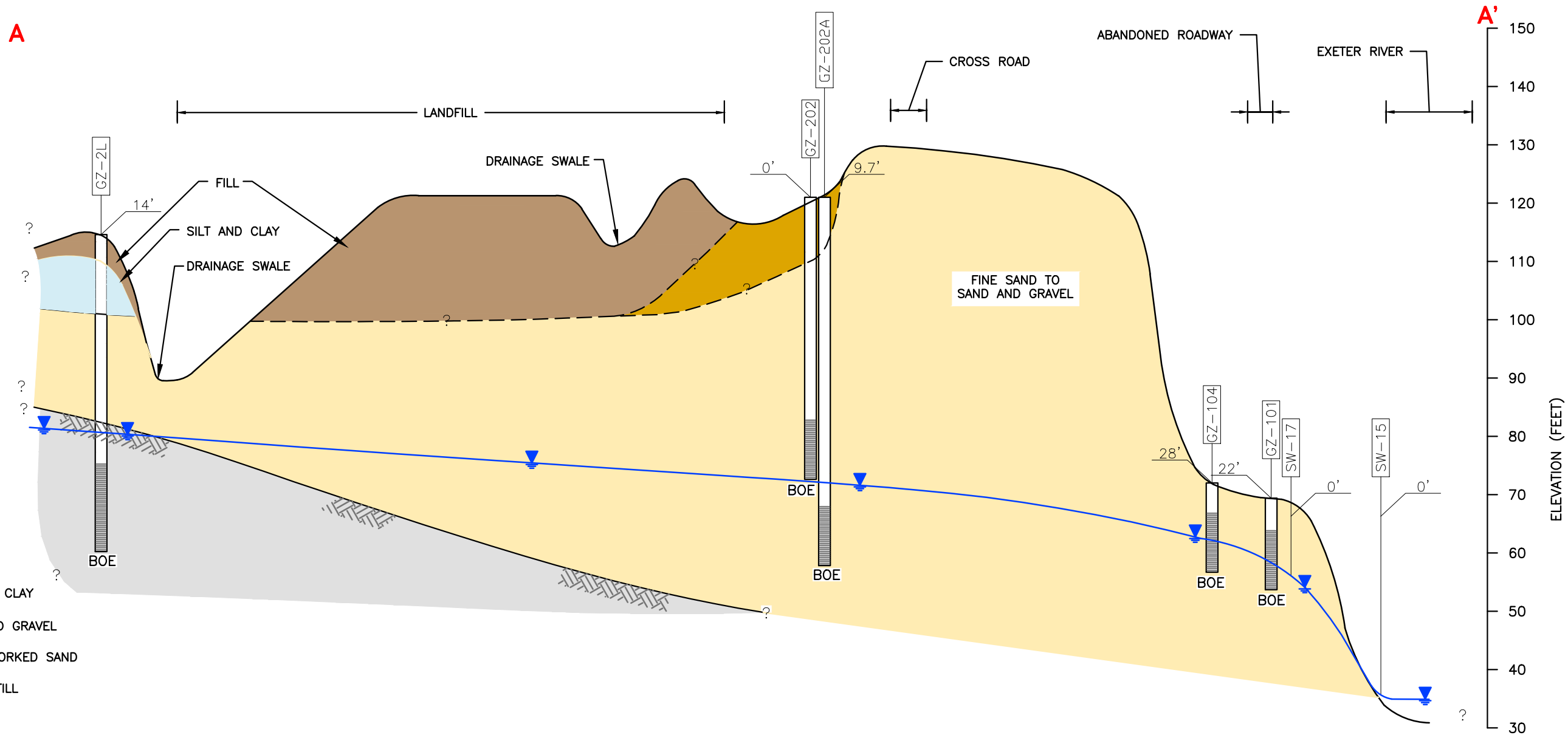
1. A total of nine PFAS compounds were measured by the analyses. Other PFAS compounds may or may not be present.
2. The number within the brackets indicates the number of fluorinated carbon chains.



Figures



CROSS-SECTION A-A'



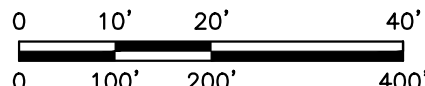
LEGEND:

- SILT AND CLAY
- SAND AND GRAVEL
- FILL/REWORKED SAND
- GLACIAL TILL
- BEDROCK
- STRATIFIED FINE SAND, SILT, AND CLAY WITH OCCASIONAL GRAVEL
- APPROXIMATE LOCATION OF LANDFILL MATERIALS

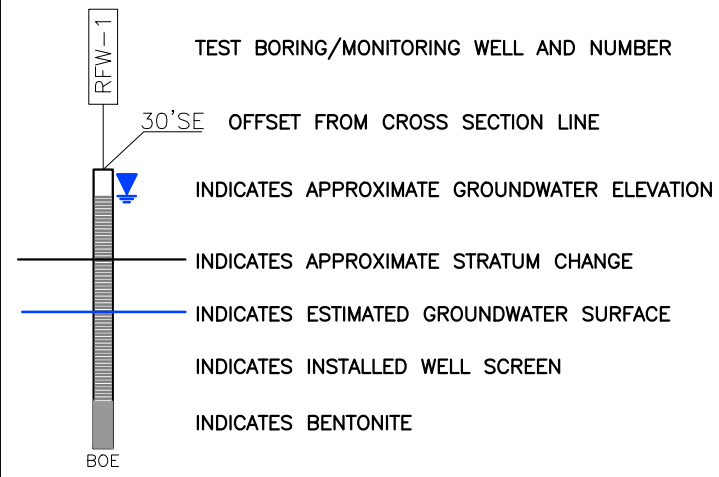
NOTES:

- GEOLOGIC UNITS ARE GENERALIZED IN ORDER TO DEMONSTRATE MAJOR STRATIGRAPHIC RELATIONSHIPS. REFER TO BORING LOGS FOR DETAILED SOIL DESCRIPTIONS FOR INDIVIDUAL SUBSURFACE EXPLORATIONS.
- STRATIFICATION LINES ARE APPROXIMATE AND ARE BASED ON DATA COLLECTED FROM WIDELY SPACED EXPLORATIONS AND REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. ACTUAL TRANSITIONS MAY VARY FROM THOSE SHOWN.
- THE ESTIMATED GROUNDWATER ELEVATION IS BASED ON WATER LEVEL MEASUREMENTS MADE AT VARIOUS TIMES AND IS PROVIDED TO SHOW THE GENERAL LOCATION OF THE SATURATED ZONE.
- THE GENERALIZED HYDROSTRATIGRAPHIC CROSS-SECTIONS SHOWN ARE BASED ON THE RESULTS OF THE EXPLORATIONS SHOWN ON THE CROSS-SECTIONS.
- 'R' INDICATES REFUSAL.
- 'BOE' INDICATES BOTTOM OF EXPLORATION.
- GROUNDWATER SURFACE AND GROUND SURFACE ELEVATIONS REFERENCED TO THE NATIONAL GEODETIC SURVEY DATUM OF 1929 (NGVD).
- PLEASE REFER TO FIGURE 1 FOR ADDITIONAL NOTES.

VERTICAL SCALE: 1" = 20'



HORIZONTAL SCALE: 1" = 200'



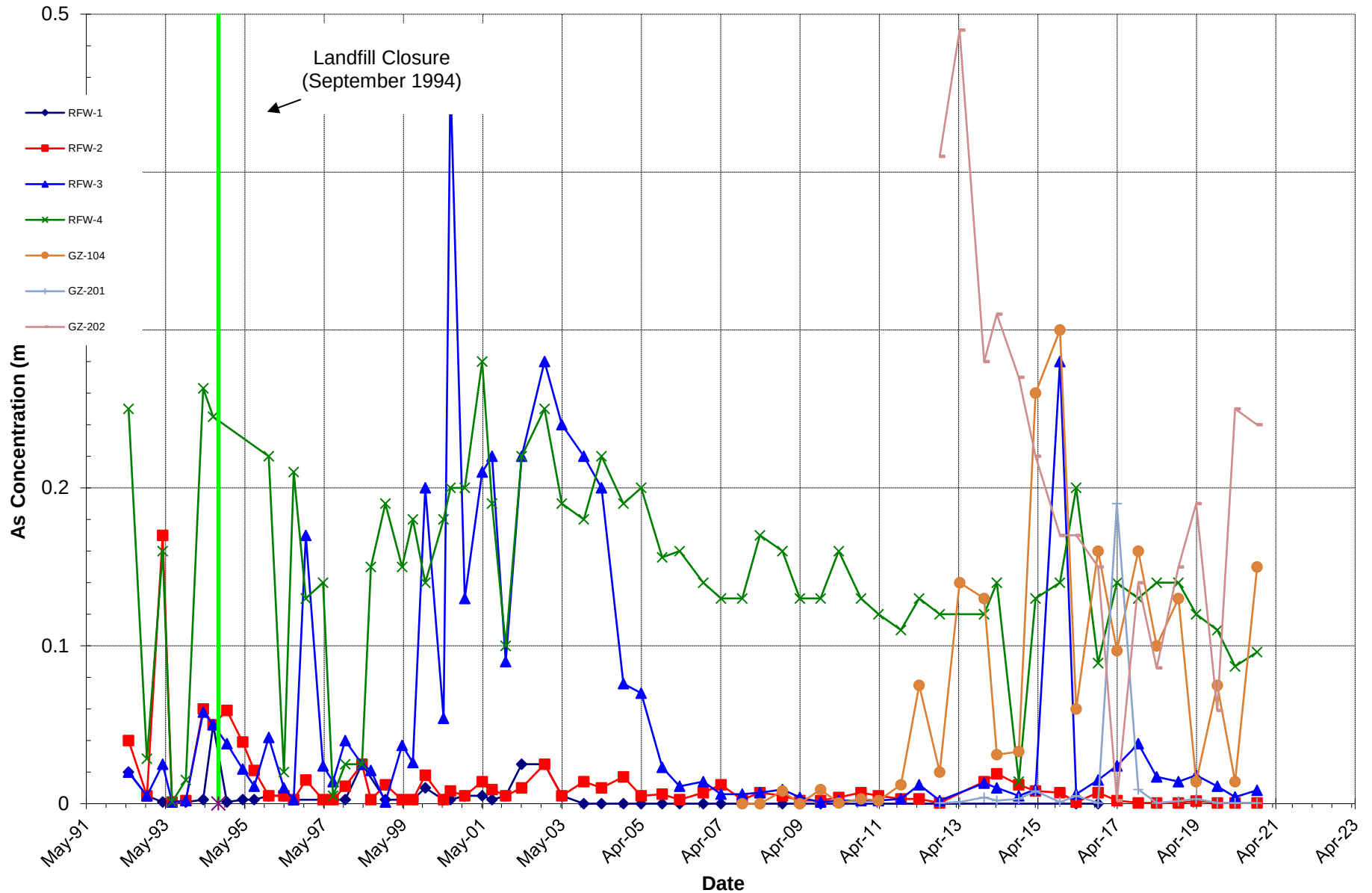
2020 ANNUAL SUMMARY REPORT CROSS ROAD LANDFILL GWP-198401081-E-005 EXETER, NEW HAMPSHIRE			
HYDROGEOLOGIC CROSS SECTION			
PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists 5 COMMERCE PARK NORTH, SUITE 201 BEDFORD, NEW HAMPSHIRE 03110 (603) 823-3600	PREPARED FOR: TOWN OF EXETER		
PROJ MGR: EBD	REVIEWED BY: JDR	CHECKED BY: JMW	FIGURE 3 SHEET NO. 3 OF 4
DESIGNED BY: JMW	DRAWN BY: MR	SCALE: AS SHOWN	
DATE JANUARY 2021	PROJECT NO. 04.0021270 .32	REVISION NO.	

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

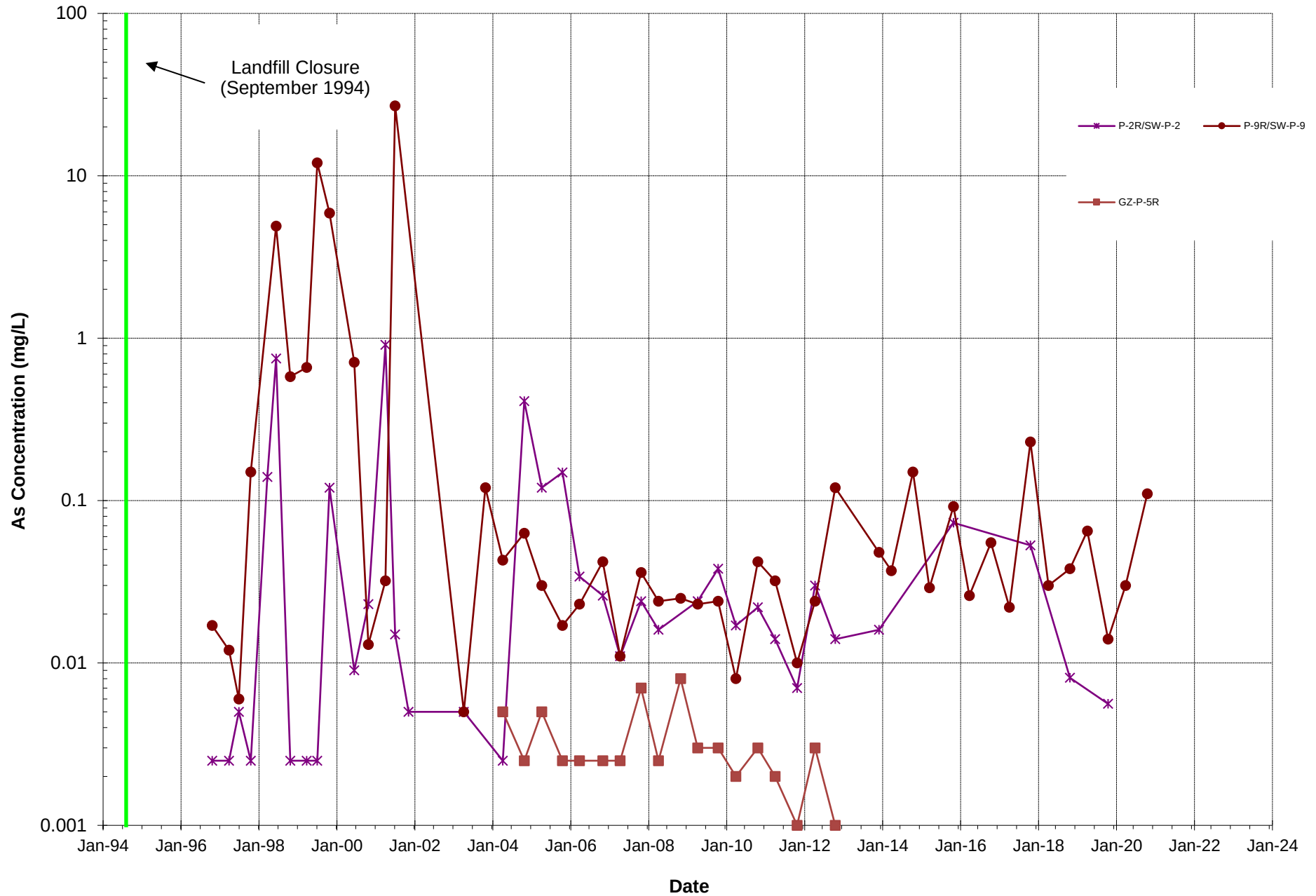


Plots

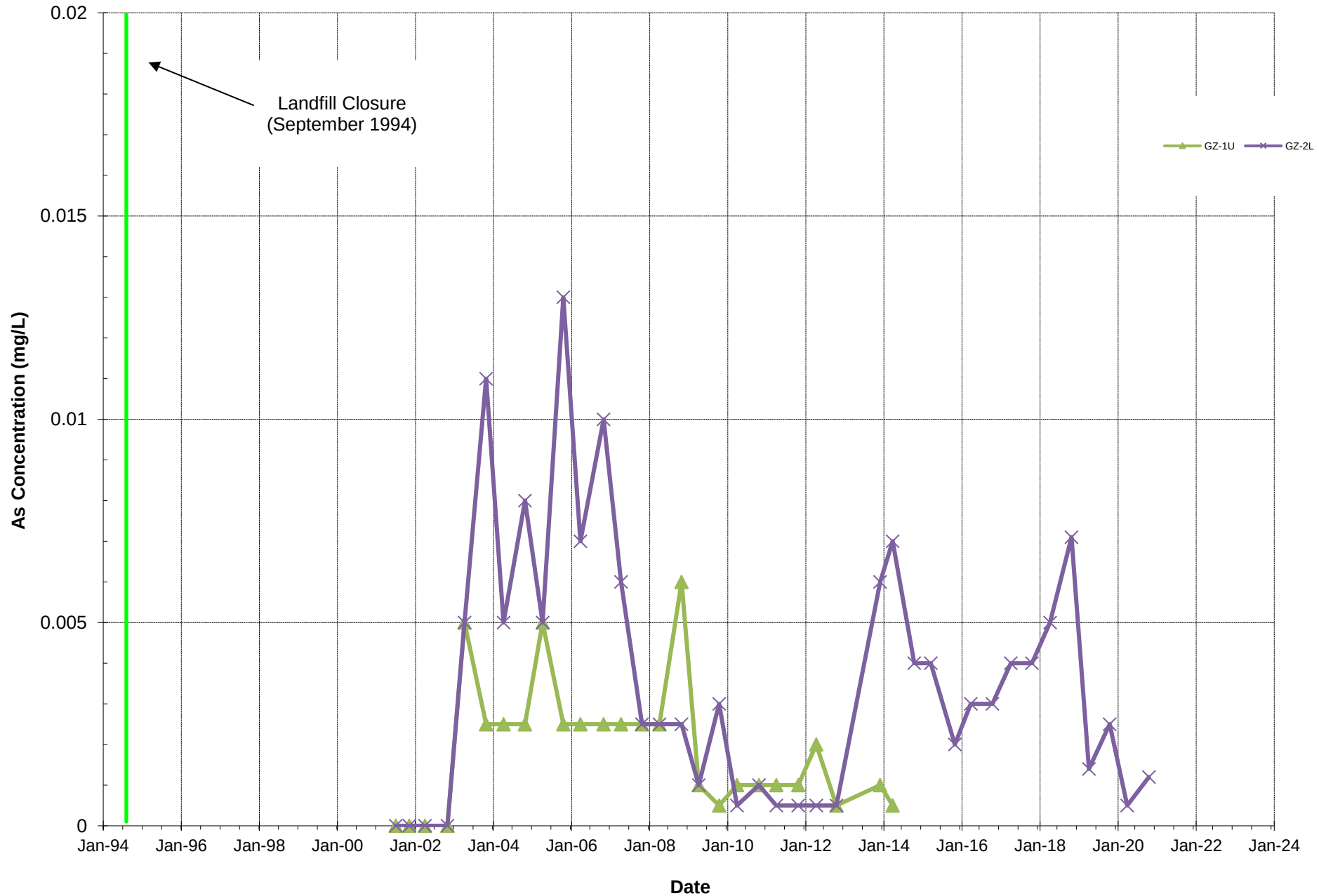
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SUMMARY OF CONCENTRATION DATA
Groundwater Sampling Locations
 Cross Road Landfill - Exeter, New Hampshire
 NHDES No. 198401081



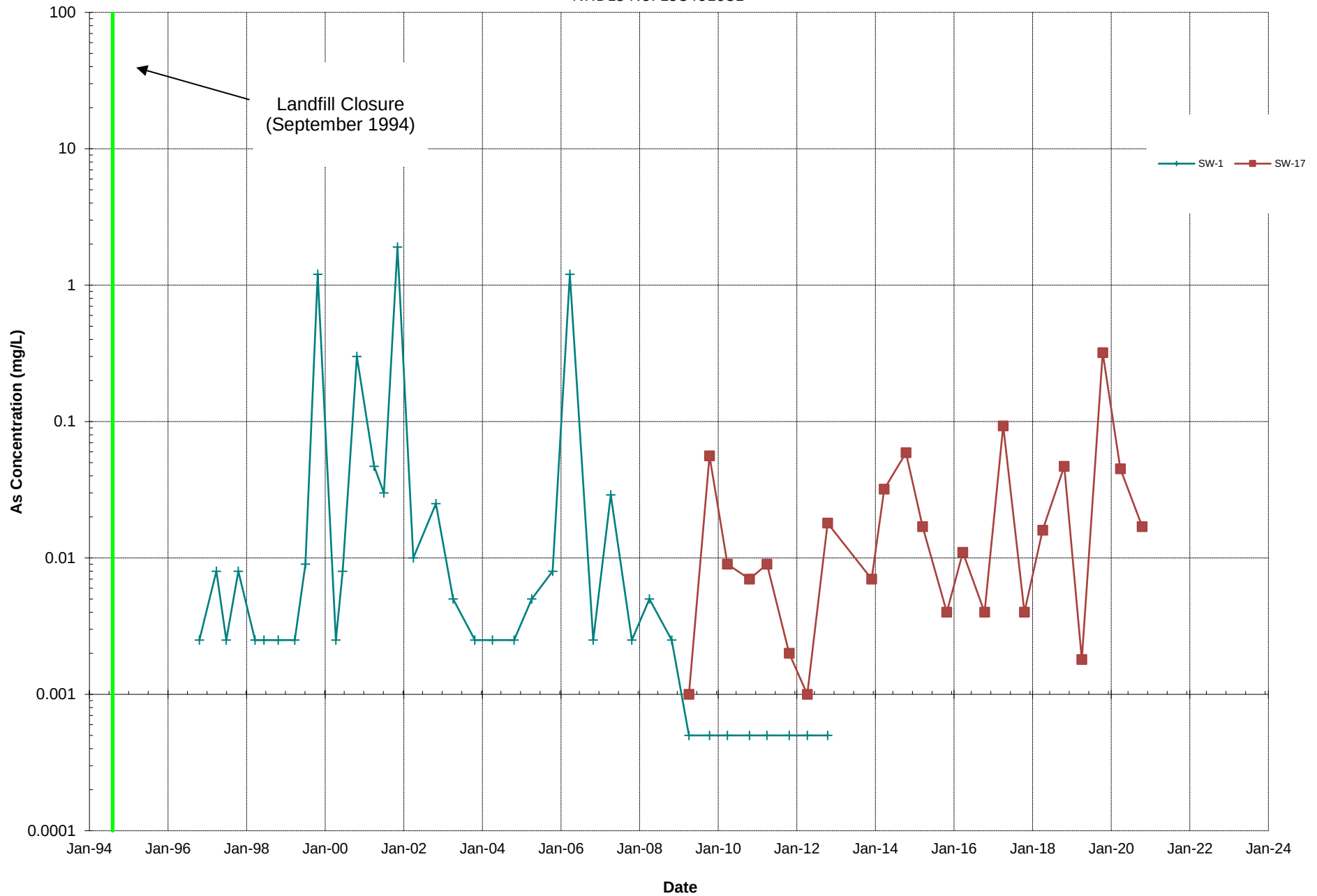
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SUMMARY OF CONCENTRATION DATA
Groundwater Sampling Locations
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081



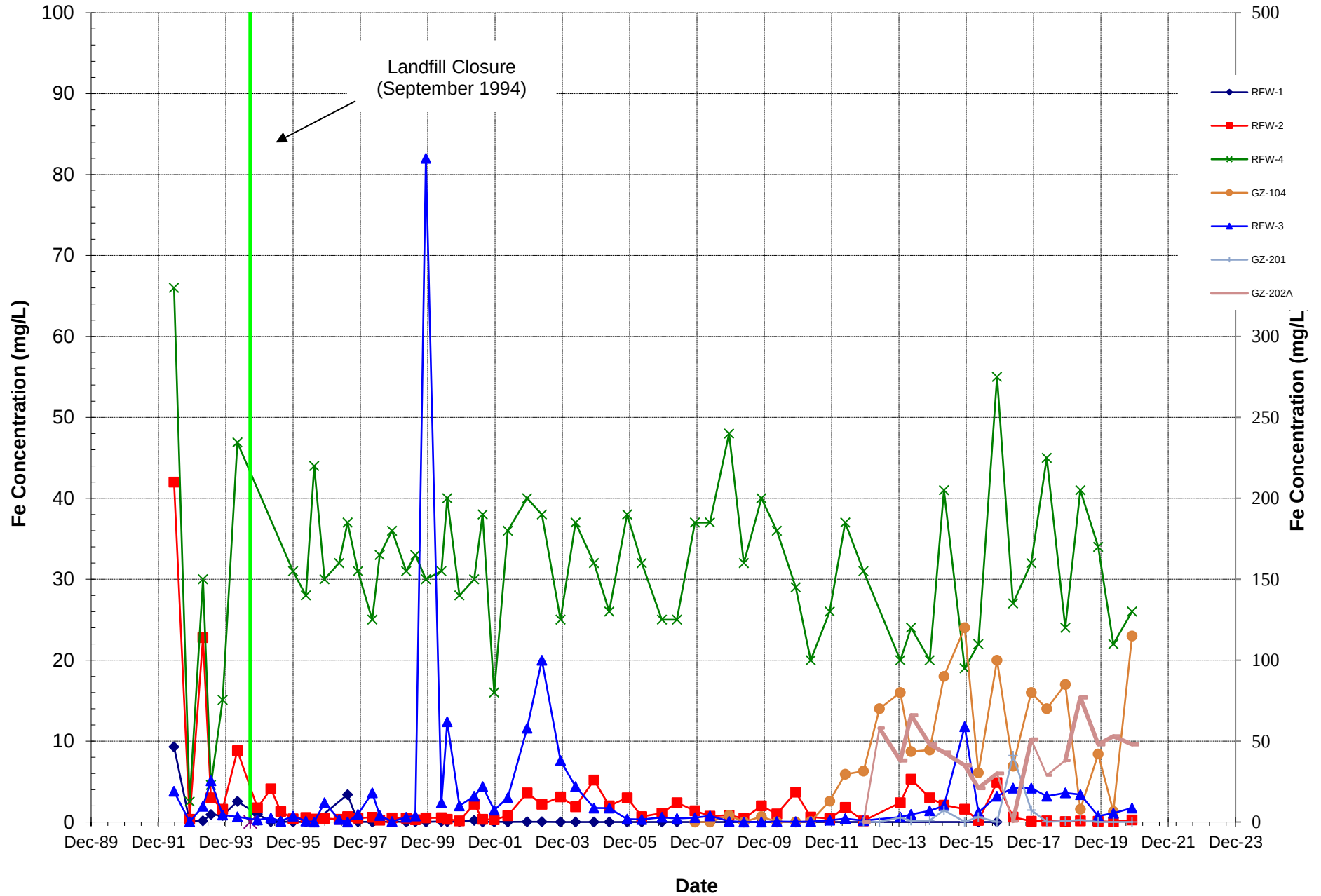
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SUMMARY OF CONCENTRATION DATA
Groundwater Sampling Locations
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081



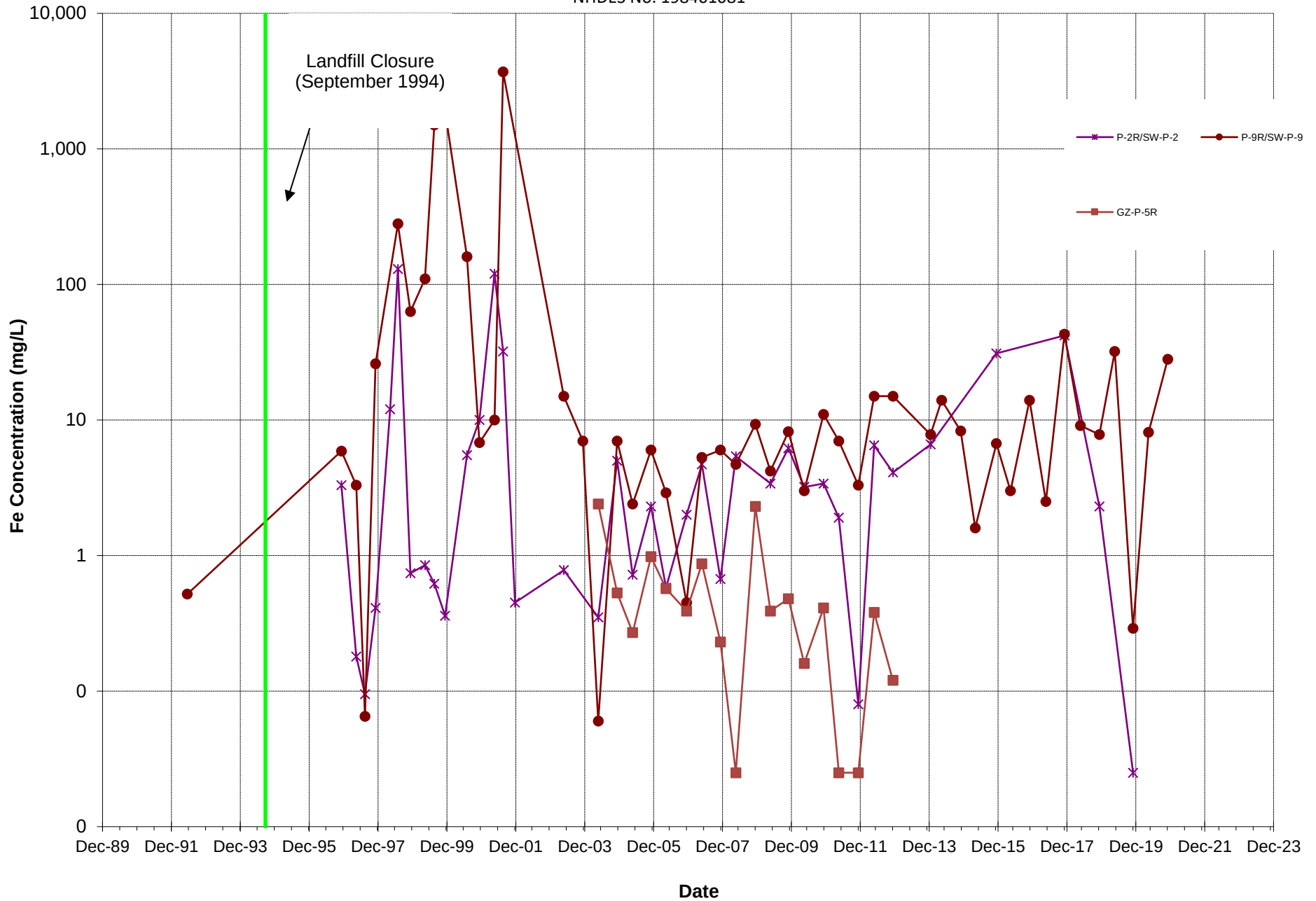
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SUMMARY OF CONCENTRATION DATA
Groundwater Sampling Locations
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081



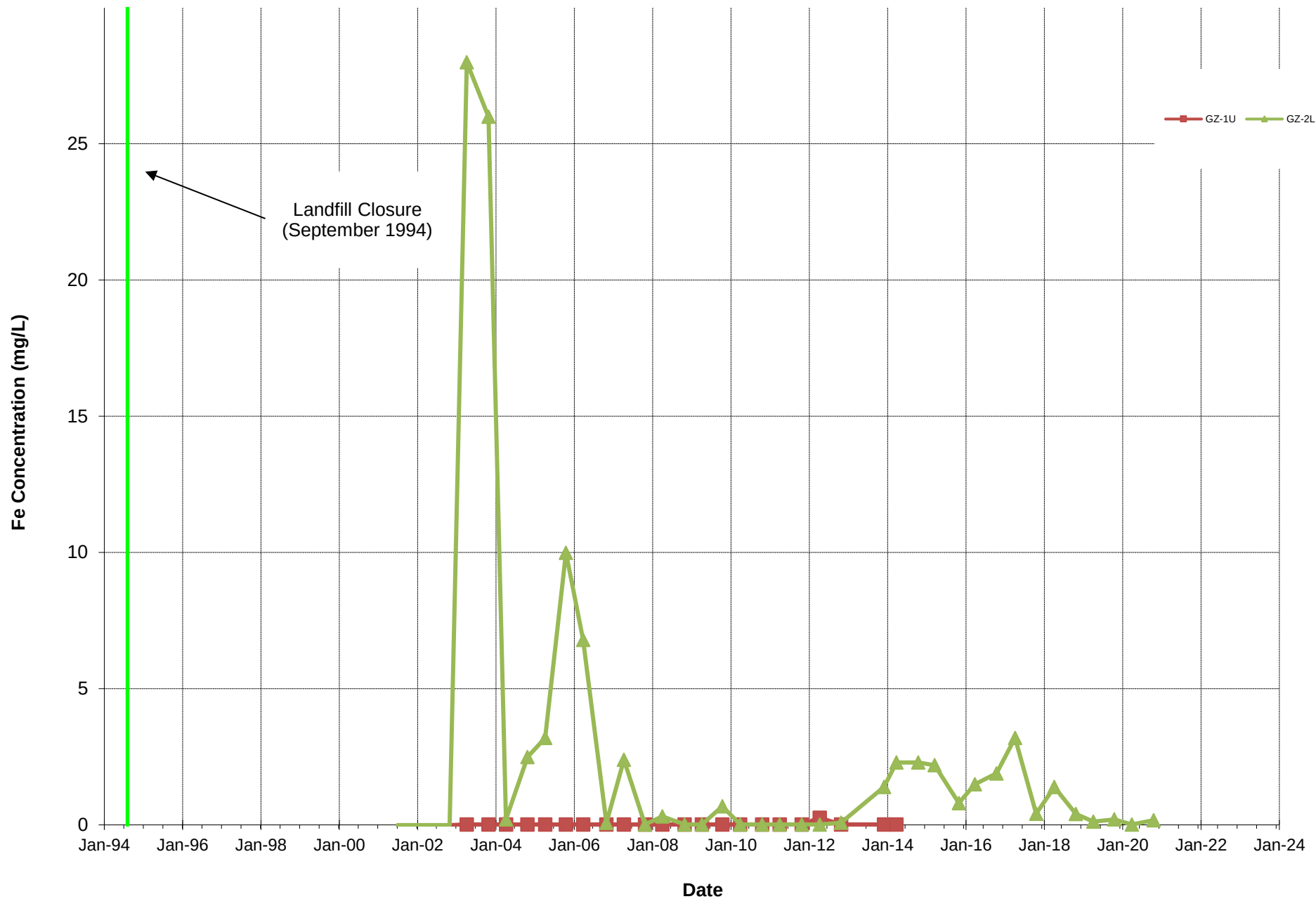
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Groundwater Sampling Locations
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081



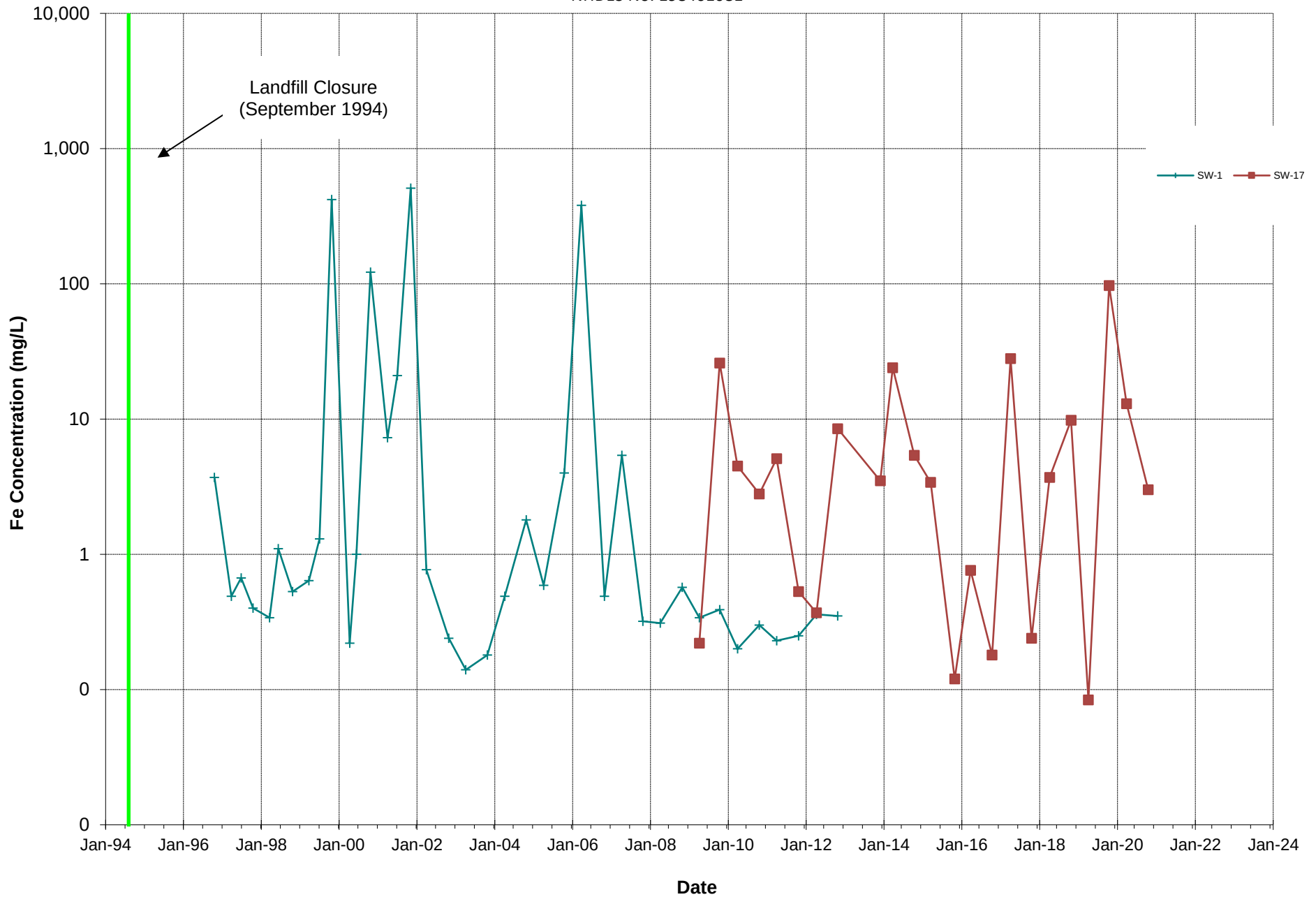
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Groundwater Sampling Locations
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081



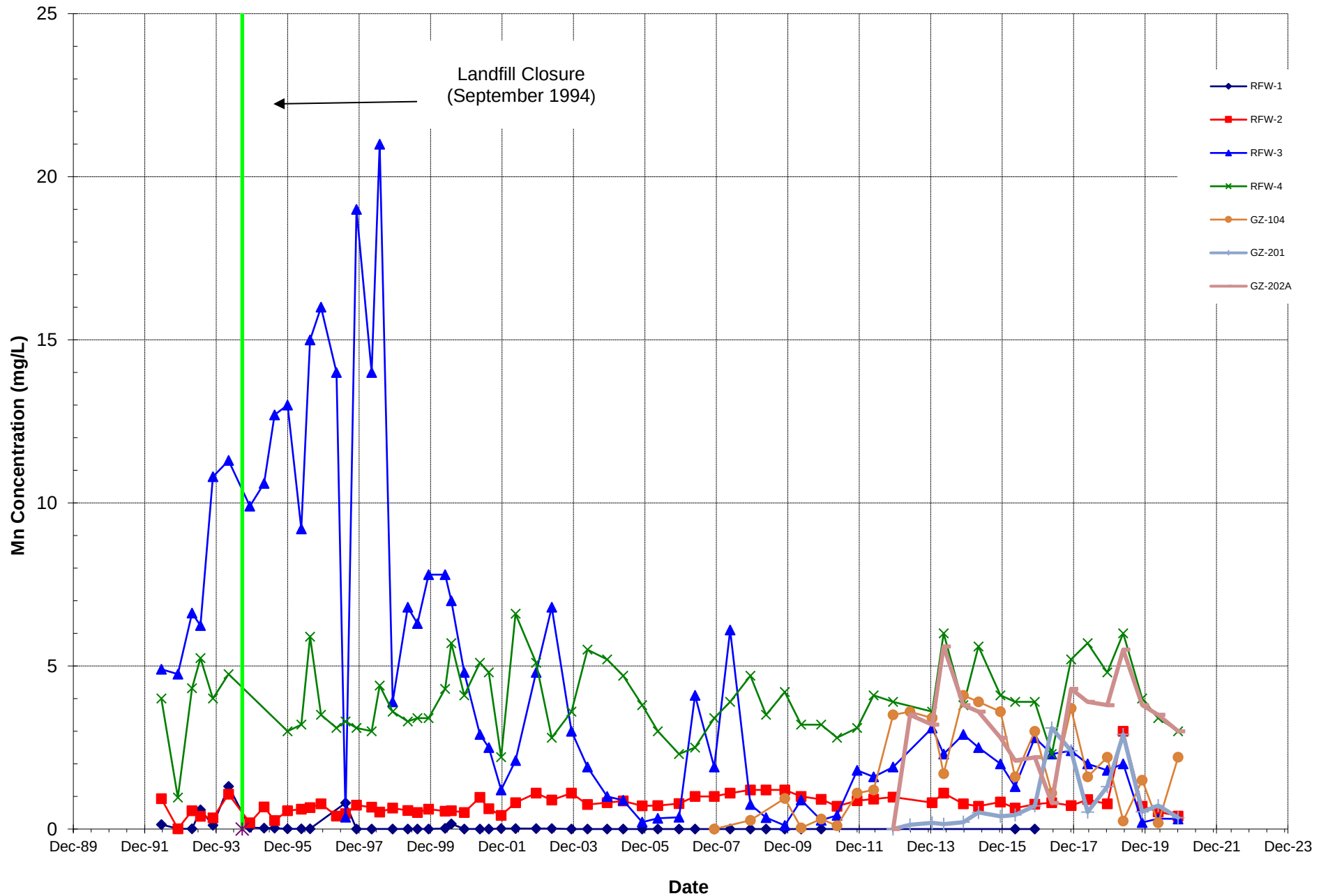
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Groundwater Sampling Locations
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081



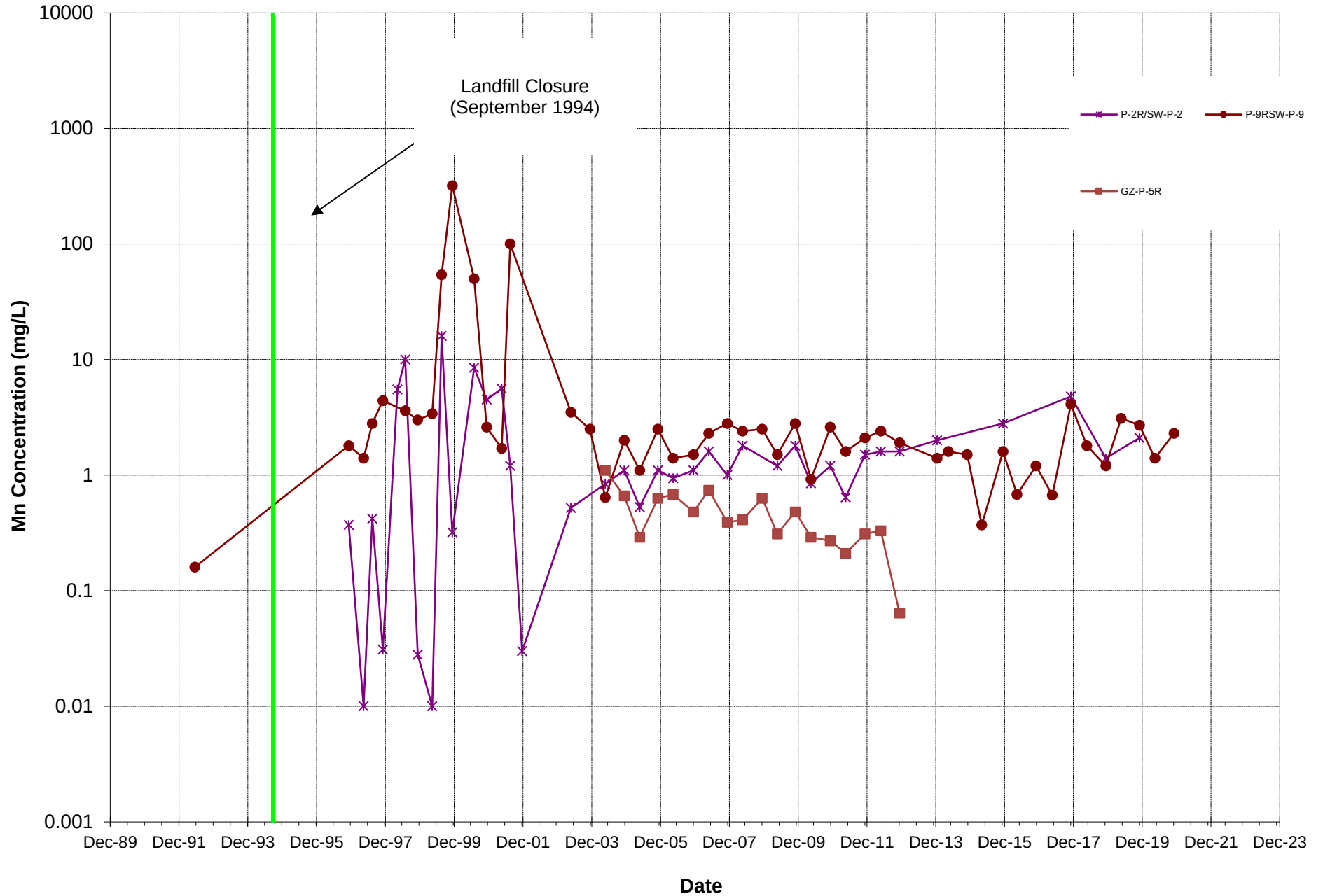
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Groundwater Sampling Locations
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081



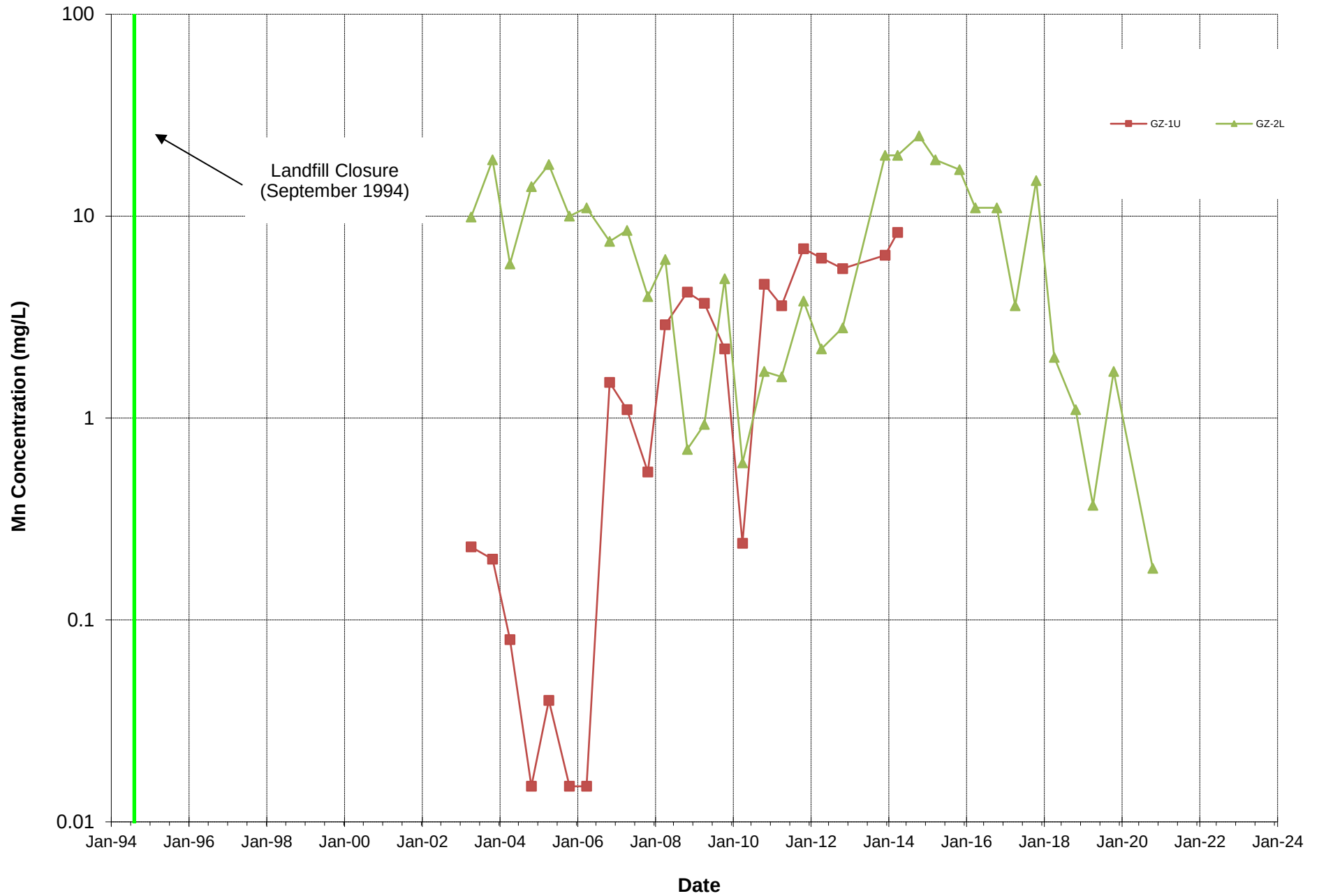
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Groundwater Sampling Locations
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081



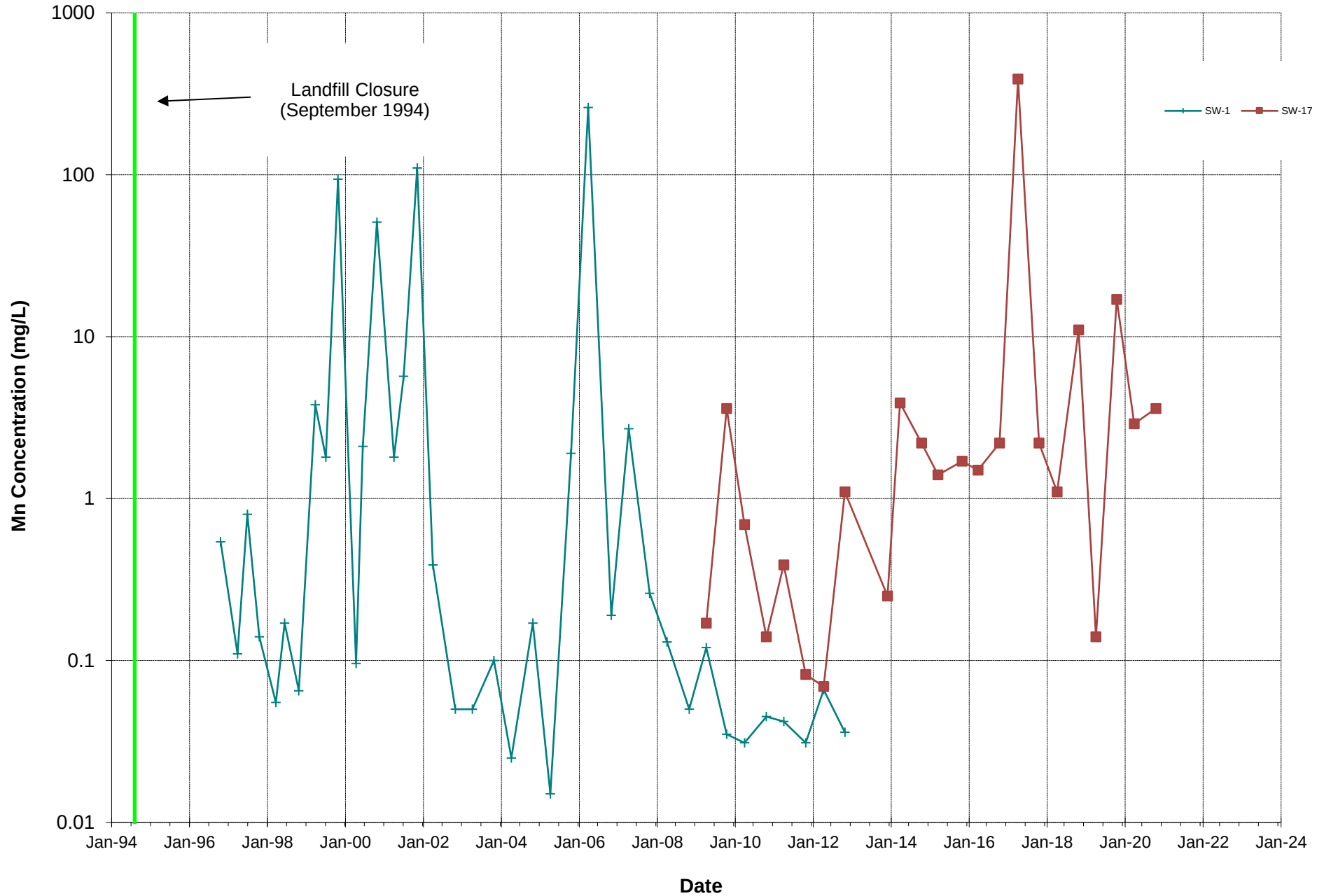
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SUMMARY OF CONCENTRATION DATA
Groundwater Sampling Locations
 Cross Road Landfill - Exeter, New Hampshire
 NHDES No. 198401081



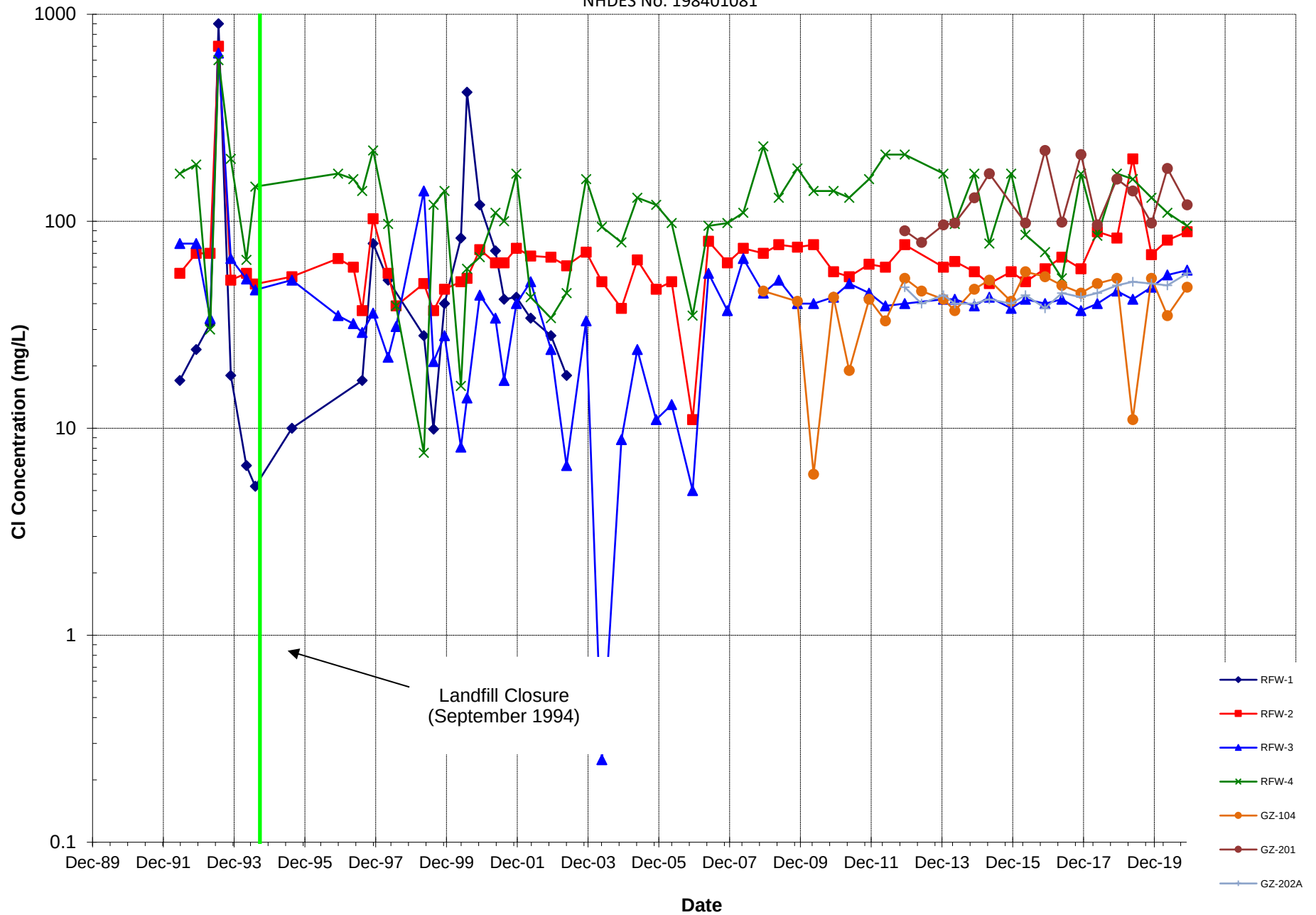
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Groundwater Sampling Locations
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081



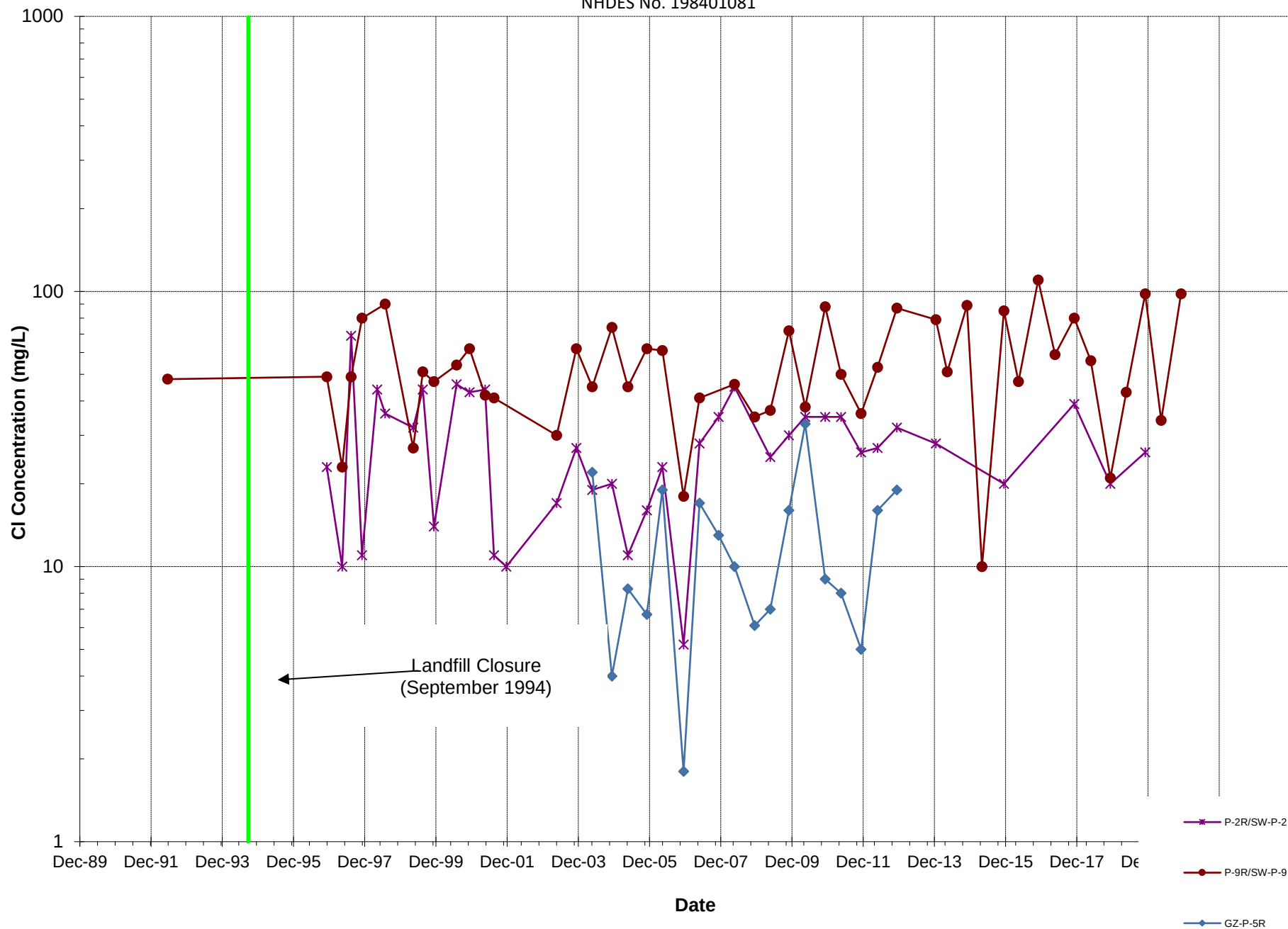
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SUMMARY OF CONCENTRATION DATA
Groundwater Sampling Locations
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081



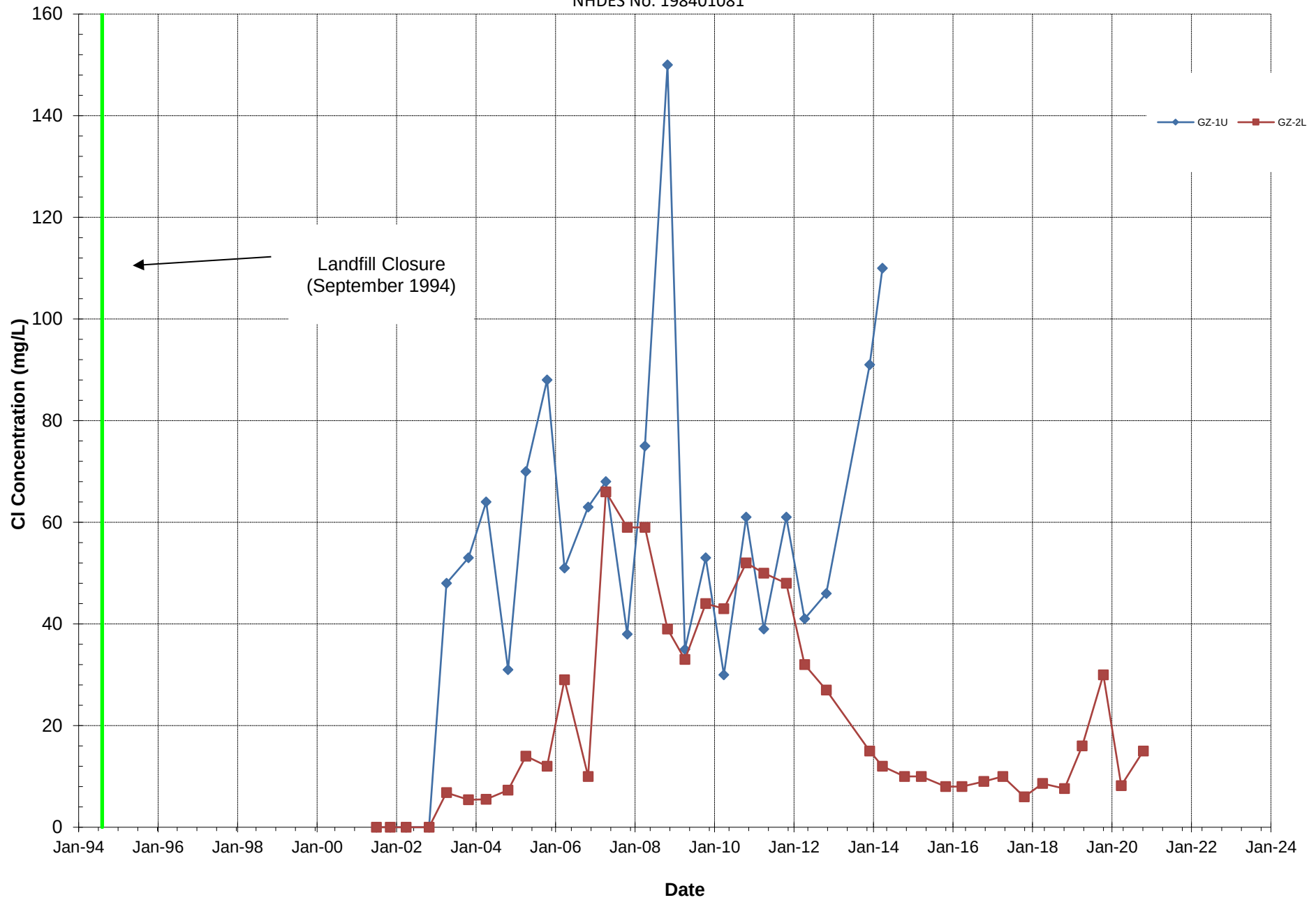
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Groundwater Sampling Locations
 Cross Road Landfill - Exeter, New Hampshire
 NHDES No. 198401081



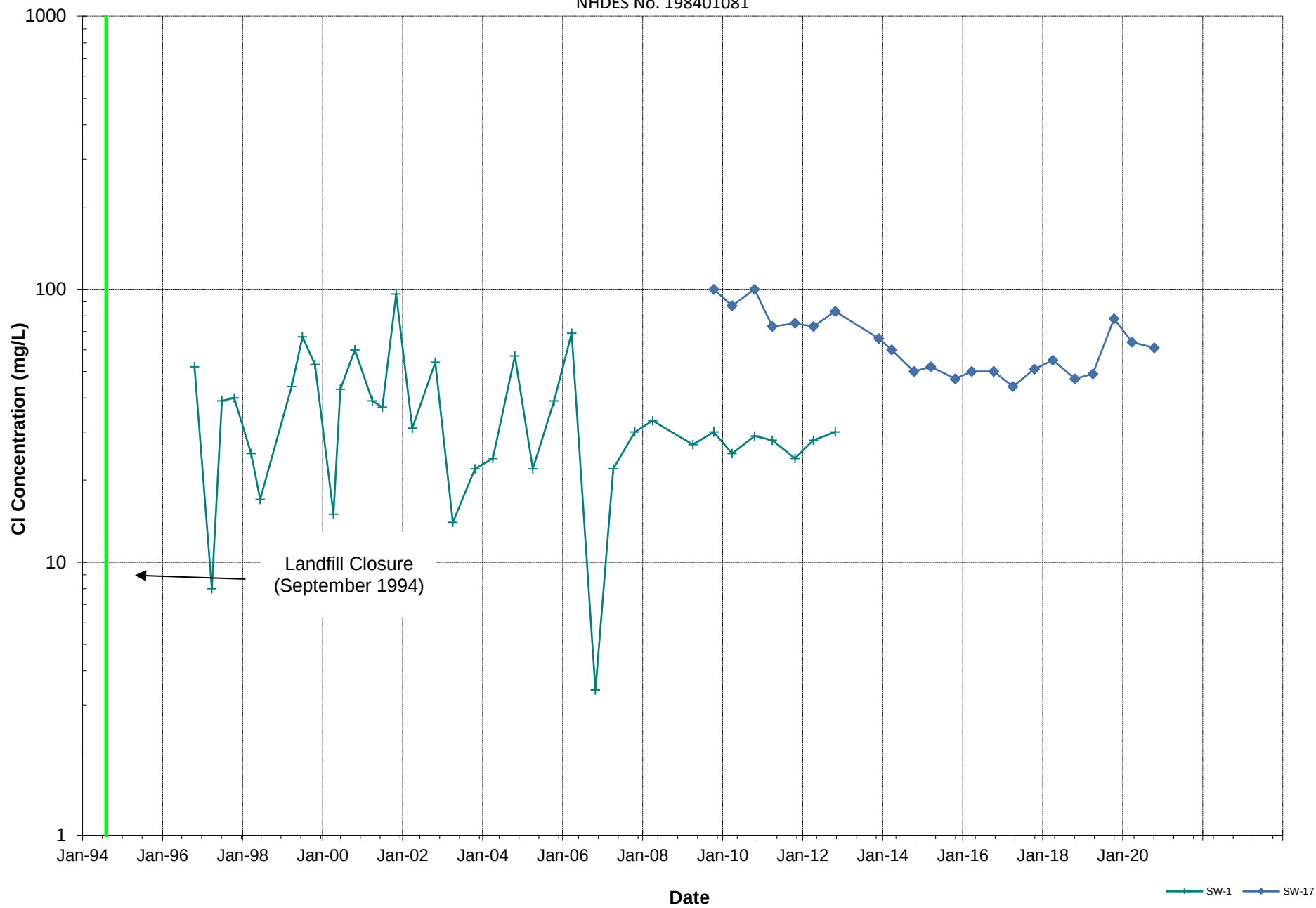
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Groundwater Sampling Locations
 Cross Road Landfill - Exeter, New Hampshire
 NHDES No. 198401081



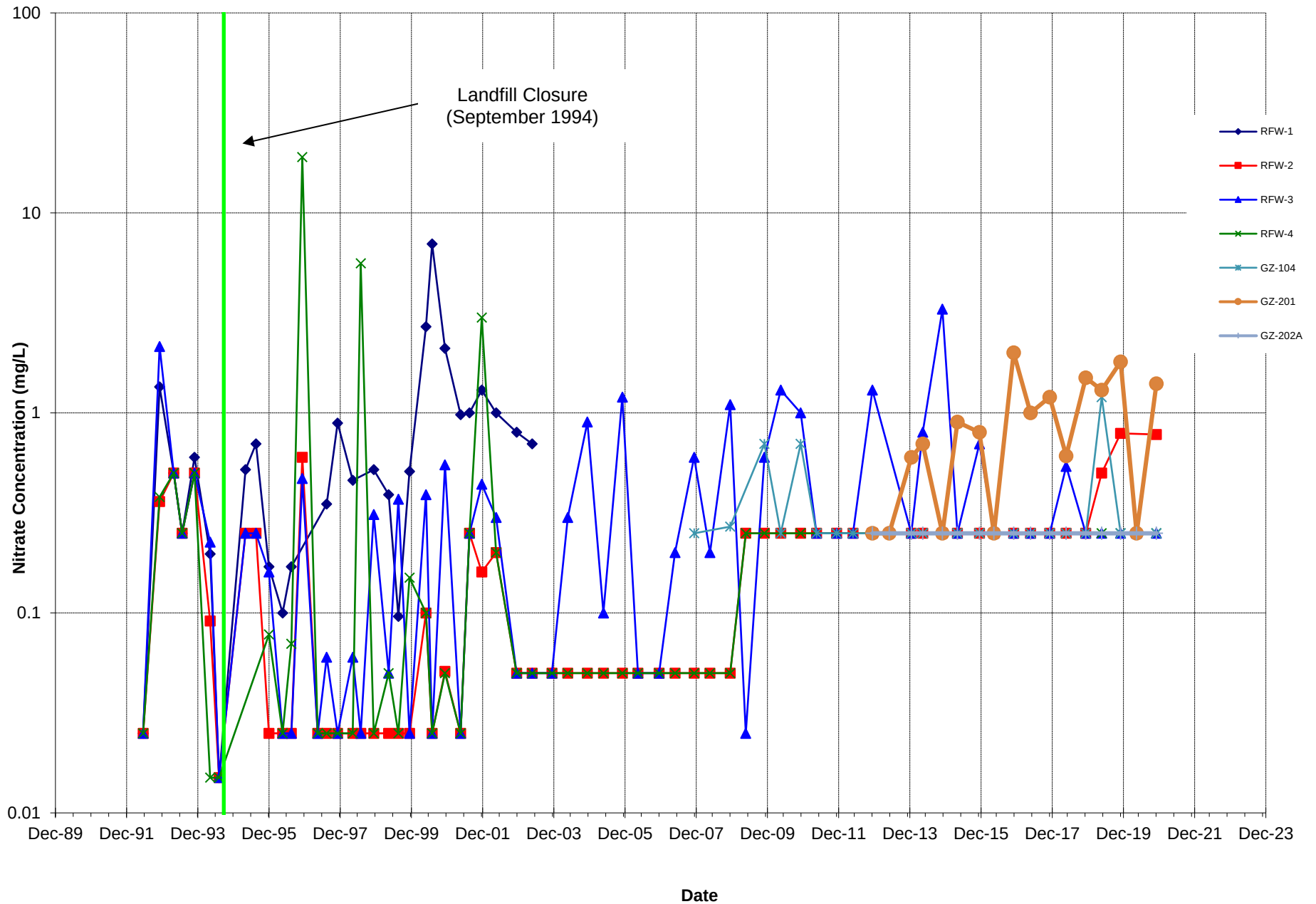
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Groundwater Sampling Locations
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081



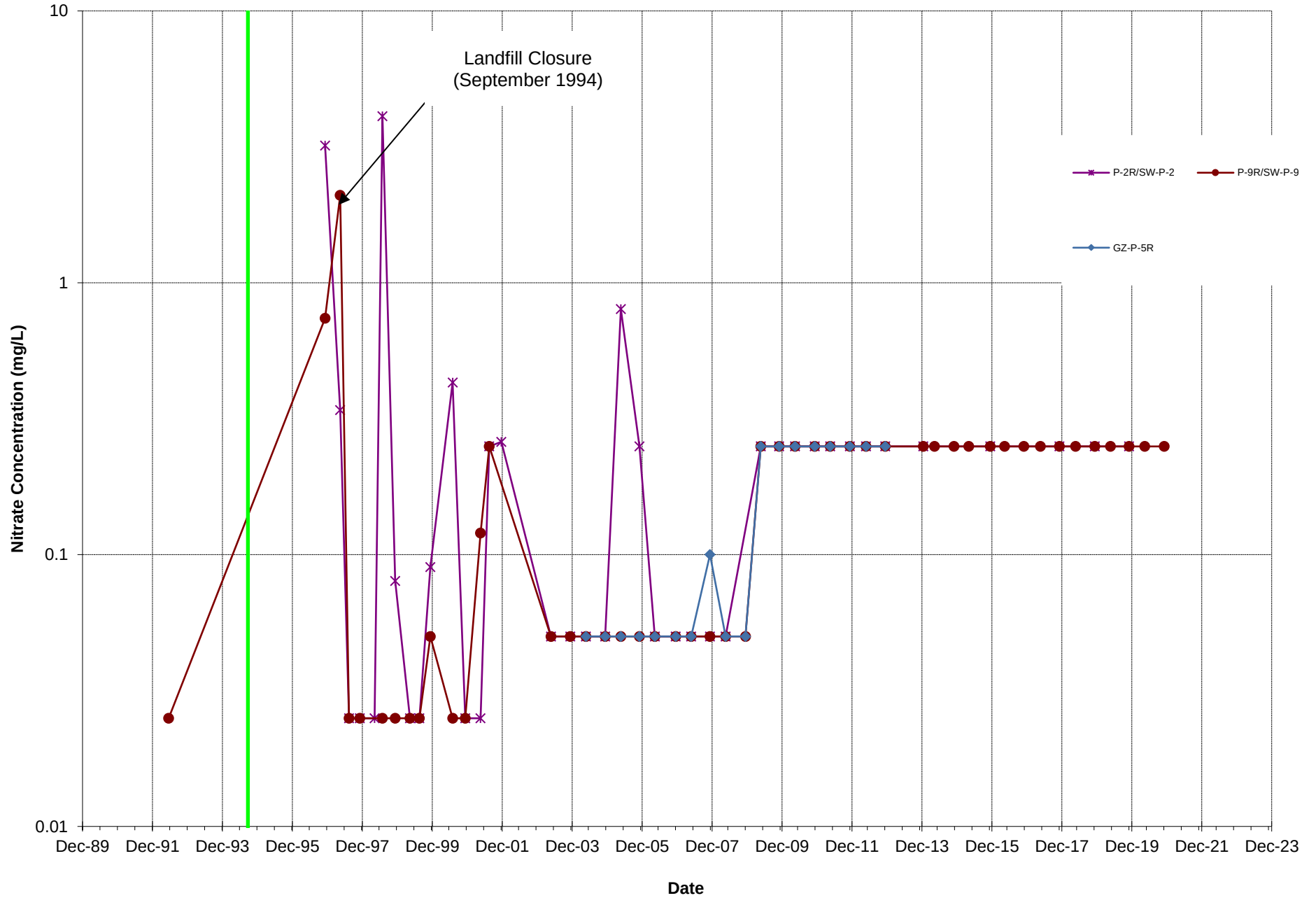
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Groundwater Sampling Locations
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081



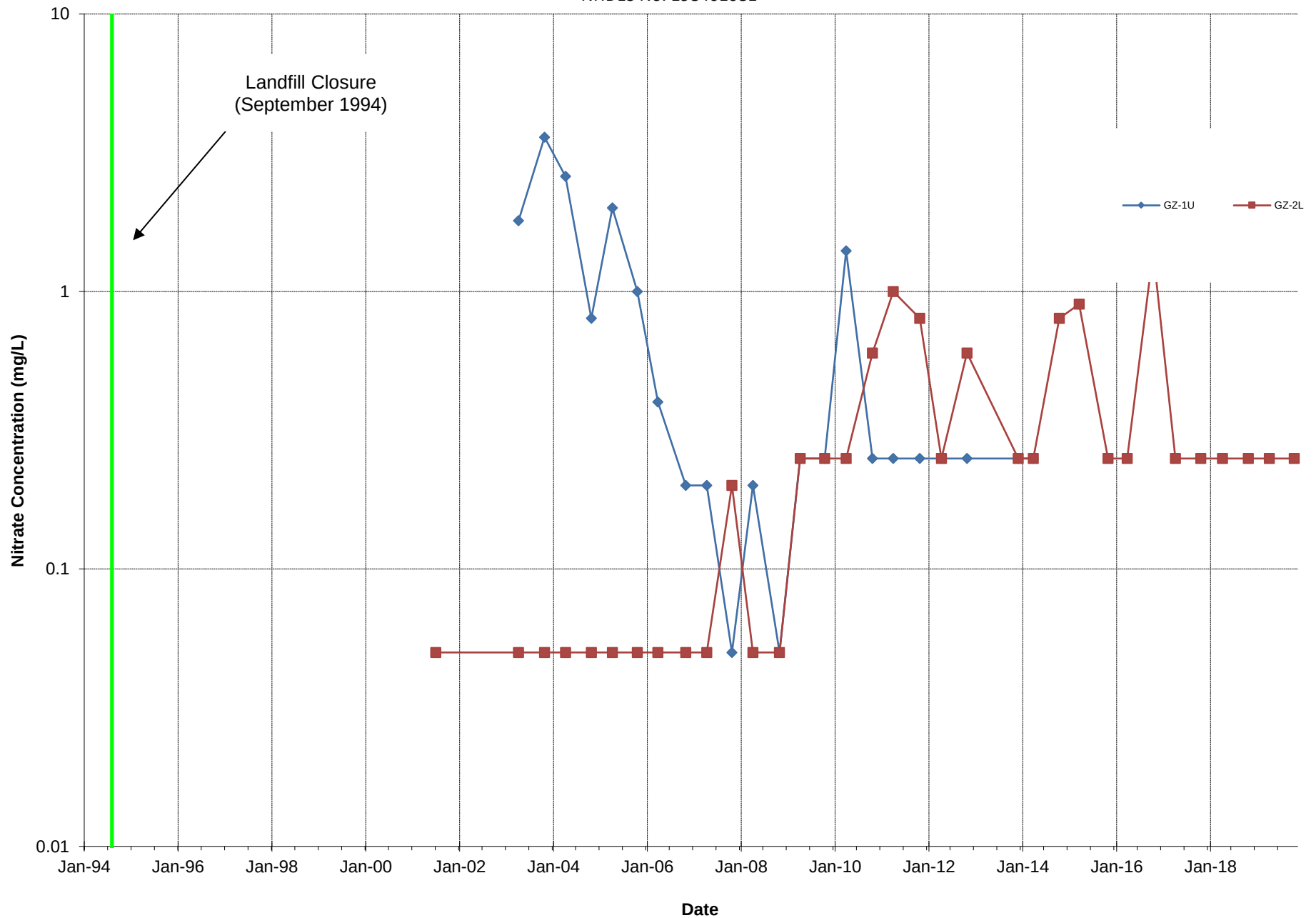
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Groundwater Sampling Locations
 Cross Road Landfill - Exeter, New Hampshire
 NHDES No. 198401081



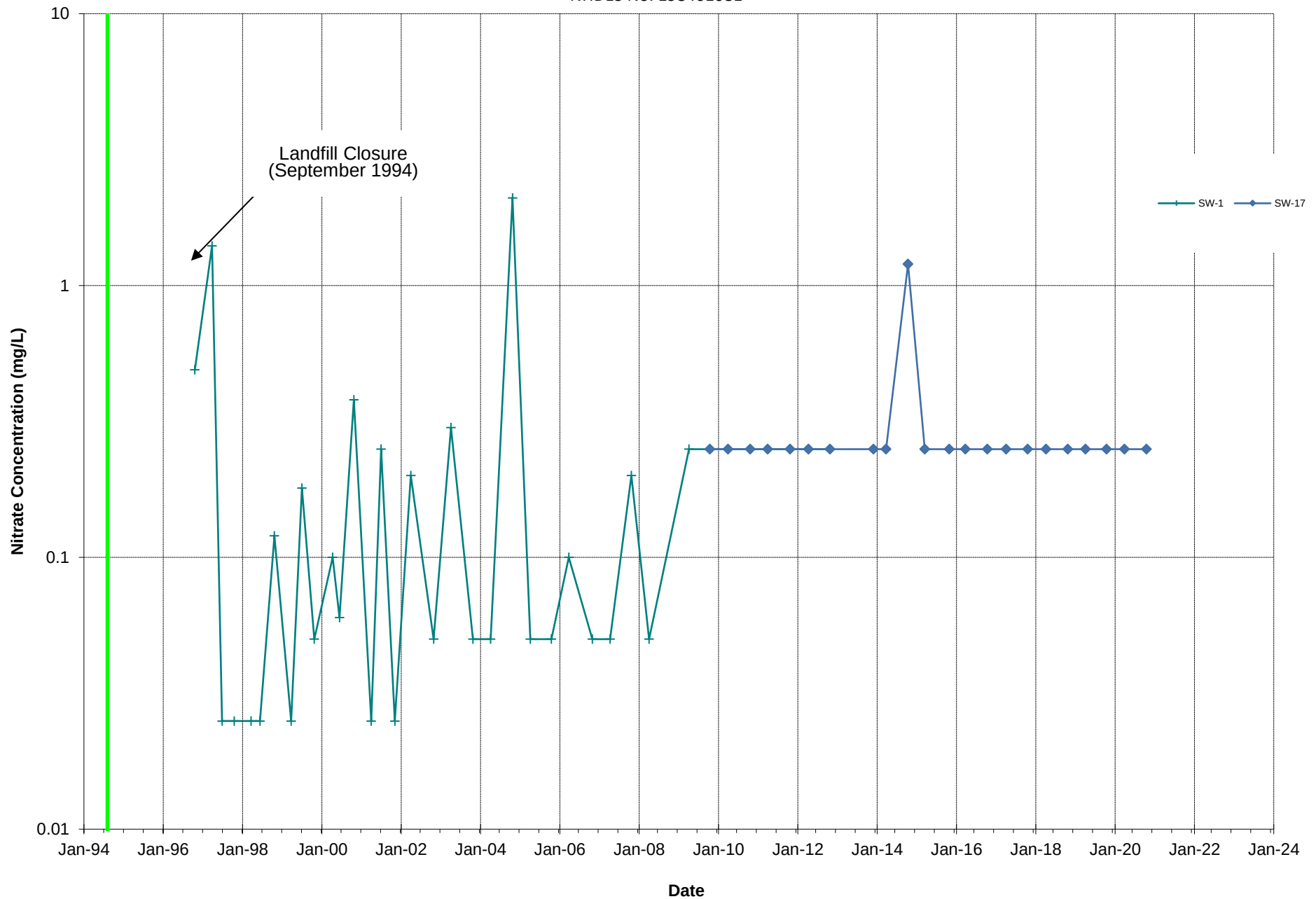
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 Cross Road Landfill - Exeter, New Hampshire
 NHDES No. 198401081



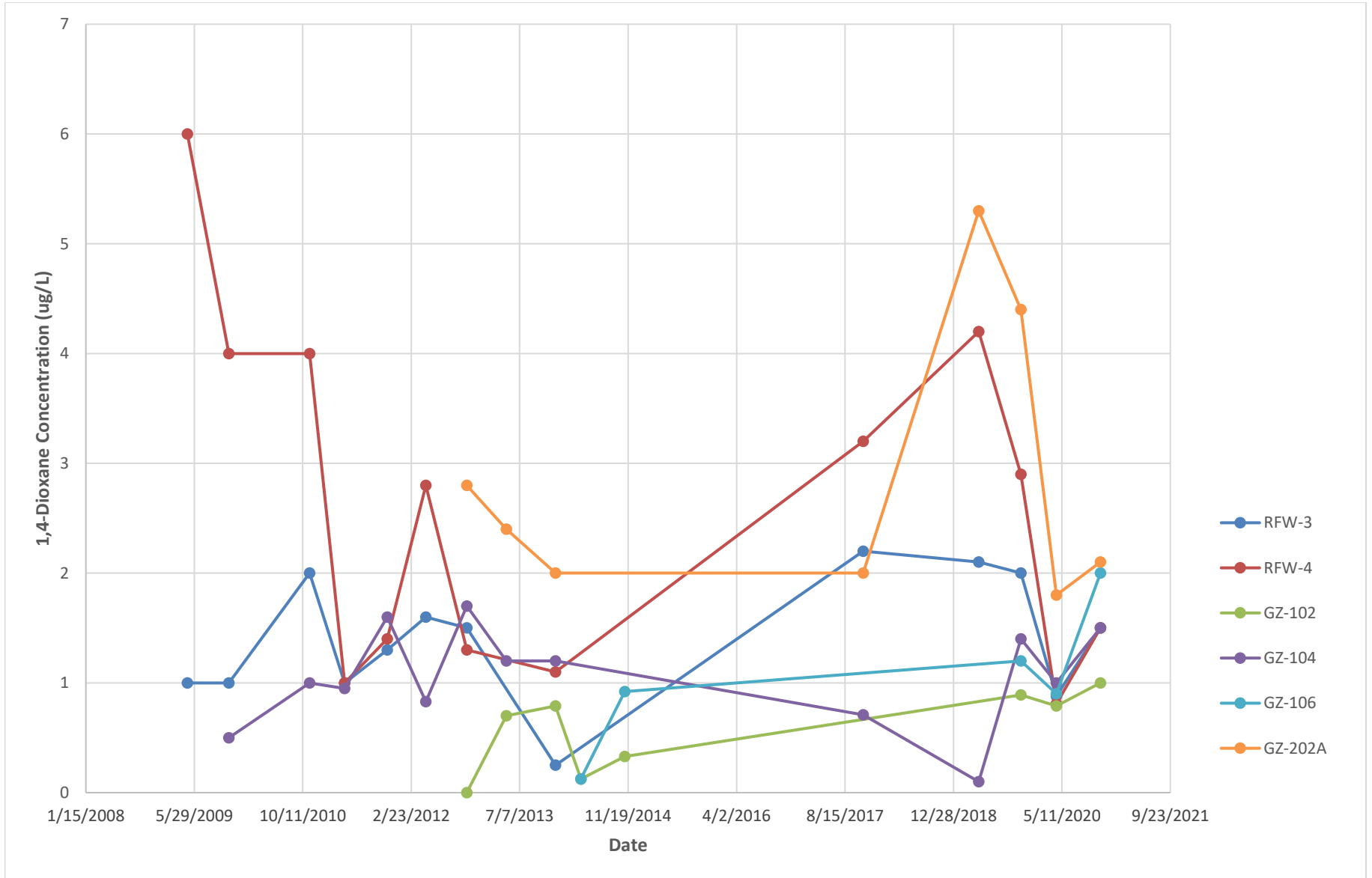
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Groundwater Sampling Locations
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081



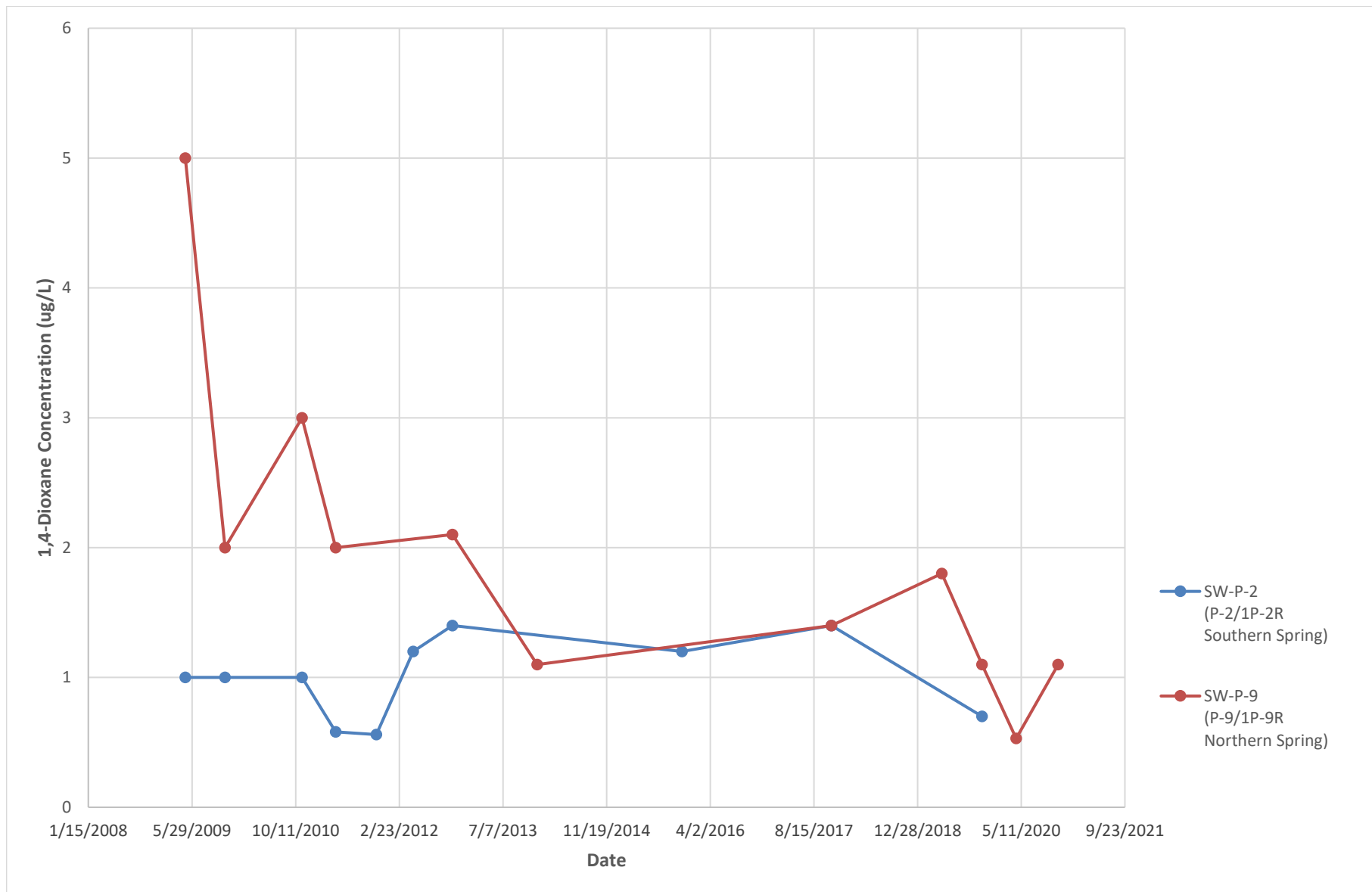
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Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081



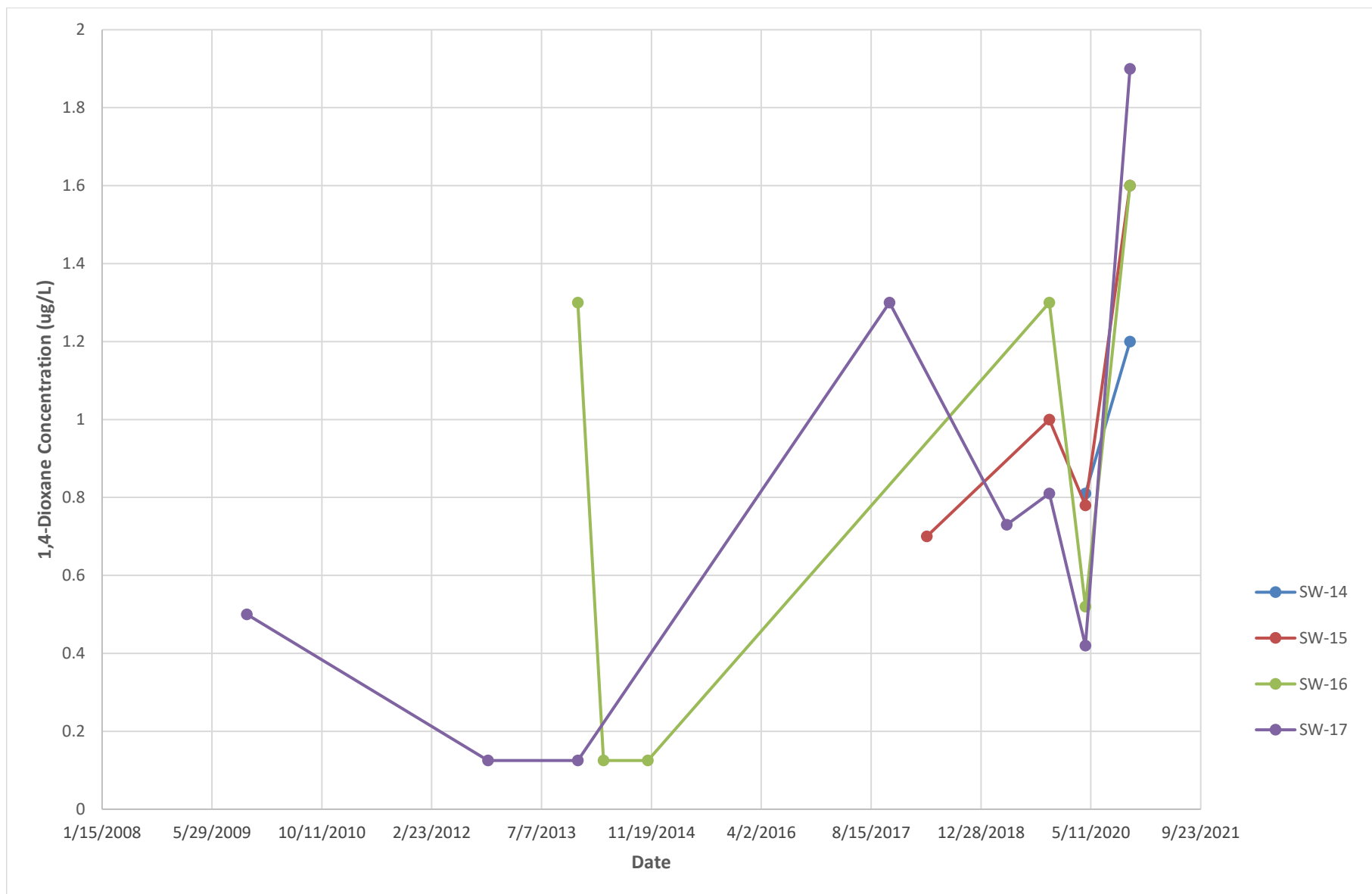
PLOT 6A
SUMMARY OF CONCENTRATION DATA
 Groundwater Sampling Locations
 Cross Road Landfill - Exeter, New Hampshire
 NHDES No. 198401081



PLOT 6B
SUMMARY OF CONCENTRATION DATA
Groundwater Sampling Locations
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081



PLOT 6C
SUMMARY OF CONCENTRATION DATA
Groundwater Sampling Locations
Cross Road Landfill - Exeter, New Hampshire
NHDES No. 198401081





November 2020 Analytical Laboratory Data



Eastern Analytical, Inc.

professional laboratory and drilling services

Jennifer Mates
Exeter, Town of
Town Office, 13 Newfields Road
Exeter, NH 03833-2792



Subject: Laboratory Report

Eastern Analytical, Inc. ID: 218400

Client Identification: Cross Road Landfill | Nov 2020 Updated

Date Received: 11/6/2020

Dear Ms. Mates :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.easternanalytical.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted

< : "less than" followed by the reporting limit

> : "greater than" followed by the reporting limit

%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012) and New York (12072).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample (s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,



Lorraine Olashaw, Lab Director

11.25.20

Date

44

of pages (excluding cover letter)



SAMPLE CONDITIONS PAGE

EAI ID#: 218400

Client: **Exeter, Town of**

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Temperature upon receipt (°C): **0**

Acceptable temperature range (°C): 0-6

Received on ice or cold packs (Yes/No): **Y**

Lab ID	Sample ID	Date Received	Date/Time Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
218400.01	RFW-2	11/6/20	11/5/20 9:45	aqueous		Adheres to Sample Acceptance Policy
218400.02	RFW-3	11/6/20	11/5/20 13:10	aqueous		Adheres to Sample Acceptance Policy
218400.03	RFW-4	11/6/20	11/5/20 9:55	aqueous		Adheres to Sample Acceptance Policy
218400.04	GMW-11RR	11/6/20	11/5/20 11:10	aqueous		Adheres to Sample Acceptance Policy
218400.05	GZ-1L	11/6/20	11/6/20 7:55	aqueous		Adheres to Sample Acceptance Policy
218400.06	GZ-2L	11/6/20	11/6/20 8:15	aqueous		Adheres to Sample Acceptance Policy
218400.07	GZ-3L	11/6/20	11/5/20 11:00	aqueous		Adheres to Sample Acceptance Policy
218400.08	GZ-104	11/6/20	11/5/20 15:05	aqueous		Adheres to Sample Acceptance Policy
218400.09	GZ-201	11/6/20	11/5/20 12:00	aqueous		Adheres to Sample Acceptance Policy
218400.1	GZ-202A	11/6/20	11/6/20 7:35	aqueous		Adheres to Sample Acceptance Policy
218400.11	P-9R	11/6/20	11/5/20 8:45	aqueous		Adheres to Sample Acceptance Policy
218400.12	SW-14	11/6/20	11/5/20 14:05	aqueous		Adheres to Sample Acceptance Policy
218400.13	SW-15	11/6/20	11/5/20 13:55	aqueous		Adheres to Sample Acceptance Policy
218400.14	SW-17	11/6/20	11/5/20 13:30	aqueous		Adheres to Sample Acceptance Policy
218400.15	Seep Upstream	11/6/20	11/5/20 14:15	aqueous		Adheres to Sample Acceptance Policy
218400.16	GZ-102	11/6/20	11/5/20 15:20	aqueous		Adheres to Sample Acceptance Policy
218400.17	GZ-103	11/6/20	11/5/20 15:40	aqueous		Adheres to Sample Acceptance Policy
218400.18	GZ-105	11/6/20	11/5/20 14:45	aqueous		Adheres to Sample Acceptance Policy
218400.19	GZ-106	11/6/20	11/6/20 9:00	aqueous		Adheres to Sample Acceptance Policy
218400.2	GZ-107	11/6/20	11/5/20 11:40	aqueous		Adheres to Sample Acceptance Policy
218400.21	SW-16	11/6/20	11/5/20 13:45	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.

Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.

All results contained in this report relate only to the above listed samples.

References include:

1) EPA 600/4-79-020, 1983

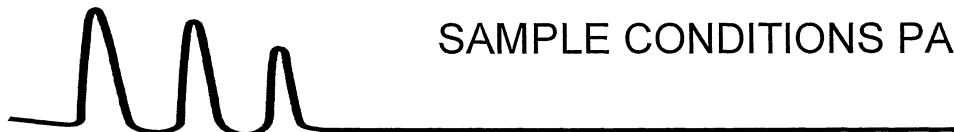
2) Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd Edition or noted Revision year.

3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB

4) Hach Water Analysis Handbook, 4th edition, 1992

Eastern Analytical, Inc.

www.easternanalytical.com | 800.287.0525 | customerservice@easternanalytical.com



SAMPLE CONDITIONS PAGE

EAI ID#: 218400

Client: Exeter, Town of

Client Designation: Cross Road Landfill | Nov 2020 Updated

Temperature upon receipt (°C): 0

Received on ice or cold packs (Yes/No): Y

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
218400.22	Trip Blank	11/6/20	11/5/20 0:00	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.

Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.

All results contained in this report relate only to the above listed samples.

References include:

- 1) EPA 600/4-79-020, 1983
- 2) Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd Edition or noted Revision year.
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LABORATORY REPORT

EAI ID#: **218400**

Client: **Exeter, Town of**

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Sample ID:	RFW-2	RFW-3	RFW-4	GMW-11RR
Lab Sample ID:	218400.01	218400.02	218400.03	218400.04
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/5/20	11/5/20	11/5/20	11/5/20
Date Received:	11/6/20	11/6/20	11/6/20	11/6/20
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/8/20	11/8/20	11/8/20	11/8/20
Analyst:	AM	AM	AM	AM
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	1	1	1
1,4-Dioxane	< 0.2	1.5	1.5	< 0.2
4-Bromofluorobenzene (surr)	96 %R	98 %R	113 %R	105 %R
Toluene-d8 (surr)	106 %R	100 %R	94 %R	91 %R



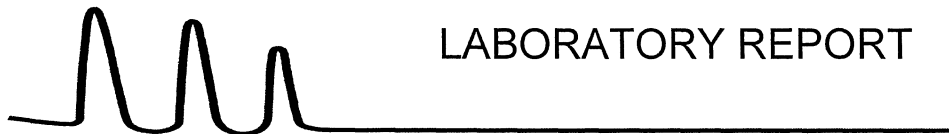
LABORATORY REPORT

EAI ID#: 218400

Client: **Exeter, Town of**

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Sample ID:	GZ-1L	GZ-2L	GZ-3L	GZ-104
Lab Sample ID:	218400.05	218400.06	218400.07	218400.08
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/6/20	11/6/20	11/5/20	11/5/20
Date Received:	11/6/20	11/6/20	11/6/20	11/6/20
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/8/20	11/8/20	11/8/20	11/8/20
Analyst:	AM	AM	AM	AM
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	1	1	1
1,4-Dioxane	< 0.2	< 0.2	< 0.2	1.5
4-Bromofluorobenzene (surr)	97 %R	105 %R	97 %R	97 %R
Toluene-d8 (surr)	85 %R	116 %R	98 %R	97 %R



LABORATORY REPORT

EAI ID#: **218400**

Client: **Exeter, Town of**

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Sample ID:	GZ-201	GZ-202A	P-9R	SW-14
Lab Sample ID:	218400.09	218400.1	218400.11	218400.12
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/5/20	11/6/20	11/5/20	11/5/20
Date Received:	11/6/20	11/6/20	11/6/20	11/6/20
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/8/20	11/8/20	11/8/20	11/8/20
Analyst:	AM	AM	AM	AM
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	1	1	1
1,4-Dioxane	< 0.2	2.1	1.1	1.2
4-Bromofluorobenzene (surr)	82 %R	91 %R	103 %R	100 %R
Toluene-d8 (surr)	99 %R	90 %R	99 %R	100 %R



LABORATORY REPORT

EAI ID#: **218400**

Client: **Exeter, Town of**

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Sample ID:	SW-15	SW-17	Seep Upstream	GZ-102
Lab Sample ID:	218400.13	218400.14	218400.15	218400.16
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/5/20	11/5/20	11/5/20	11/5/20
Date Received:	11/6/20	11/6/20	11/6/20	11/6/20
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/8/20	11/8/20	11/8/20	11/8/20
Analyst:	AM	AM	AM	AM
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	1	1	1
1,4-Dioxane	1.6	1.9	< 0.2	1.0
4-Bromofluorobenzene (surr)	125 %R	106 %R	88 %R	109 %R
Toluene-d8 (surr)	124 %R	85 %R	98 %R	110 %R



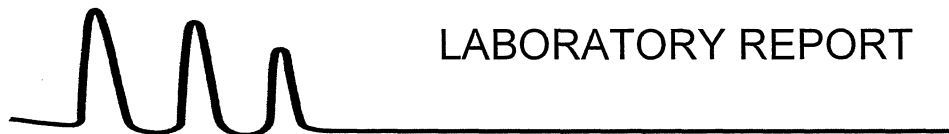
LABORATORY REPORT

EAI ID#: **218400**

Client: **Exeter, Town of**

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Sample ID:	GZ-103	GZ-105	GZ-106	GZ-107
Lab Sample ID:	218400.17	218400.18	218400.19	218400.2
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/5/20	11/5/20	11/6/20	11/5/20
Date Received:	11/6/20	11/6/20	11/6/20	11/6/20
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/8/20	11/8/20	11/9/20	11/8/20
Analyst:	AM	AM	AM	AM
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	1	1	1
1,4-Dioxane	< 0.2	< 0.2	2.0	< 0.2
4-Bromofluorobenzene (surr)	107 %R	97 %R	108 %R	81 %R
Toluene-d8 (surr)	90 %R	99 %R	91 %R	99 %R



LABORATORY REPORT

EAI ID#: 218400

Client: **Exeter, Town of**

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Sample ID:	SW-16	Trip Blank
Lab Sample ID:	218400.21	218400.22
Matrix:	aqueous	aqueous
Date Sampled:	11/5/20	11/5/20
Date Received:	11/6/20	11/6/20
Units:	ug/L	ug/L
Date of Analysis:	11/9/20	11/9/20
Analyst:	AM	AM
Method:	8260B SIM	8260B SIM
Dilution Factor:	1	1
1,4-Dioxane	1.6	< 0.2
4-Bromofluorobenzene (surr)	109 %R	106 %R
Toluene-d8 (surr)	109 %R	91 %R



QC REPORT

EAI ID#: **218400**

Client: **Exeter, Town of**

Batch ID: 637403-68821/A110720DIOX1

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
1,4-Dioxane	< 0.2	* 6.7 (133 %R)	5.0 (100 %R) (29 RPD) !	11/7/2020	ug/L	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	83 %R	123 %R	87 %R	11/7/2020	% Rec	70 - 130	50	8260B
Toluene-d8 (surr)	100 %R	125 %R	100 %R	11/7/2020	% Rec	70 - 130	50	8260B

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

There were no exceptions in the analyses, unless noted.

*! Flagged analyte recoveries deviated from the QA/QC limits. Unless noted on the sample page, flagged analytes that exceed acceptance limits in the Quality Control sample do not impact the data.



QC REPORT

EAI ID#: **218400**

Client: **Exeter, Town of**

Batch ID: 637403-68979/A110720DIOX2

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
1,4-Dioxane	< 0.2	5.0 (100 %R)	5.1 (103 %R) (3 RPD)	11/8/2020	ug/L	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	98 %R	88 %R	91 %R	11/8/2020	% Rec	70 - 130	50	8260B
Toluene-d8 (surr)	99 %R	99 %R	99 %R	11/8/2020	% Rec	70 - 130	50	8260B

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

There were no exceptions in the analyses, unless noted.

*! Flagged analyte recoveries deviated from the QA/QC limits. Unless noted on the sample page, flagged analytes that exceed acceptance limits in the Quality Control sample do not impact the data.



QC REPORT

EAI ID#: **218400**

Client: **Exeter, Town of**

Batch ID: 637405-28199/A110920DIOX1

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
1,4-Dioxane	< 0.2	4.6 (91 %R)	4.5 (90 %R) (1 RPD)	11/9/2020	ug/L	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	107 %R	98 %R	105 %R	11/9/2020	% Rec	70 - 130	50	8260B
Toluene-d8 (surr)	84 %R	98 %R	100 %R	11/9/2020	% Rec	70 - 130	50	8260B

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

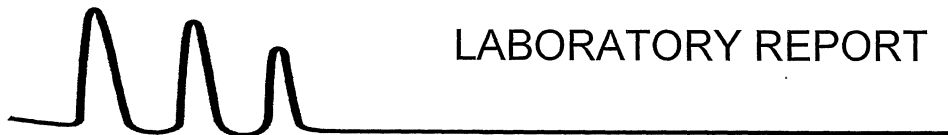
The method blanks were free of contamination at the reporting limits.

Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

There were no exceptions in the analyses, unless noted.

*! Flagged analyte recoveries deviated from the QA/QC limits. Unless noted on the sample page, flagged analytes that exceed acceptance limits in the Quality Control sample do not impact the data.



LABORATORY REPORT

EAI ID#: 218400

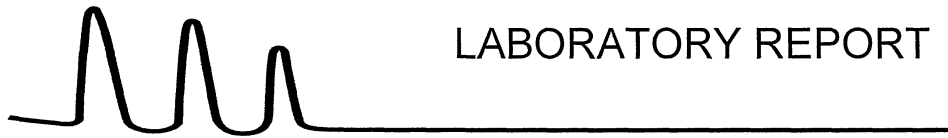
Client: **Exeter, Town of**

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Sample ID:	RFW-2	RFW-3	RFW-4	GMW-11RR					
Lab Sample ID:	218400.01	218400.02	218400.03	218400.04					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	11/5/20	11/5/20	11/5/20	11/5/20					
Date Received:	11/6/20	11/6/20	11/6/20	11/6/20					
					Units	Analysis			
						Date	Time	Method	Analyst
Chloride	89	58	95	120	mg/L	11/06/20	15:32	4500CIE-11	ATA
Nitrate-N	0.78	< 0.5	< 0.5	0.50	mg/L	11/06/20	15:32	353.2	ATA
TKN	< 0.5	< 0.5	1.5	< 0.5	mg/L	11/11/20	18:10	4500N _{org} C/N	SEL

Sample ID:	GZ-1L	GZ-2L	GZ-3L	GZ-104					
Lab Sample ID:	218400.05	218400.06	218400.07	218400.08					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	11/6/20	11/6/20	11/5/20	11/5/20					
Date Received:	11/6/20	11/6/20	11/6/20	11/6/20					
					Units	Analysis			
						Date	Time	Method	Analyst
Chloride	99	15	34	48	mg/L	11/06/20	15:51	4500CIE-11	ATA
Nitrate-N	< 0.5	< 0.5	< 0.5	< 0.5	mg/L	11/06/20	15:51	353.2	ATA
TKN	1.1	19	< 0.5	< 0.5	mg/L	11/11/20	18:21	4500N _{org} C/N	SEL

GZ-2L: The matrix spike for TKN associated with this sample was outside the acceptance criteria. The matrix spike duplicate and all other QC were in control.



LABORATORY REPORT

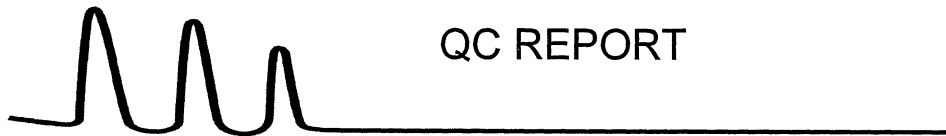
EAI ID#: 218400

Client: **Exeter, Town of**

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Sample ID:	GZ-201	GZ-202A	P-9R						
Lab Sample ID:	218400.09	218400.1	218400.11						
Matrix:	aqueous	aqueous	aqueous						
Date Sampled:	11/5/20	11/6/20	11/5/20						
Date Received:	11/6/20	11/6/20	11/6/20						
				Units	Analysis				
					Date	Time	Method	Analyst	
Chloride	120	56	98	mg/L	11/06/20	16:54	4500CIE-11	ATA	
Nitrate-N	1.4	< 0.5	< 0.5	mg/L	11/06/20	15:57	353.2	ATA	
TKN	< 0.5	0.83	0.63	mg/L	11/11/20	18:45	4500N _{org} C/N	SEL	

Sample ID:	SW-17								
Lab Sample ID:	218400.14								
Matrix:	aqueous								
Date Sampled:	11/5/20								
Date Received:	11/6/20								
				Units	Analysis				
					Date	Time	Method	Analyst	
Chloride	61			mg/L	11/06/20	16:14	4500CIE-11	ATA	
Nitrate-N	< 0.5			mg/L	11/06/20	16:14	353.2	ATA	
TKN	< 0.5			mg/L	11/11/20	18:53	4500N _{org} C/N	SEL	



QC REPORT

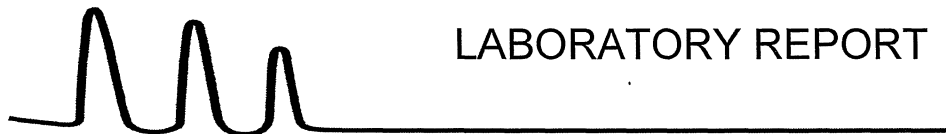
EAI ID#: 218400

Client: Exeter, Town of

Client Designation: Cross Road Landfill | Nov 2020 Updated

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Chloride	< 1	25 (98 %R)	24 (98 %R) (1 RPD)	mg/L	11/6/20	90 - 110	20	4500CIE-11
Nitrate-N	< 0.5	5.5 (109 %R)	5.3 (106 %R) (3 RPD)	mg/L	11/6/20	90 - 110	20	353.2
TKN	< 0.5	9.3 (93 %R)	9.5 (95 %R) (3 RPD)	mg/L	11/11/20	90 - 111	20	4500N _{org} /C/NH3D

Samples were analyzed within holding times unless noted on the sample results page.
 Instrumentation was calibrated in accordance with the method requirements.
 The method blanks were free of contamination at the reporting limits.
 The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
 Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
 */ Flagged analyte recoveries deviated from the QA/QC limits.



LABORATORY REPORT

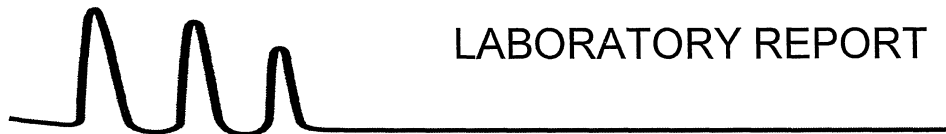
EAI ID#: 218400

Client: Exeter, Town of

Client Designation: Cross Road Landfill | Nov 2020 Updated

Sample ID:	RFW-2	RFW-3	RFW-4	GMW-11RR					
Lab Sample ID:	218400.01	218400.02	218400.03	218400.04					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	11/5/20	11/5/20	11/5/20	11/5/20	Analytical		Date of		
Date Received:	11/6/20	11/6/20	11/6/20	11/6/20	Matrix	Units	Analysis	Method	Analyst
Arsenic	< 0.001	0.0085	0.096	< 0.001	AqDis	mg/L	11/9/20	200.8	DS
Iron	0.26	8.7	26	< 0.05	AqDis	mg/L	11/9/20	200.8	DS
Manganese	0.40	0.31	3.0	< 0.005	AqDis	mg/L	11/9/20	200.8	DS

Sample ID:	GZ-104	GZ-201	GZ-202A	P-9R					
Lab Sample ID:	218400.08	218400.09	218400.1	218400.11					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	11/5/20	11/5/20	11/6/20	11/5/20	Analytical		Date of		
Date Received:	11/6/20	11/6/20	11/6/20	11/6/20	Matrix	Units	Analysis	Method	Analyst
Arsenic	0.15	< 0.001	0.24	0.11	AqDis	mg/L	11/9/20	200.8	DS
Iron	23	< 0.05	48	28	AqDis	mg/L	11/9/20	200.8	DS
Manganese	2.2	0.35	3.0	2.3	AqDis	mg/L	11/9/20	200.8	DS



LABORATORY REPORT

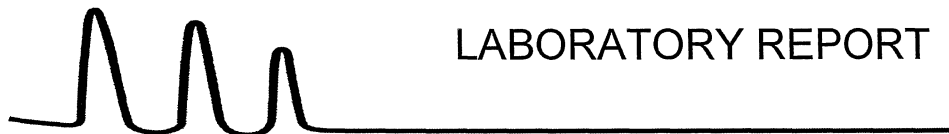
EAI ID#: 218400

Client: Exeter, Town of

Client Designation: Cross Road Landfill | Nov 2020 Updated

Sample ID:	GZ-102	GZ-103	GZ-105	GZ-106					
Lab Sample ID:	218400.16	218400.17	218400.18	218400.19					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	11/5/20	11/5/20	11/5/20	11/6/20	Analytical Matrix	Units	Date of Analysis	Method	Analyst
Date Received:	11/6/20	11/6/20	11/6/20	11/6/20					
Arsenic	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/9/20	200.8	DS
Iron	0.25	0.13	0.059	< 0.05	AqDis	mg/L	11/9/20	200.8	DS
Manganese	0.61	0.024	< 0.005	0.30	AqDis	mg/L	11/9/20	200.8	DS

Sample ID:	GZ-107								
Lab Sample ID:	218400.2								
Matrix:	aqueous								
Date Sampled:	11/5/20	Analytical Matrix	Units	Date of Analysis	Method	Analyst			
Date Received:	11/6/20								
Arsenic	< 0.001	AqDis	mg/L	11/9/20	200.8	DS			
Iron	< 0.05	AqDis	mg/L	11/9/20	200.8	DS			
Manganese	< 0.005	AqDis	mg/L	11/9/20	200.8	DS			



LABORATORY REPORT

EAI ID#: 218400

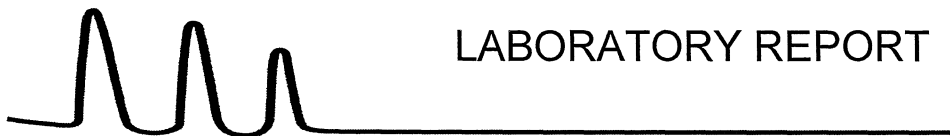
Client: **Exeter, Town of**

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Sample ID:	GZ-1L	GZ-2L	GZ-3L	SW-17					
Lab Sample ID:	218400.05	218400.06	218400.07	218400.14					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	11/6/20	11/6/20	11/5/20	11/5/20	Analytical Matrix	Units	Date of Analysis	Method	Analyst
Date Received:	11/6/20	11/6/20	11/6/20	11/6/20					
Arsenic	0.0041	0.0012	0.0081	0.017	AqTot	mg/L	11/9/20	200.8	DS
Iron	< 0.05	0.18	6.1	3.0	AqTot	mg/L	11/9/20	200.8	DS
Manganese	0.13	0.50	0.23	3.6	AqTot	mg/L	11/9/20	200.8	DS

Sample ID: SW-16

Lab Sample ID:	218400.21								
Matrix:	aqueous								
Date Sampled:	11/5/20	Analytical Matrix	Units	Date of Analysis	Method	Analyst			
Date Received:	11/6/20								
Arsenic	0.0042	AqTot	mg/L	11/9/20	200.8	DS			
Iron	0.59	AqTot	mg/L	11/9/20	200.8	DS			
Manganese	3.8	AqTot	mg/L	11/9/20	200.8	DS			



LABORATORY REPORT

EAI ID#: 218400

Client: **Exeter, Town of**

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Sample ID:	SW-14	SW-15	Seep Upstream						
Lab Sample ID:	218400.12	218400.13	218400.15						
Matrix:	aqueous	aqueous	aqueous						
Date Sampled:	11/5/20	11/5/20	11/5/20						
Date Received:	11/6/20	11/6/20	11/6/20						
				Analytical Matrix	Units	Date of Analysis	Method	Analyst	
Arsenic	0.0017	0.0017	0.0021	AqTot	mg/L	11/9/20	200.8	DS	
Iron	0.12	0.13	0.80	AqTot	mg/L	11/9/20	200.8	DS	
Manganese	1.5	1.6	0.41	AqTot	mg/L	11/9/20	200.8	DS	
Arsenic	0.0013	0.0013	< 0.001	AqDis	mg/L	11/9/20	200.8	DS	
Iron	0.066	0.075	0.10	AqDis	mg/L	11/9/20	200.8	DS	
Manganese	1.5	1.5	0.076	AqDis	mg/L	11/9/20	200.8	DS	



QC REPORT

EAI ID#: 218400

Client: **Exeter, Town of**

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Arsenic	< 0.001	0.21 (105 %R)		NA mg/L	11/9/20	85 - 115	20	200.8
Iron	< 0.05	9.7 (95 %R)		NA mg/L	11/9/20	85 - 115	20	200.8
Manganese	< 0.005	0.20 (102 %R)		NA mg/L	11/9/20	85 - 115	20	200.8

Aqueous Dissolved Metals

Samples were analyzed within holding times unless noted on the sample results page.

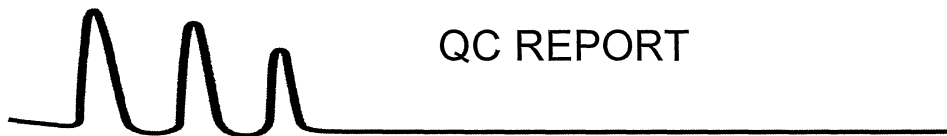
Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.

Exceptions to the above statements are flagged or noted above or on the QC Narrative page.

*! Flagged analyte recoveries deviated from the QA/QC limits.



QC REPORT

EAI ID#: **218400**

Client: **Exeter, Town of**

Client Designation: **Cross Road Landfill | Nov 2020 Updated**

Parameter Name	Blank	LCS	LCSD	Date of		Limits	RPD	Method
				Units	Analysis			
Arsenic	< 0.001	1.1 (105 %R)	NA	mg/L	11/9/20	85 - 115	20	200.8
Iron	< 0.05	11 (100 %R)	NA	mg/L	11/9/20	85 - 115	20	200.8
Manganese	< 0.005	0.93 (93 %R)	NA	mg/L	11/9/20	85 - 115	20	200.8

Aqueous Total Metals

Samples were analyzed within holding times unless noted on the sample results page.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.

Exceptions to the above statements are flagged or noted above or on the QC Narrative page.

*! Flagged analyte recoveries deviated from the QA/QC limits.



November 23, 2020

Vista Work Order No. 2002481

Ms. Jennifer Laramie
Eastern Analytical, Inc.
25 Chennell Drive
Concord, NH 03301

Dear Ms. Laramie,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on November 12, 2020 under your Project Name '218400 NH 31'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at [mmaier@vista-analytical.com](mailto:mmmaier@vista-analytical.com).

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

A handwritten signature in black ink that reads "Martha Maier". The signature is fluid and cursive, with the first name and last name clearly distinguishable.

Martha Maier
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 ph: 916-673-1520 fx: 916-673-0106 www.vista-analytical.com

Vista Work Order No. 2002481

Case Narrative

Sample Condition on Receipt:

Three aqueous samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The samples were received in good condition and within the method temperature requirements.

Analytical Notes:

PFAS Isotope Dilution/LC-MSMS Method Compliant with Table B-15 of QSM 5.3

The samples contained particulate and were centrifuged prior to extraction.

The samples were extracted and analyzed for a selected list of PFAS using Isotope Dilution and LC-MS/MS compliant with Table B-15 of QSM 5.3. The results for PFHxS, PFOA and PFOS include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limits (RL). The OPR recoveries were within the method acceptance criteria.

The labeled standard recoveries for all QC and field samples were within the acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2002481-01	RFW-3	05-Nov-20 13:10	12-Nov-20 10:21	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
2002481-02	RFW-4	05-Nov-20 09:55	12-Nov-20 10:21	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
2002481-03	GZ-202A	06-Nov-20 07:35	12-Nov-20 10:21	HDPE Bottle, 125 mL HDPE Bottle, 125 mL

ANALYTICAL RESULTS

Sample ID: Method Blank					PFAS Isotope Dilution Table B-15				
Client Data				Laboratory Data					
Name: Eastern Analytical, Inc.		Matrix: Aqueous		Lab Sample: B0K0118-BLK1		Column: BEH C18			
Project: 218400 NH 31									
Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	4.00		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
PFPeA	2706-90-3	ND	4.00		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
PFBS	375-73-5	ND	4.00		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
PFHxA	307-24-4	ND	4.00		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
PFHpA	375-85-9	ND	4.00		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
PFHxS	355-46-4	ND	4.00		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
PFOA	335-67-1	ND	4.00		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
PFNA	375-95-1	ND	4.00		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
PFOS	1763-23-1	ND	4.00		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	96.4	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
13C3-PFPeA	IS	78.3	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
13C3-PFBS	IS	90.8	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
13C2-PFHxA	IS	86.8	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
13C4-PFHpA	IS	92.6	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
13C3-PFHxS	IS	86.4	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
13C5-PFNA	IS	83.2	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
13C2-PFOA	IS	93.7	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1
13C8-PFOS	IS	82.2	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:37	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR						PFAS Isotope Dilution Table B-15					
Client Data						Laboratory Data					
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous			Lab Sample:	B0K0118-BS1	Column:	BEH C18		
Project:	218400 NH 31										
Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	77.0	80.0	96.3	73 - 129		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
PFPeA	2706-90-3	82.0	80.0	102	72 - 129		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
PFBS	375-73-5	81.4	80.0	102	72 - 130		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
PFHxA	307-24-4	78.5	80.0	98.1	72 - 129		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
PFHpA	375-85-9	78.9	80.0	98.6	72 - 130		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
PFHxS	355-46-4	83.1	80.0	104	68 - 131		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
PFOA	335-67-1	81.3	80.0	102	71 - 133		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
PFNA	375-95-1	76.1	80.0	95.2	69 - 130		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
PFOS	1763-23-1	86.2	80.0	108	65 - 140		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
Labeled Standards		Type		% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA		IS		106	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
13C3-PFPeA		IS		81.2	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
13C3-PFBS		IS		97.7	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
13C2-PFHxA		IS		88.1	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
13C4-PFHpA		IS		96.2	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
13C3-PFHxS		IS		92.8	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
13C5-PFNA		IS		81.0	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
13C2-PFOA		IS		93.7	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1
13C8-PFOS		IS		84.3	50 - 150		B0K0118	16-Nov-20	0.125 L	17-Nov-20 19:48	1

Sample ID: RFW-3

PFAS Isotope Dilution Table B-15

Client Data				Laboratory Data					
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2002481-01	Column:	BEH C18		
Project:	218400 NH 31	Date Collected:	05-Nov-20 13:10	Date Received:	12-Nov-20 10:21				
Location:	218400								
Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	4.73		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
PFPeA	2706-90-3	ND	4.73		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
PFBS	375-73-5	ND	4.73		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
PFHxA	307-24-4	4.80	4.73		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
PFHpA	375-85-9	ND	4.73		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
PFHxS	355-46-4	ND	4.73		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
PFOA	335-67-1	6.42	4.73		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
PFNA	375-95-1	ND	4.73		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
PFOS	1763-23-1	6.16	4.73		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	107	50 - 150		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
13C3-PFPeA	IS	79.0	50 - 150		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
13C3-PFBS	IS	93.9	50 - 150		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
13C2-PFHxA	IS	83.6	50 - 150		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
13C4-PFHpA	IS	84.8	50 - 150		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
13C3-PFHxS	IS	88.9	50 - 150		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
13C5-PFNA	IS	76.7	50 - 150		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
13C2-PFOA	IS	86.0	50 - 150		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1
13C8-PFOS	IS	83.8	50 - 150		B0K0118	16-Nov-20	0.106 L	17-Nov-20 19:58	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: RFW-4					PFAS Isotope Dilution Table B-15					
Client Data Name: Eastern Analytical, Inc. Project: 218400 NH 31 Location: 218400					Laboratory Data Lab Sample: 2002481-02 Date Received: 12-Nov-20 10:21 Column: BEH C18					
Matrix: Aqueous Date Collected: 05-Nov-20 09:55										
Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBA	375-22-4	ND	4.50		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
PFPeA	2706-90-3	ND	4.50		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
PFBS	375-73-5	ND	4.50		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
PFHxA	307-24-4	4.97	4.50		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
PFHpA	375-85-9	ND	4.50		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
PFHxS	355-46-4	ND	4.50		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
PFOA	335-67-1	4.62	4.50		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
PFNA	375-95-1	ND	4.50		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
PFOS	1763-23-1	ND	4.50		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C3-PFBA	IS	115	50 - 150		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
13C3-PFPeA	IS	87.4	50 - 150		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
13C3-PFBS	IS	95.3	50 - 150		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
13C2-PFHxA	IS	83.6	50 - 150		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
13C4-PFHpA	IS	93.0	50 - 150		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
13C3-PFHxS	IS	88.3	50 - 150		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
13C5-PFNA	IS	80.8	50 - 150		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
13C2-PFOA	IS	91.0	50 - 150		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	
13C8-PFOS	IS	89.1	50 - 150		B0K0118	16-Nov-20	0.111 L	17-Nov-20 20:08	1	

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: GZ-202A

PFAS Isotope Dilution Table B-15

Client Data				Laboratory Data					
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2002481-03	Column:	BEH C18		
Project:	218400 NH 31	Date Collected:	06-Nov-20 07:35	Date Received:	12-Nov-20 10:21				
Location:	218400								
Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	4.57		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
PFPeA	2706-90-3	ND	4.57		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
PFBS	375-73-5	ND	4.57		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
PFHxA	307-24-4	4.95	4.57		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
PFHpA	375-85-9	ND	4.57		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
PFHxS	355-46-4	ND	4.57		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
PFOA	335-67-1	5.55	4.57		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
PFNA	375-95-1	ND	4.57		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
PFOS	1763-23-1	ND	4.57		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	117	50 - 150		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
13C3-PFPeA	IS	88.6	50 - 150		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
13C3-PFBS	IS	94.7	50 - 150		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
13C2-PFHxA	IS	89.9	50 - 150		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
13C4-PFHpA	IS	93.4	50 - 150		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
13C3-PFHxS	IS	92.6	50 - 150		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
13C5-PFNA	IS	87.2	50 - 150		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
13C2-PFOA	IS	99.0	50 - 150		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1
13C8-PFOS	IS	83.3	50 - 150		B0K0118	16-Nov-20	0.109 L	17-Nov-20 20:19	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
K	EMPC (specific projects only)
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

CHAIN-OF-CUSTODY RECORD

3.6°C
2.4°C



EAI ID# 218400

Page 1

Sample ID	Date Sampled	Matrix	aParameters	Sample Notes
RFW-3	11/5/2020 13:10	aqueous	Subcontract - Perfluorinated Compounds EPA Method 537 (9 Compounds)	
RFW-4	11/5/2020 9:55	aqueous	Subcontract - Perfluorinated Compounds EPA Method 537 (9 Compounds)	
GZ-202A	11/6/2020 7:35	aqueous	Subcontract - Perfluorinated Compounds EPA Method 537 (9 Compounds)	

EAI ID# 218400

Project State: NH

Project ID: 31

Company Vista Analytical Laboratory

Address 1104 Windfield Way

Address El Dorado Hills, CA 95762

Account #

Phone # (916) 673-1520

Results Needed: Preferred Date: Standard

RUSH Due Date: _____

QC Deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ MA MCP

Notes about project:

Email login confirmation, pdf of results and invoice to customerservice@easternanalytical.com.

NHDES 9 Compound List

PO #: 53705

EAI ID# 218400

Data Deliverable (circle)

Excel NH EMD EQUIS ME EGAD

Call prior to analyzing, if RUSH charges will be applied.

Samples Collected by:

Chen John 11/11/20 15:30 UPS

Relinquished by Date/Time Received by

UPS 11/12/20 10:21 *Krisley Sander*

Relinquished by Date/Time Received by

Eastern Analytical, Inc. 25 Chenell Dr. Concord, NH 03301

Phone: (603) 228-0525

1-800-287-0525

customerservice@easternanalytical.com

As a subcontract lab to EAI, you will defend, indemnify and hold Eastern Analytical, Inc., its officers, employees, and agents harmless from and against any and all liability, loss, expense or claims for injury or damages arising out of the performance against this chain of custody but only in proportion to and to the extent such liability, loss, expense, or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of you as a subcontract lab, your officers, agents or employees

Work Order 2002481



Sample Log-In Checklist

Page # 1 of 2

Vista Work Order #: 2002481

TAT std

Samples Arrival:	Date/Time		Initials:		Location:	
	11/12/20 1021		KS		WR-2	
Delivered By:	FedEx	UPS	On Trac	GLS	DHL	Hand Delivered
						Other
Preservation:	Ice		Blue Ice		Techni Ice	Dry Ice
						None
Temp °C: 3.6 (uncorrected)	Probe used: Y / <u>N</u>				Thermometer ID: <u>1R-3</u>	
Temp °C: 3.6 (corrected)						

	YES	NO	NA			
Shipping Container(s) Intact?	✓					
Shipping Custody Seals Intact?			✓			
Airbill 1 of 2 Trk # 12 X46 599	✓					
Shipping Documentation Present?	✓					
Shipping Container	Vista	Client	Retain			
		Return	Dispose			
Chain of Custody / Sample Documentation Present?	✓					
Chain of Custody / Sample Documentation Complete?	✓					
Holding Time Acceptable?	✓					
Logged In:	Date/Time		Initials:		Location:	
	11/12/20 1151		KS		R-13 WR-2	
COC Anomaly/Sample Acceptance Form completed?	Shelf/Rack:		A-4		E-6	

Comments:



Sample Log-In Checklist

Page # 2 of 2

Vista Work Order #: 2002481

TAT Std

Samples Arrival:	Date/Time <u>11/12/20 1021</u>	Initials: <u>KS</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>N/A</u>
Delivered By:	FedEx <u>UPS</u> On Trac GLS DHL	Hand Delivered	Other
Preservation:	<u>Ice</u> Blue Ice	Techni Ice	Dry Ice None
Temp °C: <u>2.4</u> (uncorrected)	Probe used: Y / <u>N</u>		Thermometer ID: <u>1R-3</u>
Temp °C: <u>2.4</u> (corrected)			

	YES	NO	NA
Shipping Container(s) Intact?	☒		
Shipping Custody Seals Intact?			☒
Airbill <u>2 of 2</u> Trk # <u>1Z X46 599 01 9196 4917</u>	☒		
Shipping Documentation Present?	☒		
Shipping Container	Vista	<u>Client</u>	Retain
		<u>Return</u>	Dispose
Chain of Custody / Sample Documentation Present?	☒		
Chain of Custody / Sample Documentation Complete?	☒		
Holding Time Acceptable?	☒		
Logged In:	Date/Time <u>11/12/20 1151</u>	Initials: <u>KS</u>	Location: <u>R-13 WR-2</u>
			Shelf/Rack: <u>A-4 E-6</u>
COC Anomaly/Sample Acceptance Form completed?		☒	☒

Comments:

CoC/Label Reconciliation Report WO# 2002481

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LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2002481-01	A RFW-3	218400	05-Nov-20 13:10	HDPE Bottle, 125 mL	Aqueous	
2002481-01	B RFW-3	218400	05-Nov-20 13:10	HDPE Bottle, 125 mL	Aqueous	
2002481-02	A RFW-4	218400	05-Nov-20 09:55	HDPE Bottle, 125 mL	Aqueous	
2002481-02	B RFW-4	218400	05-Nov-20 09:55	HDPE Bottle, 125 mL	Aqueous	
2002481-03	A GZ-202A	218400	06-Nov-20 07:35	HDPE Bottle, 125 mL	Aqueous	
2002481-03	B GZ-202A	218400	06-Nov-20 07:35	HDPE Bottle, 125 mL	Aqueous	

Checkmarks indicate that information on the COC reconciled with the sample label.

Any discrepancies are noted in the following columns.

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?		✓	
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)	✓		
Preservation Documented: Na2S2O3 Trizma <u>None</u> Other		✓	✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments:

Verified by/Date: HS 11/13/20

Cooler 1 = C1
Cooler 2 = C2

CHAIN-OF-CUSTODY RECORD

218400

EXENH

63

1 of 6

Date/Time
Composites need start
and stop dates/times

Matrix

Parameters and Sample Notes

of containers

RFW-2	11/5/2020 0945	aqueous ☒ Grab or ☐ Comp	AqTot/CI/NO3/TKN/DIOX AqDis/ICPMets.As.Fe.Mn	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL ☒ HNO ₃ ☒ H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ ☒ ICE Dissolved Sample Field Filtered ☒				
RFW-3	11/5/2020 1310	aqueous ☒ Grab or ☐ Comp	AqTot/CI/NO3/TKN/DIOX/PFCsSubVAL AqDis/ICPMets.As.Fe.Mn	7
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL ☒ HNO ₃ ☒ H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ ☒ ICE Dissolved Sample Field Filtered ☒				
RFW-4	11/5/2020 0955	aqueous ☒ Grab or ☐ Comp	AqTot/CI/NO3/TKN/DIOX/PFCsSubVAL AqDis/ICPMets.As.Fe.Mn	7
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL ☒ HNO ₃ ☒ H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ ☒ ICE Dissolved Sample Field Filtered ☒				
GMW-11RR ACT 11/6/2020	11/5/2020 1110	aqueous ☒ Grab or ☐ Comp	AqTot/CI/NO3/TKN/DIOX AqDis/ICPMets.As.Fe.Mn	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL ☒ HNO ₃ ☒ H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ ☒ ICE Dissolved Sample Field Filtered ☒				

* pH, TEMP, SPECIFIC CONDUCTIVITY, DO & ORP READINGS WERE TAKEN IN THE FIELD

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 31

Project Name Cross Road Landfill | Nov 2020
Updated

State NH

Client (Pro Mgr) Jennifer Mates

Customer Exeter, Town of

Address Town Office, 13 Newfields Road

City Exeter NH 03833-2792

Phone 778-0591

Fax 772-4709

Email: jmates@exeternh.gov

Direct

Results Needed by: Preferred date _____

Notes:

Attn sampler: Auto chain of custody provided
for your convenience, please review for accuracy
and write in any needed changes

QC deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ MA MCP

Reporting Options

☐ HC
☒ EDD PDF
☒ EDD email
☒ PDF prelim, NO FAX
☐ e-mail Login Confirmation☐ NO FAX
☐ Partial FAX
☒ PDF Invoice
☐ EQUIS

PO# 4335-309

Quote#: 1016750

Temp 0 °C

Ice Y ☒ N ☐

Samples Collected by: A. TADANI + L. BALDWIN

Relinquished by

Date/Time

Received by

Relinquished by

Date/Time

Received by

CHAIN-OF-CUSTODY RECORD

218400

EACNH

40

Date/Time

Composites need start
and stop dates/times

Sample IDs	Date/Time	Matrix	Parameters and Sample Notes	# of containers
GZ-1L	11/6/2020 0755	aqueous <u>Grab</u> or Comp	AqTot/Cl/NO3/TKN/ICPMets.As.Fe.Mn/DIOX	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☐				
GZ-2L	11/6/2020 0815	aqueous <u>Grab</u> or Comp	AqTot/Cl/NO3/TKN/ICPMets.As.Fe.Mn/DIOX	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☐				
GZ-3L	11/5/2020 1100	aqueous <u>Grab</u> or Comp	AqTot/Cl/NO3/TKN/ICPMets.As.Fe.Mn/DIOX	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☐				
GZ-104	11/5/2020 1505	aqueous <u>Grab</u> or Comp	AqTot/Cl/NO3/TKN/DIOX AqDis/ICPMets.As.Fe.Mn	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				

* pH, TEMP, SPECIFIC CONDUCTIVITY, ORP & DO READINGS TAKEN IN THE FIELD

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 31

Project Name Cross Road Landfill | Nov 2020
Updated

State NH

Client (Pro Mgr) Jennifer Mates

Customer Exeter, Town of

Address Town Office, 13 Newfields Road

City Exeter NH 03833-2792

Phone 778-0591

Fax 772-4709

Email: jmates@exeternh.gov

Direct

Results Needed by: Preferred date _____

Notes:

Attn sampler: Auto chain of custody provided
for your convenience, please review for accuracy
and write in any needed changes

QC deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ MA MCP

Reporting Options

☐ HC ☐ NO FAX
☒ EDD PDF ☐ Partial FAX
☒ EDD email ☒ PDF Invoice
☒ PDF prelim, NO FAX ☐ EQUIS
☐ e-mail Login Confirmation

PO# 4335-309

Quote#: 1016750

Temp 0 °C

Ice Y ☒ N ☐

Samples Collected by: A. TARANI + L. BALDWIN

Relinquished by [Signature] 11/6/20 0908 Date/Time Received by [Signature] 11/6/20 1100Relinquished by [Signature] 11/6/20 1200 Date/Time Received by [Signature]

CHAIN-OF-CUSTODY RECORD

EXENH

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218400

Date/Time
Composites need start
and stop dates/times

of containers

Sample IDs	Date/Time	Matrix	Parameters and Sample Notes	# of containers
GZ-201	11/5/2020 1200	aqueous (Grab or Comp)	AqTot/Cl/NO3/TKN/DIOX AqDis/ICPMets.As.Fe.Mn	5
☒ Sampler confirms ID and parameters are accurate			Circle preservative/s: HCL (HNO ₃) (H ₂ SO ₄) NaOH MEOH Na ₂ S ₂ O ₃ (ICE)	Dissolved Sample Field Filtered ☒
GZ-202A	11/6/2020 0735	aqueous (Grab or Comp)	AqTot/Cl/NO3/TKN/DIOX/PFCsSubVAL AqDis/ICPMets.As.Fe.Mn	7
☒ Sampler confirms ID and parameters are accurate			Circle preservative/s: HCL (HNO ₃) (H ₂ SO ₄) NaOH MEOH Na ₂ S ₂ O ₃ (ICE)	Dissolved Sample Field Filtered ☒
P-9R	11/5/2020 0845	aqueous (Grab or Comp)	AqTot/Cl/NO3/TKN/DIOX AqDis/ICPMets.As.Fe.Mn	5
☒ Sampler confirms ID and parameters are accurate			Circle preservative/s: HCL (HNO ₃) (H ₂ SO ₄) NaOH MEOH Na ₂ S ₂ O ₃ (ICE)	Dissolved Sample Field Filtered ☒
SW-14	11/5/2020 1405	aqueous (Grab or Comp)	AqTot/DIOX/ICPMets.As.Fe.Mn AqDis/ICPMets.As.Fe.Mn	4
☒ Sampler confirms ID and parameters are accurate			Circle preservative/s: HCL (HNO ₃) (H ₂ SO ₄) NaOH MEOH Na ₂ S ₂ O ₃ (ICE)	Dissolved Sample Field Filtered ☒

* pH, TEMP, SPECIFIC CONDUCTIVITY, DO : ORP READINGS TAKEN IN THE FIELD

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 31

Project Name Cross Road Landfill | Nov 2020
Updated

State NH

Client (Pro Mgr) Jennifer Mates

Customer Exeter, Town of

Address Town Office, 13 Newfields Road

City Exeter NH 03833-2792

Phone 778-0591

Fax 772-4709

Email: jmates@exeternh.gov

Direct

Results Needed by: Preferred date _____
Notes:Attn sampler: Auto chain of custody provided
for your convenience, please review for accuracy
and write in any needed changes

QC deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ MA MCP

Reporting Options

☐ HC
☒ EDD PDF
☒ EDD email
☒ PDF prelim, NO FAX
☐ e-mail Login Confirmation☐ NO FAX
☐ Partial FAX
☒ PDF Invoice
☐ EQUISPO# 4335-309
Quote#: 1016750

Temp 0 °C

Ice Y ☒ N ☐Samples Collected by: A. TARANI + L. BALDWIN
11/6/20 0700 11/6/20 1200

Relinquished by

Date/Time

Received by

BDM 11-6-20 1200

Date/Time

Received by

Relinquished by

Date/Time

Received by

CHAIN-OF-CUSTODY RECORD

218400

EXENH

42

Date/Time
Composites need start
and stop dates/times

of containers

Sample IDs	Date/Time	Matrix	Parameters and Sample Notes	# of containers
SW-15	11/5/2020 1355	aqueous <u>Grab</u> or Comp	AqTot/DIOX/ICPMets.As.Fe.Mn AqDis/ICPMets.As.Fe.Mn	4
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				
SW-17	11/5/2020 1330	aqueous <u>Grab</u> or Comp	AqTot/Cl/NO3/TKN/ICPMets.As.Fe.Mn/DIOX	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☐				
Seep Upstream	11/5/2020 1415	aqueous <u>Grab</u> or Comp	AqTot/DIOX/ICPMets.As.Fe.Mn AqDis/ICPMets.As.Fe.Mn	4
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				
GZ-102	11/5/2020 1520	aqueous <u>Grab</u> or Comp	AqTot/DIOX AqDis/ICPMets.As.Fe.Mn	3
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				

* pH, Temp, SPECIFIC CONDUCTIVITY, ORP & DO READINGS TAKEN IN THE FIELD

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 31

Project Name Cross Road Landfill | Nov 2020
Updated

State NH

Client (Pro Mgr) Jennifer Mates

Customer Exeter, Town of

Address Town Office, 13 Newfields Road
City Exeter NH 03833-2792

Phone 778-0591

Fax 772-4709

Email: jmates@exeternh.gov

Direct

Results Needed by: Preferred date _____

Notes:

Attn sampler: Auto chain of custody provided
for your convenience, please review for accuracy
and write in any needed changes

QC deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ MA MCP

Reporting Options

☐ HC
☒ EDD PDF
☒ EDD email
☒ PDF prelim, NO FAX
☐ e-mail Login Confirmation

☐ NO FAX
☐ Partial FAX
☒ PDF Invoice
☐ EQUIS

PO# 4335-309

Quote#: 1016750

Temp 0 °CIce Y ☒ N ☐

Samples Collected by: A. Taranis + L. Baldwin 900

Relinquished by BobH 11/6/20 0908 Received by BobH 11-6-20Relinquished by BobH 11-6-20 1240 Received by Ch Johnson

Relinquished by _____ Date/Time _____ Received by _____

CHAIN-OF-CUSTODY RECORD

218401

EXENH

43

5 of 6

Date/Time
Composites need start
and stop dates/times

Matrix

Parameters and Sample Notes

of containers

GZ-103	11/5/2020 1540	aqueous <u>Grab</u> or Comp	AqTot/DIOX AqDis/ICPMets.As.Fe.Mn	3
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				
GZ-105	11/5/2020 1445	aqueous <u>Grab</u> or Comp	AqTot/DIOX AqDis/ICPMets.As.Fe.Mn	3
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				
GZ-106	11/6/2020 0900	aqueous <u>Grab</u> or Comp	AqTot/DIOX AqDis/ICPMets.As.Fe.Mn	3
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				
GZ-107	11/5/2020 1140	aqueous <u>Grab</u> or Comp	AqTot/DIOX AqDis/ICPMets.As.Fe.Mn	3
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				

* pH, Temp, Specific Conductivity, ORP, & DO READINGS TAKEN IN THE FIELD

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 31

Project Name Cross Road Landfill | Nov 2020
Updated

State NH

Client (Pro Mgr) Jennifer Mates

Customer Exeter, Town of

Address Town Office, 13 Newfields Road

City Exeter NH 03833-2792

Phone 778-0591

Fax 772-4709

Email: jmates@exeternh.gov

Direct

Results Needed by: Preferred date _____

Notes:

Attn sampler: Auto chain of custody provided
for your convenience, please review for accuracy
and write in any needed changes

QC deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ MA MCP

Reporting Options

☐ HC ☐ NO FAX
☒ EDD PDF ☐ Partial FAX
☒ EDD email ☒ PDF Invoice
☒ PDF prelim, NO FAX ☐ EQUIS
☐ e-mail Login Confirmation

PO# 4335-309

Quote#: 1016750

Temp 0 °C

Ice YES ☐ NO ☒

Samples Collected by: A. Taran + L. Baldwin

Relinquished by: [Signature] 11/6/20 0908

Date/Time: 11/6/20 0908

Received by: [Signature]

Relinquished by: [Signature] 11/6/20 1240

Date/Time: 11/6/20 1240

Received by: [Signature]

CHAIN-OF-CUSTODY RECORD

218400

EXENH

44

6 off

Date/Time
Composites need start
and stop dates/times

Matrix

Parameters and Sample Notes

of containers

SW-16

11/5/2020
1345aqueous
Grab or Comp

AqTot/ICPMets.As.Fe.Mn/DIOX

3

☒ Sampler confirms ID and parameters are accurateCircle preservative/s: HCL (HNO₃) H₂SO₄ NaOH MEOH Na₂S₂O₃ (ICE)Dissolved Sample Field Filtered ☐

Trip Blank

LAB

aqueous
Grab or Comp

AqTot/DIOX

2 SETS OF
TRIP BLANKS 4☒ Sampler confirms ID and parameters are accurateCircle preservative/s: HCL HNO₃ H₂SO₄ NaOH MEOH Na₂S₂O₃ (ICE)Dissolved Sample Field Filtered ☐

* pH, Temp, Specific Conductivity, DO & ORP READINGS TAKEN IN THE FIELD

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EAI Project ID 31

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Updated

State NH

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Notes:

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QC deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ MA MCP

Reporting Options

☐ HC☒ EDD PDF☒ EDD email☒ PDF prelim, NO FAX☐ e-mail Login Confirmation☐ NO FAX☐ Partial FAX☒ PDF Invoice☐ EQUIS

PO# 4335-309

Quote#: 1016750

Temp 0 °C

Ice Y ☐ N ☒

Samples Collected by: A. TANANI + L. BALDWIN

Relinquished by Bob N 11-6-20 0908

Date/Time

Relinquished by Bob N 11-6-20 1240

Date/Time

Received by

Received by



CEC Summary Letter Report

November 10, 2020

Ms. Jennifer Mates, P.E.
Assistant Town Engineer
Town of Exeter DPW
13 Newfields Road
Exeter, NH 03833

Subject: November 2020 Semi Annual Groundwater Monitoring
Cross Road Landfill – Exeter, NH
NHDES GWP-198401081-E-005
CEC Project Number 194-400

Dear Ms. Mates,

The following is a summary of field sampling procedures and chain of custody documents for the above referenced groundwater-monitoring project that occurred on November 5 – 6, 2020.

Civil & Environmental Consultants, Inc. (CEC) was contracted to collect samples from 12 groundwater monitoring wells identified as RFW-2, RFW-3, RFW-4, **GMW-11RR**, GZ-1L, GZ-2L, GZ-3L, GZ-104, GZ-201, GZ-202A and P-9R, and 1 surface water point, SW-17. At the request of NHDES in the agency letter dated April 10, 2020, the following additional monitoring points were added to this round of sampling; 5 groundwater monitoring wells identified as GZ-102, GZ-103, GZ-105, GZ-106, GZ-107 and 4 surface water points SW-14, SW-15, SW-16 and the Exeter River upstream of the Seep.

The dedicated Waterra tubing and foot-valves in all monitoring wells were found to be in good condition after a site survey that took place prior to sampling. All monitoring points were sampled. All wells were capped and those that had locks were secured prior to leaving the site.

Following well purge, water levels were allowed to return to 95% of their original static level prior to sample collection for field analysis and off-site chemistry. The samples for off-site analysis were collected into bottles (pre-preserved if required) provided by the contract laboratory, Eastern Analytical Inc. (EAI) of Concord, NH, logged on to the chain of custody, and placed on ice for delivery.

FIELD SAMPLING ACTIVITY SUMMARY

A YSI Pro DSS was calibrated by US Environmental Rental Corporation and functioning properly during all field parameter analysis. There was also an Oakton Multi-parameter PCTS 50 that was also calibrated and functioning properly, used as a backup for pH, temperature, and specific conductivity. There were no onsite conditions (weather, construction, etc.) that would have an adverse impact on the sample data quality or integrity.

The result for pH at monitoring location GZ-2L continued to have field results for pH consistent with recent trends during sampling events, with a post purge value of 10.68 s.u. CEC undertook steps to confirm the results and took multiple field readings both before and after purging with two different pH-measuring devices.

Groundwater samples noted as 'dissolved metals' were field filtered using a 0.45 micron filter apparatus prior to preservation. Field filter QA/QC data is provided as an attachment to this summary.

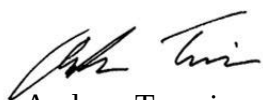
The laboratory data report will be sent directly to you from EAI within 10 business days.

The next required round of permit monitoring should occur in April 2021.

Thank you for your continued utilization of our groundwater permit management services. Please do not hesitate to contact either of us with any questions or comments regarding the work performed.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.



Andrew Tarani
Project Scientist



Thomas E. Walker
Senior Project Manager

Attachments: November 2020 Field Summary Table
Eastern Analytical Chain of Custody Documents
Waterra 0.45 micron field filter QA/QC data
US Environmental Rental YSI Pro DSS Calibration Report

cc: Jeffrey Rowell – GZA GeoEnvironmental
Erik Dyrness – GZA GeoEnvironmental

Table 1
Cross Road Landfill
Exeter, NH
Summary of Groundwater and Surface Water

Well ID	Depth To Water	Depth To Bottom	Purge Volume	pH	Specific Conductivity	Oxidation Reduction Potential	Dissolved Oxygen	Temperature
	<i>ft</i>	<i>ft</i>	<i>gal</i>	<i>s.u.</i>	$\mu S/cm$	<i>mV</i>	<i>mg/L</i>	$^{\circ}C$
RFW-2	44.52	71.74	13.5	5.88	392.5	153.7	2.54	11.1
RFW-3	74.64	97.25	11	6.07	447.1	68.1	2.72	13.6
RFW-4	47.24	64.93	9	6.67	652	-36.9	2.50	12.3
GMW-11RR	12.51	18.82	3.5	6.15	442.9	188.0	7.14	11.9
GZ-1L	21.87	76.53	TD/7.5	6.58	535	-62.8	3.30	11.9
GZ-2L	36.78	56.36	TD/2	10.68	2,134	-174.6	5.02	10.8
GZ-3L	15.27	38.66	12	6.09	279.9	158.1	4.46	11.0
GZ-102	17.61	23.02	3	6.29	496.4	129.9	8.77	12.0
GZ-103	18.94	22.50	2	5.97	141.5	135.4	10.75	11.2
GZ-104	13.65	16.47	1.5	6.47	679	-12.6	7.15	12.0
GZ-105	11.83	25.20	6.5	6.60	497.2	161.3	8.62	11.4
GZ-106	13.00	15.86	TD/0.25	8.16	546	62.3	7.17	11.8
GZ-107	38.49	46.50	4	6.32	450.4	97.4	8.22	11.4
GZ-201	51.41	57.22	3	6.36	655	144.8	3.28	13.4
GZ-202A	51.78	66.39	TD/7.5	6.43	536	-66.4	2.27	12.3
P-9R	2.92	7.15	2	7.96	548	-44.9	3.64	8.9
SW-14	-	-	-	7.11	518	47.2	9.08	10.7
SW-15	-	-	-	6.90	520	56.6	8.60	10.9
SW-16	-	-	-	6.52	583	60.5	7.23	11.5
SW-17	-	-	-	6.40	524	59.7	5.81	12.6
Upstream	-	-	-	7.48	316.1	44.9	11.66	7.2

Field Personnel: Lauren Baldwin & Andrew Tarani

Date: November 5 - 6, 2020

Weather: Clear 45-65°F / Clear 50-65°F

NOTES:

- **TD** = Well purged until dry
- Dissolved metals samples were field filtered using 0.45 micron filter prior to preservation with HNO₃.
- Samples were stored and transported on ice after collection
- Field measurements for static elevation taken using a Solinst Tape, readings for pH, Specific Conductivity, ORP, DO, and Temperature taken using a YSI Pro DSS.

CHAIN-OF-CUSTODY RECORD

218400

EXENH

1 of 6

Date/Time
Composites need start
and stop dates/times

Sample IDs

Matrix

Parameters and Sample Notes

of containers

RFW-2	11/5/2020 0945	aqueous ☒ Grab or ☐ Comp	AqTot/Cl/NO3/TKN/DIOX AqDis/ICPMets.As.Fe.Mn	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL ☒ HNO ₃ ☒ H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ ☒ ICE Dissolved Sample Field Filtered ☒				
RFW-3	11/5/2020 1310	aqueous ☒ Grab or ☐ Comp	AqTot/Cl/NO3/TKN/DIOX/PFCsSubVAL AqDis/ICPMets.As.Fe.Mn	7
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL ☒ HNO ₃ ☒ H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ ☒ ICE Dissolved Sample Field Filtered ☒				
RFW-4	11/5/2020 0955	aqueous ☒ Grab or ☐ Comp	AqTot/Cl/NO3/TKN/DIOX/PFCsSubVAL AqDis/ICPMets.As.Fe.Mn	7
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL ☒ HNO ₃ ☒ H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ ☒ ICE Dissolved Sample Field Filtered ☒				
GMW-11RR Act 11/6/2020	11/5/2020 1110	aqueous ☒ Grab or ☐ Comp	AqTot/Cl/NO3/TKN/DIOX AqDis/ICPMets.As.Fe.Mn	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL ☒ HNO ₃ ☒ H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ ☒ ICE Dissolved Sample Field Filtered ☒				

* pH, TEMP, SPECIFIC CONDUCTIVITY, DO & ORP READINGS WERE TAKEN IN THE FIELD

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 31

Project Name Cross Road Landfill | Nov 2020
Updated

State NH

Client (Pro Mgr) Jennifer Mates

Customer Exeter, Town of

Address Town Office, 13 Newfields Road

City Exeter NH 03833-2792

Phone 778-0591

Fax 772-4709

Email: jmates@exeternh.gov

Direct

Results Needed by: Preferred date _____

Notes:

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for your convenience, please review for accuracy
and write in any needed changes

QC deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ MA MCP

Reporting Options

☐ HC☒ EDD PDF☒ EDD email☒ PDF prelim, NO FAX☐ e-mail Login Confirmation☐ NO FAX☐ Partial FAX☒ PDF Invoice☐ EQUIS

PO# 4335-309

Quote#: 1016750

Temp 0 °C

Ice Y ☒ N ☐

Samples Collected by: A. TADANI + L. BALONIN 908

Relinquished by: [Signature] 11/6/20 0908 B&H 11/6/20

Date/Time Received by

Relinquished by: [Signature] 11/6/20 1240

Date/Time Received by

CHAIN-OF-CUSTODY RECORD

218400

CACNH

2 of 6

Sample IDs	Date/Time Composites need start and stop dates/times	Matrix	Parameters and Sample Notes	# of containers
GZ-1L	11/6/2020 0755	aqueous <u>Grab</u> or Comp	AqTot/Cl/NO3/TKN/ICPMets.As.Fe.Mn/DIOX	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☐				
GZ-2L	11/6/2020 0815	aqueous <u>Grab</u> or Comp	AqTot/Cl/NO3/TKN/ICPMets.As.Fe.Mn/DIOX	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☐				
GZ-3L	11/5/2020 1100	aqueous <u>Grab</u> or Comp	AqTot/Cl/NO3/TKN/ICPMets.As.Fe.Mn/DIOX	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☐				
GZ-104	11/5/2020 1505	aqueous <u>Grab</u> or Comp	AqTot/Cl/NO3/TKN/DIOX AqDis/ICPMets.As.Fe.Mn	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				

* pH, TEMP, SPECIFIC CONDUCTIVITY, ORP & DO READINGS TAKEN IN THE FIELD

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 31

Project Name Cross Road Landfill | Nov 2020
Updated

State NH

Client (Pro Mgr) Jennifer Mates

Customer Exeter, Town of

Address Town Office, 13 Newfields Road

City Exeter NH 03833-2792

Phone 778-0591

Fax 772-4709

Email: jmates@exeternh.gov

Direct

Results Needed by: Preferred date _____

Notes:

Attn sampler: Auto chain of custody provided
for your convenience, please review for accuracy
and write in any needed changes

QC deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ MA MCP

Reporting Options

☐ HC ☐ NO FAX
☒ EDD PDF ☐ Partial FAX
☒ EDD email ☒ PDF Invoice
☒ PDF prelim, NO FAX ☐ EQUIS
☐ e-mail Login Confirmation

PO# 4335-309

Quote#: 1016750

Temp 0 °C

Ice Y ☒ N ☐

Samples Collected by: A. TARANI + L. BALDWIN

Relinquished by Bobu 11/6/20 0908 Received by Bobu 11/6/20 908Relinquished by Bobu 11/6/20 1200 Received by BobuRelinquished by Bobu 11/6/20 1200 Received by Bobu

3 of 6

CHAIN-OF-CUSTODY RECORD

218400

EXENH

Sample IDs	Date/Time <i>Composites need start and stop dates/times</i>	Matrix	Parameters and Sample Notes	# of containers
GZ-201	11/5/2020 1200	aqueous <u>Grab</u> or Comp	AqTot/CI/NO3/TKN/DIOX AqDis/ICPMets.As.Fe.Mn	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				
GZ-202A	11/6/2020 0735	aqueous <u>Grab</u> or Comp	AqTot/CI/NO3/TKN/DIOX/PFCsSubVAL AqDis/ICPMets.As.Fe.Mn	7
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				
P-9R	11/5/2020 0845	aqueous <u>Grab</u> or Comp	AqTot/CI/NO3/TKN/DIOX AqDis/ICPMets.As.Fe.Mn	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				
SW-14	11/5/2020 1405	aqueous <u>Grab</u> or Comp	AqTot/DIOX/ICPMets.As.Fe.Mn AqDis/ICPMets.As.Fe.Mn	4
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				

* pH, TEMP, SPECIFIC CONDUCTIVITY, DO : ORP READINGS TAKEN IN THE FIELD

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 31

Project Name Cross Road Landfill | Nov 2020
Updated

State NH

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City Exeter NH 03833-2792

Phone 778-0591

Fax 772-4709

Email: jmates@exeternh.gov

Direct

Results Needed by: Preferred date _____

Notes:

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QC deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ MA MCP

Reporting Options

☐ HC
☒ EDD PDF
☒ EDD email
☒ PDF prelim, NO FAX
☐ e-mail Login Confirmation

☐ NO FAX
☐ Partial FAX
☒ PDF Invoice
☐ EQUIS

PO# 4335-309

Quote#: 1016750

Temp 0 °CIce Y ☒ N ☐

Samples Collected by: A. TARANI + L. BALDWIN

11/6/20 0908 1803M 11-6-20

Relinquished by

Date/Time

Received by

B. DM 11-6-20 1240

Relinquished by

Date/Time

Received by

CHAIN-OF-CUSTODY RECORD

218400

EXENH

4 of 6

Date/Time
Composites need start
and stop dates/times

Sample IDs	Date/Time	Matrix	Parameters and Sample Notes	# of containers
SW-15	11/5/2020 1355	aqueous <u>Grab</u> or Comp	AqTot/DIOX/ICPMets.As.Fe.Mn AqDis/ICPMets.As.Fe.Mn	4
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				
SW-17	11/5/2020 1330	aqueous <u>Grab</u> or Comp	AqTot/CI/NO3/TKN/ICPMets.As.Fe.Mn/DIOX	5
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☐				
Seep Upstream	11/5/2020 1415	aqueous <u>Grab</u> or Comp	AqTot/DIOX/ICPMets.As.Fe.Mn AqDis/ICPMets.As.Fe.Mn	4
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				
GZ-102	11/5/2020 1520	aqueous <u>Grab</u> or Comp	AqTot/DIOX AqDis/ICPMets.As.Fe.Mn	3
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> <u>H₂SO₄</u> NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				

* pH, Temp, SPECIFIC CONDUCTIVITY, ORP & DO READINGS TAKEN IN THE FIELD

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EAI Project ID 31

Project Name Cross Road Landfill | Nov 2020
Updated

State NH

Client (Pro Mgr) Jennifer Mates

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Phone 778-0591

Fax 772-4709

Email: jmates@exeternh.gov

Direct

Results Needed by: Preferred date _____

Notes:

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for your convenience, please review for accuracy
and write in any needed changes

QC deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ MA MCP

Reporting Options

☐ HC☒ EDD PDF☒ EDD email☒ PDF prelim, NO FAX☐ e-mail Login Confirmation☐ NO FAX☐ Partial FAX☒ PDF Invoice☐ EQUIS

PO# 4335-309

Quote#: 1016750

Temp 0 °CIce Y ☒ N ☐

Samples Collected by: A. TARANI + L. BALONIN 900

Relinquished by BobH 11/6/20 0908 Received by BobH 11-6-20Relinquished by BobH 11/6/20 1240 Received by Ch. JohnsonRelinquished by BobH 11/6/20 1240 Received by Ch. Johnson

CHAIN-OF-CUSTODY RECORD

218400

EXENH

5 of 6

Sample IDs	Date/Time <i>Composites need start and stop dates/times</i>	Matrix	Parameters and Sample Notes	# of containers
GZ-103	11/5/2020 1540	aqueous <u>Grab</u> or Comp	AqTot/DIOX AqDis/ICPMets.As.Fe.Mn	3
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				
GZ-105	11/5/2020 1445	aqueous <u>Grab</u> or Comp	AqTot/DIOX AqDis/ICPMets.As.Fe.Mn	3
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				
GZ-106	11/6/2020 0900	aqueous <u>Grab</u> or Comp	AqTot/DIOX AqDis/ICPMets.As.Fe.Mn	3
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				
GZ-107	11/5/2020 1140	aqueous <u>Grab</u> or Comp	AqTot/DIOX AqDis/ICPMets.As.Fe.Mn	3
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☒				

* pH, Temp, Specific Conductivity, ORP, & DO READINGS TAKEN IN THE FIELD

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 31

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Fax 772-4709

Email: jmates@exeternh.gov

Direct

Results Needed by: Preferred date _____

Notes:

Attn sampler: Auto chain of custody provided for your convenience, please review for accuracy and write in any needed changes

QC deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ MA MCP

Reporting Options

☐ HC ☐ NO FAX
☒ EDD PDF ☐ Partial FAX
☒ EDD email ☒ PDF Invoice
☒ PDF prelim, NO FAX ☐ EQUIS
☐ e-mail Login Confirmation

PO# 4335-309

Quote#: 1016750

Temp 0 °C

Ice YES ☒ NO ☐

Samples Collected by: A. Taran + L. Baldwin 11/6/20 0908

Relinquished by Date/Time Received by

Relinquished by Date/Time Received by

CHAIN-OF-CUSTODY RECORD

218400

EXENH

6 off

Sample IDs	Date/Time <i>Composites need start and stop dates/times</i>	Matrix	Parameters and Sample Notes	# of containers
SW-16	11/5/2020 1345	aqueous <u>Grab or Comp</u>	AqTot/ICPMets.As.Fe.Mn/DIOX	3
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL <u>HNO₃</u> H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☐				
Trip Blank	LAB	aqueous <u>Grab or Comp</u>	AqTot/DIOX	2 SETS OF TRIP BLANKS 4
☒ Sampler confirms ID and parameters are accurate Circle preservative/s: HCL HNO ₃ H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₃ <u>ICE</u> Dissolved Sample Field Filtered ☐				

* pH, Temp, Specific Conductivity, DO : ORP READINGS TAKEN IN THE FIELD

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 31

Project Name Cross Road Landfill | Nov 2020
Updated

State NH

Client (Pro Mgr) Jennifer Mates

Customer Exeter, Town of

Address Town Office, 13 Newfields Road

City Exeter NH 03833-2792

Phone 778-0591

Fax 772-4709

Email: jmates@exeternh.gov

Direct

Results Needed by: Preferred date _____
Notes:

Attn sampler: Auto chain of custody provided
for your convenience, please review for accuracy
and write in any needed changes

QC deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ MA MCP

Reporting Options

☐ HC ☐ NO FAX PO# 4335-309
☒ EDD PDF ☐ Partial FAX Quote#: 1016750
☒ EDD email ☒ PDF Invoice
☒ PDF prelim, NO FAX ☐ EQUIS
☐ e-mail Login Confirmation

Temp 0 °C

Ice Y ☒ N ☐

Samples Collected by: A. TANANI + L. BALDWIN 100

Relinquished by BobH 11-6-20 0908 Received by

Relinquished by BobH 11-6-20 1240 Received by

PARAMETER**RDL**

Aluminum (Al)	5.00 ug/L
Antimony (Sb)	0.50 ug/L
Arsenic (As)	0.10 ug/L
Barium (Ba)	0.50 ug/L
Beryllium (Be)	0.05 ug/L
Bismuth (Bi)	0.05 ug/L
Boron (B)	5.00 ug/L
Cadmium (Cd)	0.01 ug/L
Calcium (Ca)	50.00 ug/L
Chromium (Cr)	0.50 ug/L
Cobalt (Co)	0.05 ug/L
Copper (Cu)	0.50 ug/L
Iron (Fe)	10.00 ug/L
Lead (Pb)	0.05 ug/L
Magnesium (Mg)	50.00 ug/L
Manganese (Mn)	1.00 ug/L
Mercury (Hg)	0.05 ug/L
Molybdenum (Mo)	0.10 ug/L
Nickel (Ni)	0.50 ug/L
Phosphorus (P)	50.00 ug/L
Potassium (K)	50.00 ug/L
Selenium (Se)	0.50 ug/L
Silver (Ag)	0.02 ug/L
Sodium (Na)	50.00 ug/L
Strontium (Sr)	0.10 ug/L
Thallium (Tl)	0.02 ug/L
Tin (Sn)	0.05 ug/L
Titanium (Ti)	1.00 ug/L
Tungsten (W)	0.10 ug/L
Uranium (U)	0.01 ug/L
Vanadium (V)	0.50 ug/L
Zinc (Zn)	2.00 ug/L
Zirconium (Zr)	0.50 ug/L

All elements are non-detectable within a listed reportable detection limits (RDL).

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)



US Environmental Rental Corporation

(888) 550-8100

www.usenvironmental.com



Company: CIVIL
Contact: LAUREN
Phone #: #N/A

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5C South Gold Dr, Hamilton, NJ 08691 (609) 570-8555

1202 Tech Blvd., Suite 108, Tampa, FL 33619 (813) 628-4200

781 Industrial Dr, Elmhurst, IL 60126 (630) 501-1847

Order No.: R53137

Date: 11/2/2020

Technician: RR

Packing List

Item	Serial Number	Tech	QC		
PRO DSS	19K101410	✓			
Handheld Display	18C105178	✓			
Item	Tech	QC	Item	Tech	QC
Cable 8'	✓		AC Adaptor	✓	
Flow Cell	✓		Stand		
Barb Kit	✓		D.O Kit		
Storage / Cal Cup	✓		Calibration Kit	✓	
Sensor Guard	✓				
Manual					
Sonde Cap					
Software					
Extra Batteries					
Display Comm. Cable	✓				
Sonde Comm. Cable					

Calibration Report

PRO DSS		19K101410		
Parameter	Accuracy	Before	After	Lot #
Conductivity 1000 $\mu\text{S}/\text{cm}$	(+/- .5%)	1018	1000	9GJ567
pH 7 Buffer	(+/- .2)	7.41	7.03	9GC285
pH mV for 7 Buffer	(0 +/- 50)		-23.5	
pH 4 Buffer	(+/- .2)	4.60	4.00	9GK205
pH mV for 4 Buffer	(180 +/- 50)		138.0	
pH 10 Buffer	(+/- .2)	10.44	10.10	9GC750
pH mV for 10 Buffer	(-180 +/- 50)		-198.5	
ORP mV, 237.5	(+/- 20 mV)	201.0	240.60	9GC1660
DO 100% Sat	(+/- 2%)	100.6%	98.5%	
0% DO Check	(+/- 2%)		2.00	
Turbidity 0 NTU	(+/- 5%)	0.6	0.0	
Turbidity 126 NTU	(+/- 5%)	119.8	124.0	

This document certifies that US Environmental Rental Corporation has provided this rental equipment and all accessories in good working order. It is the renter's responsibility to:
a) review all included items upon receipt, b) verify that all items are in acceptable condition and function properly, and c) contact a US Environmental associate immediately if any item is missing, damaged, and/or not functioning properly. Any delay in notifying US Environmental will be considered as the Renter taking responsibility for such missing, damaged, and/or malfunctioning item.

Missing, damaged, and/or malfunctioning equipment and accessories will result in additional fees.