Brandon Landfill
31 Corona Street
Brandon, Vermont

VT DEC Project# RU97-0128
Solid Waste Facility ID# RU080
KAS Job# 609210052

SPRING 2025 SEMI-ANNUAL WATER QUALITY MONITORING REPORT

June 18, 2025

Prepared for:

Town of Brandon
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Introduction

KAS, Inc. (KAS) conducted a semi-annual groundwater quality monitoring event on May 8, 2025 at the Closed Brandon Landfill (Site Location Map and Site Map in Appendix A) in accordance with the current Solid Waste Management Facility Certification issued by the Vermont Department of Environmental Conservation (VT DEC).

Background

The 5-acre facility operated as a landfill from 1940 until its closure in 1992 and currently operates as a transfer station. Post-closure groundwater monitoring has been conducted consistently since 2016, although select wells have not been sampled for various reasons (i.e., dry, inaccessible, etc.). Manganese, arsenic, and lead remain at levels above Vermont Groundwater Enforceable Standard (VGES). Other metals that have infrequently exceeded VGES in the past include cadmium and nickel. Volatile organic compounds (VOCs) have generally remained below VGES, with the exception of naphthalene, which was found to be slightly above VGES in June 2022. In May 2023, as requested by the VT DEC, groundwater monitoring included per-and polyfluoroalkyl substances (PFAS), an emerging group of contaminants, which have been frequently found in landfill leachate. PFAS, at levels above VGES, was found to be limited to MW-2C and MW-5. As such, in July 2024, the VT DEC amended the facility's certification to reduce PFAS monitoring to these two well locations.

PFAS compounds subject to regulation in Vermont include perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), perfluorohexanesulfonic acid (PFHxS), perfluoroheptanoic acid (PFHpA), and perfluorononanoic acid (PFNA). The VGES for PFAS is 20 nanograms per liter (ng/L) for the sum of the five regulated PFAS. There are numerous other PFAS compounds that are not regulated in Vermont, some of which are considered replacements for PFAS that have been historically phased out of production and use.

Groundwater is presumed to flow in a south-southwesterly direction, towards Otter Creek, based on the topography of the area and based on the data collected to date. The current monitoring well network consists of four (4) wells: MW-1 (upgradient), MW-3 (cross-gradient), and MW-2C and MW-5 (both of which are downgradient).

Groundwater Sampling & Results

Field measurements

At the time of sample collection, groundwater was field analyzed for temperature, pH, and specific conductance using a properly calibrated YSI® meter. The depth to groundwater was gauged using a Geotech™ water level indicator. Field measurement data is tabulated in Appendix B.

Groundwater Sampling

A groundwater sample was collected from all monitoring wells (MW-1, MW-2C, MW-3, and MW-5). Low-flow groundwater purging and sampling techniques were used at MW-2C. Typically, this sampling approach is also used at MW-5 but it was not feasible due to the area being inundated with water. Therefore, the sample at MW-5 was collected via a disposable bailer. At MW-1 and MW-3, the sample was collected via a disposable bailer as usual due to the depth of groundwater exceeding the capacity of the peristaltic pump (e.g., >30 feet below top of casing). The groundwater samples were analyzed for:

- Total metals (e.g., arsenic, cadmium, chromium, copper, lead, iron, manganese, mercury, nickel, sodium, and zinc) via EPA Method 6010C/6020B;
- Chemical oxygen demand (COD) via Method 410.4;
- Chloride via Method 300.0;
- VOCs via EPA Method 8260C; and,
- PFAS via isotope dilution.

Laboratory Results

Total arsenic was reported at 0.0199 mg/L in MW-2C, and 0.0105 mg/L in MW-3, both of which exceed the VGES of 0.010 mg/L. Total manganese ranged from 0.37 mg/L (MW-2C) to 5.6 mg/L (MW-1) and exceeds VGES (0.3 mg/L) at all sample locations. Total lead was reported at 0.0182 mg/L in MW-3, which exceeds the VGES of 0.015 mg/L. Sodium, for which there is no applicable VGES, ranged from 27 mg/L (MW-3) to 190 mg/L (MW-2C). Iron, for which there is also no applicable VGES, ranged from 3.9 mg/L (MW-1) to 260 mg/L (MW-3). The other metals were either non-detect or at levels below VGES.

Chloride ranged from 43 mg/L to 290 mg/L, the highest concentration being at MW-2C.

COD ranged from 14 mg/L to 74 mg/L, the highest concentration being at MW-1.

No VOCs were detected above laboratory method detection limits in the samples collected, except for select VOCs at MW-2C and at levels below VGES.

Total regulated PFAS was reported at 16.7 ng/L (MW-5) and 228 ng/L (MW-2C), with levels at MW-2C above the VGES of 20 ng/L.

Current and historical analytical data are provided in tables and graphs in Appendix B. A copy of the laboratory reports is provided in Appendix C.

Quality Assurance/Quality Control

Quality assurance and quality control (QA/QC) samples included a duplicate sample that was analyzed for VOCs, metals, chloride, and COD. The results of the laboratory analysis of the duplicate sample were analyzed using a relative percent difference (RPD) analysis. The RPD is defined as 100 times the difference in reported concentration between the sample and duplicate, divided by the mean of the two samples. A small RPD indicates good correlation between sample and duplicate, with 30% being the EPA Region 1 upper guideline value. For all parameters, the absolute RPD values ranged between 0.0 and 29.1%, which indicates good to acceptable correlation/precision.

A QA/QC sample also included a trip blank for VOC analysis. No VOCs were detected in the trip blank, which indicates that potential contamination from transit, sample bottles, or laboratory conditions was not a concern.

For PFAS analysis, a QA/QC sample included an equipment rinsate blank (ERB). Two PFAS compounds (PFDA at 2.7 ng/L and PFOA at 3.5 ng/L) were detected in the ERB, which indicates that there was cross contamination of PFAS from the sampler, equipment, field conditions, and/or laboratory conditions. Given that PFDA is not a regulated PFAS, this detection is not of significant concern. The detection of PFOA in the ERB suggests that the PFOA concentrations in MW-2C and

MW-5 may be biased high. Given that the total regulated PFAS reported in MW-2C is well above VGES and that the total regulated PFAS reported in MW-5 remains below VGES, the detections in the ERB do not significantly affect the results for MW-2C and MW-5. The PFAS sampling protocol has been reviewed by the KAS technician with an emphasis on equipment decontamination and prohibited items during sampling.

Trends

For field measurement data, the groundwater elevations were very high and were the highest to date at MW-1 and MW-5. pH levels appear to be exhibiting a slightly increasing trend overall except at MW-2C where the pH remains fairly stable with an average of approximately 6.48. The groundwater temperature continues to fluctuate within their respective historical ranges. Specific conductivity was found to be the highest to date at all monitoring locations. The reason for the high conductivity is not known.

Total arsenic continues to exceed VGES at MW-2C and MW-3. At MW-2C, arsenic levels have decreased from historical peaks and are appearing to stabilize. At MW-3, although arsenic levels were down from their most recent peak in October 2024, levels continue to fluctuate. It is likely that the turbidity in the sample at MW-3 is artificially biasing metal concentrations high. This is because high levels of soil/sediment, which can be produced during purging/sampling with a bailer, can result in the inclusion of otherwise immobile particles (e.g., metals bound to soil/sediment). As such, when water levels are lower (typically in the fall), sediment in the water column is more easily disturbed, which results in higher levels of turbidity/metals in the sample. Typically, issues related to sampling induced turbidity can be mitigated by using low-flow purging and sampling methods. However, such sampling methods are not feasible at MW-3 due to the depth of water (>30 feet exceed the capacity of a peristaltic pump) and due to the very low water column, which ranges from approximately 1.5 – 4.4 feet (insufficient for a bladder pump).

Total manganese continues to exceed VGES at all sample locations. Manganese levels appear to be stable at MW-2C and MW-5. At MW-3, manganese concentrations continue to fluctuate and are attributed to fluctuations in turbidity (as discussed above). At MW-1, manganese appears to be exhibiting an increasing trend since October 2023. The reason for this apparent increase is unknown and additional data is needed to confirm the trend.

In general, sodium, chloride, and COD appear to have become more stable with levels remaining within the range of historical fluctuations. The exception is MW-1 where the sodium and chloride concentrations were slightly higher than the previous maximum.

PFAS levels continue to be high at MW-2C but remain within the historical range of fluctuations. At MW-5, PFAS levels remain below VGES and are exhibiting a decreasing trend overall.

Based on non-detect to low levels of VOCs, which are limited to MW-2C, VOCs no longer appear to be a notable contaminant of concern.

Trends/graphs are provided in Appendix B.

Drinking Water Sampling

At this time, it is unknown if PFAS has impacted the deeper aquifer. In general, the surrounding residential area is served by municipal water. As shown on the Site Map (Appendix A), there are no private water supply wells downgradient from the landfill in the nearby vicinity. The nearest cross-gradient supply well is approximately 0.16 miles to the west at 806 Pearl Street (shown as WRN#

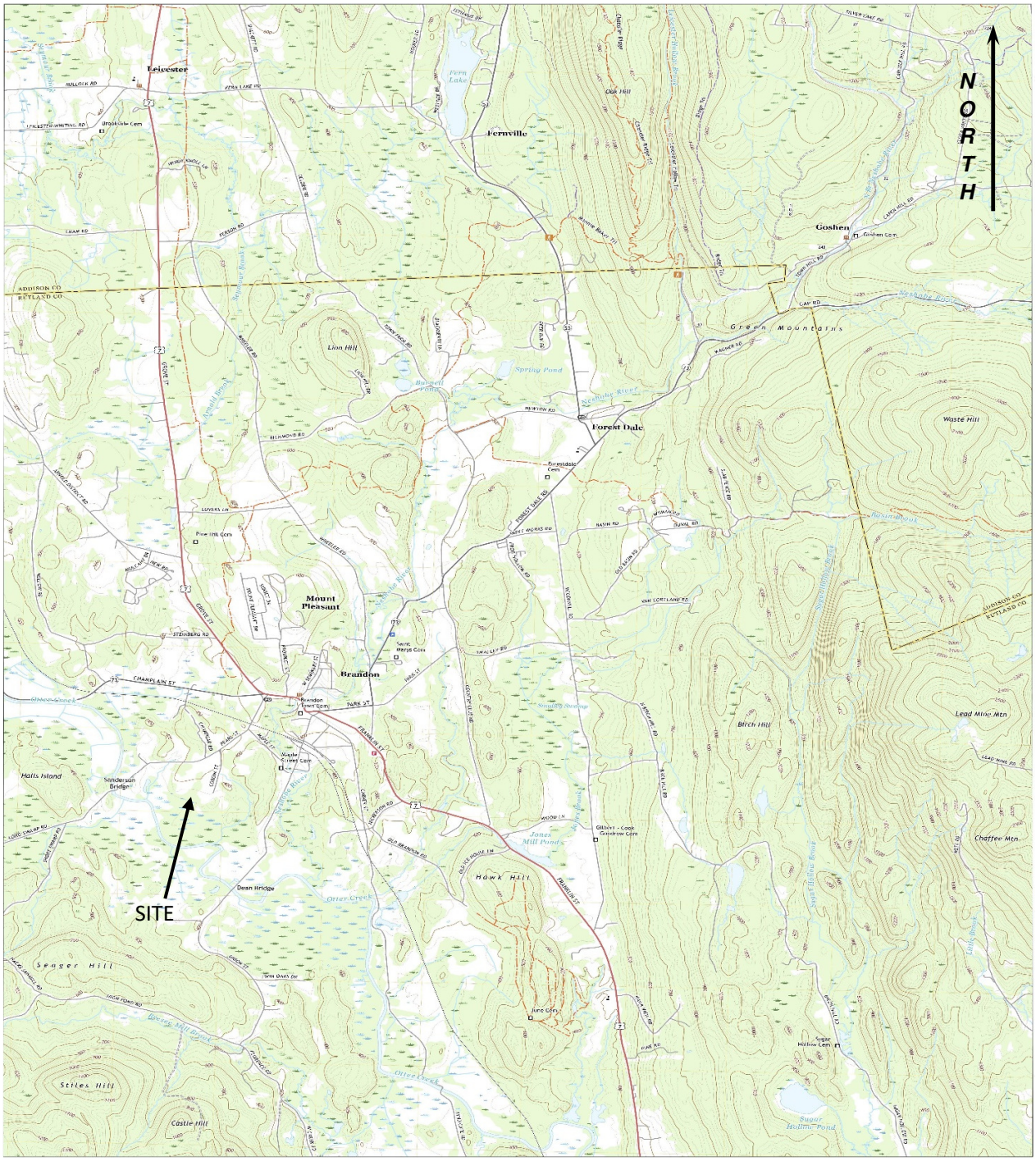
51 on the Site Map). Based on the distances and locations, the risk of PFAS contamination in the supply wells is considered low at this time. On November 22, 2023, the VT DEC requested that the Town sample the drinking water at this residence to fully rule out the risk. Due to the property owner denying access to the Town, a drinking water sample at 806 Pearl Street has not been feasible.

Recommendation

KAS recommends that groundwater monitoring continue in accordance with Brandon Solid Waste Facility Certification – Monitoring Requirements (7), with the next monitoring event to occur in October 2025.

APPENDIX A

Site Location Map and Site Map



KAS Job Number *609210052*
Source: *USGS*

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Brandon Town Landfill
31 Corona Street, Brandon, Vermont

Site Location Map
USGS Mapping

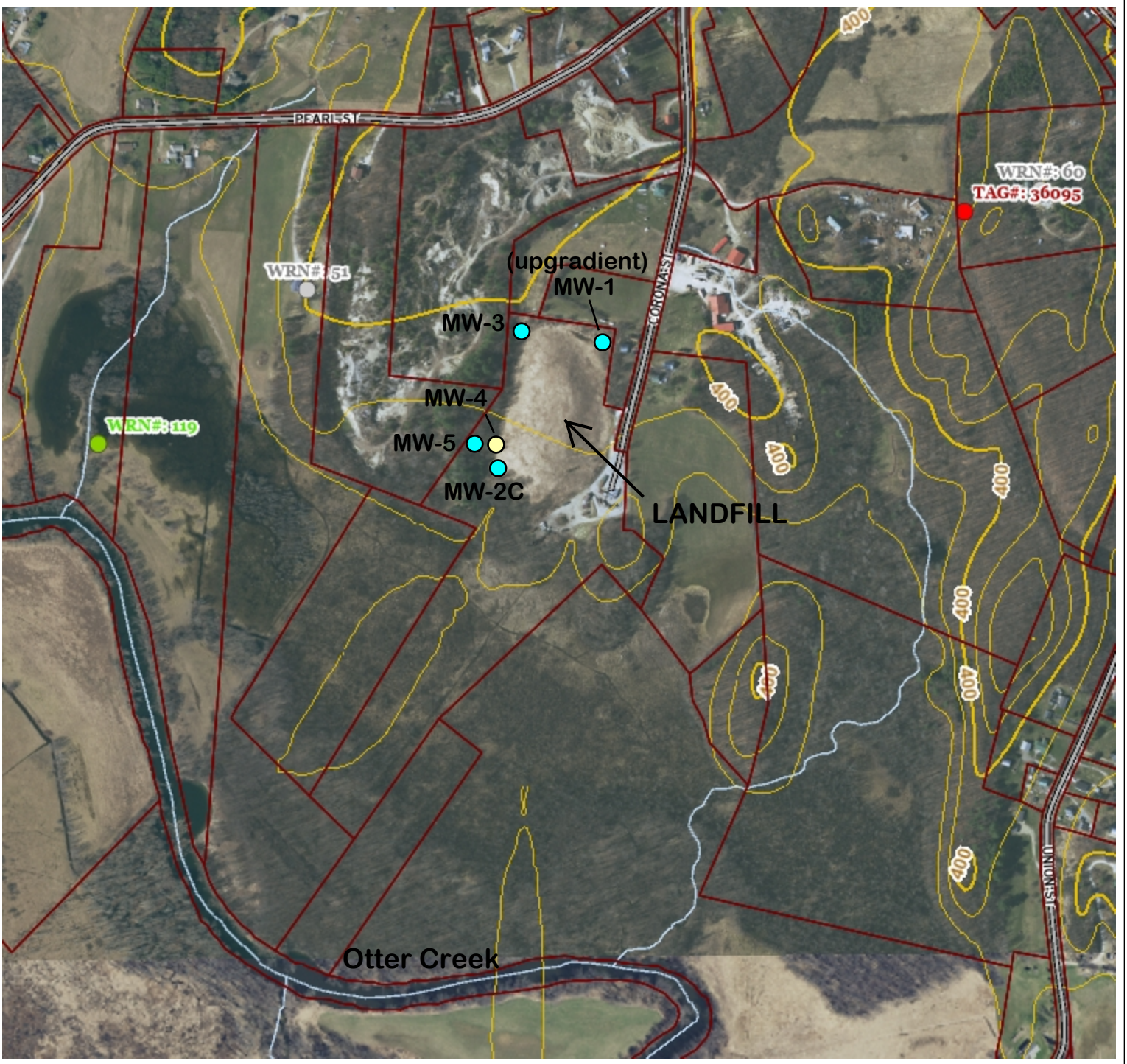
Date: 04/27/22	Drawing No. 0	Scale NTS	By: ML

VERMONT

Brandon Landfill

Vermont Agency of Natural Resources

vermont.gov



LEGEND

Private Wells

- GPS Located
- Screen Digitized
- E911 Address Matched
- Welldriller/Clarion
- Unknown Location Method
- Incorrectly Located

Public Water Sources

Markups by KAS

- Approx. location of monitoring well
- Inactive monitoring well

NOTES

Map created using ANR GIS mapping techology.

1: 6,916

September 13, 2022

351.0 0 176.00 351.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere

1" = 576 Ft. 1cm = 69 Meters

THIS MAP IS NOT TO BE USED FOR NAVIGATION

APPENDIX B

Data Summaries

Brandon Closed Landfill

MW-1

PARAMETER / *Sample Date:*	2012	4/22/2013	10/1/2013	5/29/2014	6/9/2015	10/25/2015	7/24/2016	October 2016	5/7/2017	10/28/2017	5/28/2018	10/20/2018	05/27/2019	10/26/2019	VGES	PAL
VOCs (ug/L)																
1,1-dichloroethane	-	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	<1.0	<1	<1	70	35
Total Metals (mg/L)																
Arsenic	Well	Well	Well	Well	Well	Well	Well	Well	**0.001**	<0.0010	***0.0016***	<0.0010	<0.0010	<0.0010	0.010	0.001
Cadmium	Not	Not	Not	Not	Not	Not	Not	Not	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.005	0.001
Chromium	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.100	0.050
Copper	-	-	-	-	-	-	-	-	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	1.300	0.650
Iron	-	-	-	-	-	-	-	-	**0.79**	**0.51**	**3.0**	**0.62**	**0.091**	**0.26**	-	-
Lead	-	-	-	-	-	-	-	-	<0.001	<0.0010	<0.0021	<0.0010	<0.0010	<0.0010	0.015	0.002
Manganese	-	-	-	-	-	-	-	-	**0.18**	**0.14**	**0.79**	***0.21***	**0.034**	**0.028**	0.300	0.150
Mercury	-	-	-	-	-	-	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.002	0.0005
Nickel	-	-	-	-	-	-	-	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.100	0.050
Sodium	-	-	-	-	-	-	-	-	**40**	**40**	**38**	**42**	**42**	**38**	-	-
Zinc	-	-	-	-	-	-	-	-	**0.046**	**0.170**	**0.025**	**0.025**	<0.020	<0.020	-	-
Other Analytes (mg/L)																
Chloride	-	-	-	-	-	-	-	-	**74**	**72**	**77**	**82**	**86**	**83**	-	-
COD	-	-	-	-	-	-	-	-	**21**	**24**	**14**	**12**	<10	**39**	-	-
Field Measurements (units as noted)																
pH (std units)	-	-	-	-	-	-	-	-	6.5	6.3	6.6	6.6	6.5	6.7	-	-
Temperature (deg C)	-	-	-	-	-	-	-	-	10.7	11.6	11.8	11.9	11.2	12.1	-	-
Conductivity (uS)	-	-	-	-	-	-	-	-	1050	1030	1020	1000	1100	1050	-	-
Water Level (feet btoc)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PARAMETER / *Sample Date:*	10/14/2021	6/3/2022	10/27/2022	5/22/2023	10/17/2023	5/7/2024	10/3/2024	5/8/2025							VGES	PAL
VOCs (ug/L)																
1,1-dichloroethane	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0							70	35
Total Metals (mg/L)																
Arsenic	No	No	***0.0015***	***0.0014***	<0.0010	***0.0038***	***0.0019***	***0.0076***							0.010	0.001
Cadmium	Sample	Sample	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020							0.005	0.001
Chromium	-	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010							0.100	0.050
Copper	Unable	Unable	<0.020	<0.020	<0.020	<0.020	<0.020	<0.040							1.300	0.650
Iron	To Locate	To Locate	**2.4**	**2.4**	**2.0**	**9.0**	**3.9**	**17**							-	-
Lead	Well	Well	<0.0010	<0.0010	<0.0010	***0.0042***	**0.0019**	***0.0079***							0.015	0.002
Manganese	-	-	***0.20***	***0.25***	**0.11**	**1.8**	**1.1**	**5.6**							0.300	0.150
Mercury	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002							0.002	0.0005
Nickel	-	-	<0.0050	<0.0050	<0.0050	0.0080	**0.0052**	**0.0173**							0.100	0.050
Sodium	-	-	**39**	**41**	**33**	**29**	**23**	**44**							-	-
Zinc	-	-	**0.024**	<0.020	<0.020	<0.020	<0.020	**0.050**							-	-
Other Analytes (mg/L)																
Chloride	-	-	**78**	**77**	**72**	**55**	**60**	**110**							-	-
COD	-	-	**59**	**74**	**25**	**40**	**37**	**74**							-	-
PFAS (ng/L)																
Perfluorohexanesulfonic acid (PFHxS)	-	-	-	<1.8	<1.9	<4.0	-	-							-	-
Perfluoroheptanoic acid (PFHpA)	-	-	-	<1.8	<1.9	<4.0	-	-								
Perfluorooctanoic acid (PFOA)	-	-	-	<1.8	<1.9	<4.0	-	-								
Perfluorooctanesulfonic acid (PFOS)	-	-	-	**2.4**	<1.9	<4.0	-	-								
Perfluorononanoic acid (PFNA)	-	-	-	<1.8	<1.9	<4.0	-	-								
Total Regulated PFAS	-	-	-	***2.4***	ND	ND	-	-							20	2
Total Non-Regulated PFAS	-	-	-	ND	ND	ND	-	-							-	-
Field Measurements (units as noted)																
pH (std units)	-	-	7.21	7.26	7.29	7.67	7.49	7.14							-	-
Temperature (deg C)	-	-	10.8	14.5	10.8	13.1	12.7	11.4							-	-
Spec. Conductivity (uS/cm)	-	-	1,039	1,008	995	970	538	1,794							-	-
Water Level (feet btoc)	-	-	31.17	30.67	30.80	30.74	31.34	30.64							-	-

Notes:

Data prior to 2021 collected by others and obtained from 2019 reports prepared by EIV Technical Services

Data 2021-present collected by KAS, Inc.

Only detected or targeted VOCs are depicted

All values reported in units noted above

"-" = Not Analyzed, No Information or No Applicable Standard

ND = None Detected

<X = None Detected above Detection Limit (X)

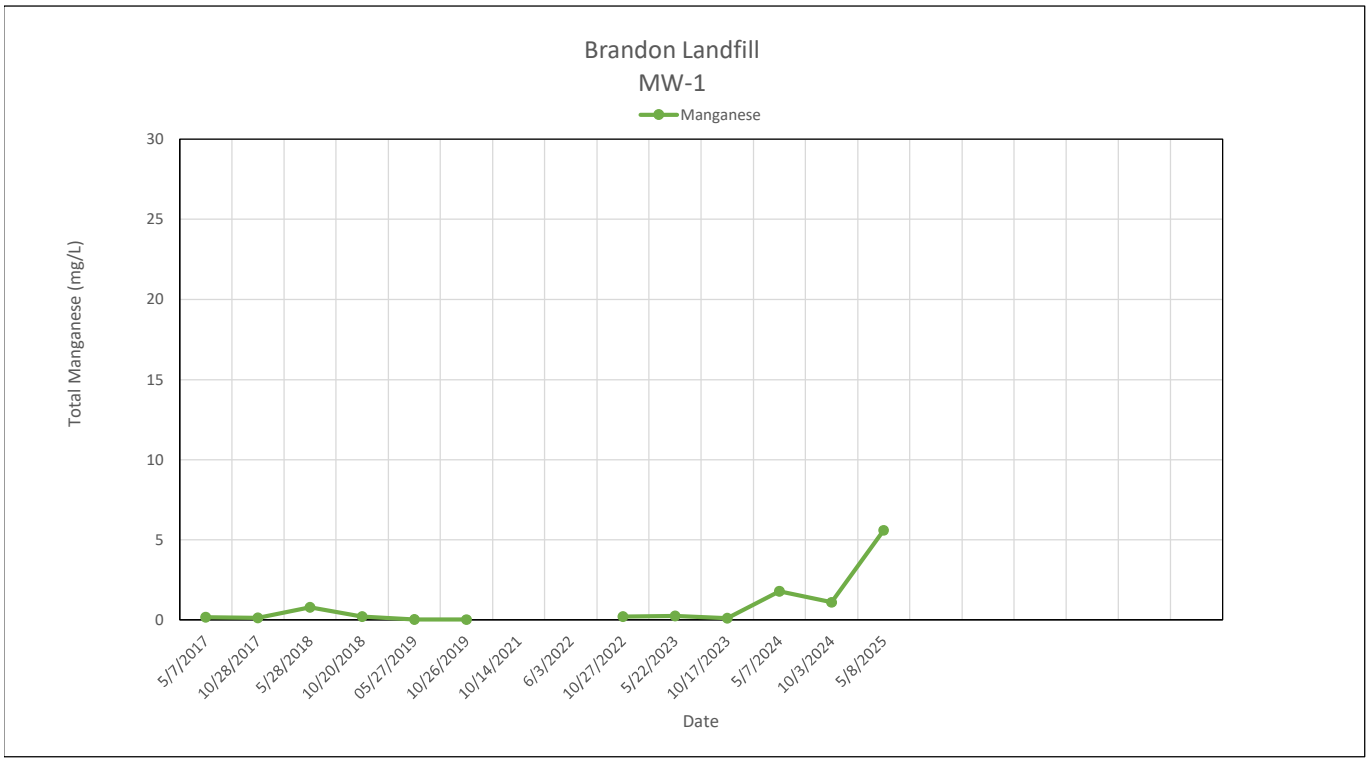
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)

PAL = Vermont Preventive Action Level (GWPRS 07/06/2019)

Detections are **bolded**

>VGES

Bold (italic) indicates value exceeds PAL


Brandon Landfill
MW-1
Manganese
Total Manganese (mg/L)
30
25
20
15
10
5
0
5/7/2017
10/28/2017
5/28/2018
10/20/2018
05/27/2019
10/26/2019
10/14/2021
6/3/2022
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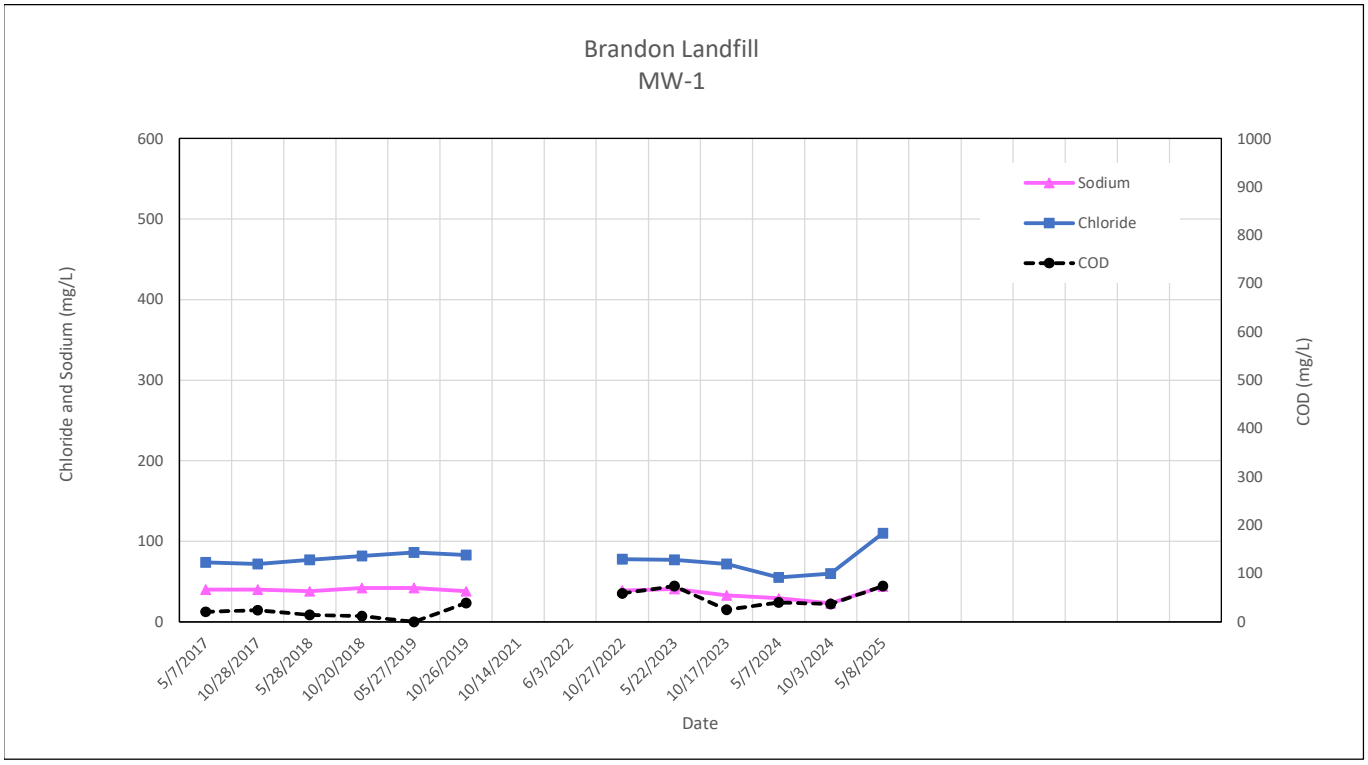
10/17/2023
5/7/2024
10/3/2024
5/8/2025
Date


Brandon Landfill
MW-1
Sodium
Chloride
COD
Chloride and Sodium (mg/L)
COD (mg/L)
600
500
400
300
200
100
0
1000
900
800
700
600
500
400
300
200
100
0
5/7/2017
10/28/2017
5/28/2018
10/20/2018
05/27/2019
10/26/2019
10/14/2021
6/3/2022
10/27/2022
5/22/2023
10/17/2023
5/7/2024
10/3/2024
5/8/2025
Date

Brandon Closed Landfill

MW-2C

Sample Date: / PARAMETER	2012	4/22/2013	10/1/2013	5/29/2014	6/9/2015	10/25/2015	7/24/2016	October 2016	5/7/2017	10/28/2017	5/28/2018	10/20/2018	05/27/2019	10/26/2019	VGES	PAL
VOCs (ug/L)																
Dichlorodifluoromethane	-	<5.0	<5.0	<5.0	<5.0	<5.0	**7.2**	-	<5.0	<5.0	<5.0	**5.0**	**1.8**	<1	-	-
Vinyl Chloride	-	<2.0	<2.0	<2.0	<2.0	<2.0	***0.7***	-	<0.5	<0.5	<0.5	<0.5	-	-	2	0.5
1,4-dichlorobenzene	**2.3**	**2.4**	**2.5**	**2.3**	**2.1**	**2.0**	**2.6**	<1.0	**2.4**	**2.2**	**1.7**	**2.7**	-	-	75	38
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	**15.8**	<10.0	950	475
Benzene	***2.0***	***2.3***	***3.3***	***2.6***	***2.3***	***1.9***	***3.4***	<0.5	***2.9***	***2.9***	***1.3***	***3.5***	***1.2***	<0.5	5	0.5
Chlorobenzene	**5.4**	**5.3**	**4.8**	**6.0**	**5.9**	**5.0**	**7.6**	<1.0	**8.3**	**7.2**	**4.1**	**7.4**	**4.9**	<1.0	100	50
Diethyl Ether	-	**22.5**	**36.2**	**24.0**	**23.9**	**19.5**	**26.3**	-	**19.4**	**25.2**	**17.5**	**30.5**	-	-	-	-
Total Metals (mg/L)																
Arsenic	-	-	-	**0.074**	**0.026**	**0.025**	**0.027**	Data	**0.034**	**0.0409**	**0.071**	**0.0200**	**0.0213**	<0.0010	0.010	0.001
Cadmium	-	-	-	<0.002	<0.002	<0.002	**0.021**	Not	***0.0027***	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.005	0.001
Chromium	-	-	-	**0.012**	<0.005	<0.005	<0.0050	Available	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.100	0.050
Copper	-	-	-	<0.020	<0.020	<0.020	<0.020	-	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	1.300	0.650
Iron	-	-	-	**56**	**28**	**22**	**33**	-	**32**	**33**	**65**	**33**	**28**	**0.28**	-	-
Lead	-	-	-	***0.007***	<0.001	<0.001	<0.001	-	<0.001	<0.0010	**0.0013**	<0.0010	<0.0010	<0.0010	0.015	0.002
Manganese	-	-	-	**0.92**	**0.54**	**0.45**	**0.67**	-	**0.54**	**0.58**	**0.57**	**0.58**	**0.53**	**0.077**	0.300	0.150
Mercury	-	-	-	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.002	0.0005
Nickel	-	-	-	**0.022**	**0.013**	**0.012**	<0.0050	-	**0.0088**	**0.0074**	**0.0091**	**0.0095**	**0.0092**	<0.0050	0.100	0.050
Sodium	-	-	-	**170**	**160**	**130**	**230**	-	**270**	**230**	**270**	**290**	**240**	**18**	-	-
Zinc	-	-	-	**0.043**	<0.02	<0.02	<0.020	-	<0.020	<0.020	**0.025**	<0.020	<0.020	<0.020	-	-
Other Analytes (mg/L)																
Chloride	-	-	-	**203**	**280**	**290**	**380**	-	**480**	**440**	**450**	**500**	**420**	**32**	-	-
COD	-	-	-	**57**	**100**	**63**	**62**	-	**52**	**67**	**41**	**53**	**62**	**32**	-	-
Field Measurements (units as noted)																
pH (std units)	-	-	-	-	-	-	6.5	-	6.5	6.4	6.4	6.3	6.6	6.5	-	-
Temperature (deg C)	-	-	-	-	-	-	13	-	9.8	10.2	10.2	11.2	10.9	11.3	-	-
Spec. Conductivity (uS/cm)	-	-	-	-	-	-	3,010	-	2,800	2,900	2,800	2,300	2,100	2,210	-	-
Water Level (feet btoc)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Sample Date: / PARAMETER	10/14/2021	6/3/2022	10/27/2022	5/22/2023	10/17/2023	5/7/2024	10/3/2024	5/8/2025							VGES	PAL
VOCs (ug/L)																
1,4-dichlorobenzene	-	<1	-	<1.0	**2.7**	**2.4**	**2.5**	**2.3**							75	38
Diethyl Ether	-	**21**	-	**14.6**	**22.6**	**19.4**	**15.1**	**20.9**							-	-
Acetone	-	**67**	-	<10.0	<10.0	<10.0	<10.0	<10.0							950	475
Methyl-t-butyl ether (MTBE)	-	**1.4**	-	<2.0	<2.0	<2.0	<2.0	<2.0							11	5
Tetrahydrofuran	-	**17**	-	<10.0	<10.0	<10.0	<10.0	<10.0							-	-
Benzene	-	<1	-	<0.5	***2.8***	***2.3***	***2.3***	***2.5***							5	0.5
Chlorobenzene	-	<1	-	<1.0	**6.8**	**5.9**	**6.5**	**6.6**							100	50
Naphthalene	-	**0.56**	-	<0.5	<0.5	<0.5	<0.5	<0.5							0.5	0.5
t-Butanol	-	-	-	-	**21.9**	<20.0	<20.0	<20.0							-	-
Toluene	-	-	-	-	-	-	**2.3**	<1.0							1,000	500
Total Metals (mg/L)																
Arsenic	No	**0.016**	No	<0.0010	**0.0189**	**0.0171**	**0.0173**	**0.0199**							0.010	0.001
Cadmium	Sample	***0.0022***	Sample	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020							0.005	0.001
Chromium	-	**0.0093**	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.010							0.100	0.050
Copper	Well	**0.084**	Well	<0.020	<0.020	<0.020	<0.020	<0.020							1.300	0.650
Iron	Dry	**22**	Dry	**2.4**	**29**	**29**	**25**	**25**							-	-
Lead	-	**0.17**	-	***0.0036***	<0.0010	<0.0010	<0.0010	<0.0010							0.015	0.002
Manganese	-	**1.9**	-	**1.3**	**0.33**	**0.42**	**0.38**	**0.37**							0.300	0.150
Mercury	-	<0.0001	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002							0.002	0.0005
Nickel	-	**0.033**	-	**0.0081**	**0.0099**	**0.0093**	**0.0163**	**0.0119**							0.100	0.050
Sodium	-	**38**	-	**28**	**230**	**210**	**200**	**190**							-	-
Zinc	-	**0.094**	-	<0.020	<0.020	<0.020	<0.020	<0.020							-	-
Other Analytes (mg/L)																
Chloride	-	**41**	-	**24**	**350**	**300**	**290**	**290**							-	-
COD	-	**900**	-	**77**	**53**	**130**	**170**	**47**							-	-
PFAS (ng/L)																
Perfluorohexanesulfonic acid (PFHxS)	-	-	-	**36**	**15**	**17**	**25**	**33**								
Perfluoroheptanoic acid (PFHpA)	-	-	-	**18**	**22**	**16**	**25**	**29**								
Perfluorooctanoic acid (PFOA)	-	-	-	**97**	**55**	**58**	**81**	**87**							-	-
Perfluorooctanesulfonic acid (PFOS)	-	-	-	**150**	**43**	**54**	**67**	**76**								
Perfluorononanoic acid (PFNA)	-	-	-	**4.7**	<4.1	<4.1	**3.7**	**3.2**								
Total Regulated PFAS	-	-	-	**305.7**	**135**	**145**	**202**	**228**							20	2
Total Non-Regulated PFAS	-	-	-	**68.7**	**125**	**61**	**98.5**	**133.1**							-	-
Field Measurements (units as noted)																
pH (std units)	-	6.51	-	6.96	6.35	6.59	6.27	6.37							-	-
Temperature (deg C)	-	18.1	-	11.3	11.4	11.3	12.6	9.8							-	-
Spec. Conductivity (uS/cm)	-	1,643	-	1,487	2,319	2,227	2,303	3,534							-	-
Water Level (feet btoc)	-	8.20	-	8.36	9.80	7.17	11.55	7.72							-	-

Notes:

Data prior to 2021 collected by others and obtained from 2019 reports prepared by EIV Technical Services

Data 2021-present collected by KAS, Inc.

Only detected or targeted VOCs are depicted

All values reported in units noted above

"-" = Not Analyzed, No Information or No Applicable Standard

ND = None Detected

<X = None Detected above Detection Limit (X)

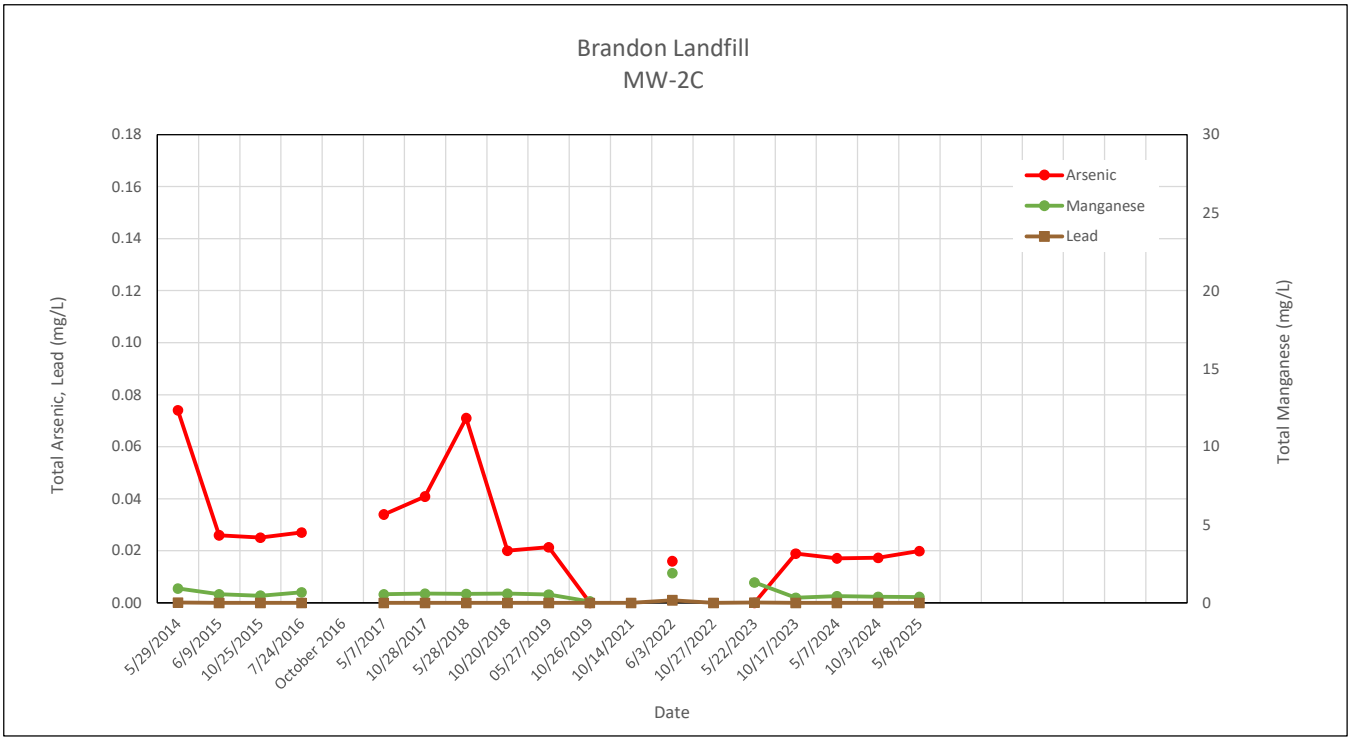
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)

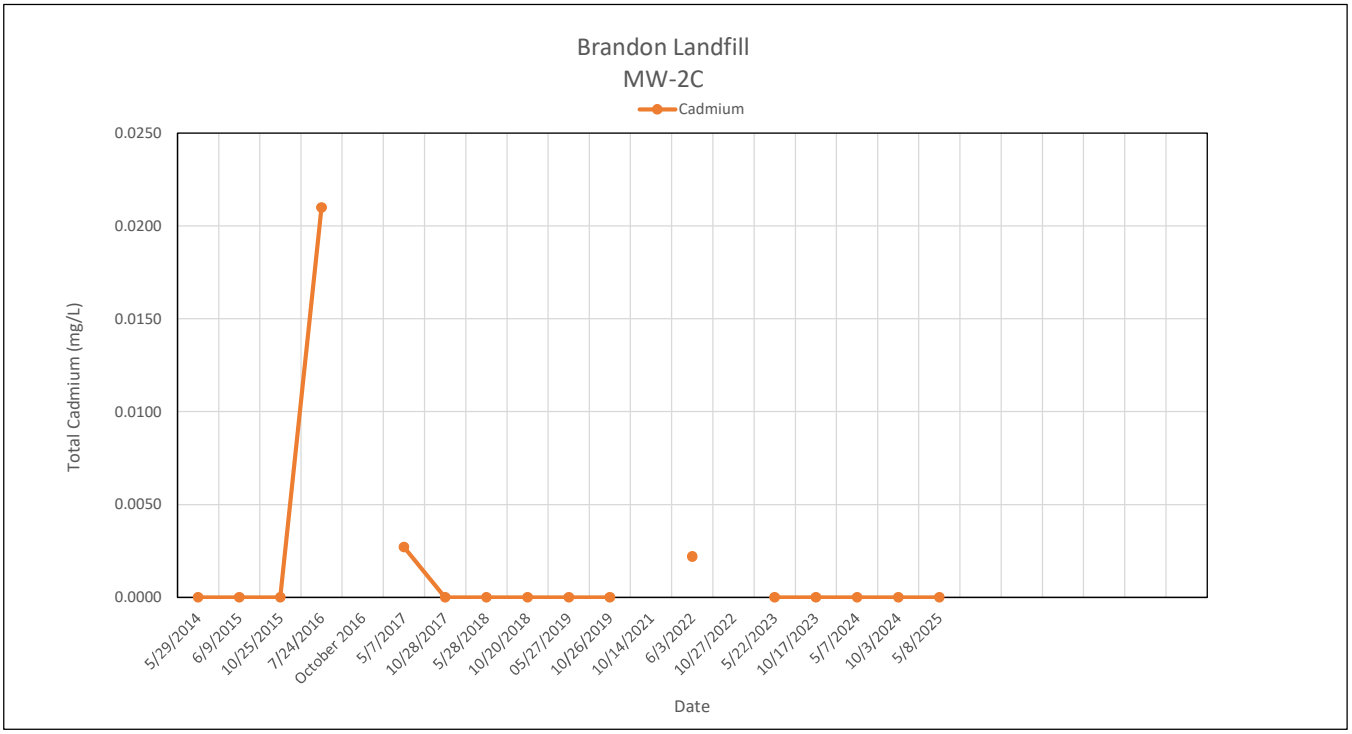
PAL = Vermont Preventive Action Level (GWPRS 07/06/2019)

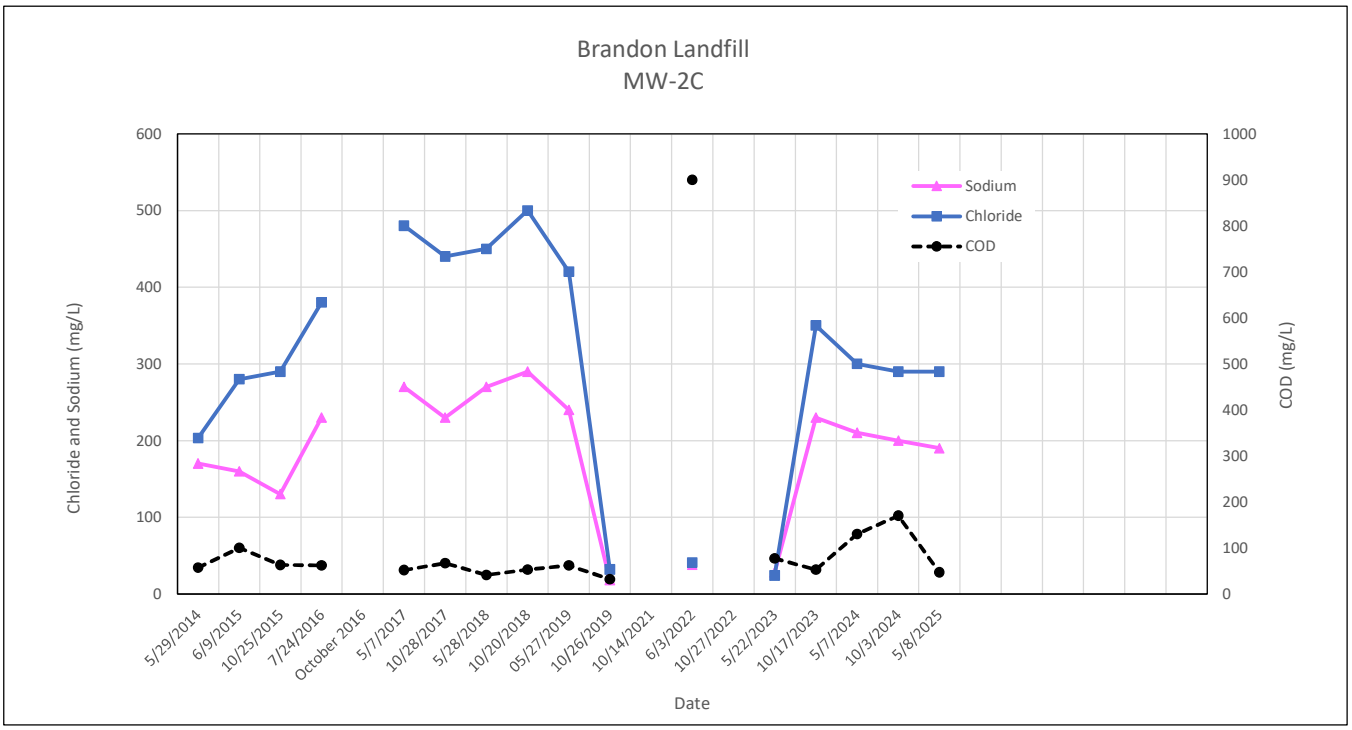
Detections are **bolded**

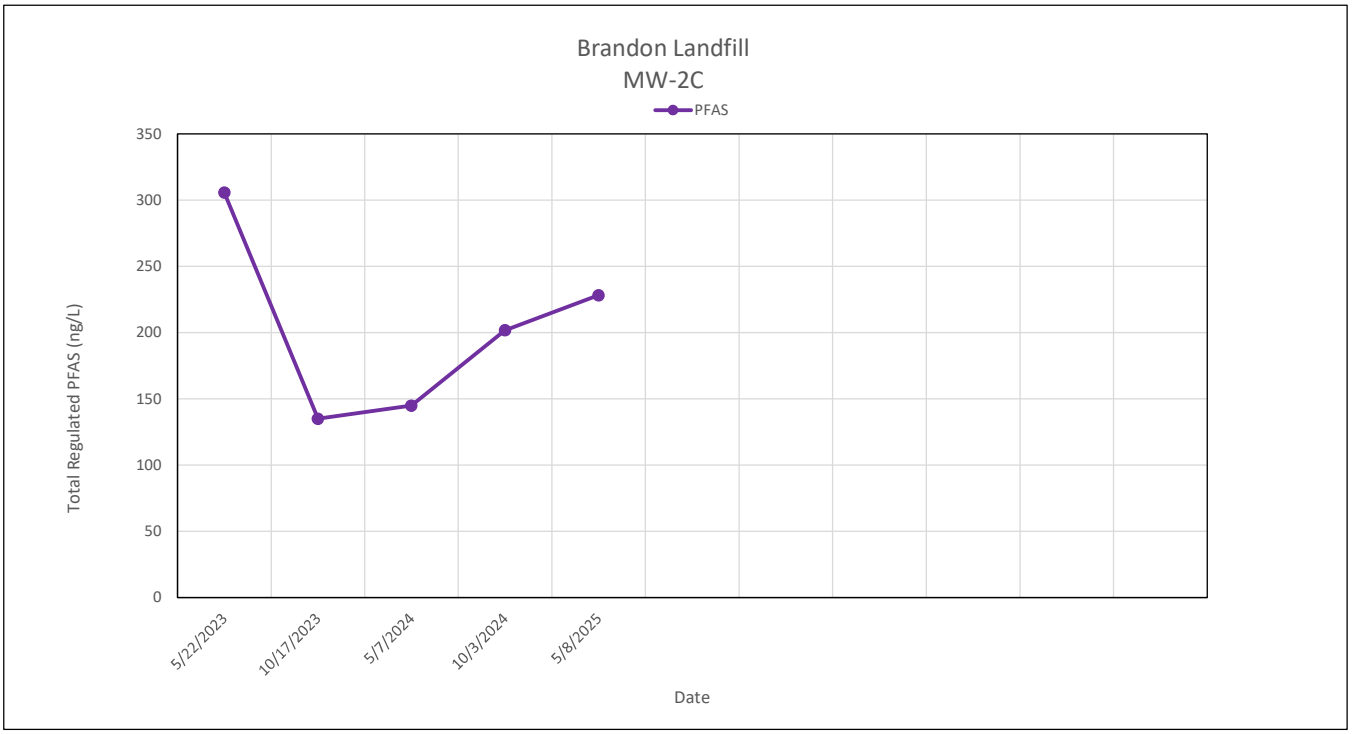
>VGES

Bold (italic) indicates value exceeds PAL


Brandon Landfill
MW-2C
Arsenic
Manganese
Lead
Total Arsenic, Lead (mg/L)
Total Manganese (mg/L)
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
30
25
20
15
10
5
0
5/29/2014
6/9/2015
10/25/2015
7/24/2016
October 2016
5/7/2017
10/28/2017
5/28/2018
10/20/2018
05/27/2019
10/26/2019
10/14/2021
6/3/2022
10/27/2022
5/22/2023
10/17/2023
5/7/2024
10/3/2024
5/8/2025
Date


Brandon Landfill
MW-2C
Cadmium
Total Cadmium (mg/L)
0.0250
0.0200
0.0150
0.0100
0.0050
0.0000
5/29/2014
6/9/2015
10/25/2015
7/24/2016
October 2016
5/7/2017
10/28/2017
5/28/2018
10/20/2018
05/27/2019
10/26/2019
10/14/2021
6/3/2022
10/27/2022
5/22/2023
10/17/2023
5/7/2024
10/3/2024
5/8/2025
Date


Brandon Landfill
MW-2C
Sodium
Chloride
COD
Chloride and Sodium (mg/L)
COD (mg/L)
0
100
200
300
400
500
600
0
100
200
300
400
500
600
700
800
900
1000
5/29/2014
6/9/2015
10/25/2015
7/24/2016
October 2016
5/7/2017
10/28/2017
5/28/2018
10/20/2018
05/27/2019
10/26/2019
10/14/2021
6/3/2022
10/27/2022
5/22/2023
10/17/2023
5/7/2024
10/3/2024
5/8/2025
Date


Brandon Landfill
MW-2C
PFAS
Total Regulated PFAS (ng/L)
0
50
100
150
200
250
300
350
5/22/2023
10/17/2023
5/7/2024
10/3/2024
5/8/2025
Date

Brandon Closed Landfill

MW-3

Sample Date: / PARAMETER	2012	4/22/2013	10/1/2013	5/29/2014	6/9/2015	10/25/2015	7/24/2016	October 2016	5/7/2017	10/28/2017	5/28/2018	10/20/2018	05/27/2019	10/26/2019	VGES	PAL
VOCs (ug/L)																
1,1-dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-	-	-	-	-	-	-	70	35
Total Metals (mg/L)																
Arsenic	-	-	-	<0.001	***0.002***	***0.009***	Well	Well	Well	Well	Well	Well	No	No	0.010	0.001
Cadmium	-	-	-	<0.002	<0.002	<0.002	not	not	not	not	not	not	Sample	Sample	0.005	0.001
Chromium	-	-	-	<0.005	<0.005	<0.0052	sampled	sampled	sampled	sampled	sampled	sampled	-	-	0.100	0.050
Copper	-	-	-	<0.020	<0.020	<0.022	-	-	-	-	-	-	Insufficient	Insufficient	1.300	0.650
Iron	-	-	-	**0.41**	**9.1**	**29**	-	-	-	-	-	-	Amount	Amount	-	-
Lead	-	-	-	<0.001	<0.001	***0.008***	-	-	-	-	-	-	of Water	of Water	0.015	0.002
Manganese	-	-	-	<0.020	**1.1**	**1.2**	-	-	-	-	-	-	in Well	in Well	0.300	0.150
Mercury	-	-	-	<0.0002	<0.0002	<0.0002	-	-	-	-	-	-	Column	Column	0.002	0.0005
Nickel	-	-	-	**0.005**	<0.005	**0.016**	-	-	-	-	-	-	-	-	0.100	0.050
Sodium	-	-	-	**23**	**20**	**15**	-	-	-	-	-	-	-	-	-	-
Zinc	-	-	-	**0.020**	<0.020	**0.024**	-	-	-	-	-	-	-	-	-	-
Other Analytes (mg/L)																
Chloride	-	-	-	**34**	**31**	**30**	-	-	-	-	-	-	-	-	-	-
COD	-	-	-	**11**	**34**	**34**	-	-	-	-	-	-	-	-	-	-
Field Measurements (units as noted)																
pH (std units)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Temperature (deg C)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conductivity (uS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Level (feet btoc)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Sample Date: / PARAMETER	10/14/2021	6/3/2022	10/27/2022	5/22/2023	10/17/2023	5/7/2024	10/3/2024	5/8/2025							VGES	PAL
VOCs (ug/L)																
1,1-dichloroethane	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0							70	35
Total Metals (mg/L)																
Arsenic	**0.17**	**0.015**	**0.030**	***0.0075***	***0.0028***	**0.0147**	**0.119**	**0.0105**							0.010	0.001
Cadmium	<0.005	<0.001	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020							0.005	0.001
Chromium	**0.32**	**0.022**	<0.050	**0.0110**	<0.050	0.0197	<0.50	**0.0173**							0.100	0.050
Copper	***0.82***	**0.062**	<0.20	**0.021**	<0.20	0.043	**0.31**	<0.040							1.300	0.650
Iron	**370**	**47**	**57**	**18**	**7.4**	**38**	**260**	**24**							-	-
Lead	**0.51**	**0.036**	**0.0505**	**0.0151**	***0.0069***	**0.0311**	**0.222**	**0.0182**							0.015	0.002
Manganese	**25**	**1.5**	**2.5**	**0.55**	***0.21***	**0.93**	**8.8**	**0.63**							0.300	0.150
Mercury	<0.001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002							0.002	0.0005
Nickel	**0.49**	**0.036**	***0.0538***	**0.0140**	**0.0055**	0.0263	**0.199**	**0.0196**							0.100	0.050
Sodium	**26**	**28**	**23**	**26**	**27**	**28**	**26**	**27**							-	-
Zinc	**1.4**	**0.11**	<0.20	**0.042**	<0.020	0.082	**0.63**	**0.071**							-	-
Other Analytes (mg/L)																
Chloride	**34**	**56**	**98**	**44**	**48**	**42**	**37**	**43**							-	-
COD	<10	<10	**220**	**79**	**28**	**84**	**300**	**34**							-	-
PFAS (ng/L)																
Perfluorohexanesulfonic acid (PFHxS)	-	-	-	<1.8	<4.1	<4.0	-	-								
Perfluoroheptanoic acid (PFHpA)	-	-	-	<1.8	<4.1	<4.0	-	-								
Perfluorooctanoic acid (PFOA)	-	-	-	<1.8	<4.1	<4.0	-	-							-	-
Perfluorooctanesulfonic acid (PFOS)	-	-	-	**5.2**	<4.1	<4.0	-	-								
Perfluorononanoic acid (PFNA)	-	-	-	<1.8	<4.1	<4.0	-	-								
Total Regulated PFAS	-	-	-	***5.2***	ND	ND	-	-							20	2
Total Non-Regulated PFAS	-	-	-	ND	ND	ND	-	-							-	-
Field Measurements (units as noted)																
pH (std units)	6.8	7.14	7.27	7.57	7.48	7.83	7.76	7.56							-	-
Temperature (deg C)	11.9	12.3	10.7	13.0	10.5	12.2	12.8	10.8							-	-
Spec. Conductivity (uS/cm)	740	773	378.6	715	759	737	539	1275							-	-
Water Level (feet btoc)	33.69	30.78	33.60	31.50	32.00	31.17	33.24	31.00							-	-

Notes:

Data prior to 2021 collected by others and obtained from 2019 reports prepared by EIV Technical Services

Data 2021-present collected by KAS, Inc.

Only detected or targeted VOCs are depicted

All values reported in units noted above

"-" = Not Analyzed, No Information or No Applicable Standard

ND = None Detected

<X = None Detected above Detection Limit (X)

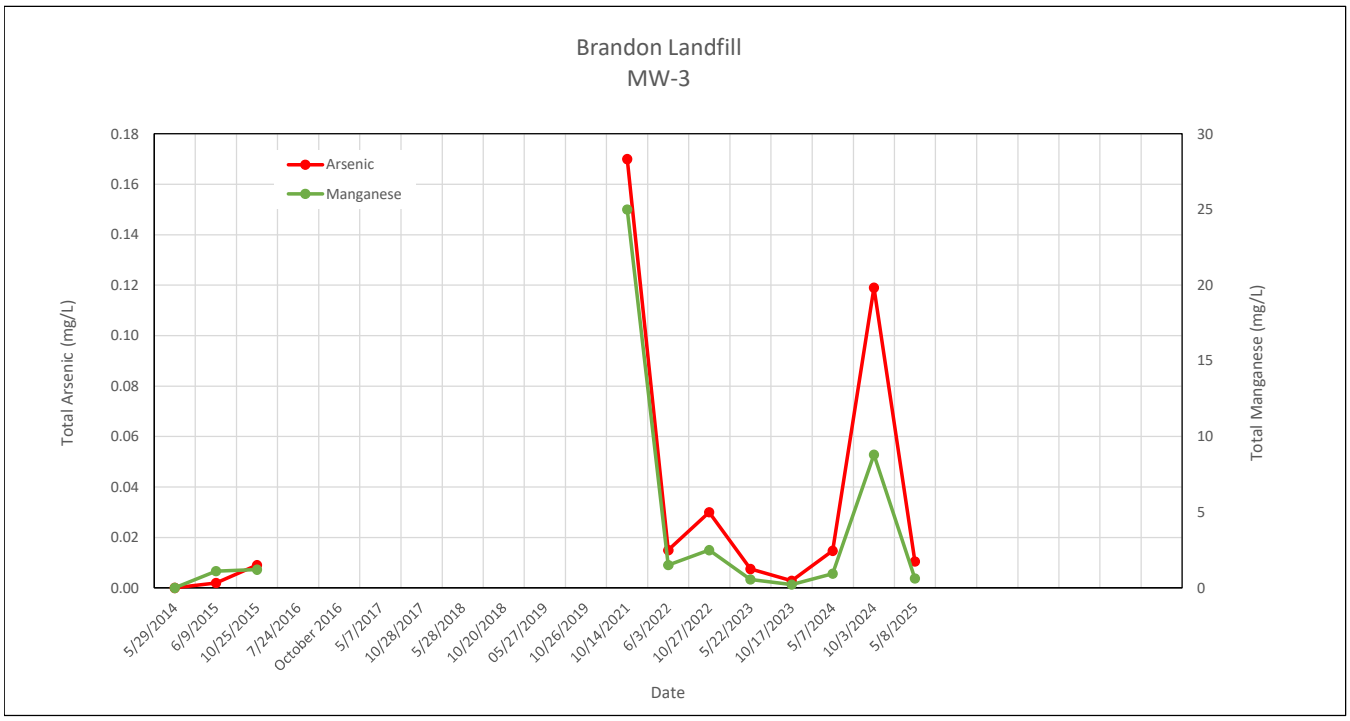
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)

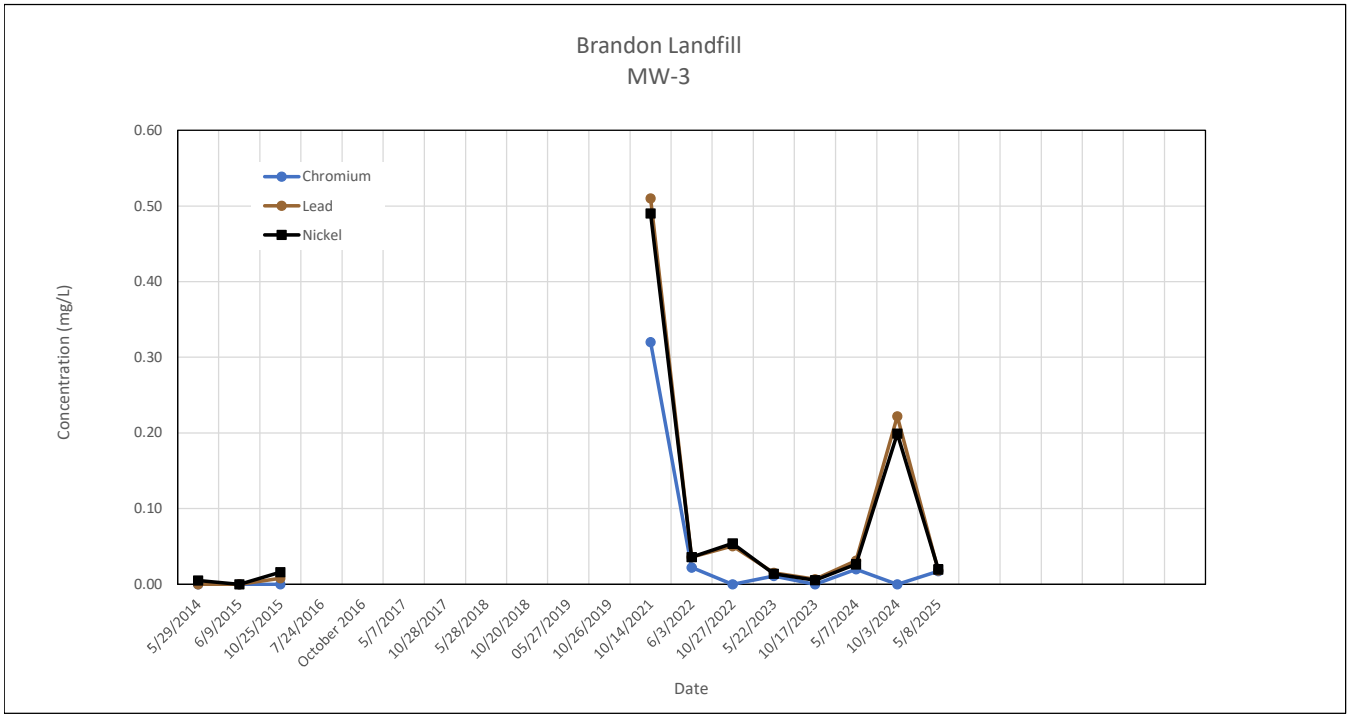
PAL = Vermont Preventive Action Level (GWPRS 07/06/2019)

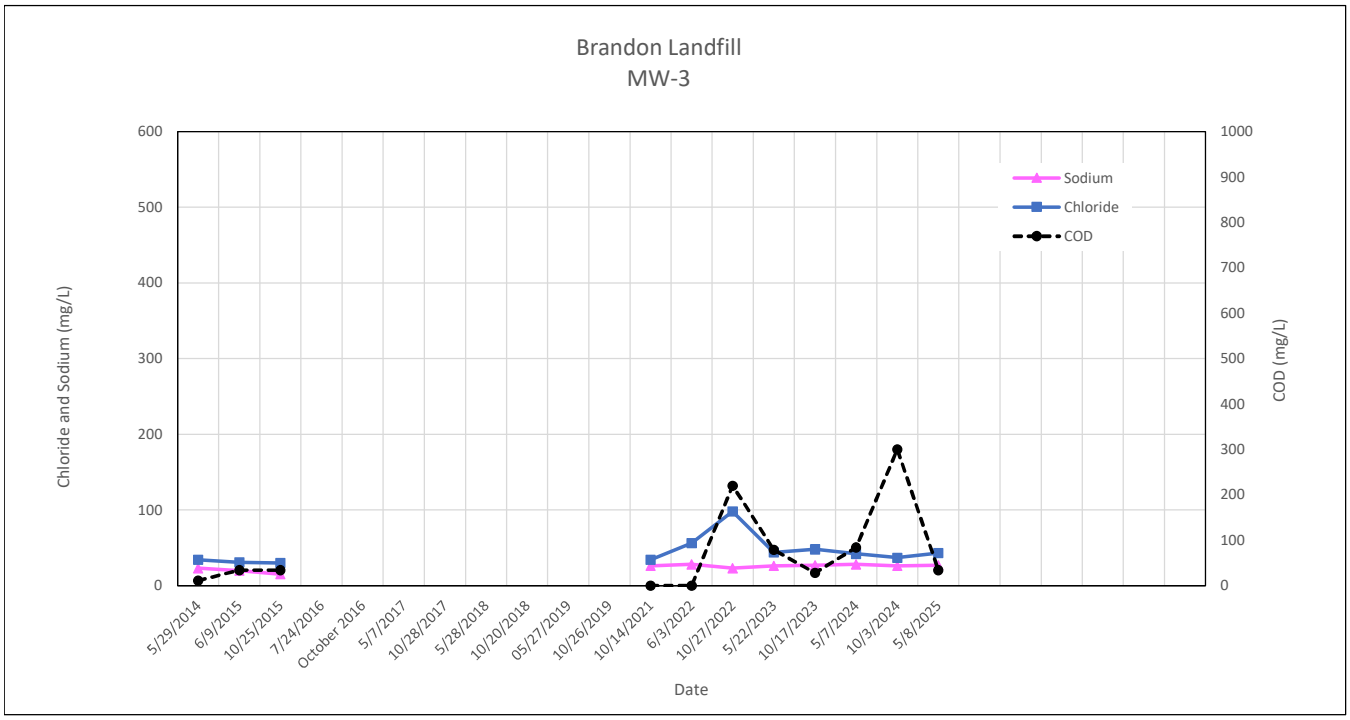
Detections are **bolded**

>VGES

Bold (italic) indicates value exceeds PAL


Brandon Landfill
MW-3
Arsenic
Manganese
Total Arsenic (mg/L)
Total Manganese (mg/L)
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
30
25
20
15
10
5
0
5/29/2014
6/9/2015
10/25/2015
7/24/2016
October 2016
5/7/2017
10/28/2017
5/28/2018
10/20/2018
05/27/2019
10/26/2019
10/14/2021
6/3/2022
10/27/2022
5/22/2023
10/17/2023
5/7/2024
10/3/2024
5/8/2025
Date


Brandon Landfill
MW-3
Chromium
Lead
Nickel
Concentration (mg/L)
0.60
0.50
0.40
0.30
0.20
0.10
0.00
5/29/2014
6/9/2015
10/25/2015
7/24/2016
October 2016
5/7/2017
10/28/2017
5/28/2018
10/20/2018
05/27/2019
10/26/2019
10/14/2021
6/3/2022
10/27/2022
5/22/2023
10/17/2023
5/7/2024
10/3/2024
5/8/2025
Date


Brandon Landfill
MW-3
Chloride and Sodium (mg/L)
COD (mg/L)
Date
Sodium
Chloride
COD
600
500
400
300
200
100
0
1000
900
800
700
600
500
400
300
200
100
0
5/29/2014
6/9/2015
10/25/2015
7/24/2016
October 2016
5/7/2017
10/28/2017
5/28/2018
10/20/2018
05/27/2019
10/26/2019
10/14/2021
6/3/2022
10/27/2022
5/22/2023
10/17/2023
5/7/2024
10/3/2024
5/8/2025

Brandon Closed Landfill
MW-5

PARAMETER / *Sample Date:*	2012	4/22/2013	10/1/2013	5/29/2014	6/9/2015	10/25/2015	7/24/2016	October 2016	5/7/2017	10/28/2017	5/28/2018	10/20/2018	05/27/2019	10/26/2019	VGES	PAL
VOCs (ug/L)																
1,1-dichloroethane	<1.0	-	**1.1**	<1.0	<1.0	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	70	35
Diethyl Ether	-	-	**6.0**	<5.0	<5.0	-	<5.0	-	<5.0	-	-	-	-	-	-	-
Total Metals (mg/L)																
Arsenic	-	Well	-	***0.004***	***0.003***	Well	***0.032***	Data	***0.006***	***0.006***	***0.0040***	***0.0011***	<0.0010	**0.121**	0.010	0.001
Cadmium	-	Not	-	<0.002	<0.002	not	**0.010**	not	**0.0061**	**0.0061**	**0.0083**	***0.0027***	<0.0020	<0.0020	0.005	0.001
Chromium	-	Sampled	-	<0.005	<0.005	sampled	**0.020**	available	**0.0056**	**0.0056**	<0.0050	<0.0050	<0.0050	<0.0050	0.100	0.050
Copper	-	-	-	<0.020	<0.020		**0.076**		<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	1.300	0.650
Iron	-	-	-	**31**	**16**		**120**		**21**	**21**	**13**	**4**	**0.22**	**48**	-	-
Lead	-	-	-	***0.003***	***0.003***	-	**0.044**	-	***0.0080***	***0.0080***	***0.0080***	***0.0022***	<0.0010	<0.0010	0.015	0.002
Manganese	-	-	-	**1.4**	**1.3**	-	**2.6**	-	**0.78**	**0.78**	**1.2**	**0.38**	**1.0**	**0.89**	0.300	0.150
Mercury	-	-	-	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.002	0.0005
Nickel	-	-	-	**0.007**	**0.0066**	-	**0.025**	-	**0.0084**	**0.0084**	**0.0082**	<0.0050	<0.0050	**0.0077**	0.100	0.050
Sodium	-	-	-	**26**	**21**	-	**18**	-	**24**	**24**	**25**	**31**	**33**	**150**	-	-
Zinc	-	-	-	**0.020**	**0.020**	-	**0.11**	-	**0.026**	**0.026**	<0.020	<0.020	<0.020	<0.020	-	-
Other Analytes (mg/L)																
Chloride	-	-	-	**38**	**32**	-	**33**	-	**42**	**43**	**40**	**64**	**64**	**260**	-	-
COD	-	-	-	**30**	**25**	-	**54**	-	**31**	**13**	**30**	<10	<10	**45**	-	-
Field Measurements (units as noted)																
pH (std units)	-	-	-	-	-	-	6.4	-	6.0	6.1	6.2	6.2	6.3	6.4	-	-
Temperature (deg C)	-	-	-	-	-	-	15	-	10.7	10.6	10.8	12.0	11.8	11.9	-	-
Conductivity (uS)	-	-	-	-	-	-	-	-	1,160	1,090	1,080	1,120	1,080	1,100	-	-
Water Level (feet btoc)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PARAMETER / *Sample Date:*	10/14/2021	6/3/2022	10/27/2022	5/22/2023	10/17/2023	5/7/2024	10/3/2024	5/8/2025							VGES	PAL
VOCs (ug/L)																
1,1-dichloroethane	-	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0							70	35
Total Metals (mg/L)																
Arsenic	No	**0.0042**	**0.0170**	<0.0010	<0.0010	***0.0015***	***0.0018***	***0.0029***							0.010	0.001
Cadmium	Sample	***0.0016***	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020							0.005	0.001
Chromium		**0.0013**	**0.0052**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050							0.100	0.050
Copper	Well	**0.0053**	**0.024**	<0.020	<0.020	<0.020	<0.020	<0.020							1.300	0.650
Iron	Inaccessible	**8.0**	**30**	**0.52**	**5.8**	**11**	**5.1**	**5.8**							-	-
Lead	Due to	***0.0029***	**0.0175**	<0.0010	<0.0010	<0.0010	<0.0010	***0.0028***							0.015	0.002
Manganese	Lock	**1.9**	**1.3**	**2.1**	**1.2**	**1.0**	**0.56**	**0.85**							0.300	0.150
Mercury		<0.0001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002							0.002	0.0005
Nickel		**0.0074**	**0.0197**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050							0.100	0.050
Sodium		**30**	**34**	**34**	**31**	**37**	**37**	**36**							-	-
Zinc		**0.014**	**0.047**	<0.020	<0.020	<0.020	<0.020	<0.020							-	-
Other Analytes (mg/L)																
Chloride	-	**52**	**59**	**59**	**63**	**64**	**65**	**61**							-	-
COD	-	<10	**58**	**35**	**10**	**33**	**34**	**14**							-	-
PFAS (ng/L)																
Perfluorohexanesulfonic acid (PFHxS)	-	-	-	**17**	**8.5**	**13**	**2.0**	**4.7**								
Perfluoroheptanoic acid (PFHpA)	-	-	-	**5.1**	**3.7**	<4.0	<1.9	<1.9								
Perfluorooctanoic acid (PFOA)	-	-	-	**30**	**15**	**16**	**2.5**	**7.6**							-	-
Perfluorooctanesulfonic acid (PFOS)	-	-	-	**14**	**11**	**10**	**3.2**	**4.4**								
Perfluorononanoic acid (PFNA)	-	-	-	<1.9	<1.9	<4.0	<1.9	<1.9								
Total Regulated PFAS	-	-	-	**66.1**	**38.2**	**39**	***7.7***	***16.7***							20	2
Total Non-Regulated PFAS	-	-	-	**14.8**	**16.5**	**5.5**	**3.0**	**11.4**							-	-
Field Measurements (units as noted)																
pH (std units)	-	6.58	7.18	6.69	6.71	6.84	6.73	7.23							-	-
Temperature (deg C)	-	13.2	11.7	10.1	10.7	11.6	12.1	10.8							-	-
Spec. Conductivity (uS/cm)	-	1,109	-	826	1,098	1,071	1,032	1,750							-	-
Water Level (feet btoc)	-	4.79	4.97	4.79	5.10	4.32	6.69	2.58							-	-

Notes:

Data prior to 2021 collected by others and obtained from 2019 reports prepared by EIV Technical Services

Data 2021-present collected by KAS, Inc.

Only detected or targeted VOCs are depicted

All values reported in units noted above

"-" = Not Analyzed, No Information or No Applicable Standard

ND = None Detected

<X = None Detected above Detection Limit (X)

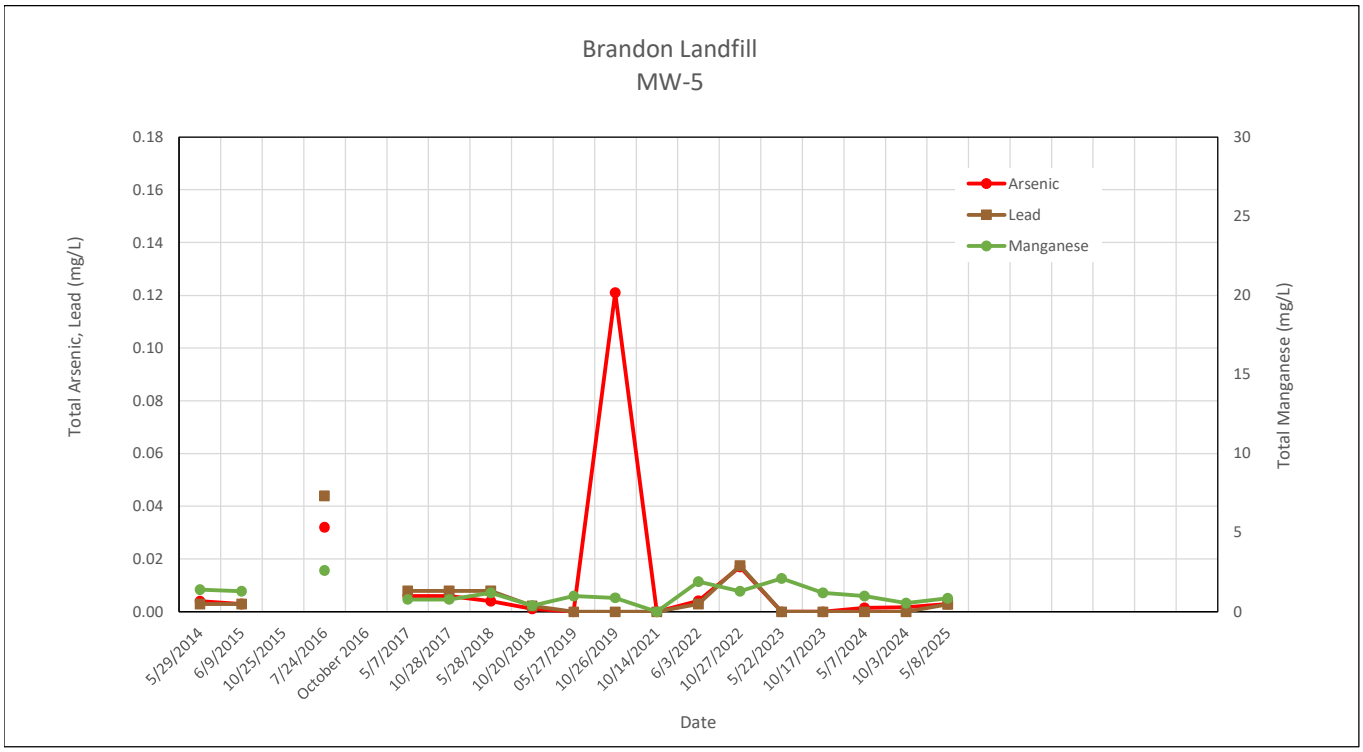
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)

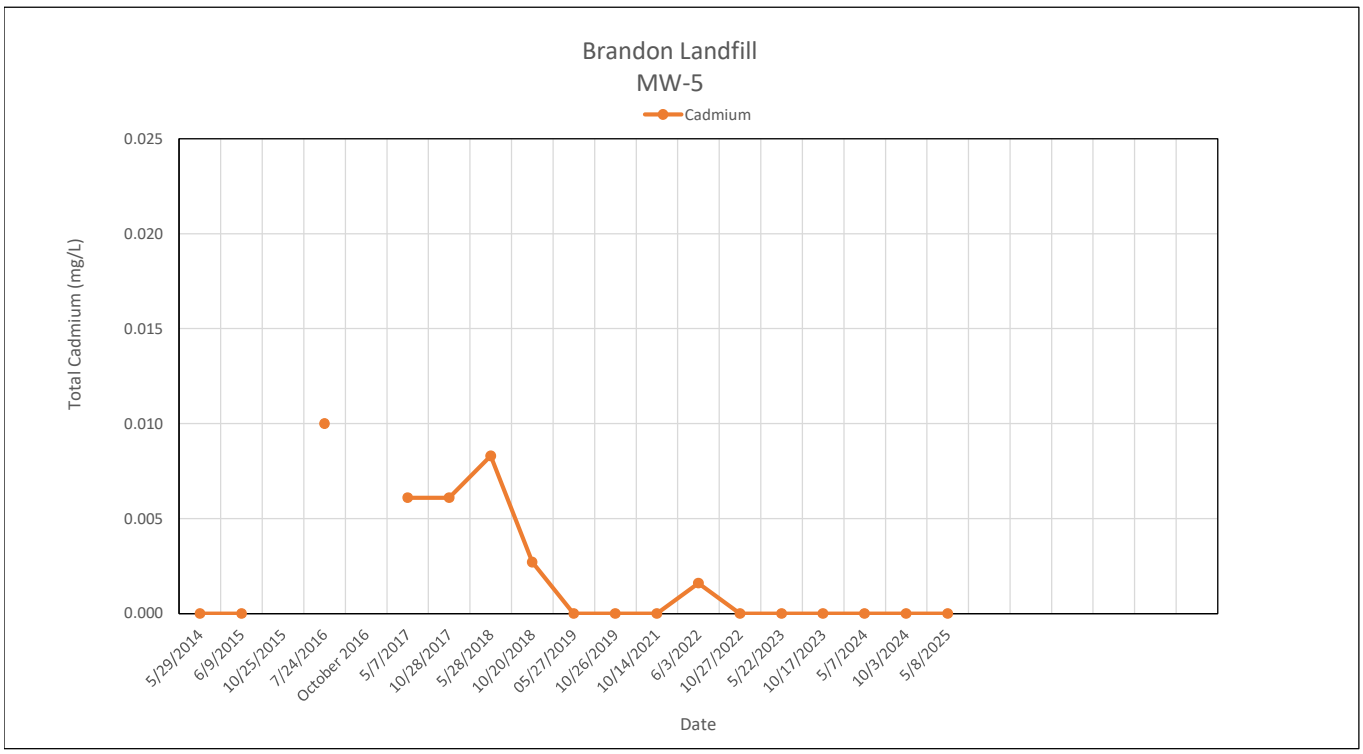
PAL = Vermont Preventive Action Level (GWPRS 07/06/2019)

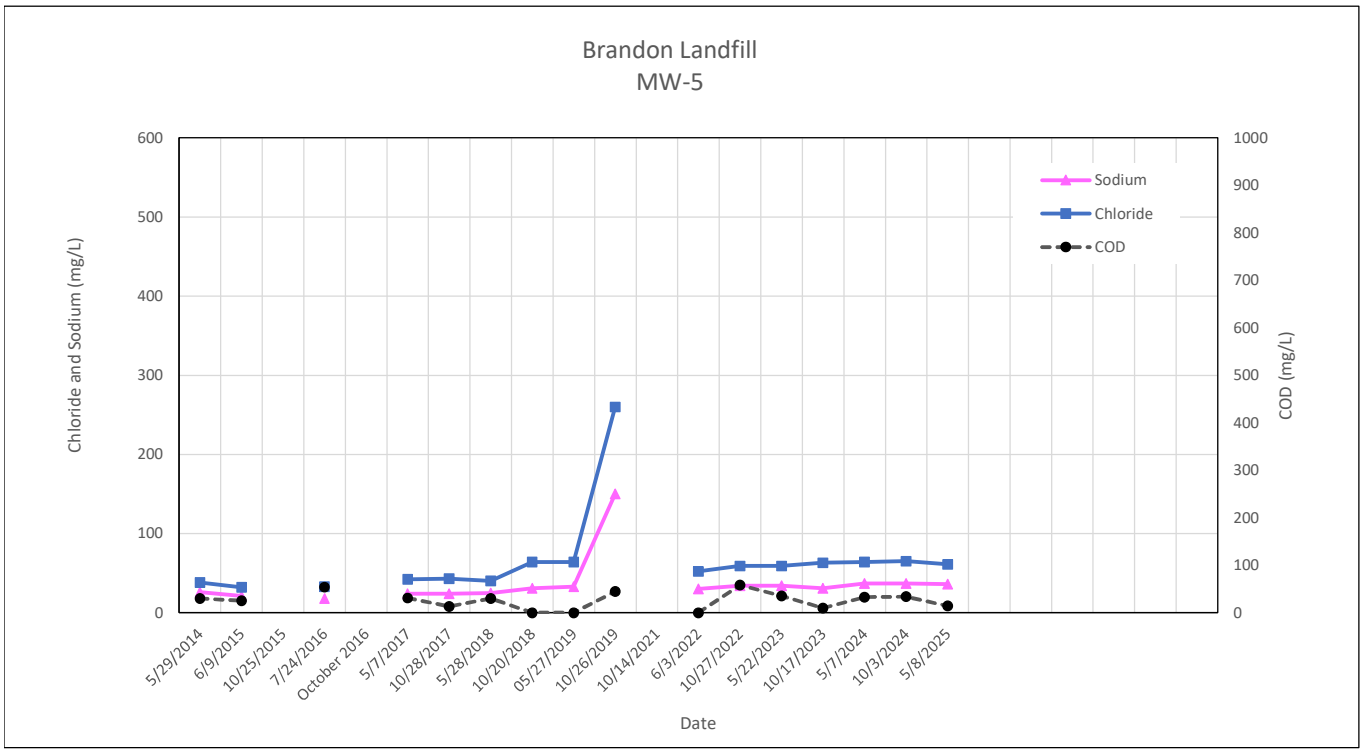
Detections are **bolded**

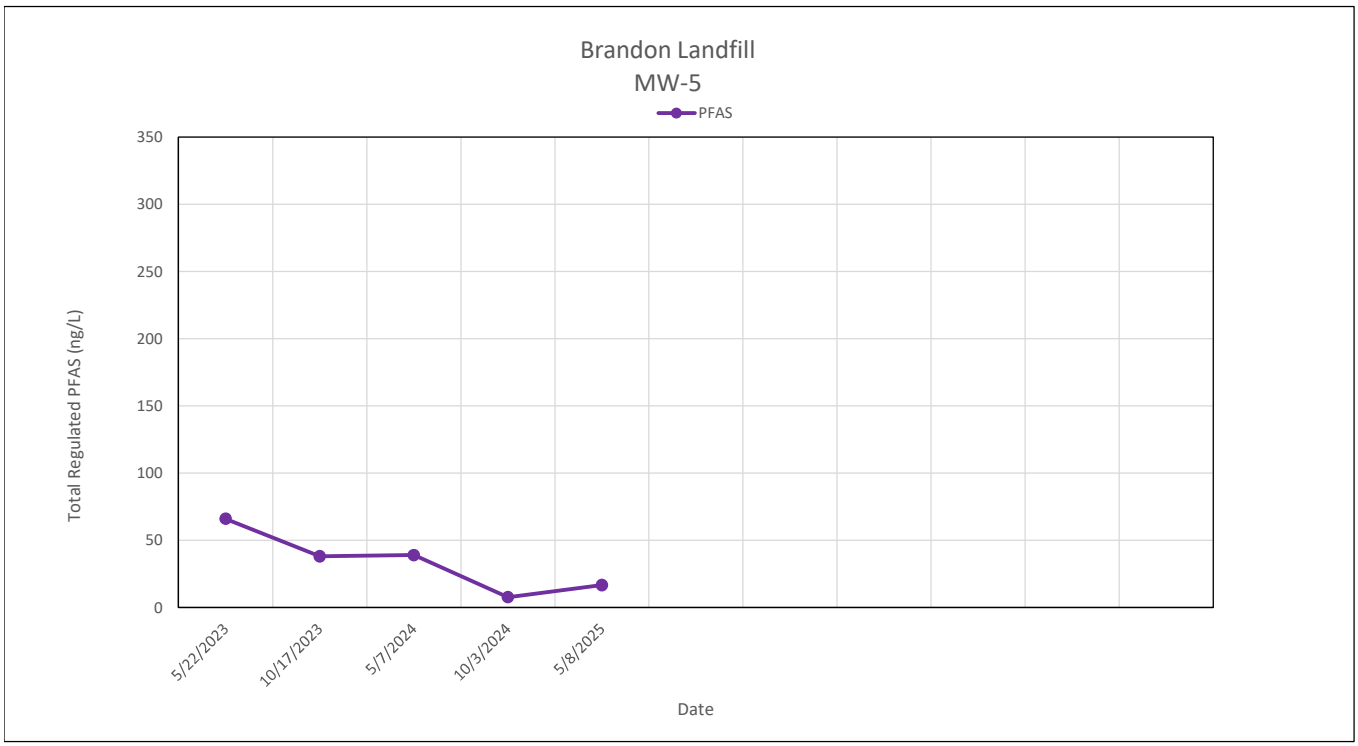
>VGES

Bold (italic) indicates value exceeds PAL


Brandon Landfill
MW-5
Arsenic
Lead
Manganese
Total Arsenic, Lead (mg/L)
Total Manganese (mg/L)
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
30
25
20
15
10
5
0
5/29/2014
6/9/2015
10/25/2015
7/24/2016
October 2016
5/7/2017
10/28/2017
5/28/2018
10/20/2018
05/27/2019
10/26/2019
10/14/2021
6/3/2022
10/27/2022
5/22/2023
10/17/2023
5/7/2024
10/3/2024
5/8/2025
Date


Brandon Landfill
MW-5
Cadmium
Total Cadmium (mg/L)
0.025
0.020
0.015
0.010
0.005
0.000
5/29/2014
6/9/2015
10/25/2015
7/24/2016
October 2016
5/7/2017
10/28/2017
5/28/2018
10/20/2018
05/27/2019
10/26/2019
10/14/2021
6/3/2022
10/27/2022
5/22/2023
10/17/2023
5/7/2024
10/3/2024
5/8/2025
Date


Brandon Landfill
MW-5
Chloride and Sodium (mg/L)
COD (mg/L)
Sodium
Chloride
COD
600
500
400
300
200
100
0
1000
900
800
700
600
500
400
300
200
100
0
5/29/2014
6/9/2015
10/25/2015
7/24/2016
October 2016
5/7/2017
10/28/2017
5/28/2018
10/20/2018
05/27/2019
10/26/2019
10/14/2021
6/3/2022
10/27/2022
5/22/2023
10/17/2023
5/7/2024
10/3/2024
5/8/2025
Date


Brandon Landfill
MW-5
PFAS
Total Regulated PFAS (ng/L)
350
300
250
200
150
100
50
0
5/22/2023
10/17/2023
5/7/2024
10/3/2024
5/8/2025
Date

Brandon Closed Landfill

Quality Assurance/Quality Control Samples

Sample ID: *Sample Date:* PARAMETER	Trip Blank 5/8/2025	Duplicate 5/8/2025	MW-2C 5/8/2025	RPD (%)
VOCs (ug/L)				
1,4-dichlorobenzene	ND	2.3	2.3	0.0
Diethyl Ether	ND	20.4	20.9	2.4
Acetone	ND	<10.0	<10.0	-
Methyl-t-butyl ether (MTBE)	ND	<2.0	<2.0	-
Tetrahydrofuran	ND	<10.0	<10.0	-
Benzene	ND	2.4	2.5	4.1
Chlorobenzene	ND	6.4	6.6	3.1
Naphthalene	ND	<0.5	<0.5	-
t-Butanol	ND	<20.0	<20.0	-
Toluene	ND	<1.0	2.3	-
Total VOCs	ND	31.5	34.6	9.4
Total Metals (mg/L)				
Arsenic	-	0.0188	0.0199	5.7
Cadmium	-	<0.0020	<0.0020	-
Chromium	-	<0.0050	<0.010	-
Copper	-	<0.020	<0.020	-
Iron	-	24	25	4.1
Lead	-	<0.0010	<0.0010	-
Manganese	-	0.33	0.37	11.4
Mercury	-	<0.0002	<0.0002	-
Nickel	-	0.0111	0.0119	7.0
Sodium	-	200	190	5.1
Zinc	-	<0.020	<0.020	-
Other Analytes (mg/L)				
Chloride	-	290	290	0.0
COD	-	63	47	29.1

Only detected or targeted VOCs are depicted

All values reported in units noted above

"-" = Not Analyzed, RPD could not be calculated due to non-detects or No Applicable Standard

ND = None Detected

<X = None Detected above Detection Limit (X)

RPD = The results of the laboratory analysis of the duplicate sample were analyzed using a relative percent difference (RPD) analysis. The RPD is defined as 100 times the difference in reported concentration between sample and duplicate, divided by the mean of the two samples. A small RPD indicates good correlation between sample and duplicate.

APPENDIX C

Laboratory Reports

Pace Analytical Services, LLC - East Longmeadow, Ma

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

May 20, 2025

Clare Santos
KAS Environmental
589 Avenue D
Williston, VT 05495

Project Location: Brandon, VT
Client Job Number:
Project Number: 609210052
Laboratory Work Order Number: 25E0793

Enclosed are results of analyses for samples as received by the laboratory on May 9, 2025. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

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Pace Analytical Services, LLC - East Longmeadow, Ma

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

KAS Environmental
589 Avenue D
Williston, VT 05495
ATTN: Clare Santos

REPORT DATE: 5/20/2025

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 609210052

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 25E0793

The results of analyses performed on the following samples submitted to Pace Analytical Services, LLC - East Longmeadow, Ma, are found in this report.

PROJECT LOCATION: Brandon, VT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
ERB	25E0793-01	Field Blank		SOP-454 PFAS	
MW-2C	25E0793-02	Ground Water		SOP-454 PFAS	
MW-5	25E0793-03	Ground Water		SOP-454 PFAS	

Pace Analytical Services, LLC - East Longmeadow, Ma

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

SOP-454 PFAS

Qualifications:

L-01

Laboratory fortified blank/laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.

Analyte & Samples(s) Qualified:

4:2 Fluorotelomersulfonic acid (4:2FTS A)
B405190-BS1

6:2 Fluorotelomersulfonic acid (6:2FTS A)
B405190-BS1

8:2 Fluorotelomersulfonic acid (8:2FTS A)
B405190-BS1

9Cl-PF3ONS (F53B Minor)
B405190-BS1

N-MeFOSAA (NMeFOSAA)
B405190-BSD1

Perfluorobutanesulfonic acid (PFBS)
25E0793-03RE1[MW-5]

Perfluorononanesulfonic acid (PFNS)
B405190-BS1

Perfluoropentanesulfonic acid (PFPeS)
25E0793-03RE1[MW-5]

L-03

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Perfluorododecanoic acid (PFDoA)
25E0793-01[ERB], B404995-BS1, B404995-BSD1

L-06

Laboratory fortified blank/laboratory control sample recovery and/or duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the high side.

Analyte & Samples(s) Qualified:

Perfluorobutanoic acid (PFBA)
25E0793-02RE1[MW-2C], 25E0793-03RE1[MW-5], B405190-BS1, B405190-BSD1

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

Perfluorobutanesulfonic acid (PFBS)
25E0793-02RE1[MW-2C], B405190-BS1

Perfluoroheptanoic acid (PFHpA)
B404995-BSD1

Perfluorohexanesulfonic acid (PFHxS)
25E0793-02RE1[MW-2C], 25E0793-03RE1[MW-5], B405190-BS1

Perfluorooctanoic acid (PFOA)
25E0793-01[ERB], B404995-BSD1

Perfluoropentanesulfonic acid (PFPeS)
25E0793-02RE1[MW-2C], B405190-BS1

PF-17

Extracted Internal Standard recovery is outside of control limits. Data is not significantly affected since associated analyte is not detected and bias is on the high side.

Analyte & Samples(s) Qualified:

M2-6:2FTS
25E0793-01[ERB]

M2-8:2FTS
25E0793-01[ERB]

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

PF-18

Re-analysis confirmed Extracted Internal Standard failure due to matrix effects.

Analyte & Samples(s) Qualified:

M2PFTA
25E0793-02RE1[MW-2C]

M8FOSA
25E0793-02RE1[MW-2C]

MPFBA
25E0793-02RE1[MW-2C]

S-29

Extracted Internal Standard is outside of control limits.

Analyte & Samples(s) Qualified:

D3-NMeFOSAA
25E0793-01[ERB]

D5-NEtFOSAA
25E0793-01[ERB]

M3HFPO-DA
25E0793-02RE1[MW-2C]

M5PFPeA
25E0793-02RE1[MW-2C]

M8FOSA
25E0793-01[ERB]

M8PFOA
25E0793-02RE1[MW-2C]

M9PFNA
25E0793-02RE1[MW-2C]

The results of analyses reported only relate to samples submitted to Pace Analytical Services, LLC - East Longmeadow, Ma, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

Pace Analytical Services, LLC - East Longmeadow, Ma

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Brandon, VT | Sample Description: | Work Order: 25E0793

Date Received: 5/9/2025

Field Sample #: ERB | Sampled: 5/8/2025 10:12

Sample ID: 25E0793-01

Sample Matrix: Field Blank

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluoropentanoic acid (PFPeA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluorohexanoic acid (PFHxA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
11Cl-PF3OUdS (F53B Major)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
9Cl-PF3ONS (F53B Minor)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluorodecanoic acid (PFDA)	2.7	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluorododecanoic acid (PFDoA)	ND	1.9	ng/L	1	L-03	SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
N-EtFOSAA (NEtFOSAA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
N-MeFOSAA (NMeFOSAA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluorotetradecanoic acid (PFTA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluorodecanesulfonic acid (PFDS)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluorooctanesulfonamide (FOSA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluorononanesulfonic acid (PFNS)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluoro-1-butanesulfonamide (FBSA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluoropentanesulfonic acid (PFPeS)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluoroundecanoic acid (PFUnA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluoroheptanoic acid (PFHpA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluorooctanoic acid (PFOA)	3.5	1.9	ng/L	1	L-07	SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB
Perfluorononanoic acid (PFNA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/14/25	5/15/25 14:48	AB

Pace Analytical Services, LLC - East Longmeadow, Ma

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Brandon, VT | Sample Description: | Work Order: 25E0793

Date Received: 5/9/2025

Field Sample #: MW-2C | Sampled: 5/8/2025 12:28

Sample ID: 25E0793-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	46	1.9	ng/L	1	L-06	SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluorobutanesulfonic acid (PFBS)	5.1	1.9	ng/L	1	L-07	SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluoropentanoic acid (PFPeA)	23	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluorohexanoic acid (PFHxA)	42	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
11Cl-PF3OUdS (F53B Major)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
9Cl-PF3ONS (F53B Minor)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluorodecanoic acid (PFDA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluorododecanoic acid (PFDoA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluoroheptanesulfonic acid (PFHpS)	1.9	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
N-EtFOSAA (NEtFOSAA)	11	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
N-MeFOSAA (NMeFOSAA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluorotetradecanoic acid (PFTA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluorodecanesulfonic acid (PFDS)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluorooctanesulfonamide (FOSA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluorononanesulfonic acid (PFNS)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluoro-1-butanesulfonamide (FBSA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluorohexanesulfonic acid (PFHxS)	33	1.9	ng/L	1	L-07	SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluoropentanesulfonic acid (PFPeS)	4.1	1.9	ng/L	1	L-07	SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluoroundecanoic acid (PFUnA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluoroheptanoic acid (PFHpA)	29	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluorooctanoic acid (PFOA)	87	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluorooctanesulfonic acid (PFOS)	76	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Perfluorononanoic acid (PFNA)	3.2	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB
Summation of PFAS 6	230	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:21	AB

Pace Analytical Services, LLC - East Longmeadow, Ma

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Brandon, VT | Sample Description: | Work Order: 25E0793

Date Received: 5/9/2025

Field Sample #: MW-5 | Sampled: 5/8/2025 13:15

Sample ID: 25E0793-03

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.1	1.9	ng/L	1	L-06	SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	ng/L	1	L-01	SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluoropentanoic acid (PFPeA)	3.5	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluorohexanoic acid (PFHxA)	2.8	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
11Cl-PF3OUdS (F53B Major)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
9Cl-PF3ONS (F53B Minor)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluorodecanoic acid (PFDA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluorododecanoic acid (PFDoA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
N-EtFOSAA (NEtFOSAA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
N-MeFOSAA (NMeFOSAA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluorotetradecanoic acid (PFTA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluorodecanesulfonic acid (PFDS)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluorooctanesulfonamide (FOSA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluorononanesulfonic acid (PFNS)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluoro-1-butanesulfonamide (FBSA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluorohexanesulfonic acid (PFHxS)	4.7	1.9	ng/L	1	L-07	SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluoropentanesulfonic acid (PFPeS)	ND	1.9	ng/L	1	L-01	SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluoroundecanoic acid (PFUnA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluoroheptanoic acid (PFHpA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluorooctanoic acid (PFOA)	7.6	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluorooctanesulfonic acid (PFOS)	4.4	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Perfluorononanoic acid (PFNA)	ND	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB
Summation of PFAS 6	17	1.9	ng/L	1		SOP-454 PFAS	5/16/25	5/19/25 9:28	AB

Pace Analytical Services, LLC - East Longmeadow, Ma

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Sample Extraction Data

Prep Method:SOP 454-PFAAS **Analytical Method:SOP-454 PFAS**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
25E0793-01 [ERB]	B404995	268	1.00	05/14/25

Prep Method:SOP 454-PFAAS **Analytical Method:SOP-454 PFAS**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
25E0793-02RE1 [MW-2C]	B405190	270	1.00	05/16/25
25E0793-03RE1 [MW-5]	B405190	259	1.00	05/16/25

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B404995 - SOP 454-PFAAS										
Blank (B404995-BLK1)				Prepared: 05/14/25 Analyzed: 05/15/25						
Perfluorobutanoic acid (PFBA)	ND	1.9	ng/L							
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	ng/L							
Perfluoropentanoic acid (PFPeA)	ND	1.9	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.9	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	1.9	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	1.9	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	ng/L							
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9	ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.9	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.9	ng/L							
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9	ng/L							
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9	ng/L							
N-EtFOSAA (NEtFOSAA)	ND	1.9	ng/L							
N-MeFOSAA (NMeFOSAA)	ND	1.9	ng/L							
Perfluorotetradecanoic acid (PFTA)	ND	1.9	ng/L							
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	ng/L							
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9	ng/L							
Perfluorodecanesulfonic acid (PFDS)	ND	1.9	ng/L							
Perfluorooctanesulfonamide (FOSA)	ND	1.9	ng/L							
Perfluorononanesulfonic acid (PFNS)	ND	1.9	ng/L							
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.9	ng/L							
Perfluoro-1-butanesulfonamide (FBSA)	ND	1.9	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	ng/L							
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9	ng/L							
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9	ng/L							
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9	ng/L							
Perfluoropentanesulfonic acid (PFPeS)	ND	1.9	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.9	ng/L							
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.9	ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.9	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	ng/L							
Perfluorononanoic acid (PFNA)	ND	1.9	ng/L							
LCS (B404995-BS1)				Prepared: 05/14/25 Analyzed: 05/15/25						
Perfluorobutanoic acid (PFBA)	8.15	1.9	ng/L	9.439		86.4	73-129			
Perfluorobutanesulfonic acid (PFBS)	8.31	1.9	ng/L	9.439		88.1	72-130			
Perfluoropentanoic acid (PFPeA)	7.92	1.9	ng/L	9.439		83.9	72-129			
Perfluorohexanoic acid (PFHxA)	7.77	1.9	ng/L	9.439		82.3	72-129			
11Cl-PF3OUdS (F53B Major)	7.60	1.9	ng/L	9.439		80.6	35.6-144			
9Cl-PF3ONS (F53B Minor)	6.93	1.9	ng/L	9.439		73.4	51-130			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.73	1.9	ng/L	9.439		81.9	57.1-131			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	10.4	1.9	ng/L	9.439		110	47.6-152			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	10.1	1.9	ng/L	9.439		107	67-138			
Perfluorodecanoic acid (PFDA)	8.11	1.9	ng/L	9.439		85.9	71-129			
Perfluorododecanoic acid (PFDoA)	6.62	1.9	ng/L	9.439		**70.2**	* 72-134			L-03
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	7.17	1.9	ng/L	9.439		75.9	62.3-144			

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B404995 - SOP 454-PFAAS											
LCS (B404995-BS1)				Prepared: 05/14/25 Analyzed: 05/15/25							
Perfluoroheptanesulfonic acid (PFHpS)	7.79	1.9	ng/L	9.439		82.5		69-134			
N-EtFOSAA (NEtFOSAA)	9.17	1.9	ng/L	9.439		97.2		61-135			
N-MeFOSAA (NMeFOSAA)	7.96	1.9	ng/L	9.439		84.3		65-136			
Perfluorotetradecanoic acid (PFTA)	8.22	1.9	ng/L	9.439		87.1		71-132			
Perfluorotridecanoic acid (PFTrDA)	7.08	1.9	ng/L	9.439		75.0		65-144			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	9.10	1.9	ng/L	9.439		96.4		63-143			
Perfluorodecanesulfonic acid (PFDS)	7.50	1.9	ng/L	9.439		79.4		53-142			
Perfluorooctanesulfonamide (FOSA)	7.52	1.9	ng/L	9.439		79.7		67-137			
Perfluorononanesulfonic acid (PFNS)	7.75	1.9	ng/L	9.439		82.1		69-127			
Perfluoro-1-hexanesulfonamide (FHxSA)	7.88	1.9	ng/L	9.439		83.5		35-131			
Perfluoro-1-butanesulfonamide (FBSA)	7.40	1.9	ng/L	9.439		78.4		53.1-125			
Perfluorohexanesulfonic acid (PFHxS)	8.57	1.9	ng/L	9.439		90.8		68-131			
Perfluoro-4-oxapentanoic acid (PFMPA)	8.12	1.9	ng/L	9.439		86.1		62.3-138			
Perfluoro-5-oxahexanoic acid (PFMBA)	7.65	1.9	ng/L	9.439		81.1		60.1-138			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	7.72	1.9	ng/L	9.439		81.8		64-140			
Perfluoropentanesulfonic acid (PFPeS)	8.06	1.9	ng/L	9.439		85.4		71-127			
Perfluoroundecanoic acid (PFUnA)	6.53	1.9	ng/L	9.439		69.1		69-133			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	7.84	1.9	ng/L	9.439		83.1		58.2-144			
Perfluoroheptanoic acid (PFHpA)	7.26	1.9	ng/L	9.439		76.9		72-130			
Perfluorooctanoic acid (PFOA)	6.78	1.9	ng/L	9.439		71.9		71-133			
Perfluorooctanesulfonic acid (PFOS)	7.73	1.9	ng/L	9.439		81.9		65-140			
Perfluorononanoic acid (PFNA)	7.45	1.9	ng/L	9.439		78.9		69-130			
LCS Dup (B404995-BSD1)				Prepared: 05/14/25 Analyzed: 05/15/25							
Perfluorobutanoic acid (PFBA)	7.57	1.8	ng/L	9.091		83.3		73-129	7.43	30	
Perfluorobutanesulfonic acid (PFBS)	7.58	1.8	ng/L	9.091		83.4		72-130	9.25	30	
Perfluoropentanoic acid (PFPeA)	7.38	1.8	ng/L	9.091		81.2		72-129	7.04	30	
Perfluorohexanoic acid (PFHxA)	7.26	1.8	ng/L	9.091		79.8		72-129	6.88	30	
11Cl-PF3OUdS (F53B Major)	6.98	1.8	ng/L	9.091		76.7		35.6-144	8.63	30.4	
9Cl-PF3ONS (F53B Minor)	6.83	1.8	ng/L	9.091		75.2		51-130	1.37	27.1	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	6.77	1.8	ng/L	9.091		74.5		57.1-131	13.3	20.6	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	8.88	1.8	ng/L	9.091		97.7		47.6-152	15.9	30.8	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	8.80	1.8	ng/L	9.091		96.8		67-138	13.5	30	
Perfluorodecanoic acid (PFDA)	7.29	1.8	ng/L	9.091		80.2		71-129	10.6	30	
Perfluorododecanoic acid (PFDoA)	6.28	1.8	ng/L	9.091		**69.1**	*	72-134	5.38	30	L-03
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6.56	1.8	ng/L	9.091		72.1		62.3-144	8.93	19.9	
Perfluoroheptanesulfonic acid (PFHpS)	6.81	1.8	ng/L	9.091		74.9		69-134	13.4	30	
N-EtFOSAA (NEtFOSAA)	7.50	1.8	ng/L	9.091		82.5		61-135	20.0	30	
N-MeFOSAA (NMeFOSAA)	7.77	1.8	ng/L	9.091		85.5		65-136	2.39	30	
Perfluorotetradecanoic acid (PFTA)	7.81	1.8	ng/L	9.091		85.9		71-132	5.15	30	
Perfluorotridecanoic acid (PFTrDA)	6.38	1.8	ng/L	9.091		70.2		65-144	10.4	30	
4:2 Fluorotelomersulfonic acid (4:2FTS A)	8.48	1.8	ng/L	9.091		93.2		63-143	7.11	30	
Perfluorodecanesulfonic acid (PFDS)	7.08	1.8	ng/L	9.091		77.9		53-142	5.71	30	
Perfluorooctanesulfonamide (FOSA)	6.73	1.8	ng/L	9.091		74.1		67-137	11.1	30	
Perfluorononanesulfonic acid (PFNS)	6.92	1.8	ng/L	9.091		76.1		69-127	11.4	30	
Perfluoro-1-hexanesulfonamide (FHxSA)	7.61	1.8	ng/L	9.091		83.7		35-131	3.50	25.1	
Perfluoro-1-butanesulfonamide (FBSA)	7.04	1.8	ng/L	9.091		77.4		53.1-125	4.97	22.5	
Perfluorohexanesulfonic acid (PFHxS)	7.19	1.8	ng/L	9.091		79.1		68-131	17.5	30	
Perfluoro-4-oxapentanoic acid (PFMPA)	7.75	1.8	ng/L	9.091		85.3		62.3-138	4.68	20.6	
Perfluoro-5-oxahexanoic acid (PFMBA)	7.23	1.8	ng/L	9.091		79.5		60.1-138	5.73	20.4	

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B404995 - SOP 454-PFAAS											
LCS Dup (B404995-BSD1)				Prepared: 05/14/25 Analyzed: 05/15/25							
6:2 Fluorotelomersulfonic acid (6:2FTS A)	7.54	1.8	ng/L	9.091		82.9		64-140	2.32	30	
Perfluoropentanesulfonic acid (PFPeS)	7.09	1.8	ng/L	9.091		78.0		71-127	12.9	30	
Perfluoroundecanoic acid (PFUnA)	6.49	1.8	ng/L	9.091		71.4		69-133	0.553	30	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	7.41	1.8	ng/L	9.091		81.5		58.2-144	5.62	21.9	
Perfluoroheptanoic acid (PFHpA)	6.33	1.8	ng/L	9.091		**69.6**	*	72-130	13.7	30	L-07
Perfluorooctanoic acid (PFOA)	6.41	1.8	ng/L	9.091		**70.5**	*	71-133	5.68	30	L-07
Perfluorooctanesulfonic acid (PFOS)	6.43	1.8	ng/L	9.091		70.8		65-140	18.4	30	
Perfluorononanoic acid (PFNA)	7.20	1.8	ng/L	9.091		79.2		69-130	3.36	30	
Batch B405190 - SOP 454-PFAAS											
Blank (B405190-BLK1)				Prepared: 05/16/25 Analyzed: 05/19/25							
Perfluorobutanoic acid (PFBA)	ND	1.8	ng/L								
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	ng/L								
Perfluoropentanoic acid (PFPeA)	ND	1.8	ng/L								
Perfluorohexanoic acid (PFHxA)	ND	1.8	ng/L								
11Cl-PF3OUdS (F53B Major)	ND	1.8	ng/L								
9Cl-PF3ONS (F53B Minor)	ND	1.8	ng/L								
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	ng/L								
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	ng/L								
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8	ng/L								
Perfluorodecanoic acid (PFDA)	ND	1.8	ng/L								
Perfluorododecanoic acid (PFDoA)	ND	1.8	ng/L								
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8	ng/L								
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8	ng/L								
N-EtFOSAA (NEtFOSAA)	ND	1.8	ng/L								
N-MeFOSAA (NMeFOSAA)	ND	1.8	ng/L								
Perfluorotetradecanoic acid (PFTA)	ND	1.8	ng/L								
Perfluorotridecanoic acid (PFTrDA)	ND	1.8	ng/L								
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8	ng/L								
Perfluorodecanesulfonic acid (PFDS)	ND	1.8	ng/L								
Perfluorooctanesulfonamide (FOSA)	ND	1.8	ng/L								
Perfluorononanesulfonic acid (PFNS)	ND	1.8	ng/L								
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.8	ng/L								
Perfluoro-1-butanesulfonamide (FBSA)	ND	1.8	ng/L								
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	ng/L								
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8	ng/L								
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8	ng/L								
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8	ng/L								
Perfluoropentanesulfonic acid (PFPeS)	ND	1.8	ng/L								
Perfluoroundecanoic acid (PFUnA)	ND	1.8	ng/L								
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	ng/L								
Perfluoroheptanoic acid (PFHpA)	ND	1.8	ng/L								
Perfluorooctanoic acid (PFOA)	ND	1.8	ng/L								
Perfluorooctanesulfonic acid (PFOS)	ND	1.8	ng/L								
Perfluorononanoic acid (PFNA)	ND	1.8	ng/L								

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B405190 - SOP 454-PFAAS											
LCS (B405190-BS1)				Prepared: 05/16/25 Analyzed: 05/19/25							
Perfluorobutanoic acid (PFBA)	14.0	1.9	ng/L	9.279		**151**	*	73-129			L-06
Perfluorobutanesulfonic acid (PFBS)	12.2	1.9	ng/L	9.279		**131**	*	72-130			L-07
Perfluoropentanoic acid (PFPeA)	11.6	1.9	ng/L	9.279		125		72-129			
Perfluorohexanoic acid (PFHxA)	11.8	1.9	ng/L	9.279		128		72-129			
11Cl-PF3OUdS (F53B Major)	10.9	1.9	ng/L	9.279		117		35.6-144			
9Cl-PF3ONS (F53B Minor)	12.2	1.9	ng/L	9.279		**131**	*	51-130			L-01
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	11.9	1.9	ng/L	9.279		128		57.1-131			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	9.00	1.9	ng/L	9.279		97.0		47.6-152			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	13.9	1.9	ng/L	9.279		**149**	*	67-138			L-01
Perfluorodecanoic acid (PFDA)	11.7	1.9	ng/L	9.279		126		71-129			
Perfluorododecanoic acid (PFDoA)	11.3	1.9	ng/L	9.279		122		72-134			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10.8	1.9	ng/L	9.279		116		62.3-144			
Perfluoroheptanesulfonic acid (PFHpS)	12.5	1.9	ng/L	9.279		134		69-134			
N-EtFOSAA (NEtFOSAA)	12.2	1.9	ng/L	9.279		132		61-135			
N-MeFOSAA (NMeFOSAA)	11.3	1.9	ng/L	9.279		122		65-136			
Perfluorotetradecanoic acid (PFTA)	11.6	1.9	ng/L	9.279		125		71-132			
Perfluorotridecanoic acid (PFTrDA)	10.8	1.9	ng/L	9.279		116		65-144			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	13.6	1.9	ng/L	9.279		**146**	*	63-143			L-01
Perfluorodecanesulfonic acid (PFDS)	12.2	1.9	ng/L	9.279		131		53-142			
Perfluorooctanesulfonamide (FOSA)	10.7	1.9	ng/L	9.279		115		67-137			
Perfluorononanesulfonic acid (PFNS)	13.0	1.9	ng/L	9.279		**140**	*	69-127			L-01
Perfluoro-1-hexanesulfonamide (FHxSA)	11.6	1.9	ng/L	9.279		125		35-131			
Perfluoro-1-butanesulfonamide (FBSA)	11.4	1.9	ng/L	9.279		123		53.1-125			
Perfluorohexanesulfonic acid (PFHxS)	12.9	1.9	ng/L	9.279		**139**	*	68-131			L-07
Perfluoro-4-oxapentanoic acid (PFMPA)	12.7	1.9	ng/L	9.279		137		62.3-138			
Perfluoro-5-oxahexanoic acid (PFMBA)	11.0	1.9	ng/L	9.279		118		60.1-138			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	13.7	1.9	ng/L	9.279		**148**	*	64-140			L-01
Perfluoropentanesulfonic acid (PFPeS)	12.0	1.9	ng/L	9.279		**129**	*	71-127			L-07
Perfluoroundecanoic acid (PFUnA)	10.1	1.9	ng/L	9.279		109		69-133			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	11.5	1.9	ng/L	9.279		124		58.2-144			
Perfluoroheptanoic acid (PFHpA)	10.8	1.9	ng/L	9.279		116		72-130			
Perfluorooctanoic acid (PFOA)	10.5	1.9	ng/L	9.279		114		71-133			
Perfluorooctanesulfonic acid (PFOS)	11.4	1.9	ng/L	9.279		123		65-140			
Perfluorononanoic acid (PFNA)	11.9	1.9	ng/L	9.279		128		69-130			
LCS Dup (B405190-BSD1)				Prepared: 05/16/25 Analyzed: 05/19/25							
Perfluorobutanoic acid (PFBA)	13.1	1.8	ng/L	9.155		**143**	*	73-129	6.71	30	L-06
Perfluorobutanesulfonic acid (PFBS)	11.3	1.8	ng/L	9.155		123		72-130	7.61	30	
Perfluoropentanoic acid (PFPeA)	10.9	1.8	ng/L	9.155		119		72-129	6.32	30	
Perfluorohexanoic acid (PFHxA)	11.0	1.8	ng/L	9.155		120		72-129	7.71	30	
11Cl-PF3OUdS (F53B Major)	10.0	1.8	ng/L	9.155		109		35.6-144	8.33	30.4	
9Cl-PF3ONS (F53B Minor)	9.52	1.8	ng/L	9.155		104		51-130	24.4	27.1	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	11.4	1.8	ng/L	9.155		124		57.1-131	4.18	20.6	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	9.79	1.8	ng/L	9.155		107		47.6-152	8.43	30.8	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	11.8	1.8	ng/L	9.155		129		67-138	16.2	30	
Perfluorodecanoic acid (PFDA)	10.6	1.8	ng/L	9.155		115		71-129	10.1	30	

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B405190 - SOP 454-PFAAS											
LCS Dup (B405190-BSD1)				Prepared: 05/16/25 Analyzed: 05/19/25							
Perfluorododecanoic acid (PFDoA)	10.3	1.8	ng/L	9.155		113		72-134	9.20	30	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10.0	1.8	ng/L	9.155		109		62.3-144	7.25	19.9	
Perfluoroheptanesulfonic acid (PFHpS)	9.78	1.8	ng/L	9.155		107		69-134	24.1	30	
N-EtFOSAA (NEtFOSAA)	11.3	1.8	ng/L	9.155		123		61-135	8.43	30	
N-MeFOSAA (NMeFOSAA)	12.6	1.8	ng/L	9.155		**138**	*	65-136	10.7	30	L-01
Perfluorotetradecanoic acid (PFTA)	11.0	1.8	ng/L	9.155		120		71-132	5.16	30	
Perfluorotridecanoic acid (PFTrDA)	9.72	1.8	ng/L	9.155		106		65-144	10.2	30	
4:2 Fluorotelomersulfonic acid (4:2FTS A)	12.8	1.8	ng/L	9.155		140		63-143	5.60	30	
Perfluorodecanesulfonic acid (PFDS)	10.9	1.8	ng/L	9.155		119		53-142	11.2	30	
Perfluorooctanesulfonamide (FOSA)	10.1	1.8	ng/L	9.155		110		67-137	5.70	30	
Perfluorononanesulfonic acid (PFNS)	10.4	1.8	ng/L	9.155		114		69-127	22.0	30	
Perfluoro-1-hexanesulfonamide (FHxSA)	10.7	1.8	ng/L	9.155		116		35-131	8.73	25.1	
Perfluoro-1-butanesulfonamide (FBSA)	10.5	1.8	ng/L	9.155		115		53.1-125	8.21	22.5	
Perfluorohexanesulfonic acid (PFHxS)	11.8	1.8	ng/L	9.155		129		68-131	8.98	30	
Perfluoro-4-oxapentanoic acid (PFMPA)	11.6	1.8	ng/L	9.155		127		62.3-138	8.69	20.6	
Perfluoro-5-oxahexanoic acid (PFMBA)	10.3	1.8	ng/L	9.155		112		60.1-138	6.48	20.4	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	11.5	1.8	ng/L	9.155		125		64-140	17.8	30	
Perfluoropentanesulfonic acid (PFPeS)	11.0	1.8	ng/L	9.155		120		71-127	8.52	30	
Perfluoroundecanoic acid (PFUnA)	9.82	1.8	ng/L	9.155		107		69-133	3.14	30	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	10.9	1.8	ng/L	9.155		119		58.2-144	5.87	21.9	
Perfluoroheptanoic acid (PFHpA)	10.4	1.8	ng/L	9.155		113		72-130	3.86	30	
Perfluorooctanoic acid (PFOA)	10.7	1.8	ng/L	9.155		117		71-133	1.34	30	
Perfluorooctanesulfonic acid (PFOS)	9.11	1.8	ng/L	9.155		99.5		65-140	22.5	30	
Perfluorononanoic acid (PFNA)	10.7	1.8	ng/L	9.155		116		69-130	10.7	30	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
L-01	Laboratory fortified blank/laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.
L-03	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-06	Laboratory fortified blank/laboratory control sample recovery and/or duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the high side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
PF-17	Extracted Internal Standard recovery is outside of control limits. Data is not significantly affected since associated analyte is not detected and bias is on the high side.
PF-18	Re-analysis confirmed Extracted Internal Standard failure due to matrix effects.
S-29	Extracted Internal Standard is outside of control limits.

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
ERB (25E0793-01)			Lab File ID: 25E0793-01.d			Analyzed: 05/15/25 14:48			
M8FOSA	111643.8	4.0035	1,030,538.00	4.0115	11	50 - 150	-0.0080	+/-0.50	*
M2-4:2FTS	302232.3	2.548217	450,020.00	2.548217	67	50 - 150	0.0000	+/-0.50	
M2PFTA	1621998	4.280733	2,604,085.00	4.280733	62	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	989789.7	3.769433	535,908.00	3.777733	185	50 - 150	-0.0083	+/-0.50	*
MPFBA	1171758	1.086867	1,125,359.00	1.086867	104	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	413030.2	2.864817	363,054.00	2.864817	114	50 - 150	0.0000	+/-0.50	
M6PFDA	2591736	3.76995	2,642,769.00	3.778233	98	50 - 150	-0.0083	+/-0.50	
M3PFBS	456319.5	1.9453	429,989.00	1.9453	106	50 - 150	0.0000	+/-0.50	
M7PFUnA	1671737	3.904467	2,207,355.00	3.920433	76	50 - 150	-0.0160	+/-0.50	
M2-6:2FTS	528589.1	3.43645	348,087.00	3.436433	152	50 - 150	0.0000	+/-0.50	*
M5PFPeA	1111283	1.766567	1,070,744.00	1.766567	104	50 - 150	0.0000	+/-0.50	
M5PFHxA	2010403	2.6319	1,926,236.00	2.6319	104	50 - 150	0.0000	+/-0.50	
M3PFHxS	359767.5	3.21035	341,029.00	3.218433	105	50 - 150	-0.0081	+/-0.50	
M4PFHpA	2279287	3.187317	2,109,823.00	3.187317	108	50 - 150	0.0000	+/-0.50	
M8PFOA	2465777	3.444883	2,306,214.00	3.444867	107	50 - 150	0.0000	+/-0.50	
M8PFOS	347647	3.6269	304,856.00	3.626883	114	50 - 150	0.0000	+/-0.50	
M9PFNA	2442839	3.6279	2,084,001.00	3.6279	117	50 - 150	0.0000	+/-0.50	
MPFDoA	1155616	4.039516	2,108,922.00	4.05555	55	50 - 150	-0.0160	+/-0.50	
D5-NEtFOSAA	297751.4	3.919933	658,134.00	3.927917	45	50 - 150	-0.0080	+/-0.50	*
D3-NMeFOSAA	86310.95	3.84015	772,545.00	3.856233	11	50 - 150	-0.0161	+/-0.50	*

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
MW-2C (25E0793-02RE1)			Lab File ID: 25E0793-02RE1.d			Analyzed: 05/19/25 09:21			
M8FOSA	194128.5	4.0115	1,000,010.00	4.0115	19	50 - 150	0.0000	+/-0.50	*
M2-4:2FTS	597453.2	2.589267	501,024.00	2.6221	119	50 - 150	-0.0328	+/-0.50	
M2PFTA	347760.9	4.313283	2,620,521.00	4.32955	13	50 - 150	-0.0163	+/-0.50	*
M2-8:2FTS	522875.8	3.809567	547,566.00	3.817533	95	50 - 150	-0.0080	+/-0.50	
MPFBA	196447.8	1.09515	1,130,326.00	1.111733	17	50 - 150	-0.0166	+/-0.50	*
M3HFPO-DA	149659.4	2.89785	321,990.00	2.914117	46	50 - 150	-0.0163	+/-0.50	*
M6PFDA	1452452	3.810067	2,391,664.00	3.818033	61	50 - 150	-0.0080	+/-0.50	
M3PFBS	253184.9	1.970067	416,866.00	1.9949	61	50 - 150	-0.0248	+/-0.50	
M7PFUnA	1479623	3.9527	2,193,423.00	3.960717	67	50 - 150	-0.0080	+/-0.50	
M2-6:2FTS	454468.7	3.452333	424,695.00	3.468433	107	50 - 150	-0.0161	+/-0.50	
M5PFPeA	447247.7	1.783167	1,058,036.00	1.81635	42	50 - 150	-0.0332	+/-0.50	*
M5PFHxA	1094900	2.673767	1,884,992.00	2.69905	58	50 - 150	-0.0253	+/-0.50	
M3PFHxS	201972.4	3.235333	328,821.00	3.251367	61	50 - 150	-0.0160	+/-0.50	
M4PFHpA	1227929	3.211533	2,204,358.00	3.219617	56	50 - 150	-0.0081	+/-0.50	
M8PFOA	987390.1	3.468933	2,276,245.00	3.4769	43	50 - 150	-0.0080	+/-0.50	*
M8PFOS	184534.7	3.6508	301,409.00	3.659	61	50 - 150	-0.0082	+/-0.50	
M9PFNA	1022778	3.651817	2,116,534.00	3.659983	48	50 - 150	-0.0082	+/-0.50	*
MPFDoA	1052647	4.0876	2,097,484.00	4.095617	50	50 - 150	-0.0080	+/-0.50	
D5-NEtFOSAA	449190.8	3.96015	577,611.00	3.968167	78	50 - 150	-0.0080	+/-0.50	
D3-NMeFOSAA	390712.3	3.880183	709,264.00	3.888317	55	50 - 150	-0.0081	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
MW-5 (25E0793-03RE1)			Lab File ID: 25E0793-03RE1.d			Analyzed: 05/19/25 09:28			
M8FOSA	685218.4	4.0115	1,000,010.00	4.0115	69	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	259269.1	2.605683	501,024.00	2.6221	52	50 - 150	-0.0164	+/-0.50	
M2PFTA	1624480	4.313283	2,620,521.00	4.32955	62	50 - 150	-0.0163	+/-0.50	
M2-8:2FTS	296058.3	3.809567	547,566.00	3.817533	54	50 - 150	-0.0080	+/-0.50	
MPFBA	647659.1	1.10345	1,130,326.00	1.111733	57	50 - 150	-0.0083	+/-0.50	
M3HFPO-DA	234192.7	2.905983	321,990.00	2.914117	73	50 - 150	-0.0081	+/-0.50	
M6PFDA	1704169	3.810067	2,391,664.00	3.818033	71	50 - 150	-0.0080	+/-0.50	
M3PFBS	299729	1.986617	416,866.00	1.9949	72	50 - 150	-0.0083	+/-0.50	
M7PFUnA	1539221	3.9527	2,193,423.00	3.960717	70	50 - 150	-0.0080	+/-0.50	
M2-6:2FTS	325720.6	3.468433	424,695.00	3.468433	77	50 - 150	0.0000	+/-0.50	
M5PFPeA	749021.1	1.79975	1,058,036.00	1.81635	71	50 - 150	-0.0166	+/-0.50	
M5PFHxA	1368652	2.690867	1,884,992.00	2.69905	73	50 - 150	-0.0082	+/-0.50	
M3PFHxS	225131.1	3.24335	328,821.00	3.251367	68	50 - 150	-0.0080	+/-0.50	
M4PFHpA	1541967	3.211533	2,204,358.00	3.219617	70	50 - 150	-0.0081	+/-0.50	
M8PFOA	1752740	3.4769	2,276,245.00	3.4769	77	50 - 150	0.0000	+/-0.50	
M8PFOS	219211.9	3.6508	301,409.00	3.659	73	50 - 150	-0.0082	+/-0.50	
M9PFNA	1456371	3.651817	2,116,534.00	3.659983	69	50 - 150	-0.0082	+/-0.50	
MPFDoA	1390529	4.0876	2,097,484.00	4.095617	66	50 - 150	-0.0080	+/-0.50	
D5-NEtFOSAA	403055.9	3.96015	577,611.00	3.968167	70	50 - 150	-0.0080	+/-0.50	
D3-NMeFOSAA	529180.4	3.880183	709,264.00	3.888317	75	50 - 150	-0.0081	+/-0.50	

Pace Analytical Services, LLC - East Longmeadow, Ma

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Blank (B404995-BLK1)			Lab File ID: B404995-BLK1.d			Analyzed: 05/15/25 12:08			
M8FOSA	906817.1	4.0115	1,030,538.00	4.0115	88	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	508939.8	2.556417	450,020.00	2.548217	113	50 - 150	0.0082	+/-0.50	
M2PFTA	2377146	4.28075	2,604,085.00	4.280733	91	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	676934.6	3.777733	535,908.00	3.777733	126	50 - 150	0.0000	+/-0.50	
MPFBA	1254232	1.086867	1,125,359.00	1.086867	111	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	361486.5	2.864817	363,054.00	2.864817	100	50 - 150	0.0000	+/-0.50	
M6PFDA	2732594	3.778233	2,642,769.00	3.778233	103	50 - 150	0.0000	+/-0.50	
M3PFBS	477662.3	1.9453	429,989.00	1.9453	111	50 - 150	0.0000	+/-0.50	
M7PFUnA	2224157	3.92045	2,207,355.00	3.920433	101	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	415160.9	3.436433	348,087.00	3.436433	119	50 - 150	0.0000	+/-0.50	
M5PFPeA	1166720	1.766567	1,070,744.00	1.766567	109	50 - 150	0.0000	+/-0.50	
M5PFHxA	2096591	2.640117	1,926,236.00	2.6319	109	50 - 150	0.0082	+/-0.50	
M3PFHxS	372087.7	3.218433	341,029.00	3.218417	109	50 - 150	0.0000	+/-0.50	
M4PFHpA	2419206	3.187317	2,109,823.00	3.187317	115	50 - 150	0.0000	+/-0.50	
M8PFOA	2582370	3.452817	2,306,214.00	3.444867	112	50 - 150	0.0080	+/-0.50	
M8PFOS	329479.2	3.626883	304,856.00	3.626883	108	50 - 150	0.0000	+/-0.50	
M9PFNA	2324053	3.6279	2,084,001.00	3.627883	112	50 - 150	0.0000	+/-0.50	
MPFDoA	1733916	4.05555	2,108,922.00	4.055533	82	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	600600	3.927917	658,134.00	3.927917	91	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	701622.6	3.856233	772,545.00	3.856233	91	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (B404995-BS1)			Lab File ID: B404995-BS1.d			Analyzed: 05/15/25 11:54			
M8FOSA	1056230	4.011483	1,030,538.00	4.0115	102	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	561288.3	2.556417	450,020.00	2.548217	125	50 - 150	0.0082	+/-0.50	
M2PFTA	3010618	4.280717	2,604,085.00	4.280733	116	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	754635.8	3.777717	535,908.00	3.777733	141	50 - 150	0.0000	+/-0.50	
MPFBA	1403916	1.086867	1,125,359.00	1.086867	125	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	328983.6	2.864817	363,054.00	2.864817	91	50 - 150	0.0000	+/-0.50	
M6PFDA	3011106	3.778233	2,642,769.00	3.778233	114	50 - 150	0.0000	+/-0.50	
M3PFBS	512817.8	1.9453	429,989.00	1.9453	119	50 - 150	0.0000	+/-0.50	
M7PFUnA	2677679	3.920433	2,207,355.00	3.920433	121	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	404051.9	3.436433	348,087.00	3.436433	116	50 - 150	0.0000	+/-0.50	
M5PFPeA	1287371	1.766567	1,070,744.00	1.766567	120	50 - 150	0.0000	+/-0.50	
M5PFHxA	2292302	2.640117	1,926,236.00	2.6319	119	50 - 150	0.0082	+/-0.50	
M3PFHxS	394061.2	3.218417	341,029.00	3.218417	116	50 - 150	0.0000	+/-0.50	
M4PFHpA	2602111	3.187317	2,109,823.00	3.187317	123	50 - 150	0.0000	+/-0.50	
M8PFOA	2769436	3.452817	2,306,214.00	3.444867	120	50 - 150	0.0080	+/-0.50	
M8PFOS	382192.5	3.626867	304,856.00	3.626883	125	50 - 150	0.0000	+/-0.50	
M9PFNA	2511055	3.627883	2,084,001.00	3.627883	120	50 - 150	0.0000	+/-0.50	
MPFDoA	2560275	4.055533	2,108,922.00	4.055533	121	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	673239.1	3.9279	658,134.00	3.927917	102	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	831071.4	3.856217	772,545.00	3.856233	108	50 - 150	0.0000	+/-0.50	

Pace Analytical Services, LLC - East Longmeadow, Ma

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS Dup (B404995-BSD1)			Lab File ID: B404995-BSD1R.d			Analyzed: 05/15/25 12:37			
M8FOSA	983734.3	4.0115	1,030,538.00	4.0115	95	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	436176.5	2.556417	450,020.00	2.548217	97	50 - 150	0.0082	+/-0.50	
M2PFTA	2620805	4.280717	2,604,085.00	4.280733	101	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	667418.4	3.777733	535,908.00	3.777733	125	50 - 150	0.0000	+/-0.50	
MPFBA	1185517	1.086867	1,125,359.00	1.086867	105	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	323893.3	2.864817	363,054.00	2.864817	89	50 - 150	0.0000	+/-0.50	
M6PFDA	2623116	3.778233	2,642,769.00	3.778233	99	50 - 150	0.0000	+/-0.50	
M3PFBS	456057.9	1.9453	429,989.00	1.9453	106	50 - 150	0.0000	+/-0.50	
M7PFUnA	2293718	3.920433	2,207,355.00	3.920433	104	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	324178.6	3.436433	348,087.00	3.436433	93	50 - 150	0.0000	+/-0.50	
M5PFPeA	1098776	1.766567	1,070,744.00	1.766567	103	50 - 150	0.0000	+/-0.50	
M5PFHxA	1992357	2.6319	1,926,236.00	2.6319	103	50 - 150	0.0000	+/-0.50	
M3PFHxS	357226.5	3.218417	341,029.00	3.218417	105	50 - 150	0.0000	+/-0.50	
M4PFHpA	2336188	3.187317	2,109,823.00	3.187317	111	50 - 150	0.0000	+/-0.50	
M8PFOA	2360587	3.444867	2,306,214.00	3.444867	102	50 - 150	0.0000	+/-0.50	
M8PFOS	324832.5	3.626883	304,856.00	3.626883	107	50 - 150	0.0000	+/-0.50	
M9PFNA	2211941	3.627883	2,084,001.00	3.627883	106	50 - 150	0.0000	+/-0.50	
MPFDoA	2125415	4.055533	2,108,922.00	4.055533	101	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	605313.6	3.927917	658,134.00	3.927917	92	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	697232.1	3.856217	772,545.00	3.856233	90	50 - 150	0.0000	+/-0.50	

Pace Analytical Services, LLC - East Longmeadow, Ma

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Blank (B405190-BLK1)			Lab File ID: B405190-BLK1.d			Analyzed: 05/19/25 09:07			
M8FOSA	577497.8	4.011483	1,000,010.00	4.0115	58	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	303706.2	2.6139	501,024.00	2.6221	61	50 - 150	-0.0082	+/-0.50	
M2PFTA	1658151	4.321417	2,620,521.00	4.32955	63	50 - 150	-0.0081	+/-0.50	
M2-8:2FTS	368815.2	3.809567	547,566.00	3.817533	67	50 - 150	-0.0080	+/-0.50	
MPFBA	769927.1	1.10345	1,130,326.00	1.111733	68	50 - 150	-0.0083	+/-0.50	
M3HFPO-DA	264487.1	2.9141	321,990.00	2.914117	82	50 - 150	0.0000	+/-0.50	
M6PFDA	1539246	3.810067	2,391,664.00	3.818033	64	50 - 150	-0.0080	+/-0.50	
M3PFBS	282219.6	1.986617	416,866.00	1.9949	68	50 - 150	-0.0083	+/-0.50	
M7PFUnA	1454415	3.952683	2,193,423.00	3.960717	66	50 - 150	-0.0080	+/-0.50	
M2-6:2FTS	275834.4	3.468433	424,695.00	3.468433	65	50 - 150	0.0000	+/-0.50	
M5PFPeA	723646.1	1.80805	1,058,036.00	1.81635	68	50 - 150	-0.0083	+/-0.50	
M5PFHxA	1274896	2.699033	1,884,992.00	2.69905	68	50 - 150	0.0000	+/-0.50	
M3PFHxS	199024.2	3.24335	328,821.00	3.251367	61	50 - 150	-0.0080	+/-0.50	
M4PFHpA	1411258	3.219617	2,204,358.00	3.219617	64	50 - 150	0.0000	+/-0.50	
M8PFOA	1560075	3.4769	2,276,245.00	3.4769	69	50 - 150	0.0000	+/-0.50	
M8PFOS	219246.7	3.659	301,409.00	3.659	73	50 - 150	0.0000	+/-0.50	
M9PFNA	1376958	3.659967	2,116,534.00	3.659983	65	50 - 150	0.0000	+/-0.50	
MPFDoA	1367102	4.087584	2,097,484.00	4.095617	65	50 - 150	-0.0080	+/-0.50	
D5-NEtFOSAA	442550.8	3.96015	577,611.00	3.968167	77	50 - 150	-0.0080	+/-0.50	
D3-NMeFOSAA	521803.7	3.888317	709,264.00	3.888317	74	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (B405190-BS1)			Lab File ID: B405190-BS1.d			Analyzed: 05/19/25 08:52			
M8FOSA	576787.9	4.0115	1,000,010.00	4.0115	58	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	313986.7	2.613883	501,024.00	2.6221	63	50 - 150	-0.0082	+/-0.50	
M2PFTA	1665261	4.321417	2,620,521.00	4.32955	64	50 - 150	-0.0081	+/-0.50	
M2-8:2FTS	361932	3.809567	547,566.00	3.817533	66	50 - 150	-0.0080	+/-0.50	
MPFBA	761019.6	1.111733	1,130,326.00	1.111733	67	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	254665.4	2.914117	321,990.00	2.914117	79	50 - 150	0.0000	+/-0.50	
M6PFDA	1550876	3.810067	2,391,664.00	3.818033	65	50 - 150	-0.0080	+/-0.50	
M3PFBS	276576.6	1.9949	416,866.00	1.9949	66	50 - 150	0.0000	+/-0.50	
M7PFUnA	1443165	3.9527	2,193,423.00	3.960717	66	50 - 150	-0.0080	+/-0.50	
M2-6:2FTS	284067.3	3.468433	424,695.00	3.468433	67	50 - 150	0.0000	+/-0.50	
M5PFPeA	724452.4	1.80805	1,058,036.00	1.81635	68	50 - 150	-0.0083	+/-0.50	
M5PFHxA	1252433	2.699033	1,884,992.00	2.69905	66	50 - 150	0.0000	+/-0.50	
M3PFHxS	210843.1	3.25135	328,821.00	3.251367	64	50 - 150	0.0000	+/-0.50	
M4PFHpA	1407996	3.219617	2,204,358.00	3.219617	64	50 - 150	0.0000	+/-0.50	
M8PFOA	1601379	3.4769	2,276,245.00	3.4769	70	50 - 150	0.0000	+/-0.50	
M8PFOS	186418.7	3.659	301,409.00	3.659	62	50 - 150	0.0000	+/-0.50	
M9PFNA	1398402	3.659983	2,116,534.00	3.659983	66	50 - 150	0.0000	+/-0.50	
MPFDoA	1271384	4.0876	2,097,484.00	4.095617	61	50 - 150	-0.0080	+/-0.50	
D5-NEtFOSAA	411961.9	3.96015	577,611.00	3.968167	71	50 - 150	-0.0080	+/-0.50	
D3-NMeFOSAA	500161.4	3.888317	709,264.00	3.888317	71	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS Dup (B405190-BSD1)			Lab File ID: B405190-BSD1.d			Analyzed: 05/19/25 08:59			
M8FOSA	620967.3	4.011517	1,000,010.00	4.0115	62	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	300346.3	2.6139	501,024.00	2.6221	60	50 - 150	-0.0082	+/-0.50	
M2PFTA	1735673	4.32145	2,620,521.00	4.32955	66	50 - 150	-0.0081	+/-0.50	
M2-8:2FTS	389750.7	3.809583	547,566.00	3.817533	71	50 - 150	-0.0080	+/-0.50	
MPFBA	766808.8	1.111733	1,130,326.00	1.111733	68	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	248112.7	2.914117	321,990.00	2.914117	77	50 - 150	0.0000	+/-0.50	
M6PFDA	1687476	3.810083	2,391,664.00	3.818033	71	50 - 150	-0.0079	+/-0.50	
M3PFBS	283735.2	1.9949	416,866.00	1.9949	68	50 - 150	0.0000	+/-0.50	
M7PFUnA	1447016	3.952717	2,193,423.00	3.960717	66	50 - 150	-0.0080	+/-0.50	
M2-6:2FTS	285085.7	3.46845	424,695.00	3.468433	67	50 - 150	0.0000	+/-0.50	
M5PFPeA	729130.8	1.80805	1,058,036.00	1.81635	69	50 - 150	-0.0083	+/-0.50	
M5PFHxA	1266762	2.69905	1,884,992.00	2.69905	67	50 - 150	0.0000	+/-0.50	
M3PFHxS	224730.2	3.243367	328,821.00	3.251367	68	50 - 150	-0.0080	+/-0.50	
M4PFHpA	1389300	3.219633	2,204,358.00	3.219617	63	50 - 150	0.0000	+/-0.50	
M8PFOA	1566389	3.476917	2,276,245.00	3.4769	69	50 - 150	0.0000	+/-0.50	
M8PFOS	217187.8	3.659017	301,409.00	3.659	72	50 - 150	0.0000	+/-0.50	
M9PFNA	1432932	3.66	2,116,534.00	3.659983	68	50 - 150	0.0000	+/-0.50	
MPFDoA	1338751	4.087616	2,097,484.00	4.095617	64	50 - 150	-0.0080	+/-0.50	
D5-NEtFOSAA	443572.3	3.960167	577,611.00	3.968167	77	50 - 150	-0.0080	+/-0.50	
D3-NMeFOSAA	465132.7	3.888333	709,264.00	3.888317	66	50 - 150	0.0000	+/-0.50	

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SOP-454 PFAS in Water	
Perfluorobutanoic acid (PFBA)	NH-P,PA,NY
Perfluorobutanesulfonic acid (PFBS)	NH-P,PA,NY
Perfluoropentanoic acid (PFPeA)	NH-P,PA,NY
Perfluorohexanoic acid (PFHxA)	NH-P,PA,NY
11Cl-PF3OUdS (F53B Major)	NH-P,PA,NY
9Cl-PF3ONS (F53B Minor)	NH-P,PA
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,PA,NY
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,PA,NY
8:2 Fluorotelomersulfonic acid (8:2FTS A)	NH-P,PA
Perfluorodecanoic acid (PFDA)	NH-P,PA,NY
Perfluorododecanoic acid (PFDoA)	NH-P,PA,NY
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	NH-P,PA,NY
Perfluoroheptanesulfonic acid (PFHpS)	NH-P,PA,NY
N-EtFOSAA (NEtFOSAA)	NH-P,PA,NY
N-MeFOSAA (NMeFOSAA)	NH-P,PA,NY
Perfluorotetradecanoic acid (PFTA)	NH-P,PA,NY
Perfluorotridecanoic acid (PFTrDA)	NH-P,PA,NY
4:2 Fluorotelomersulfonic acid (4:2FTS A)	NH-P,PA,NY
Perfluorodecanesulfonic acid (PFDS)	NH-P,PA
Perfluorooctanesulfonamide (FOSA)	NH-P,PA
Perfluorononanesulfonic acid (PFNS)	NH-P,PA
Perfluoro-1-hexanesulfonamide (FHxSA)	NH-P,PA
Perfluoro-1-butanesulfonamide (FBSA)	NH-P,PA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,PA,NY
Perfluoro-4-oxapentanoic acid (PFMPA)	NH-P,PA,NY
Perfluoro-5-oxahexanoic acid (PFMBA)	NH-P,PA,NY
6:2 Fluorotelomersulfonic acid (6:2FTS A)	NH-P,PA,NY
Perfluoropentanesulfonic acid (PFPeS)	NH-P,PA,NY
Perfluoroundecanoic acid (PFUnA)	NH-P,PA,NY
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NH-P,PA
Perfluoroheptanoic acid (PFHpA)	NH-P,PA,NY
Perfluorooctanoic acid (PFOA)	NH-P,PA,NY
Perfluorooctanesulfonic acid (PFOS)	NH-P,PA,NY
Perfluorononanoic acid (PFNA)	NH-P,PA,NY
Summation of PFAS 6	PA

Pace Analytical Services, LLC - East Longmeadow, Ma, operates under the following certifications and accreditations:

Code	Description	Number	Expires
NY	New York State Department of Health	10899 NELAP	04/1/2026
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2025
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2026

25E0793

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 2_06262019

Page 1 of 1

Company Name:	KAS, Inc.
Address:	589 Avenue D, Suite 10
Phone:	802-383-0486
Project Name:	Brandon Landfill
Project Location:	Brandon, VT
Project Number:	609210052
Project Manager:	C. Santos
Con-Test Quote Name/Number:	
Invoice Recipient:	
Sampled By:	NR

Requested Turnaround Time
7-Day ☐ 10-Day ☐
PFAS 15-Day (std) ☑ Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☐
Email To: clares@kas-consulting.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Date	Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	PFAS Isotope Dilution	None
	ERB	5/8/25	10:12	Grab	FB				2			X	
	MW-2C	↓	12:28	Grab	GW				2			X	
	MW-5	↓	13:15	Grab	GW				2			X	

[2] Preservation Code

Courier Use Only
Total Number Of:
VIALS_____
GLASS_____
PLASTIC_____
BACTERIA_____
ENCORE_____

Glassware in the fridge? Y / N

Glassware in freezer? Y / N

Prepackaged Cooler? Y / N

*Contest is not responsible for missing samples from prepacked coolers

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)
_field blank_____

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)
_Trizma

Relinquished by: (signature)	Date/Time: 5/8/25 16:00
Received by: (signature)	Date/Time: 5/9/25 1105
Relinquished by: (signature)	Date/Time: 5/9/25 1950
Received by: (signature) 1.8	Date/Time: 5/9/25 1950
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:

Detection Limit Requirements
MA
CT
Other: Vermont I-RULE

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

Lab Comments:

Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-ELON-0001 v08_Sample Receiving Checklist
	Effective Date: 06/11/2024

Log In Back-Sheet

Client KAS, Inc.

Project Brandon Landfill

MCP/RCP Required

Deliverable Package Requirement

Location Brandon, VT

PWSID# (When Applicable)

Arrival Method:

Courier ☒ Fed Ex ☐ Walk In ☐ Other ☐

Received By / Date / Time RL 5/9/25 1950

Back-Sheet By / Date / Time SMW 5/10/25 1234

Temperature Method Gun # 6

WV samples: Yes (see note*) (No) (follow normal procedure)

Temp X < 6° C Actual Temperature 1.8

Rush Samples: Yes / (No) Notify

Short Hold: Yes / (No) Notify

Notes regarding Samples/COC outside of SOP:

Login Sample Receipt Checklist – (Rejection Criteria Listing – Using Acceptance Policy) Any False statement will be brought to the attention of the Client – True or False

	True	False
Received on Ice	☒	☐
Received in Cooler	☒	☐
Custody Seal: DATE TIME	☐	☒
COC Relinquished	☒	☐
COC/Samples Labels Agree	☒	☐
All Samples in Good Condition	☒	☐
Samples Received within Holding Time	☒	☐
Is there enough Volume	☒	☐
Proper Media/Container Used	☒	☐
Splitting Samples Required	☐	☒
MS/MSD	☐	☒
Trip Blanks	☐	☒
Lab to Filters	☐	☒
COC Legible	☒	☐

COC Included: (Check all included)

Client ☒	Analysis ☒	Sampler Name ☒
Project ☒	IDs ☒	Collection Date/Time ☒

All Samples Proper pH: N/A ☒ ☐

Additional Container Notes

Note: West Virginia requires all samples to have their temperature taken. Note any outliers.

Pace	DC#_Title: ENV-FRM-ELON-0001 v08_Sample Receiving Checklist
	Effective Date: 06/11/2024

Sample																					
16oz Amb/Clear																					
8oz Amb/Clear																					
4oz Amb/Clear																					
2oz Amb/Clear																					
Unpreserved																					
HCL																					
Sulfuric																					
Sulfuric																					
Phosphoric																					
HCl																					
Unpreserved																					
Unpreserved																					
Sulfuric																					
Unpreserved																					
Sulfuric																					
Unpreserved																			2	2	1
Trizma																					
Sulfuric																					
Nitric																					
NaOH																					
Ammonium Acetate																					
NaOH/Zinc																					
Unpreserved																					
HCl																					
MeOH																					
D.I. Water																					
BiSulfate																					
Col/Bact																					

Soils Jars	(Circle Amb/Clear)	
Ambers	1 Liter	
	250mL	
	100mL	
Plastics	1 Liter	
	500mL	
	250mL	
VOA Vials		
Other / Fill in		

ENDYNE Inc.
Environmental Laboratories

Laboratory Report

KAS, Inc 100306
PO Box 787
Williston, VT 05495

Atten: Clare Santos

PROJECT: Brandon Landfill
WORK ORDER: **2505-13698**
DATE RECEIVED: May 09, 2025
DATE REPORTED: May 20, 2025
SAMPLER: WR

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. All required method quality control elements including instrument calibration were performed in accordance with method requirements and determined to be acceptable unless otherwise noted.

The column labeled Lab/Tech in the accompanying report denotes the laboratory facility where the testing was performed and the technician who conducted the assay. A "W" designates the Williston, VT lab under NELAC certification ELAP 11263; "R" designates the Lebanon, NH facility under certification NH 2037 and "N" the Plattsburgh, NY lab under certification ELAP 11892. "Sub" indicates the testing was performed by a subcontracted laboratory. The accreditation status of the subcontracted lab is referenced in the corresponding NELAC and Qual fields.

The NELAC column also denotes the accreditation status of each laboratory for each reported parameter. "A" indicates the referenced laboratory is NELAC accredited for the parameter reported. "N" indicates the laboratory is not accredited. "U" indicates that NELAC does not offer accreditation for that parameter in that specific matrix. Test results denoted with an "A" meet all National Environmental Laboratory Accreditation Program requirements except where denoted by pertinent data qualifiers. Test results are representative of the samples as they were received at the laboratory

Endyne, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose.

Reviewed by:

Harry B. Locker, Ph.D.
Laboratory Director

CLIENT: KAS, Inc
PROJECT: Brandon Landfill

WORK ORDER: **2505-13698**
DATE RECEIVED: 05/09/2025

001 Site: MW-1 Date Sampled: 5/8/25 Time: 10:30

Parameter	Result	Units	Method	Analysis Date		Lab/Tech	NELAC	Qual.
Chloride	110	mg/L	EPA 300.0	5/10/25	5:59	W KMB	A	
COD	74	mg/L	EPA 410.4	5/16/25		N WEP	A	
Metals Digestion	Digested		EPA 3015A	5/12/25		W MLR	A	
Arsenic, Total	0.0076	mg/L	EPA 6020B	5/16/25	16:22	W MGT	A	
Cadmium, Total	< 0.0020	mg/L	EPA 6020B	5/13/25	16:25	W MGT	A	
Chromium, Total	< 0.010	mg/L	EPA 6020B	5/16/25	16:22	W MGT	A	
Copper, Total	< 0.040	mg/L	EPA 6020B	5/16/25	16:22	W MGT	A	
Iron, Total	17	mg/L	EPA 6010C	5/14/25	14:03	W MLR	A	
Lead, Total	0.0079	mg/L	EPA 6020B	5/13/25	16:25	W MGT	A	
Manganese, Total	5.6	mg/L	EPA 6020B	5/16/25	16:22	W MGT	A	
Mercury, Total	< 0.0002	mg/L	EPA 6020B	5/13/25	16:25	W MGT	N	
Nickel, Total	0.0173	mg/L	EPA 6020B	5/16/25	16:22	W MGT	A	
Sodium, Total	44	mg/L	EPA 6010C	5/14/25	14:03	W MLR	A	
Zinc, Total	0.050	mg/L	EPA 6020B	5/16/25	16:22	W MGT	A	

002 Site: MW-2C Date Sampled: 5/8/25 Time: 12:28

Parameter	Result	Units	Method	Analysis Date		Lab/Tech	NELAC	Qual.
Chloride	290	mg/L	EPA 300.0	5/10/25	6:20	W KMB	A	
COD	47	mg/L	EPA 410.4	5/16/25		N WEP	A	
Metals Digestion	Digested		EPA 3015A	5/12/25		W MLR	A	
Arsenic, Total	0.0199	mg/L	EPA 6020B	5/13/25	16:28	W MGT	A	
Cadmium, Total	< 0.0020	mg/L	EPA 6020B	5/13/25	16:28	W MGT	A	
Chromium, Total	< 0.010	mg/L	EPA 6020B	5/16/25	16:25	W MGT	A	
Copper, Total	< 0.020	mg/L	EPA 6020B	5/13/25	16:28	W MGT	A	
Iron, Total	25	mg/L	EPA 6010C	5/14/25	14:09	W MLR	A	
Lead, Total	< 0.0010	mg/L	EPA 6020B	5/13/25	16:28	W MGT	A	
Manganese, Total	0.37	mg/L	EPA 6020B	5/16/25	16:25	W MGT	A	
Mercury, Total	< 0.0002	mg/L	EPA 6020B	5/13/25	16:28	W MGT	N	
Nickel, Total	0.0119	mg/L	EPA 6020B	5/13/25	16:28	W MGT	A	
Sodium, Total	190	mg/L	EPA 6010C	5/16/25	12:29	W MLR	A	
Zinc, Total	< 0.020	mg/L	EPA 6020B	5/13/25	16:28	W MGT	A	

003 Site: MW-3 Date Sampled: 5/8/25 Time: 11:25

Parameter	Result	Units	Method	Analysis Date		Lab/Tech	NELAC	Qual.
Chloride	43	mg/L	EPA 300.0	5/10/25	6:41	W KMB	A	
COD	34	mg/L	EPA 410.4	5/16/25		N WEP	A	
Metals Digestion	Digested		EPA 3015A	5/12/25		W MLR	A	
Arsenic, Total	0.0105	mg/L	EPA 6020B	5/16/25	16:27	W MGT	A	
Cadmium, Total	< 0.0020	mg/L	EPA 6020B	5/13/25	16:31	W MGT	A	
Chromium, Total	0.0173	mg/L	EPA 6020B	5/16/25	16:27	W MGT	A	
Copper, Total	< 0.040	mg/L	EPA 6020B	5/16/25	16:27	W MGT	A	
Iron, Total	24	mg/L	EPA 6010C	5/14/25	14:14	W MLR	A	
Lead, Total	0.0182	mg/L	EPA 6020B	5/13/25	16:31	W MGT	A	
Manganese, Total	0.63	mg/L	EPA 6020B	5/16/25	16:27	W MGT	A	

CLIENT: KAS, Inc
PROJECT: Brandon Landfill

WORK ORDER: **2505-13698**
DATE RECEIVED: 05/09/2025

003 Site: MW-3 Date Sampled: 5/8/25 Time: 11:25

Parameter	Result	Units	Method	Analysis Date		Lab/Tech	NELAC	Qual.
Mercury, Total	< 0.0002	mg/L	EPA 6020B	5/13/25	16:31	W MGT	N	
Nickel, Total	0.0196	mg/L	EPA 6020B	5/16/25	16:27	W MGT	A	
Sodium, Total	27	mg/L	EPA 6010C	5/14/25	14:14	W MLR	A	
Zinc, Total	0.071	mg/L	EPA 6020B	5/16/25	16:27	W MGT	A	

004 Site: MW-5 Date Sampled: 5/8/25 Time: 13:15

Parameter	Result	Units	Method	Analysis Date		Lab/Tech	NELAC	Qual.
Chloride	61	mg/L	EPA 300.0	5/10/25	7:02	W KMB	A	
COD	14	mg/L	EPA 410.4	5/16/25		N WEP	A	
Metals Digestion	Digested		EPA 3015A	5/14/25		W MLR	A	
Arsenic, Total	0.0029	mg/L	EPA 6020B	5/16/25	16:41	W MGT	A	
Cadmium, Total	< 0.0020	mg/L	EPA 6020B	5/16/25	16:41	W MGT	A	
Chromium, Total	< 0.0050	mg/L	EPA 6020B	5/16/25	16:41	W MGT	A	
Copper, Total	< 0.020	mg/L	EPA 6020B	5/16/25	16:41	W MGT	A	
Iron, Total	5.8	mg/L	EPA 6010C	5/14/25	18:46	W MLR	A	
Lead, Total	0.0028	mg/L	EPA 6020B	5/16/25	16:41	W MGT	A	
Manganese, Total	0.85	mg/L	EPA 6020B	5/16/25	16:41	W MGT	A	
Mercury, Total	< 0.0002	mg/L	EPA 6020B	5/16/25	16:41	W MGT	N	
Nickel, Total	< 0.0050	mg/L	EPA 6020B	5/16/25	16:41	W MGT	A	
Sodium, Total	36	mg/L	EPA 6010C	5/14/25	18:46	W MLR	A	
Zinc, Total	< 0.020	mg/L	EPA 6020B	5/16/25	16:41	W MGT	A	

005 Site: Duplicate Date Sampled: 5/8/25 Time: 12:28

Parameter	Result	Units	Method	Analysis Date		Lab/Tech	NELAC	Qual.
Chloride	290	mg/L	EPA 300.0	5/10/25	7:23	W KMB	A	
COD	63	mg/L	EPA 410.4	5/16/25		N WEP	A	
Metals Digestion	Digested		EPA 3015A	5/14/25		W MLR	A	
Arsenic, Total	0.0188	mg/L	EPA 6020B	5/16/25	16:43	W MGT	A	
Cadmium, Total	< 0.0020	mg/L	EPA 6020B	5/16/25	16:43	W MGT	A	
Chromium, Total	< 0.0050	mg/L	EPA 6020B	5/16/25	16:43	W MGT	A	
Copper, Total	< 0.020	mg/L	EPA 6020B	5/16/25	16:43	W MGT	A	
Iron, Total	24	mg/L	EPA 6010C	5/14/25	19:02	W MLR	A	
Lead, Total	< 0.0010	mg/L	EPA 6020B	5/16/25	16:43	W MGT	A	
Manganese, Total	0.33	mg/L	EPA 6020B	5/16/25	16:43	W MGT	A	
Mercury, Total	< 0.0002	mg/L	EPA 6020B	5/16/25	16:43	W MGT	N	
Nickel, Total	0.0111	mg/L	EPA 6020B	5/16/25	16:43	W MGT	A	
Sodium, Total	200	mg/L	EPA 6010C	5/16/25	12:50	W MLR	A	
Zinc, Total	< 0.020	mg/L	EPA 6020B	5/16/25	16:43	W MGT	A	

CLIENT: KAS, Inc
PROJECT: Brandon Landfill

WORK ORDER: **2505-13698**
DATE RECEIVED: 05/09/2025

TEST METHOD: EPA 8260C

001 Site: MW-1 Sampled: 5/8/25 10:30 Test Date: 5/15/25 W TRP

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Dichlorodifluoromethane	< 5.0	ug/L	A		Chloromethane	< 3.0	ug/L	A	
Vinyl chloride	< 0.5	ug/L	A		Bromomethane	< 0.5	ug/L	A	
Chloroethane	< 5.0	ug/L	A		Trichlorofluoromethane	< 2.0	ug/L	A	
Diethyl ether	< 5.0	ug/L	N		1,1-Dichloroethene	< 0.7	ug/L	A	
Acetone	< 10.0	ug/L	A		Carbon disulfide	< 5.0	ug/L	A	
Methylene chloride	< 5.0	ug/L	A		t-Butanol	< 20.0	ug/L	N	
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	A		trans-1,2-Dichloroethene	< 1.0	ug/L	A	
Di-isopropyl ether (DIPE)	< 2.0	ug/L	N		1,1-Dichloroethane	< 1.0	ug/L	A	
Ethyl-t-butyl ether (ETBE)	< 2.0	ug/L	N		2-Butanone	< 10.0	ug/L	A	
2,2-Dichloropropane	< 1.0	ug/L	N		cis-1,2-Dichloroethene	< 1.0	ug/L	A	
Bromochloromethane	< 0.8	ug/L	A		Chloroform	< 1.0	ug/L	A	
Tetrahydrofuran	< 10.0	ug/L	N		1,1,1-Trichloroethane	< 1.0	ug/L	A	
Carbon tetrachloride	< 0.5	ug/L	A		1,1-Dichloropropene	< 1.0	ug/L	N	
Benzene	< 0.5	ug/L	A		t-Amylmethyl ether (TAME)	< 2.0	ug/L	N	
1,2-Dichloroethane	< 0.5	ug/L	A		Trichloroethene	< 0.5	ug/L	A	
1,2-Dichloropropane	< 0.5	ug/L	A		Dibromomethane	< 2.0	ug/L	A	
Bromodichloromethane	< 0.5	ug/L	A		cis-1,3-Dichloropropene	< 1.0	ug/L	A	
4-Methyl-2-pentanone (MIBK)	< 10.0	ug/L	A		Toluene	< 1.0	ug/L	A	
trans-1,3-Dichloropropene	< 1.0	ug/L	A		1,1,2-Trichloroethane	< 1.0	ug/L	A	
Tetrachloroethene	< 0.5	ug/L	A		1,3-Dichloropropane	< 1.0	ug/L	N	
2-Hexanone	< 10.0	ug/L	A		Dibromochloromethane	< 1.0	ug/L	A	
1,2-Dibromoethane	< 2.0	ug/L	A		Chlorobenzene	< 1.0	ug/L	A	
Ethylbenzene	< 1.0	ug/L	A		1,1,1,2-Tetrachloroethane	< 2.0	ug/L	A	
Xylenes, Total	< 2.0	ug/L	A		Styrene	< 1.0	ug/L	A	
Bromoform	< 2.0	ug/L	A		Isopropylbenzene	< 1.0	ug/L	A	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	A		Bromobenzene	< 1.0	ug/L	A	
n-Propylbenzene	< 1.0	ug/L	A		1,2,3-Trichloropropane	< 2.0	ug/L	A	
2-Chlorotoluene	< 1.0	ug/L	A		1,3,5-Trimethylbenzene	< 1.0	ug/L	A	
4-Chlorotoluene	< 1.0	ug/L	A		t-Butylbenzene	< 1.0	ug/L	A	
1,2,4-Trimethylbenzene	< 1.0	ug/L	A		s-Butylbenzene	< 1.0	ug/L	A	
4-Isopropyltoluene	< 1.0	ug/L	A		1,3-Dichlorobenzene	< 1.0	ug/L	A	
1,4-Dichlorobenzene	< 1.0	ug/L	A		1,2,3-Trimethylbenzene	< 1.0	ug/L	U	
n-Butylbenzene	< 1.0	ug/L	A		1,2-Dichlorobenzene	< 1.0	ug/L	A	
1,2-Dibromo-3-Chloropropane	< 2.0	ug/L	A		1,2,4-Trichlorobenzene	< 2.0	ug/L	A	
1,3,5-Trichlorobenzene	< 2.0	ug/L	N		Hexachlorobutadiene	< 0.5	ug/L	A	
Naphthalene	< 0.5	ug/L	A		1,2,3-Trichlorobenzene	< 2.0	ug/L	A	
Surr. 1 (Dibromofluoromethane)	103	%	A		Surr. 2 (Toluene d8)	101	%	A	
Surr. 3 (4-Bromofluorobenzene)	100	%	A		Unidentified Peaks	4		U	

CLIENT: KAS, Inc
PROJECT: Brandon Landfill

WORK ORDER: **2505-13698**
DATE RECEIVED: 05/09/2025

TEST METHOD: EPA 8260C

002 Site: MW-2C Sampled: 5/8/25 12:28 Test Date: 5/15/25 W TRP

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Dichlorodifluoromethane	< 5.0	ug/L	A		Chloromethane	< 3.0	ug/L	A	
Vinyl chloride	< 0.5	ug/L	A		Bromomethane	< 0.5	ug/L	A	
Chloroethane	< 5.0	ug/L	A		Trichlorofluoromethane	< 2.0	ug/L	A	
Diethyl ether	20.9	ug/L	N		1,1-Dichloroethene	< 0.7	ug/L	A	
Acetone	< 10.0	ug/L	A		Carbon disulfide	< 5.0	ug/L	A	
Methylene chloride	< 5.0	ug/L	A		t-Butanol	< 20.0	ug/L	N	
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	A		trans-1,2-Dichloroethene	< 1.0	ug/L	A	
Di-isopropyl ether (DIPE)	< 2.0	ug/L	N		1,1-Dichloroethane	< 1.0	ug/L	A	
Ethyl-t-butyl ether (ETBE)	< 2.0	ug/L	N		2-Butanone	< 10.0	ug/L	A	
2,2-Dichloropropane	< 1.0	ug/L	N		cis-1,2-Dichloroethene	< 1.0	ug/L	A	
Bromochloromethane	< 0.8	ug/L	A		Chloroform	< 1.0	ug/L	A	
Tetrahydrofuran	< 10.0	ug/L	N		1,1,1-Trichloroethane	< 1.0	ug/L	A	
Carbon tetrachloride	< 0.5	ug/L	A		1,1-Dichloropropene	< 1.0	ug/L	N	
Benzene	2.5	ug/L	A		t-Amylmethyl ether (TAME)	< 2.0	ug/L	N	
1,2-Dichloroethane	< 0.5	ug/L	A		Trichloroethene	< 0.5	ug/L	A	
1,2-Dichloropropane	< 0.5	ug/L	A		Dibromomethane	< 2.0	ug/L	A	
Bromodichloromethane	< 0.5	ug/L	A		cis-1,3-Dichloropropene	< 1.0	ug/L	A	
4-Methyl-2-pentanone (MIBK)	< 10.0	ug/L	A		Toluene	< 1.0	ug/L	A	
trans-1,3-Dichloropropene	< 1.0	ug/L	A		1,1,2-Trichloroethane	< 1.0	ug/L	A	
Tetrachloroethene	< 0.5	ug/L	A		1,3-Dichloropropane	< 1.0	ug/L	N	
2-Hexanone	< 10.0	ug/L	A		Dibromochloromethane	< 1.0	ug/L	A	
1,2-Dibromoethane	< 2.0	ug/L	A		Chlorobenzene	6.6	ug/L	A	
Ethylbenzene	< 1.0	ug/L	A		1,1,1,2-Tetrachloroethane	< 2.0	ug/L	A	
Xylenes, Total	< 2.0	ug/L	A		Styrene	< 1.0	ug/L	A	
Bromoform	< 2.0	ug/L	A		Isopropylbenzene	< 1.0	ug/L	A	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	A		Bromobenzene	< 1.0	ug/L	A	
n-Propylbenzene	< 1.0	ug/L	A		1,2,3-Trichloropropane	< 2.0	ug/L	A	
2-Chlorotoluene	< 1.0	ug/L	A		1,3,5-Trimethylbenzene	< 1.0	ug/L	A	
4-Chlorotoluene	< 1.0	ug/L	A		t-Butylbenzene	< 1.0	ug/L	A	
1,2,4-Trimethylbenzene	< 1.0	ug/L	A		s-Butylbenzene	< 1.0	ug/L	A	
4-Isopropyltoluene	< 1.0	ug/L	A		1,3-Dichlorobenzene	< 1.0	ug/L	A	
1,4-Dichlorobenzene	2.3	ug/L	A		1,2,3-Trimethylbenzene	< 1.0	ug/L	U	
n-Butylbenzene	< 1.0	ug/L	A		1,2-Dichlorobenzene	< 1.0	ug/L	A	
1,2-Dibromo-3-Chloropropane	< 2.0	ug/L	A		1,2,4-Trichlorobenzene	< 2.0	ug/L	A	
1,3,5-Trichlorobenzene	< 2.0	ug/L	N		Hexachlorobutadiene	< 0.5	ug/L	A	
Naphthalene	< 0.5	ug/L	A		1,2,3-Trichlorobenzene	< 2.0	ug/L	A	
Surr. 1 (Dibromofluoromethane)	105	%	A		Surr. 2 (Toluene d8)	101	%	A	
Surr. 3 (4-Bromofluorobenzene)	101	%	A		Unidentified Peaks	3		U	

CLIENT: KAS, Inc
PROJECT: Brandon Landfill

WORK ORDER: **2505-13698**
DATE RECEIVED: 05/09/2025

TEST METHOD: EPA 8260C

003 Site: MW-3 Sampled: 5/8/25 11:25 Test Date: 5/15/25 W TRP

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Dichlorodifluoromethane	< 5.0	ug/L	A		Chloromethane	< 3.0	ug/L	A	
Vinyl chloride	< 0.5	ug/L	A		Bromomethane	< 0.5	ug/L	A	
Chloroethane	< 5.0	ug/L	A		Trichlorofluoromethane	< 2.0	ug/L	A	
Diethyl ether	< 5.0	ug/L	N		1,1-Dichloroethene	< 0.7	ug/L	A	
Acetone	< 10.0	ug/L	A		Carbon disulfide	< 5.0	ug/L	A	
Methylene chloride	< 5.0	ug/L	A		t-Butanol	< 20.0	ug/L	N	
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	A		trans-1,2-Dichloroethene	< 1.0	ug/L	A	
Di-isopropyl ether (DIPE)	< 2.0	ug/L	N		1,1-Dichloroethane	< 1.0	ug/L	A	
Ethyl-t-butyl ether (ETBE)	< 2.0	ug/L	N		2-Butanone	< 10.0	ug/L	A	
2,2-Dichloropropane	< 1.0	ug/L	N		cis-1,2-Dichloroethene	< 1.0	ug/L	A	
Bromochloromethane	< 0.8	ug/L	A		Chloroform	< 1.0	ug/L	A	
Tetrahydrofuran	< 10.0	ug/L	N		1,1,1-Trichloroethane	< 1.0	ug/L	A	
Carbon tetrachloride	< 0.5	ug/L	A		1,1-Dichloropropene	< 1.0	ug/L	N	
Benzene	< 0.5	ug/L	A		t-Amylmethyl ether (TAME)	< 2.0	ug/L	N	
1,2-Dichloroethane	< 0.5	ug/L	A		Trichloroethene	< 0.5	ug/L	A	
1,2-Dichloropropane	< 0.5	ug/L	A		Dibromomethane	< 2.0	ug/L	A	
Bromodichloromethane	< 0.5	ug/L	A		cis-1,3-Dichloropropene	< 1.0	ug/L	A	
4-Methyl-2-pentanone (MIBK)	< 10.0	ug/L	A		Toluene	< 1.0	ug/L	A	
trans-1,3-Dichloropropene	< 1.0	ug/L	A		1,1,2-Trichloroethane	< 1.0	ug/L	A	
Tetrachloroethene	< 0.5	ug/L	A		1,3-Dichloropropane	< 1.0	ug/L	N	
2-Hexanone	< 10.0	ug/L	A		Dibromochloromethane	< 1.0	ug/L	A	
1,2-Dibromoethane	< 2.0	ug/L	A		Chlorobenzene	< 1.0	ug/L	A	
Ethylbenzene	< 1.0	ug/L	A		1,1,1,2-Tetrachloroethane	< 2.0	ug/L	A	
Xylenes, Total	< 2.0	ug/L	A		Styrene	< 1.0	ug/L	A	
Bromoform	< 2.0	ug/L	A		Isopropylbenzene	< 1.0	ug/L	A	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	A		Bromobenzene	< 1.0	ug/L	A	
n-Propylbenzene	< 1.0	ug/L	A		1,2,3-Trichloropropane	< 2.0	ug/L	A	
2-Chlorotoluene	< 1.0	ug/L	A		1,3,5-Trimethylbenzene	< 1.0	ug/L	A	
4-Chlorotoluene	< 1.0	ug/L	A		t-Butylbenzene	< 1.0	ug/L	A	
1,2,4-Trimethylbenzene	< 1.0	ug/L	A		s-Butylbenzene	< 1.0	ug/L	A	
4-Isopropyltoluene	< 1.0	ug/L	A		1,3-Dichlorobenzene	< 1.0	ug/L	A	
1,4-Dichlorobenzene	< 1.0	ug/L	A		1,2,3-Trimethylbenzene	< 1.0	ug/L	U	
n-Butylbenzene	< 1.0	ug/L	A		1,2-Dichlorobenzene	< 1.0	ug/L	A	
1,2-Dibromo-3-Chloropropane	< 2.0	ug/L	A		1,2,4-Trichlorobenzene	< 2.0	ug/L	A	
1,3,5-Trichlorobenzene	< 2.0	ug/L	N		Hexachlorobutadiene	< 0.5	ug/L	A	
Naphthalene	< 0.5	ug/L	A		1,2,3-Trichlorobenzene	< 2.0	ug/L	A	
Surr. 1 (Dibromofluoromethane)	105	%	A		Surr. 2 (Toluene d8)	101	%	A	
Surr. 3 (4-Bromofluorobenzene)	101	%	A		Unidentified Peaks	1		U	

CLIENT: KAS, Inc
PROJECT: Brandon Landfill

WORK ORDER: **2505-13698**
DATE RECEIVED: 05/09/2025

TEST METHOD: EPA 8260C

004 Site: MW-5 Sampled: 5/8/25 13:15 Test Date: 5/15/25 W TRP

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Dichlorodifluoromethane	< 5.0	ug/L	A		Chloromethane	< 3.0	ug/L	A	
Vinyl chloride	< 0.5	ug/L	A		Bromomethane	< 0.5	ug/L	A	
Chloroethane	< 5.0	ug/L	A		Trichlorofluoromethane	< 2.0	ug/L	A	
Diethyl ether	< 5.0	ug/L	N		1,1-Dichloroethene	< 0.7	ug/L	A	
Acetone	< 10.0	ug/L	A		Carbon disulfide	< 5.0	ug/L	A	
Methylene chloride	< 5.0	ug/L	A		t-Butanol	< 20.0	ug/L	N	
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	A		trans-1,2-Dichloroethene	< 1.0	ug/L	A	
Di-isopropyl ether (DIPE)	< 2.0	ug/L	N		1,1-Dichloroethane	< 1.0	ug/L	A	
Ethyl-t-butyl ether (ETBE)	< 2.0	ug/L	N		2-Butanone	< 10.0	ug/L	A	
2,2-Dichloropropane	< 1.0	ug/L	N		cis-1,2-Dichloroethene	< 1.0	ug/L	A	
Bromochloromethane	< 0.8	ug/L	A		Chloroform	< 1.0	ug/L	A	
Tetrahydrofuran	< 10.0	ug/L	N		1,1,1-Trichloroethane	< 1.0	ug/L	A	
Carbon tetrachloride	< 0.5	ug/L	A		1,1-Dichloropropene	< 1.0	ug/L	N	
Benzene	< 0.5	ug/L	A		t-Amylmethyl ether (TAME)	< 2.0	ug/L	N	
1,2-Dichloroethane	< 0.5	ug/L	A		Trichloroethene	< 0.5	ug/L	A	
1,2-Dichloropropane	< 0.5	ug/L	A		Dibromomethane	< 2.0	ug/L	A	
Bromodichloromethane	< 0.5	ug/L	A		cis-1,3-Dichloropropene	< 1.0	ug/L	A	
4-Methyl-2-pentanone (MIBK)	< 10.0	ug/L	A		Toluene	< 1.0	ug/L	A	
trans-1,3-Dichloropropene	< 1.0	ug/L	A		1,1,2-Trichloroethane	< 1.0	ug/L	A	
Tetrachloroethene	< 0.5	ug/L	A		1,3-Dichloropropane	< 1.0	ug/L	N	
2-Hexanone	< 10.0	ug/L	A		Dibromochloromethane	< 1.0	ug/L	A	
1,2-Dibromoethane	< 2.0	ug/L	A		Chlorobenzene	< 1.0	ug/L	A	
Ethylbenzene	< 1.0	ug/L	A		1,1,1,2-Tetrachloroethane	< 2.0	ug/L	A	
Xylenes, Total	< 2.0	ug/L	A		Styrene	< 1.0	ug/L	A	
Bromoform	< 2.0	ug/L	A		Isopropylbenzene	< 1.0	ug/L	A	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	A		Bromobenzene	< 1.0	ug/L	A	
n-Propylbenzene	< 1.0	ug/L	A		1,2,3-Trichloropropane	< 2.0	ug/L	A	
2-Chlorotoluene	< 1.0	ug/L	A		1,3,5-Trimethylbenzene	< 1.0	ug/L	A	
4-Chlorotoluene	< 1.0	ug/L	A		t-Butylbenzene	< 1.0	ug/L	A	
1,2,4-Trimethylbenzene	< 1.0	ug/L	A		s-Butylbenzene	< 1.0	ug/L	A	
4-Isopropyltoluene	< 1.0	ug/L	A		1,3-Dichlorobenzene	< 1.0	ug/L	A	
1,4-Dichlorobenzene	< 1.0	ug/L	A		1,2,3-Trimethylbenzene	< 1.0	ug/L	U	
n-Butylbenzene	< 1.0	ug/L	A		1,2-Dichlorobenzene	< 1.0	ug/L	A	
1,2-Dibromo-3-Chloropropane	< 2.0	ug/L	A		1,2,4-Trichlorobenzene	< 2.0	ug/L	A	
1,3,5-Trichlorobenzene	< 2.0	ug/L	N		Hexachlorobutadiene	< 0.5	ug/L	A	
Naphthalene	< 0.5	ug/L	A		1,2,3-Trichlorobenzene	< 2.0	ug/L	A	
Surr. 1 (Dibromofluoromethane)	104	%	A		Surr. 2 (Toluene d8)	101	%	A	
Surr. 3 (4-Bromofluorobenzene)	100	%	A		Unidentified Peaks	0		U	

CLIENT: KAS, Inc
PROJECT: Brandon Landfill

WORK ORDER: **2505-13698**
DATE RECEIVED: 05/09/2025

TEST METHOD: EPA 8260C

005 Site: Duplicate Sampled: 5/8/25 12:28 Test Date: 5/15/25 W TRP

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Dichlorodifluoromethane	< 5.0	ug/L	A		Chloromethane	< 3.0	ug/L	A	
Vinyl chloride	< 0.5	ug/L	A		Bromomethane	< 0.5	ug/L	A	
Chloroethane	< 5.0	ug/L	A		Trichlorofluoromethane	< 2.0	ug/L	A	
Diethyl ether	20.4	ug/L	N		1,1-Dichloroethene	< 0.7	ug/L	A	
Acetone	< 10.0	ug/L	A		Carbon disulfide	< 5.0	ug/L	A	
Methylene chloride	< 5.0	ug/L	A		t-Butanol	< 20.0	ug/L	N	
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	A		trans-1,2-Dichloroethene	< 1.0	ug/L	A	
Di-isopropyl ether (DIPE)	< 2.0	ug/L	N		1,1-Dichloroethane	< 1.0	ug/L	A	
Ethyl-t-butyl ether (ETBE)	< 2.0	ug/L	N		2-Butanone	< 10.0	ug/L	A	
2,2-Dichloropropane	< 1.0	ug/L	N		cis-1,2-Dichloroethene	< 1.0	ug/L	A	
Bromochloromethane	< 0.8	ug/L	A		Chloroform	< 1.0	ug/L	A	
Tetrahydrofuran	< 10.0	ug/L	N		1,1,1-Trichloroethane	< 1.0	ug/L	A	
Carbon tetrachloride	< 0.5	ug/L	A		1,1-Dichloropropene	< 1.0	ug/L	N	
Benzene	2.4	ug/L	A		t-Amylmethyl ether (TAME)	< 2.0	ug/L	N	
1,2-Dichloroethane	< 0.5	ug/L	A		Trichloroethene	< 0.5	ug/L	A	
1,2-Dichloropropane	< 0.5	ug/L	A		Dibromomethane	< 2.0	ug/L	A	
Bromodichloromethane	< 0.5	ug/L	A		cis-1,3-Dichloropropene	< 1.0	ug/L	A	
4-Methyl-2-pentanone (MIBK)	< 10.0	ug/L	A		Toluene	< 1.0	ug/L	A	
trans-1,3-Dichloropropene	< 1.0	ug/L	A		1,1,2-Trichloroethane	< 1.0	ug/L	A	
Tetrachloroethene	< 0.5	ug/L	A		1,3-Dichloropropane	< 1.0	ug/L	N	
2-Hexanone	< 10.0	ug/L	A		Dibromochloromethane	< 1.0	ug/L	A	
1,2-Dibromoethane	< 2.0	ug/L	A		Chlorobenzene	6.4	ug/L	A	
Ethylbenzene	< 1.0	ug/L	A		1,1,1,2-Tetrachloroethane	< 2.0	ug/L	A	
Xylenes, Total	< 2.0	ug/L	A		Styrene	< 1.0	ug/L	A	
Bromoform	< 2.0	ug/L	A		Isopropylbenzene	< 1.0	ug/L	A	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	A		Bromobenzene	< 1.0	ug/L	A	
n-Propylbenzene	< 1.0	ug/L	A		1,2,3-Trichloropropane	< 2.0	ug/L	A	
2-Chlorotoluene	< 1.0	ug/L	A		1,3,5-Trimethylbenzene	< 1.0	ug/L	A	
4-Chlorotoluene	< 1.0	ug/L	A		t-Butylbenzene	< 1.0	ug/L	A	
1,2,4-Trimethylbenzene	< 1.0	ug/L	A		s-Butylbenzene	< 1.0	ug/L	A	
4-Isopropyltoluene	< 1.0	ug/L	A		1,3-Dichlorobenzene	< 1.0	ug/L	A	
1,4-Dichlorobenzene	2.3	ug/L	A		1,2,3-Trimethylbenzene	< 1.0	ug/L	U	
n-Butylbenzene	< 1.0	ug/L	A		1,2-Dichlorobenzene	< 1.0	ug/L	A	
1,2-Dibromo-3-Chloropropane	< 2.0	ug/L	A		1,2,4-Trichlorobenzene	< 2.0	ug/L	A	
1,3,5-Trichlorobenzene	< 2.0	ug/L	N		Hexachlorobutadiene	< 0.5	ug/L	A	
Naphthalene	< 0.5	ug/L	A		1,2,3-Trichlorobenzene	< 2.0	ug/L	A	
Surr. 1 (Dibromofluoromethane)	104	%	A		Surr. 2 (Toluene d8)	101	%	A	
Surr. 3 (4-Bromofluorobenzene)	100	%	A		Unidentified Peaks	3		U	

CLIENT: KAS, Inc
PROJECT: Brandon Landfill

WORK ORDER: **2505-13698**
DATE RECEIVED: 05/09/2025

TEST METHOD: EPA 8260C

006 Site: Trip Blank Sampled: 4/11/25 11:40 Test Date: 5/15/25 W TRP

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Dichlorodifluoromethane	< 5.0	ug/L	A		Chloromethane	< 3.0	ug/L	A	
Vinyl chloride	< 0.5	ug/L	A		Bromomethane	< 0.5	ug/L	A	
Chloroethane	< 5.0	ug/L	A		Trichlorofluoromethane	< 2.0	ug/L	A	
Diethyl ether	< 5.0	ug/L	N		1,1-Dichloroethene	< 0.7	ug/L	A	
Acetone	< 10.0	ug/L	A		Carbon disulfide	< 5.0	ug/L	A	
Methylene chloride	< 5.0	ug/L	A		t-Butanol	< 20.0	ug/L	N	
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	A		trans-1,2-Dichloroethene	< 1.0	ug/L	A	
Di-isopropyl ether (DIPE)	< 2.0	ug/L	N		1,1-Dichloroethane	< 1.0	ug/L	A	
Ethyl-t-butyl ether (ETBE)	< 2.0	ug/L	N		2-Butanone	< 10.0	ug/L	A	
2,2-Dichloropropane	< 1.0	ug/L	N		cis-1,2-Dichloroethene	< 1.0	ug/L	A	
Bromochloromethane	< 0.8	ug/L	A		Chloroform	< 1.0	ug/L	A	
Tetrahydrofuran	< 10.0	ug/L	N		1,1,1-Trichloroethane	< 1.0	ug/L	A	
Carbon tetrachloride	< 0.5	ug/L	A		1,1-Dichloropropene	< 1.0	ug/L	N	
Benzene	< 0.5	ug/L	A		t-Amylmethyl ether (TAME)	< 2.0	ug/L	N	
1,2-Dichloroethane	< 0.5	ug/L	A		Trichloroethene	< 0.5	ug/L	A	
1,2-Dichloropropane	< 0.5	ug/L	A		Dibromomethane	< 2.0	ug/L	A	
Bromodichloromethane	< 0.5	ug/L	A		cis-1,3-Dichloropropene	< 1.0	ug/L	A	
4-Methyl-2-pentanone (MIBK)	< 10.0	ug/L	A		Toluene	< 1.0	ug/L	A	
trans-1,3-Dichloropropene	< 1.0	ug/L	A		1,1,2-Trichloroethane	< 1.0	ug/L	A	
Tetrachloroethene	< 0.5	ug/L	A		1,3-Dichloropropane	< 1.0	ug/L	N	
2-Hexanone	< 10.0	ug/L	A		Dibromochloromethane	< 1.0	ug/L	A	
1,2-Dibromoethane	< 2.0	ug/L	A		Chlorobenzene	< 1.0	ug/L	A	
Ethylbenzene	< 1.0	ug/L	A		1,1,1,2-Tetrachloroethane	< 2.0	ug/L	A	
Xylenes, Total	< 2.0	ug/L	A		Styrene	< 1.0	ug/L	A	
Bromoform	< 2.0	ug/L	A		Isopropylbenzene	< 1.0	ug/L	A	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	A		Bromobenzene	< 1.0	ug/L	A	
n-Propylbenzene	< 1.0	ug/L	A		1,2,3-Trichloropropane	< 2.0	ug/L	A	
2-Chlorotoluene	< 1.0	ug/L	A		1,3,5-Trimethylbenzene	< 1.0	ug/L	A	
4-Chlorotoluene	< 1.0	ug/L	A		t-Butylbenzene	< 1.0	ug/L	A	
1,2,4-Trimethylbenzene	< 1.0	ug/L	A		s-Butylbenzene	< 1.0	ug/L	A	
4-Isopropyltoluene	< 1.0	ug/L	A		1,3-Dichlorobenzene	< 1.0	ug/L	A	
1,4-Dichlorobenzene	< 1.0	ug/L	A		1,2,3-Trimethylbenzene	< 1.0	ug/L	U	
n-Butylbenzene	< 1.0	ug/L	A		1,2-Dichlorobenzene	< 1.0	ug/L	A	
1,2-Dibromo-3-Chloropropane	< 2.0	ug/L	A		1,2,4-Trichlorobenzene	< 2.0	ug/L	A	
1,3,5-Trichlorobenzene	< 2.0	ug/L	N		Hexachlorobutadiene	< 0.5	ug/L	A	
Naphthalene	< 0.5	ug/L	A		1,2,3-Trichlorobenzene	< 2.0	ug/L	A	
Surr. 1 (Dibromofluoromethane)	103	%	A		Surr. 2 (Toluene d8)	102	%	A	
Surr. 3 (4-Bromofluorobenzene)	101	%	A		Unidentified Peaks	0		U	

Brandon Landfill

Endyne Inc. COC

Prepared: 4/9/25

2505-13698

KAS, Inc
Brandon Landfill

Bill to:	Report to:	
Amy King	Clare Santos	Customer # 100
KAS, Inc.	KAS, Inc	
P.O. Box 787	PO Box 787	BRANDO
Williston VT 05495	Williston VT 05495	
Ph: (802) 383-0486	info@kas-consulting.com;clares@k	W-10030

MW-1

Sampled Date/Time: 5/8/25@1030 Sampler: WR

COD	1 - 40mL Vial	H2SO4 pH<2
Chloride	1 -2 oz-Plastics Anion	<6C
Arsenic, Total	1 - 16 oz Plastic Total Metal:	HNO3 pH< 2 ____
Cadmium, Total		
Chromium, Total		
Copper, Total		
Iron, Total		
Lead, Total		
Manganese, Total		
Mercury, Total		
Nickel, Total		
Sodium, Total		
Zinc, Total		
VOC w/Oxygenates,Water 8260	2 - 40ml vials	<6C, HCl

MW-2C

Sampled Date/Time: 5/8/25@1228 Sampler: WR

COD	1 - 40mL Vial	H2SO4 pH<2
Chloride	1 -2 oz-Plastics Anion	<6C
Arsenic, Total	1 - 16 oz Plastic Total Metal:	HNO3 pH< 2 ____
Cadmium, Total		
Chromium, Total		
Copper, Total		
Iron, Total		
Lead, Total		
Manganese, Total		
Mercury, Total		
Nickel, Total		
Sodium, Total		
Zinc, Total		
VOC w/Oxygenates,Water 8260	2 - 40ml vials	<6C, HCl

MW-3

Sampled Date/Time: 5/8/25@1128 Sampler: WR

COD	1 - 40mL Vial	H2SO4 pH<2
Chloride	1 -2 oz-Plastics Anion	<6C
Arsenic, Total	1 - 16 oz Plastic Total Metal:	HNO3 pH< 2 ____
Cadmium, Total		
Chromium, Total		
Copper, Total		
Iron, Total		
Lead, Total		
Manganese, Total		
Mercury, Total		
Nickel, Total		
Sodium, Total		
Zinc, Total		
VOC w/Oxygenates,Water 8260	2 - 40ml vials	<6C, HCl

MW-5	Sampled Date/Time: 5/8/25@13:15		Sampler: WR
	COD	1 - 40mL Vial	H2SO4 pH<2
	Chloride	1 -2 oz-Plastics Anion	<6C
	Arsenic, Total	1 - 16 oz Plastic Total Metal:	HNO3 pH< 2 ____
	Cadmium, Total		
	Chromium, Total		
	Copper, Total		
	Iron, Total		
	Lead, Total		
	Manganese, Total		
	Mercury, Total		
	Nickel, Total		
	Sodium, Total		
	Zinc, Total		
	VOC w/Oxygenates,Water 8260	2 - 40ml vials	<6C, HCl

Duplicate	Sampled Date/Time: 5/8/25@12:38		Sampler: WR
	COD	1 - 40mL Vial	H2SO4 pH<2
	Chloride	1 -2 oz-Plastics Anion	<6C
	Arsenic, Total	1 - 16 oz Plastic Total Metal:	HNO3 pH< 2 ____
	Cadmium, Total	Total Metals Bottle was spilled	
	Chromium, Total	~ Half the bottle remains	
	Copper, Total		
	Iron, Total		
	Lead, Total		
	Manganese, Total		
	Mercury, Total		
	Nickel, Total		
	Sodium, Total		
	Zinc, Total		
	VOC w/Oxygenates,Water 8260	2 - 40ml vials	<6C, HCl

Trip Blank	Sampled Date/Time: 4/11/25@11:40am		Sampler: WR
	VOC w/Oxygenates,Water 8260	2 - 40ml vials	<6C, HCl

Relinquished by: Wyatt Rollins 5/9/2025 9:51 Date Time — Accepted by: _____ Date Time

Relinquished by: _____ Date Time — Received by: _____ 5/9/25 9:51 Date Time

Sites/Parameters correct as listed. Client Initials WR

Client Authorization to use Subcontract lab Client Initials _____

Sample origin: VT ☑ NH ☐ NY ☐ Other ☐

Special reporting instructions: (PO#) _____

Requested Turnaround Time: Routine: Rush Due Date _____

Delv: 0 Temp C: 7.1 Comment:

One or more sample bottles in this project must be kept refrigerated or on ice until delivery at the laboratory.

Initial here allow Endyne to proceed with analysis if the temperature preservation requirements are not satisfied. _____ Initial

Samples were received in the lab on ice. Y / N

ENDYNE
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