

Table 2
Groundwater Sample Results
July 13, 2022
McNeil Dump / Duxbury Landfill, Inc.
Duxbury, Massachusetts

Parameter	Units	Comparable Standards			Reportable Concentrations ⁴		Method 1 Cleanup Standards ⁵		WS-1	WS-2	GMR-MW-7	MW-91-2
		MMCL ¹	SMCL ²	ORSG ³	RCGW-1	RCGW-2	GW-1	GW-3	7/13/2022 Results	7/13/2022 Results	7/13/2022 Results	7/13/2022 Results
Field Parameters												
Temperature	°C	--	--	--	--	--	--	--	14.7	13.2	15.6	14.9
Specific Conductivity	mS/cm	--	--	--	--	--	--	--	0.55	0.077	0.104	0.255
Dissolved Oxygen	mg/L	--	--	--	--	--	--	--	2.05	6.36	0.02	2.03
pH	SU	--	--	--	--	--	--	--	6.70	5.36	5.41	6.02
Total Metals												
Antimony	mg/L	0.006	--	--	0.006	8	0.006	8	NT	< 0.05	NT	< 0.05
Arsenic	mg/L	0.01	--	--	0.01	0.9	0.01	0.9	< 0.005	< 0.005	< 0.005	< 0.005
Barium	mg/L	2	--	--	2	50	2	50	0.045	0.022	< 0.01	0.057
Beryllium	mg/L	0.004	--	--	0.004	0.2	0.004	0.2	NT	< 0.005	NT	< 0.005
Cadmium	mg/L	0.005	--	--	0.004	0.004	0.005	0.004	< 0.005	< 0.004	0.005	< 0.004
Chromium	mg/L	0.1	--	--	0.1	0.3	0.1	0.3	< 0.01	< 0.01	0.015	< 0.01
Copper	mg/L	1.3	1	--	--	--	--	--	< 0.01	PENDING	< 0.01	PENDING
Iron	mg/L	--	0.3	--	--	--	--	--	< 0.05	PENDING	0.267	PENDING
Lead	mg/L	0.015	--	--	0.01	0.01	0.015	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Manganese	mg/L	--	0.05	0.05	--	--	--	--	0.127	PENDING	< 0.01	PENDING
Mercury	mg/L	0.002	--	--	0.002	0.02	0.002	0.02	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Nickel	mg/L	--	--	0.1	0.1	0.2	0.1	0.2	NT	< 0.025	NT	< 0.025
Selenium	mg/L	0.05	--	--	0.05	0.1	0.05	0.1	NT	< 0.01	NT	< 0.01
Silver	mg/L	--	0.1	--	0.007	0.007	0.1	0.007	< 0.007	< 0.007	< 0.007	< 0.007
Sodium	mg/L	--	--	20	--	--	--	--	21	NT	12.8	NT
Thallium	mg/L	0.002	--	--	0.002	3	0.002	3	NT	< 0.02	NT	< 0.02
Vanadium	mg/L	--	--	--	0.03	4	0.03	4	NT	< 0.01	NT	< 0.01
Zinc	mg/L	--	5	--	0.9	0.9	5	0.9	< 0.05	< 0.05	< 0.05	< 0.05
Low-Level 1,4-Dioxane												
1,4-Dioxane	µg/L	--	--	0.3	--	--	0.3	50000	< 0.139	PENDING	< 0.139	PENDING
Volatile Organic Compounds (VOCs)												
Total VOCs	µg/L	Varies	Varies	Varies	Varies	Varies	Varies	Varies	ND	ND	ND	ND
Per- and Polyfluoroalkyl Substances (PFAS)												
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
Perfluorobutanesulfonic Acid (PFBS)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
Perfluorobutanoic Acid (PFBA)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
Perfluorodecanesulfonic Acid (PFDS)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
Perfluorodecanoic Acid (PFDA)	ng/L	--	--	--	See Note 6	40000000	See Note 6	40000000	< 1.71	< 1.84	< 1.79	< 1.82
Perfluorododecanoic Acid (PFDoA)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
Perfluoroheptanesulfonic Acid (PFHpS)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
Perfluoroheptanoic Acid (PFHpA)	ng/L	--	--	--	See Note 6	40000000	See Note 6	40000000	1.95	< 1.84	< 1.79	< 1.82
Perfluorohexanesulfonic Acid (PFHxS)	ng/L	--	--	--	See Note 6	500000	See Note 6	500000	2.75	< 1.84	< 1.79	< 1.82
Perfluorohexanoic Acid (PFHxA)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
Perfluorononanesulfonic Acid (PFNS)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
Perfluorononanoic Acid (PFNA)	ng/L	--	--	--	See Note 6	40000000	See Note 6	40000000	< 1.71	< 1.84	< 1.79	< 1.82
Perfluorooctanesulfonamide (FOSA)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
Perfluorooctanesulfonic Acid (PFOS)	ng/L	--	--	--	See Note 6	500000	See Note 6	500000	54.1	< 1.84	< 1.79	11
Perfluorooctanoic Acid (PFOA)	ng/L	--	--	--	See Note 6	40000000	See Note 6	40000000	9.84	< 1.84	< 1.79	< 1.82
Perfluoropentanesulfonic Acid (PFPeS)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
Perfluoropentanoic Acid (PFPeA)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
Perfluorotetradecanoic Acid (PFTA)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
Perfluorotridecanoic Acid (PFTDA)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
Perfluoroundecanoic Acid (PFUnA)	ng/L	--	--	--	--	--	--	--	< 1.71	< 1.84	< 1.79	< 1.82
PFAS (6 Total)*	ng/L	--	--	--	20	--	20	--	68.64	ND	ND	11

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Notes:

- Parameters compared to Massachusetts Maximum Contaminant Levels (MMCLs) Criteria per MassDEP DW Standards & Guidelines, Winter 2020.
- Parameters compared to Massachusetts Secondary Maximum Contaminant Levels (SMCLs) Criteria per MassDEP DW Standards & Guidelines, Winter 2020.
- Parameters compared to Massachusetts Drinking Water Guidelines (ORSGs) Criteria per MassDEP DW Standards & Guidelines, Winter 2020.
- Parameters compared to Massachusetts Contingency Plan (MCP) Reportable Concentrations Criteria effective March 22, 2020.
- Parameters compared to Massachusetts Contingency Plan (MCP) Method 1 Cleanup Standards Criteria effective December 27, 2019.
- Six compounds summed are PFDA, PFHpA, PFHxS, PFNA, PFOS, and PFOA. Values from Final PFAS-Related Provisions 310 Code of Massachusetts Regulations (CMR) 40.0000 dated December 13, 2019 of the Massachusetts Contingency Plan (MCP).

< VALUE The resulting concentration was below the laboratory reporting limit shown
VALUE Parameter was greater than the laboratory method detection limit.
VALUE Parameter did not meet the Comparable Standard.

Abbreviations:

mg/L = milligrams per liter
µg/L = micrograms per liter
mS/cm = millisiemens per centimeter
ng/L = nanograms per liter
NR = not recorded
SU = standard units