National Testing Laboratories, Ltd.
Quality Water Analysis

Corporate Headquarters
6571 Wilson Mills Road
Cleveland, Ohio 44143

Phone: 800-458-3330

This report package contains 46 pages.

This package contains reports from the following laboratories:

- National Testing Laboratories, Ltd. (9 pages)
- Pace Analytical Services, Inc.-Greensburg, PA (7 pages)
- Eurofins Eaton Analytical, Inc. (6 pages)
- Alpha Analytical (23 pages)

NELAP accredited #E87753

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Laboratory ID: 26700

National Testing Laboratories, Ltd
556 South Mansfield, Ypsilanti, MI, 48197-5166
(440) 449-2525, Fax: (440) 449-8585

ANALYTICAL REPORTS

SAMPLE CODE: 450980

10/11/2023

Customer: Mountain Park Springs
Stewart Douglas
2835 Lowery St
Winston-Salem, NC 27101-6127

Source: Winston-Salem
Source Type: Municipal Water
Brand Name: Mountain Park Purified
Production Code: 24023
Container Size: 5 Gallon

Date/Time Received: 8/31/2023 09:15

Collected by: S. Douglas

The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

"ND" This contaminant was not detected at or above our lower reporting limit (LRL)

"NA" Not Analyzed

"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

"DF" This column indicates the contaminant dilution factor.

Report Notes:

pH analysis has a 15 minute hold time from sampling to analysis. Analysis of pH past the 15 minute hold time should be considered an estimate. In addition, Chlorine, Chloramine and Chlorine Dioxide hold time is immediate, therefore results should be considered an estimate.

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled		Date Prepped	Date/Time Analyzed
					Inorganic Analytes - Metals						
1002	Aluminum	200.7	0.2	mg/L	0.05	ND	1	9/5/2023	15:10		10/9/2023
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	9/5/2023	15:10		9/14/2023
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	9/5/2023	15:10		9/14/2023
1010	Barium	200.7	2	mg/L	0.10	ND	1	9/5/2023	15:10		10/9/2023
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	9/5/2023	15:10		10/9/2023
1079	Boron	200.7	--	mg/L	0.10	ND	1	9/5/2023	15:10		10/9/2023
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	9/5/2023	15:10		10/9/2023
1016	Calcium	200.7	--	mg/L	2.0	ND	1	9/5/2023	15:10		10/9/2023
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	9/5/2023	15:10		10/9/2023
1022	Copper	200.7	1.0	mg/L	0.002	ND	1	9/5/2023	15:10		10/9/2023
1028	Iron	200.7	0.3	mg/L	0.020	ND	1	9/5/2023	15:10		10/9/2023
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	9/5/2023	15:10		9/14/2023
1031	Magnesium	200.7	--	mg/L	0.10	ND	1	9/5/2023	15:10		10/9/2023
1032	Manganese	200.7	0.05	mg/L	0.004	ND	1	9/5/2023	15:10		10/9/2023
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	1	9/5/2023	15:10		9/14/2023
1036	Nickel	200.7	--	mg/L	0.005	ND	1	9/5/2023	15:10		10/9/2023
1042	Potassium	200.7	--	mg/L	1.0	ND	1	9/5/2023	15:10		10/9/2023
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	9/5/2023	15:10		9/14/2023
1049	Silica	200.7	--	mg/L	0.05	ND	1	9/5/2023	15:10		10/9/2023

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Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected		DF	Date/Time Sampled		Date Prepped	Date/Time Analyzed	
1050	Silver	200.7	0.10	mg/L	0.002	ND		1	9/5/2023	15:10		10/9/2023	
1052	Sodium	200.7	--	mg/L	1	ND		1	9/5/2023	15:10		10/9/2023	
1085	Thallium	200.8	0.002	mg/L	0.001	ND		1	9/5/2023	15:10		9/14/2023	
4006	Uranium	200.8	0.030	mg/L	0.001	ND		1	9/5/2023	15:10		9/14/2023	
1095	Zinc	200.7	5.000	mg/L	0.004	ND		1	9/5/2023	15:10		10/9/2023	
						Physical Factors							
1927	Alkalinity (Total as CaCO3)	2320B	--	mg/L	20	ND		1	9/5/2023	15:10		9/8/2023	
1905	Apparent Color	2120B	15	CU	3	ND		1	9/5/2023	15:10		9/6/2023	12:50
1910	Corrosivity	2330B	--	SI		-5.15	R2	1	9/5/2023	15:10		10/9/2023	
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND		1	9/5/2023	15:10		9/6/2023	15:30
						MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole							
1915	Hardness	2340B	--	mg/L	5.0	ND		1	9/5/2023	15:10		10/9/2023	
1920	Odor Threshold	2150B	3	ton	1	ND		1	9/5/2023	15:10		9/5/2023	15:50
1925	pH	150.1	5-7	pH Units		5.8		1	9/5/2023	15:10		9/6/2023	11:45
4254	pH Temperature	150.1	--	Deg, C		24		1	9/5/2023	15:10		9/6/2023	11:45
1930	Total Dissolved Solids	2540C	500	mg/L	5	ND		1	9/5/2023	15:10		9/8/2023	
0100	Turbidity	2130B	1	NTU	0.1	ND		1	9/5/2023	15:10		9/6/2023	12:20
						Inorganic Analytes - Other							
1011	Bromate	300.1	0.010	mg/L	0.005	ND		1	9/5/2023	15:10		9/12/2023	
1004	Bromide	300.1	--	mg/L	0.005	ND		1	9/5/2023	15:10		9/12/2023	
1006	Chloramine as Cl2	4500Cl-G	4.0	mg/L	0.05	ND		1	9/5/2023	15:10		9/5/2023	17:51
1017	Chloride	300.0	250	mg/L	1.0	ND		1	9/5/2023	15:10		9/6/2023	13:52
1012	Chlorine as Cl2	4500Cl-G	4.0	mg/L	0.05	ND		1	9/5/2023	15:10		9/5/2023	17:48
1008	Chlorine Dioxide as Cl02	4500Cl02D	0.8	mg/L	0.1	ND		1	9/5/2023	15:10		9/5/2023	17:52
1009	Chlorite	300.1	1.0	mg/L	0.005	ND		1	9/5/2023	15:10		9/12/2023	
1025	Fluoride	300.0	4.0	mg/L	0.10	ND		1	9/5/2023	15:10		9/6/2023	13:52
1040	Nitrate as N	300.0	10	mg/L	0.05	ND		1	9/5/2023	15:10		9/6/2023	13:52
1041	Nitrite as N	300.0	1	mg/L	0.05	ND		1	9/5/2023	15:10		9/6/2023	13:52
1044	Ortho Phosphate	300.0	--	mg/L	2.0	ND		1	9/5/2023	15:10		9/6/2023	13:52
1055	Sulfate	300.0	250	mg/L	5.0	ND		1	9/5/2023	15:10		9/6/2023	13:52
						Organic Analytes - Trihalomethanes							
2943	Bromodichloromethane	524.2 THMs	--	mg/L	0.0005	0.0006		1	9/5/2023	15:10		9/6/2023	
2942	Bromoform	524.2 THMs	--	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023	
2941	Chloroform	524.2 THMs	--	mg/L	0.0005	0.0100		1	9/5/2023	15:10		9/6/2023	
2944	Dibromochloromethane	524.2 THMs	--	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023	
2950	Total THMs	524.2 THMs	0.080	mg/L	0.0005	0.0106		1	9/5/2023	15:10		9/6/2023	
						Organic Analytes - Haloacetic Acids							
2454	Dibromoacetic Acid	552.2 HAAs	--	ug/L	1.0	ND		1	9/5/2023	15:10	9/8/2023	9/13/2023	

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2451	Dichloroacetic Acid	552.2 HAAs	--	ug/L	1.0	ND	1	9/5/2023	15:10	9/8/2023	9/13/2023
2453	Monobromoacetic Acid	552.2 HAAs	--	ug/L	1.0	ND	1	9/5/2023	15:10	9/8/2023	9/13/2023
2450	Monochloroacetic Acid	552.2 HAAs	--	ug/L	1.0	ND	1	9/5/2023	15:10	9/8/2023	9/13/2023
2452	Trichloroacetic Acid	552.2 HAAs	--	ug/L	1.0	ND	1	9/5/2023	15:10	9/8/2023	9/13/2023
2456	Total HAAs	552.2 HAAs	60	ug/L	1.0	ND	1	9/5/2023	15:10	9/8/2023	9/13/2023
	Organic Analytes - Volatiles										
2986	1,1,1,2-Tetrachloroethane	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2981	1,1,1-Trichloroethane	524.2	0.2	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2988	1,1,2,2-Tetrachloroethane	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2985	1,1,2-Trichloroethane	524.2	0.005	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2978	1,1-Dichloroethane	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2977	1,1-Dichloroethene	524.2	0.007	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2410	1,1-Dichloropropene	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2420	1,2,3-Trichlorobenzene	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2414	1,2,3-Trichloropropane	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2378	1,2,4-Trichlorobenzene	524.2	0.07	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2418	1,2,4-Trimethylbenzene	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2968	1,2-Dichlorobenzene	524.2	0.6	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2980	1,2-Dichloroethane	524.2	0.005	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2983	1,2-Dichloropropane	524.2	0.005	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2424	1,3,5-Trimethylbenzene	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2967	1,3-Dichlorobenzene	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2412	1,3-Dichloropropane	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2969	1,4-Dichlorobenzene	524.2	0.075	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2416	2,2-Dichloropropane	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2965	2-Chlorotoluene	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2966	4-Chlorotoluene	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2030	4-Isopropyltoluene	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2990	Benzene	524.2	0.005	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2993	Bromobenzene	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2430	Bromochloromethane	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2214	Bromomethane	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2982	Carbon Tetrachloride	524.2	0.005	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2989	Chlorobenzene	524.2	0.1	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2216	Chloroethane	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2210	Chloromethane	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2380	cis-1,2-Dichloroethene	524.2	0.07	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2228	cis-1,3-Dichloropropene	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2408	Dibromomethane	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023
2212	Dichlorodifluoromethane	524.2	--	mg/L	0.0005	ND	1	9/5/2023	15:10		9/6/2023

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2964	Dichloromethane	524.2	0.005	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2992	Ethylbenzene	524.2	0.7	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2246	Hexachlorobutadiene	524.2	--	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2994	Isopropylbenzene	524.2	--	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2251	Methyl Tert Butyl Ether	524.2	--	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2247	Methyl-Ethyl Ketone	524.2	--	mg/L	0.005	ND	R2	1	9/5/2023	15:10		9/6/2023
2248	Naphthalene	524.2	--	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2422	n-Butylbenzene	524.2	--	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2997	o-Xylene	524.2	--	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2963	p and m-Xylenes	524.2	--	mg/L	0.0010	ND		1	9/5/2023	15:10		9/6/2023
	Due to the limitation of EPA Method 524.2, p and m isomers of Xylene are reported as aggregate.											
2998	Propylbenzene	524.2	--	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2428	sec-Butylbenzene	524.2	--	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2996	Styrene	524.2	0.1	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2426	tert-Butylbenzene	524.2	--	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2987	Tetrachloroethene	524.2	0.005	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2991	Toluene	524.2	1	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2979	trans-1,2-Dichloroethene	524.2	0.1	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2224	trans-1,3-Dichloropropene	524.2	--	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2984	Trichloroethene	524.2	0.005	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2218	Trichlorofluoromethane	524.2	--	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2904	Trichlorotrifluoroethane	524.2	--	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2976	Vinyl Chloride	524.2	0.002	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
2955	Xylenes (Total)	524.2	10	mg/L	0.0005	ND		1	9/5/2023	15:10		9/6/2023
	Organic Analytes - Others											
2931	1,2-Dibromo-3-chloropropane	504.1	0.0002	mg/L	0.00001	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023
2946	1,2-Dibromoethane	504.1	0.00005	mg/L	0.00001	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023
2105	2,4-D	515.4	70	ug/L	0.1	ND		1	9/5/2023	15:10	9/14/2023	9/21/2023
2066	3-Hydroxycarbofuran	531.2	--	ug/L	1.0	ND		1	9/5/2023	15:10		9/13/2023
2051	Alachlor	525.2	2	ug/L	0.2	ND		1	9/5/2023	15:10	9/14/2023	10/3/2023
2047	Aldicarb	531.2	7	ug/L	1.0	ND		1	9/5/2023	15:10		9/13/2023
2044	Aldicarb sulfone	531.2	7	ug/L	1.0	ND		1	9/5/2023	15:10		9/13/2023
2043	Aldicarb sulfoxide	531.2	7	ug/L	1.0	ND		1	9/5/2023	15:10		9/13/2023
2356	Aldrin	505	--	mg/L	0.00007	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023
2050	Atrazine	525.2	3	ug/L	0.1	ND		1	9/5/2023	15:10	9/14/2023	10/3/2023
2625	Bentazon	515.4	--	ug/L	1	ND		1	9/5/2023	15:10	9/14/2023	9/21/2023
2306	Benzo(A)pyrene	525.2	0.2	ug/L	0.02	ND		1	9/5/2023	15:10	9/14/2023	10/3/2023
2076	Butachlor	525.2	--	ug/L	0.2	ND		1	9/5/2023	15:10	9/14/2023	10/3/2023
2021	Carbaryl	531.2	--	ug/L	1.0	ND		1	9/5/2023	15:10		9/13/2023
2046	Carbofuran	531.2	40	ug/L	1.0	ND		1	9/5/2023	15:10		9/13/2023
2959	Chlordane	505	0.002	mg/L	0.0001	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023

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2031	Dalapon	515.4	200	ug/L	1	ND		1	9/5/2023	15:10	9/14/2023	9/21/2023
2035	Di(2-ethylhexyl) adipate	525.2	400	ug/L	0.2	ND		1	9/5/2023	15:10	9/14/2023	10/3/2023
2039	Di(2-ethylhexyl) phthalate	525.2	6	ug/L	0.6	ND		1	9/5/2023	15:10	9/14/2023	10/3/2023
2440	Dicamba	515.4	--	ug/L	1	ND		1	9/5/2023	15:10	9/14/2023	9/21/2023
2933	Dichloran	505	--	mg/L	0.001	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023
2070	Dieldrin	505	--	mg/L	0.00002	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023
2041	Dinoseb	515.4	7	ug/L	0.2	ND		1	9/5/2023	15:10	9/14/2023	9/21/2023
2005	Endrin	505	0.002	mg/L	0.00001	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023
2065	Heptachlor	505	0.0004	mg/L	0.00001	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023
2067	Heptachlor Epoxide	505	0.0002	mg/L	0.00001	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023
2274	Hexachlorobenzene	505	0.001	mg/L	0.0001	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023
2042	Hexachlorocyclopentadiene	505	0.05	mg/L	0.0001	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023
2010	Lindane	505	0.0002	mg/L	0.00002	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023
2022	Methomyl	531.2	--	ug/L	1.0	ND		1	9/5/2023	15:10		9/13/2023
2015	Methoxychlor	505	0.04	mg/L	0.0001	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023
2045	Metolachlor	525.2	--	ug/L	0.2	ND		1	9/5/2023	15:10	9/14/2023	10/3/2023
2595	Metribuzin	525.2	--	ug/L	0.2	ND		1	9/5/2023	15:10	9/14/2023	10/3/2023
2626	Molinate	525.2	--	ug/L	0.2	ND		1	9/5/2023	15:10	9/14/2023	10/3/2023
2036	Oxamyl	531.2	200	ug/L	1.0	ND		1	9/5/2023	15:10		9/13/2023
2934	Pentachloronitrobenzene	505	--	mg/L	0.0001	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023
2326	Pentachlorophenol	515.4	1	ug/L	0.04	ND		1	9/5/2023	15:10	9/14/2023	9/21/2023
2040	Picloram	515.4	500	ug/L	0.1	ND		1	9/5/2023	15:10	9/14/2023	9/21/2023
2077	Propachlor	525.2	--	ug/L	0.2	ND		1	9/5/2023	15:10	9/14/2023	10/3/2023
2110	Silvex 2,4,5-TP	515.4	50	ug/L	0.2	ND		1	9/5/2023	15:10	9/14/2023	9/21/2023
2037	Simazine	525.2	4	ug/L	0.07	ND		1	9/5/2023	15:10	9/14/2023	10/3/2023
2627	Thiobencarb	525.2	--	ug/L	0.2	ND		1	9/5/2023	15:10	9/14/2023	10/3/2023
2383	Total PCBs	505	0.0005	mg/L	0.0005	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023
2910	Total Phenols	420.4	--	mg/L	0.001	ND	R2	1	9/5/2023	15:10		9/7/2023
2020	Toxaphene	505	0.003	mg/L	0.001	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023
2055	Trifluralin	505	--	mg/L	0.001	ND		1	9/5/2023	15:10	9/6/2023	9/6/2023

Qualifiers:

R2: The laboratory is not licensed for this parameter. The reported result cannot be used for compliance purposes.

National Testing Laboratories, Ltd
556 South Mansfield, Ypsilanti, MI, 48197-5166
(440) 449-2525, Fax: (440) 449-8585

ANALYTICAL REPORTS

SAMPLE CODE: 450980

10/11/2023

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed

Analyst	Tests
ZSC	200.7,2330B,2340B
DMJ	200.8
SP	2320B,2120B,5540C,2150B,150.1,2130B
CF	2540C
SG	300.1,300.0
DHG	4500Cl-G,4500Cl02D,420.4
SB	524.2 THMs,524.2,531.2
BNF	552.2 HAAs,504.1,515.4,505
JLF	525.2

Sarah Buchanan

Sarah Buchanan, Project Manager

Laboratory ID: 26700

National Testing Laboratories, Ltd
556 South Mansfield, Ypsilanti, MI, 48197-5166
(440) 449-2525, Fax: (440) 449-8585

ANALYTICAL REPORTS

SAMPLE CODE: 450981

10/11/2023

Customer: Mountain Park Springs
Stewart Douglas
2835 Lowery St
Winston-Salem, NC 27101-6127

Source: Winston-Salem
Source Type: Municipal Water
Brand Name: Mountain Park Purified
Production Code: 24023
Container Size: 5 Gallon

Date/Time Received: 8/31/2023 09:15
Collected by: S. Douglas

The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:
Any 'Level Detected' marked with an asterisk (*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

"ND" This contaminant was not detected at or above our lower reporting limit (LRL)

"NA" Not Analyzed

"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected		DF	Date/Time Sampled		Date Prepped	Date/Time Analyzed	
					Microbiologicals								
3100	Total Coliform by P/A	9223B	--	P/A	--	--		1	9/5/2023	15:10		9/5/2023	15:41
					Total Coliform and E.coli were ABSENT in this sample.								
					USP XXIII								
1003	Ammonia (as NH3)	USP XXIII	--	Pass/Fail		Pass	R2	1	9/5/2023	15:10		9/14/2023	
1016	Calcium	USP XXIII	--	Pass/Fail		Pass	R2	1	9/5/2023	15:10		9/14/2023	
1901	Carbon Dioxide (Free CO2)	USP XXIII	--	Pass/Fail		Pass	R2	1	9/5/2023	15:10		9/14/2023	
1017	Chloride	USP XXIII	--	Pass/Fail		Pass	R2	1	9/5/2023	15:10		9/14/2023	
	Heavy Metals (USP)	USP XXIII	--	Pass/Fail		Pass	R2	1	9/5/2023	15:10		9/14/2023	
	Oxidizables (USP)	USP XXIII	--	Pass/Fail		Pass	R2	1	9/5/2023	15:10		9/14/2023	
1925	pH	USP XXIII	--	pH Units		5.8	R2	1	9/5/2023	15:10		9/6/2023	11:45
1055	Sulfate	USP XXIII	--	Pass/Fail		Pass	R2	1	9/5/2023	15:10		9/14/2023	
	Total Solids	USP XXIII	10	mg/L	10	ND	R2	1	9/5/2023	15:10		9/14/2023	

Qualifiers:

R2: The laboratory is not licensed for this parameter. The reported result cannot be used for compliance purposes.

National Testing Laboratories, Ltd
556 South Mansfield, Ypsilanti, MI, 48197-5166
(440) 449-2525, Fax: (440) 449-8585

ANALYTICAL REPORTS

SAMPLE CODE: 450981

10/11/2023

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed

Analyst	Tests
GK	9223B
DHG	USP XXIII
SP	USP XXIII
CF	USP XXIII

Christine MacMillan, Technical Director

Date Printed: 10/11/2023 2:59:23 PM

Laboratory ID: 26700

National Testing Laboratories, Ltd
556 South Mansfield, Ypsilanti, MI, 48197-5166
(440) 449-2525, Fax: (440) 449-8585

ANALYTICAL REPORTS

SAMPLE CODE: 450979

10/11/2023

Customer: Mountain Park Springs
Stewart Douglas
2835 Lowery St
Winston-Salem, NC 27101-6127

Source: Winston-Salem
Source Type: Municipal Water
Brand Name: Mountain Park Purified
Production Code: 24023
Container Size: 5 Gallon

Date/Time Received: 8/31/2023 09:15
Collected by: S. Douglas

The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:
Any 'Level Detected' marked with an asterisk (*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

"ND" This contaminant was not detected at or above our lower reporting limit (LRL)

"NA" Not Analyzed

"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
				Microbiologicals						
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	9/5/2023 15:10		9/6/2023 12:30
3001	Standard Plate Count	9215B	500	CFU/ml	1	<1	1	9/5/2023 15:10		9/6/2023 11:50
				Pour Plate Method, 35°C/48hr, Plate Count Agar						
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	9/5/2023 15:10		9/6/2023 12:30

Analyst	Tests
GK	9223B
CF	9215B

Sarah Buchanan

Sarah Buchanan, Project Manager

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2224132
Pace Project No.: 30622445

Sample: 450980 **Lab ID: 30622445001** Collected: 09/05/23 15:10 Received: 09/14/23 09:35 Matrix: Drinking Water
PWS: Site ID: Sample Type:

Comments:
- FINISHED PRODUCT, Winston-Salem, Winston-Salem, NC
- Mountain Park Purified, Prod. code: 24023, Cont. size: 18.9 L / 5 Gallons
- sample opened 09/05/23 @ 15:10 by AB
- Sample collection dates and times were not present on the sample containers.
- Upon receipt at the laboratory, 5.0 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis. The samples were preserved <2 within the required 5 days of collection.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Gross Alpha	EPA 900.0	**0.074 ± 0.651 (1.70) C:NA T:NA**	pCi/L	10/05/23 08:26	12587-46-1	
Gross Beta	EPA 900.0	**0.335 ± 0.761 (1.76) C:NA T:NA**	pCi/L	10/05/23 08:26	12587-47-2	
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0572 ± 0.372 (0.750) C:NA T:91%**	pCi/L	09/27/23 13:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.333 ± 0.355 (0.747) C:82% T:78%**	pCi/L	09/29/23 15:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.390 ± 0.727 (1.50)**	pCi/L	10/03/23 12:17	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: 2224132
Pace Project No.: 30622445

QC Batch: 616839
QC Batch Method: EPA 900.0
Analysis Method: EPA 900.0
Analysis Description: 900.0 Gross Alpha/Beta
Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30622445001

METHOD BLANK: 3004098 Matrix: Water

Associated Lab Samples: 30622445001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	0.698 ± 0.857 (1.79) C:NA T:NA	pCi/L	10/05/23 08:24	
Gross Beta	0.261 ± 0.651 (1.48) C:NA T:NA	pCi/L	10/05/23 08:24	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: 2224132
Pace Project No.: 30622445

QC Batch: 616116
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30622445001

METHOD BLANK: 3000508 Matrix: Water

Associated Lab Samples: 30622445001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0491 ± 0.224 (0.361) C:NA T:90%	pCi/L	09/27/23 13:13	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: 2224132
Pace Project No.: 30622445

QC Batch: 616118
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30622445001

METHOD BLANK: 3000514 Matrix: Water

Associated Lab Samples: 30622445001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.587 ± 0.386 (0.736) C:85% T:84%	pCi/L	09/29/23 15:33	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: 2224132
Pace Project No.: 30622445

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. Is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 2224132
Pace Project No.: 30622445

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

WO# : 30622445

PM: CMC Due Date: 10/05/23

CLIENT: NTL

Quality Water Analysis

1-800-458-3330

Beverage - Finished Product

Order Number: 2224132

Order Date: 8/21/2023

Sample Number: 450930

Product: FDABASE DR

Paid: No **Method:** Purchase Order **P.O.:** Winston-Salem, NC

TSR: SBW

Winston-Salem NC 27101-6127

If finished product is submitted in laboratory containers, complete the following information.

Date Opened: ___/___/___ **Time Opened:** ___:___

Please Use Military Time, e.g. 3:00pm = 15:00

Check Time Zone: ☐ EST ☐ CST ☐ MST ☐ PST

PWS ID# (if applicable):

Source Type: ☐ Spring ☐ Well ☒ Municipal ☐ Other:

Source Name: Winston-Salem

(Source Information is REQUIRED for All Finished Products)

City & State: Winston-Salem

(If Different than Above)

Product Collected By:

(Signature)

Product Collected By: Stewart Douglas

(Please Print)

Brand Name/Product Type: Mountain Park Purified

e.g. XYZ Spring Water or XYZ Distilled Water

Container Size: 18.9 L / 5 Gallons

Production Code/Lot Number: 24023

Form Completed By: Stewart Douglas

Additional Comments:

For Laboratory Use ONLY

Lab Accounting Information:

Payment $:

Check #:

Lab Comments/Special Instructions:

2023 Purified Product

Rads

State Forms:

Lab Sample Information:

RECEIVED AUG 31 2023

Date Received: ___/___/___

Time Received: 09:15

Received By: AM

Date Opened: 9/5/2023

Time Opened: 15:10

Opened By: A. Bonemeni

☒ Sample receipt criteria checked & acceptable.

☐ Deviations from acceptable sample receipt criteria noted on PSA form.

IF PENNSYLVANIA REPORTING IS REQUIRED AND YOUR PRODUCT IS GREATER THAN 1.77 LITERS, PLEASE PROVIDE THE FOLLOWING:

Penn. PWS ID#:

Location:

Rev: SRT102120 **INCOMPLETE INFORMATION MAY DELAY ANALYSIS AND/OR INVALIDATE RESULTS**

Client: National Testing Laboratories, Ltd
Project/Site: 450980/ 2224132

Job ID: 810-77874-1

Client Sample ID: 450980/ 2224132
Date Collected: 09/05/23 15:10
Date Received: 09/15/23 10:15

Lab Sample ID: 810-77874-1
Matrix: Drinking Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (EPA 335.4)	<0.0050		0.0050		mg/L		09/18/23 11:18	09/18/23 14:52	1

Definitions/Glossary

Client: National Testing Laboratories, Ltd
Project/Site: 450980/ 2224132

Job ID: 810-77874-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Lab Chronicle

Client: National Testing Laboratories, Ltd
Project/Site: 450980/ 2224132

Job ID: 810-77874-1

Client Sample ID: 450980/ 2224132
Date Collected: 09/05/23 15:10
Date Received: 09/15/23 10:15

Lab Sample ID: 810-77874-1
Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	Distill/CN			73774	KH	EA SB	09/18/23 11:18
Total/NA	Analysis	335.4		1	73837	KH	EA SB	09/18/23 14:52

Laboratory References:

EA SB = Eurofins Eaton Analytical South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

Accreditation/Certification Summary

Client: National Testing Laboratories, Ltd
Project/Site: 450980/ 2224132

Job ID: 810-77874-1

Laboratory: Eurofins Eaton Analytical South Bend

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Ohio	State	87775	06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Drinking Water	Cyanide, Total

Method Summary

Client: National Testing Laboratories, Ltd
Project/Site: 450980/ 2224132

Job ID: 810-77874-1

Method	Method Description	Protocol	Laboratory
335.4	Cyanide, Total	EPA	EA SB
Distill/CN	Distillation, Cyanide	None	EA SB

Protocol References:

EPA = US Environmental Protection Agency

None = None

Laboratory References:

EA SB = Eurofins Eaton Analytical South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

National Testing Laboratories, Ltd.

Quality Water Analysis

1-800-458-3330

Beverage - Finished Product

Order Number: 2224132
Order Date: 8/21/2023
Sample Number: 450930
Product: FDABASE DR

Paid: No **Method:** Purchase Order **P.O.:** Winston-Salem, NC

TSR: SBW

Winston-Salem NC 27101-6127

If finished product is submitted in laboratory containers, complete the following information.

Date Opened: ___/___/___ **Time Opened:** ___:___
Please Use Military Time, e.g. 3:00pm = 15:00

Check Time Zone: ☐ EST ☐ CST ☐ MST ☐ PST

PWS ID# (If applicable):

Source Type: ☐ Spring ☐ Well ☒ Municipal ☐ Other:

Source Name: Winston-Salem
(Source Information is REQUIRED for All Finished Products)

City & State: Winston-Salem
(If Different than Above)

Product Collected By:
(Signature)

Product Collected By: Stewart Douglas
(Please Print)

Brand Name/Product Type: Mountain Park Purified
e.g. XYZ Spring Water or XYZ Distilled Water

Container Size: 18.9 L / 5 Gallons

Production Code/Lot Number: 24023

Form Completed By: Stewart Douglas

Additional Comments:

For Laboratory Use ONLY

Lab Accounting Information:

Payment $:

Check #:

Lab Comments/Special Instructions:

2023 Purified Product

Cn

State Forms:

Lab Sample Information:

RECEIVED AUG 31 2023

Date Received: ___/___/___

Time Received: 09:15

Received By: AM

Date Opened: 9/5/2023

Time Opened: 15:10

Opened By: A. Bonnemere

☒ Sample receipt criteria checked & acceptable.

☐ Deviations from acceptable sample receipt criteria noted on PSA form.

IF PENNSYLVANIA REPORTING IS REQUIRED AND YOUR PRODUCT IS GREATER THAN 1.77 LITERS, PLEASE PROVIDE THE FOLLOWING:

Penn. PWS ID#:

Location:

Rev: SRT102120 **INCOMPLETE INFORMATION MAY DELAY ANALYSIS AND/OR INVALIDATE RESULTS**

ANALYTICAL REPORT

Lab Number:	L2353563
Client:	National Testing Laboratories, LTD 6571 Wilson Mills Rd. Cleveland, OH 44143
ATTN:	Christian Schmidt
Phone:	(440) 449-2525
Project Name:	WINSTON-SALEM
Project Number:	Not Specified
Report Date:	09/19/23

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0825), DoD (L2474), FL (E87814), IL (200081), IN (C-MA-04), KY (KY98046), LA (85084), ME (MA00030), MD (350), MI (99110) , NJ (MA015), NY (11627), NC (685), OH (CL106), OR (MA-0262), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #525-23-107-88708), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: WINSTON-SALEM
Project Number: Not Specified

Lab Number: L2353563
Report Date: 09/19/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2353563-01	450982	DW	2224132	09/05/23 15:10	09/14/23
L2353563-02	450982-FIELD BLANK	DW	2224132	09/05/23 15:10	09/14/23

Project Name: WINSTON-SALEM
Project Number: Not Specified

Lab Number: L2353563
Report Date: 09/19/23

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: WINSTON-SALEM
Project Number: Not Specified

Lab Number: L2353563
Report Date: 09/19/23

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated.concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Perfluorinated Alkyl Acids by EPA 537.1

The WG1828228-2 LCS recovery, associated with L2353563-01, is above the acceptance criteria for perfluorotridecanoic acid (pftrda) (160%) and perfluorotetradecanoic acid (pfta) (176%); however, the associated sample is non-detect to the RL for these target analytes. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Darian Dailey

Title: Technical Director/Representative

Date: 09/19/23

ORGANICS

SEMIVOLATILES

Project Name: WINSTON-SALEM
Project Number: Not Specified

Lab Number: L2353563
Report Date: 09/19/23

SAMPLE RESULTS

Lab ID: L2353563-01
Client ID: 450982
Sample Location: 2224132

Date Collected: 09/05/23 15:10
Date Received: 09/14/23
Field Prep: Not Specified

Sample Depth:
Matrix: Dw
Analytical Method: 133,537.1
Analytical Date: 09/18/23 21:32
Analyst: CAP

Extraction Method: EPA 537.1
Extraction Date: 09/16/23 09:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab						
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.92	0.640	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.92	0.640	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	1.92	0.640	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.92	0.640	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.92	0.640	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.92	0.640	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.92	0.640	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.92	0.640	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.92	0.640	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.92	0.640	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.92	0.640	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.92	0.640	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.92	0.640	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.92	0.640	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.92	0.640	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.92	0.640	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.92	0.640	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.92	0.640	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	101		70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	91		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	93		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	96		70-130

Project Name: WINSTON-SALEM
Project Number: Not Specified

Lab Number: L2353563
Report Date: 09/19/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 133,537.1
Analytical Date: 09/18/23 18:56
Analyst: CAP

Extraction Method: EPA 537.1
Extraction Date: 09/16/23 09:00

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab for sample(s): 01 Batch: WG1828228-1					
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.668
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.668
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	2.00	0.668
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.668
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.668
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.00	0.668
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.668
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.668
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.668
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.668
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.00	0.668
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.668
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.668
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.668
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.668
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.00	0.668
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.668
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.668

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	99		70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	90		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	90		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	93		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: WINSTON-SALEM
Project Number: Not Specified

Lab Number: L2353563
Report Date: 09/19/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01 Batch: WG1828228-2								
Perfluorobutanesulfonic Acid (PFBS)	133		-		50-150	-		30
Perfluorohexanoic Acid (PFHxA)	150		-		50-150	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	108		-		50-150	-		30
Perfluoroheptanoic Acid (PFHpA)	138		-		50-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	116		-		50-150	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	131		-		50-150	-		30
Perfluorooctanoic Acid (PFOA)	126		-		50-150	-		30
Perfluorononanoic Acid (PFNA)	136		-		50-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	125		-		50-150	-		30
Perfluorodecanoic Acid (PFDA)	116		-		50-150	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	129		-		50-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	108		-		50-150	-		30
Perfluoroundecanoic Acid (PFUnA)	118		-		50-150	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	102		-		50-150	-		30
Perfluorododecanoic Acid (PFDoA)	118		-		50-150	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	129		-		50-150	-		30
Perfluorotridecanoic Acid (PFTrDA)	**160**	Q	-		50-150	-		30
Perfluorotetradecanoic Acid (PFTA)	**176**	Q	-		50-150	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: WINSTON-SALEM
Project Number: Not Specified

Lab Number: L2353563
Report Date: 09/19/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01 Batch: WG1828228-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	97				70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	86				70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	89				70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	90				70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: WINSTON-SALEM
Project Number: Not Specified

Lab Number: L2353563
Report Date: 09/19/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab	Associated sample(s): 01		QC Batch ID: WG1828228-3			QC Sample: L2353533-01			Client ID: MS Sample			
Perfluorobutanesulfonic Acid (PFBS)	ND	1.75	2.16	124		-	-		50-150	-		30
Perfluorohexanoic Acid (PFHxA)	ND	1.97	2.91	148		-	-		50-150	-		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND	1.97	2.12	108		-	-		50-150	-		30
Perfluoroheptanoic Acid (PFHpA)	ND	1.97	2.20	112		-	-		50-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	1.8	2.01	112		-	-		50-150	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	1.86	2.40	129		-	-		50-150	-		30
Perfluorooctanoic Acid (PFOA)	ND	1.97	2.52	128		-	-		50-150	-		30
Perfluorononanoic Acid (PFNA)	ND	1.97	2.68	136		-	-		50-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	ND	1.83	2.32	127		-	-		50-150	-		30
Perfluorodecanoic Acid (PFDA)	ND	1.97	2.28	116		-	-		50-150	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	1.84	2.12	115		-	-		50-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	1.97	2.12	108		-	-		50-150	-		30
Perfluoroundecanoic Acid (PFUnA)	ND	1.97	2.32	118		-	-		50-150	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.97	2.01	102		-	-		50-150	-		30
Perfluorododecanoic Acid (PFDoA)	ND	1.97	2.16	110		-	-		50-150	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	1.86	2.16	116		-	-		50-150	-		30
Perfluorotridecanoic Acid (PFTrDA)	ND	1.97	2.95	150		-	-		50-150	-		30
Perfluorotetradecanoic Acid (PFTA)	ND	1.97	2.87	146		-	-		50-150	-		30

Matrix Spike Analysis

Batch Quality Control

Project Name: WINSTON-SALEM
Project Number: Not Specified

Lab Number: L2353563
Report Date: 09/19/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab	Associated sample(s): 01	QC Batch ID: WG1828228-3	QC Sample: L2353533-01	Client ID: MS Sample								

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	90				70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	88				70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	90				70-130
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	98				70-130

Lab Duplicate Analysis
Batch Quality Control

Project Name: WINSTON-SALEM
Project Number: Not Specified

Lab Number: L2353563
Report Date: 09/19/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1828228-4 QC Sample: L2353535-01 Client ID: DUP Sample						
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ng/l	NC		30
Perfluorohexanoic Acid (PFHxA)	ND	ND	ng/l	NC		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND	ND	ng/l	NC		30
Perfluoroheptanoic Acid (PFHpA)	ND	ND	ng/l	NC		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	ND	ng/l	NC		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	ND	ng/l	NC		30
Perfluorooctanoic Acid (PFOA)	ND	ND	ng/l	NC		30
Perfluorononanoic Acid (PFNA)	ND	ND	ng/l	NC		30
Perfluorooctanesulfonic Acid (PFOS)	ND	ND	ng/l	NC		30
Perfluorodecanoic Acid (PFDA)	ND	ND	ng/l	NC		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	ND	ng/l	NC		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/l	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND	ND	ng/l	NC		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/l	NC		30
Perfluorododecanoic Acid (PFDoA)	ND	ND	ng/l	NC		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	ND	ng/l	NC		30
Perfluorotridecanoic Acid (PFTrDA)	ND	ND	ng/l	NC		30
Perfluorotetradecanoic Acid (PFTA)	ND	ND	ng/l	NC		30

Lab Duplicate Analysis
Batch Quality Control

Project Name: WINSTON-SALEM
Project Number: Not Specified

Lab Number: L2353563
Report Date: 09/19/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits

Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1828228-4 QC Sample: L2353535-01 Client ID: DUP Sample

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	104		106		70-130
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	94		93		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	95		98		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	97		101		70-130

Project Name: WINSTON-SALEM
Project Number: Not Specified

Lab Number: L2353563
Report Date: 09/19/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2353563-01A	Plastic 250ml Trizma preserved	A	NA		3.7	Y	Absent		A2-537.1(14)
L2353563-01B	Plastic 250ml Trizma preserved	A	NA		3.7	Y	Absent		A2-537.1(14)
L2353563-02A	Plastic 250ml Trizma preserved	A	NA		3.7	Y	Absent		A2-L-EXT-537(14)

*Values in parentheses indicate holding time in days

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA/PFTeDA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS/PFDoS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
Perfluoropropanesulfonic Acid	PFPrS	423-41-6
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA/PFOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name: WINSTON-SALEM
Project Number:

Lab Number: L2353563
Report Date: 09/19/23

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
FLUOROTELOMER CARBOXYLIC ACIDS (FTCAs)		
3-Perfluoroheptyl Propanoic Acid	7:3FTCA	812-70-4
2H,2H,3H,3H-Perfluorooctanoic Acid	5:3FTCA	914637-49-3
3-Perfluoropropyl Propanoic Acid	3:3FTCA	356-02-5

Project Name: WINSTON-SALEM
Project Number: Not Specified
Lab Number: L2353563
Report Date: 09/19/23

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

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Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

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Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name: WINSTON-SALEM
Project Number: Not Specified

Lab Number: L2353563
Report Date: 09/19/23

REFERENCES

133 Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537.1, EPA/600/R-18/352. Version 1.0, November 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

National Testing Laboratories, Ltd.

Quality Water Analysis

1-800-458-3330

Beverage - Finished Product

Order Number: 2224132
Order Date: 8/21/2023
Sample Number: 450902
Product: PFAS 18
Paid: No Method: Purchase Order P.O.: Winston-Salem, NC
TSR: SBW

Winston-Salem NC 27101-6127

For Laboratory Use ONLY Serial No:09192315:38

Lab Accounting Information:

Payment $:
Check #:

Lab Comments/Special Instructions:

2023 Purified Product

PFAS (18)

State Forms:

If finished product is submitted in laboratory containers, complete the following information.

Date Opened: / / Time Opened: : Please Use Military Time, e.g. 3:00pm = 15:00

Check Time Zone ☐ EST ☐ CST ☐ MST ☐ PST

Client Name:
Phone Number:
Fax Number:
PWS ID# (If applicable):
Source Type: ☐ Spring ☐ Well ☐ Municipal ☐ Other:
Source Name: Winston-Salem
(Source Information is REQUIRED for All Finished Products)
City & State: Winston Salem NC
(If Different than Above)
Product Collected By: (Signature)
Product Collected By: Stewart Douglas (Please Print)
Brand Name/Product Type: Mountain Park Purified
e.g. XYZ Spring Water or XYZ Distilled Water
Container Size: 18.9 L / 5 Gallons
Production Code/Lot Number: J4023
Form Completed By: Stewart Douglas
Additional Comments:

Lab Sample Information:

Date Received: RECEIVED AUG 31 2023
Time Received: 09:15
Received By: AM
Date Opened: 9/5/23
Time Opened: 15:40
Opened By: A. Bonnemann

☑ Sample receipt criteria checked & acceptable.
☐ Deviations from acceptable sample receipt criteria noted on PSA form.

IF PENNSYLVANIA REPORTING IS REQUIRED AND YOUR PRODUCT IS GREATER THAN 1.77 LITERS, PLEASE PROVIDE THE FOLLOWING:

Penn. PWS ID#:
Location:

Rev: SRT102120 **INCOMPLETE INFORMATION MAY DELAY ANALYSIS AND/OR INVALIDATE RESULTS**