National Testing Laboratories, Ltd.
Quality Water Analysis

Corporate Headquarters
6571 Wilson Mills Road
Cleveland, Ohio 44143

Phone: 800-458-3330

This report package contains 19 pages.

This package contains reports from the following laboratories:

- National Testing Laboratories, Ltd. (6 pages)
- Pace Analytical Services, Inc.- Minneapolis, MN (8 pages)
- Pace Analytical Services, Inc.-Greensburg, PA (1 page)
- Eurofins Eaton Analytical, Inc. (3 pages)

If you have any questions, please contact Susan Henderson at 1-800-458-3330.

NELAP ACCREDITED TNI LABORATORY

Laboratory ID: 0055

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

ANALYTICAL REPORTS

SAMPLE CODE: 417634

4/30/2021

Customer: Archie's Spring Water
Arch Abraham
45345 Telegraph Rd
Elyria , OH 44035

Source: Cherry Knoll Spring
Source City: Amherst
Source State: OH
Sample Temperature: 12 C
Field pH: 6.9

Date/Time Received: 4/1/2021 09:25
Collected by: D. Abraham

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.

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	3/31/2021	13:30		4/19/2021
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	3/31/2021	13:30		4/22/2021
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	3/31/2021	13:30		4/22/2021
1010	Barium	200.7	2	mg/L	0.10	ND	1	3/31/2021	13:30		4/19/2021
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	3/31/2021	13:30		4/19/2021
1079	Boron	200.7	--	mg/L	0.10	ND	1	3/31/2021	13:30		4/19/2021
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	3/31/2021	13:30		4/19/2021
1016	Calcium	200.7	--	mg/L	2.0	38.0	1	3/31/2021	13:30		4/19/2021
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	3/31/2021	13:30		4/19/2021
1022	Copper	200.7	1.0	mg/L	0.002	ND	1	3/31/2021	13:30		4/19/2021
1028	Iron	200.7	0.3	mg/L	0.020	ND	1	3/31/2021	13:30		4/19/2021
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	3/31/2021	13:30		4/22/2021
1031	Magnesium	200.7	--	mg/L	0.10	5.00	1	3/31/2021	13:30		4/19/2021
1032	Manganese	200.7	0.05	mg/L	0.004	ND	1	3/31/2021	13:30		4/19/2021
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	1	3/31/2021	13:30		4/22/2021
1036	Nickel	200.7	--	mg/L	0.005	ND	1	3/31/2021	13:30		4/19/2021
1042	Potassium	200.7	--	mg/L	1.0	1.0	1	3/31/2021	13:30		4/19/2021
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	3/31/2021	13:30		4/22/2021
1049	Silica	200.7	--	mg/L	0.05	10.00	1	3/31/2021	13:30		4/19/2021

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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	3/31/2021	13:30		4/19/2021	
1052	Sodium	200.7	--	mg/L	1	3		1	3/31/2021	13:30		4/19/2021	
1085	Thallium	200.8	0.002	mg/L	0.001	ND		1	3/31/2021	13:30		4/22/2021	
4009	Uranium	200.8	0.030	mg/L	0.001	ND		1	3/31/2021	13:30		4/22/2021	
1095	Zinc	200.7	5.000	mg/L	0.004	ND		1	3/31/2021	13:30		4/19/2021	
	Physical Factors												
1927	Alkalinity (Total as CaCO3)	2320B	--	mg/L	20	80		1	3/31/2021	13:30		4/9/2021	
1905	Apparent Color	2120B	15	CU	3	ND		1	3/31/2021	13:30		4/1/2021	13:40
1910	Corrosivity	2330B	--	SI		-1.01	R2	1	3/31/2021	13:30		4/22/2021	
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND		1	3/31/2021	13:30		4/2/2021	13:20
	MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole												
1915	Hardness (as CaCO3)	2340C	--	mg/L	10	110		1	3/31/2021	13:30		4/21/2021	
1920	Odor Threshold	2150B	3	ton	1	ND		1	3/31/2021	13:30		4/1/2021	12:50
1925	pH	150.1	6.5-8.5	pH Units		6.9		1	3/31/2021	13:30		4/1/2021	13:10
4254	pH Temperature	150.1	--	Deg, C		23		1	3/31/2021	13:30		1/1/2021	13:10
1930	Total Dissolved Solids	2540C	500	mg/L	5	150		1	3/31/2021	13:30		4/2/2021	
0100	Turbidity	2130B	1	NTU	0.1	0.3		1	3/31/2021	13:30		4/1/2021	13:25
	Inorganic Analytes - Other												
1004	Bromide	300.1	--	mg/L	0.005	0.013		1	3/31/2021	13:30		4/9/2021	
1017	Chloride	300.0	250	mg/L	1.0	15.0		1	3/31/2021	13:30		4/1/2021	12:50
1025	Fluoride	300.0	4.0	mg/L	0.10	ND		1	3/31/2021	13:30		4/1/2021	12:50
1040	Nitrate as N	300.0	10	mg/L	0.05	2.50		1	3/31/2021	13:30		4/1/2021	12:50
1041	Nitrite as N	300.0	1	mg/L	0.05	ND		1	3/31/2021	13:30		4/1/2021	12:50
1044	Ortho Phosphate	300.0	--	mg/L	2.0	ND		1	3/31/2021	13:30		4/1/2021	12:50
1055	Sulfate	300.0	250	mg/L	5.0	8.8		1	3/31/2021	13:30		4/1/2021	12:50
	Organic Analytes - Trihalomethanes												
2943	Bromodichloromethane	524.2 THMs	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021	
2942	Bromoform	524.2 THMs	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021	
2941	Chloroform	524.2 THMs	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021	
2944	Dibromochloromethane	524.2 THMs	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021	
2950	Total THMs	524.2 THMs	0.080	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021	
	Organic Analytes - Volatiles												
2986	1,1,1,2-Tetrachloroethane	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021	
2981	1,1,1-Trichloroethane	524.2	0.2	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021	
2988	1,1,2,2-Tetrachloroethane	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021	
2985	1,1,2-Trichloroethane	524.2	0.005	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021	
2978	1,1-Dichloroethane	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021	
2977	1,1-Dichloroethene	524.2	0.007	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021	

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2410	1,1-Dichloropropene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2420	1,2,3-Trichlorobenzene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2414	1,2,3-Trichloropropane	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2378	1,2,4-Trichlorobenzene	524.2	0.07	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2418	1,2,4-Trimethylbenzene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2968	1,2-Dichlorobenzene	524.2	0.6	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2980	1,2-Dichloroethane	524.2	0.005	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2983	1,2-Dichloropropane	524.2	0.005	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2424	1,3,5-Trimethylbenzene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2967	1,3-Dichlorobenzene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2412	1,3-Dichloropropane	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2969	1,4-Dichlorobenzene	524.2	0.075	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2416	2,2-Dichloropropane	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2965	2-Chlorotoluene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2966	4-Chlorotoluene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2030	4-Isopropyltoluene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2990	Benzene	524.2	0.005	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2993	Bromobenzene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2430	Bromochloromethane	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2214	Bromomethane	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2982	Carbon Tetrachloride	524.2	0.005	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2989	Chlorobenzene	524.2	0.1	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2216	Chloroethane	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2210	Chloromethane	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2380	cis-1,2-Dichloroethene	524.2	0.07	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2228	cis-1,3-Dichloropropene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2408	Dibromomethane	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2212	Dichlorodifluoromethane	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2964	Dichloromethane	524.2	0.005	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2992	Ethylbenzene	524.2	0.7	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2246	Hexachlorobutadiene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2994	Isopropylbenzene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2251	Methyl Tert Butyl Ether	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2247	Methyl-Ethyl Ketone	524.2	--	mg/L	0.005	ND	R2	1	3/31/2021	13:30		4/5/2021
2248	Naphthalene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2422	n-Butylbenzene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2997	o-Xylene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021
2963	p and m-Xylenes	524.2	--	mg/L	0.0010	ND		1	3/31/2021	13:30		4/5/2021
	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	3/31/2021	13:30		4/5/2021
2428	sec-Butylbenzene	524.2	--	mg/L	0.0005	ND		1	3/31/2021	13:30		4/5/2021

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4/30/2021

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled		Date Prepped	Date/Time Analyzed
2996	Styrene	524.2	0.1	mg/L	0.0005	ND	1	3/31/2021	13:30		4/5/2021
2426	tert-Butylbenzene	524.2	--	mg/L	0.0005	ND	1	3/31/2021	13:30		4/5/2021
2987	Tetrachloroethene	524.2	0.005	mg/L	0.0005	ND	1	3/31/2021	13:30		4/5/2021
2991	Toluene	524.2	1	mg/L	0.0005	ND	1	3/31/2021	13:30		4/5/2021
2979	trans-1,2-Dichloroethene	524.2	0.1	mg/L	0.0005	ND	1	3/31/2021	13:30		4/5/2021
2224	trans-1,3-Dichloropropene	524.2	--	mg/L	0.0005	ND	1	3/31/2021	13:30		4/5/2021
2984	Trichloroethene	524.2	0.005	mg/L	0.0005	ND	1	3/31/2021	13:30		4/5/2021
2218	Trichlorofluoromethane	524.2	--	mg/L	0.0005	ND	1	3/31/2021	13:30		4/5/2021
2904	Trichlorotrifluoroethane	524.2	--	mg/L	0.0005	ND	1	3/31/2021	13:30		4/5/2021
2976	Vinyl Chloride	524.2	0.002	mg/L	0.0005	ND	1	3/31/2021	13:30		4/5/2021
2955	Xylenes (Total)	524.2	10	mg/L	0.0005	ND	1	3/31/2021	13:30		4/5/2021
	Organic Analytes - Others										
2931	1,2-Dibromo-3-chloropropane	504.1	0.0002	mg/L	0.00001	ND	1	3/31/2021	13:30	4/9/2021	4/9/2021
2946	1,2-Dibromoethane	504.1	0.00005	mg/L	0.00001	ND	1	3/31/2021	13:30	4/9/2021	4/9/2021
2105	2,4-D	515.4	70	ug/L	0.1	ND	1	3/31/2021	13:30	4/8/2021	4/8/2021
2066	3-Hydroxycarbofuran	531.2	--	ug/L	1.0	ND	1	3/31/2021	13:30		4/6/2021
2051	Alachlor	525.2	2	ug/L	0.2	ND	1	3/31/2021	13:30	4/2/2021	4/15/2021
2047	Aldicarb	531.2	7	ug/L	1.0	ND	1	3/31/2021	13:30		4/6/2021
2044	Aldicarb sulfone	531.2	7	ug/L	1.0	ND	1	3/31/2021	13:30		4/6/2021
2043	Aldicarb sulfoxide	531.2	7	ug/L	1.0	ND	1	3/31/2021	13:30		4/6/2021
2356	Aldrin	505	--	mg/L	0.00007	ND	1	3/31/2021	13:30	4/5/2021	4/6/2021
2050	Atrazine	525.2	3	ug/L	0.1	ND	1	3/31/2021	13:30	4/2/2021	4/15/2021
2625	Bentazon	515.4	--	ug/L	1	ND	1	3/31/2021	13:30	4/8/2021	4/8/2021
2306	Benzo(A)pyrene	525.2	0.2	ug/L	0.1	ND	1	3/31/2021	13:30	4/2/2021	4/15/2021
2076	Butachlor	525.2	--	ug/L	0.2	ND	1	3/31/2021	13:30	4/2/2021	4/15/2021
2021	Carbaryl	531.2	--	ug/L	1.0	ND	1	3/31/2021	13:30		4/6/2021
2046	Carbofuran	531.2	40	ug/L	1.0	ND	1	3/31/2021	13:30		4/6/2021
2959	Chlordane	505	0.002	mg/L	0.0001	ND	1	3/31/2021	13:30	4/5/2021	4/6/2021
2031	Dalapon	515.4	200	ug/L	1	ND	1	3/31/2021	13:30	4/8/2021	4/8/2021
2035	Di(2-ethylhexyl) adipate	525.2	400	ug/L	0.2	ND	1	3/31/2021	13:30	4/2/2021	4/15/2021
2039	Di(2-ethylhexyl) phthalate	525.2	6	ug/L	0.6	ND	1	3/31/2021	13:30	4/2/2021	4/15/2021
2440	Dicamba	515.4	--	ug/L	1	ND	1	3/31/2021	13:30	4/8/2021	4/8/2021
2933	Dichloran	505	--	mg/L	0.001	ND	1	3/31/2021	13:30	4/5/2021	4/6/2021
2070	Dieldrin	505	--	mg/L	0.00002	ND	1	3/31/2021	13:30	4/5/2021	4/6/2021
2041	Dinoseb	515.4	7	ug/L	0.2	ND	1	3/31/2021	13:30	4/8/2021	4/8/2021
2032	Diquat	549.2	20	ug/L	0.4	ND	1	3/31/2021	13:30	4/7/2021	4/19/2021
2033	Endothall	548.1	100	ug/L	9	ND	1	3/31/2021	13:30	4/5/2021	4/16/2021
2005	Endrin	505	0.002	mg/L	0.00001	ND	1	3/31/2021	13:30	4/5/2021	4/6/2021
2034	Glyphosate	547	700	ug/L	6	ND	1	3/31/2021	13:30		4/13/2021
2065	Heptachlor	505	0.0004	mg/L	0.00001	ND	1	3/31/2021	13:30	4/5/2021	4/6/2021

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2067	Heptachlor Epoxide	505	0.0002	mg/L	0.00001	ND		1	3/31/2021	13:30	4/5/2021	4/6/2021
2274	Hexachlorobenzene	505	0.001	mg/L	0.0001	ND		1	3/31/2021	13:30	4/5/2021	4/6/2021
2042	Hexachlorocyclopentadiene	505	0.05	mg/L	0.0001	ND		1	3/31/2021	13:30	4/5/2021	4/6/2021
2010	Lindane	505	0.0002	mg/L	0.00002	ND		1	3/31/2021	13:30	4/5/2021	4/6/2021
2022	Methomyl	531.2	--	ug/L	1.0	ND		1	3/31/2021	13:30		4/6/2021
2015	Methoxychlor	505	0.04	mg/L	0.0001	ND		1	3/31/2021	13:30	4/5/2021	4/6/2021
2045	Metolachlor	525.2	--	ug/L	0.2	ND		1	3/31/2021	13:30	4/2/2021	4/15/2021
2595	Metribuzin	525.2	--	ug/L	0.2	ND		1	3/31/2021	13:30	4/2/2021	4/15/2021
2626	Molinate	525.2	--	ug/L	0.2	ND		1	3/31/2021	13:30	4/2/2021	4/15/2021
2036	Oxamyl	531.2	200	ug/L	1.0	ND		1	3/31/2021	13:30		4/6/2021
2934	Pentachloronitrobenzene	505	--	mg/L	0.0001	ND		1	3/31/2021	13:30	4/5/2021	4/6/2021
2326	Pentachlorophenol	515.4	1	ug/L	0.04	ND		1	3/31/2021	13:30	4/8/2021	4/8/2021
2040	Picloram	515.4	500	ug/L	0.1	ND		1	3/31/2021	13:30	4/8/2021	4/8/2021
2077	Propachlor	525.2	--	ug/L	0.2	ND		1	3/31/2021	13:30	4/2/2021	4/15/2021
2110	Silvex 2,4,5-TP	515.4	50	ug/L	0.2	ND		1	3/31/2021	13:30	4/8/2021	4/8/2021
2037	Simazine	525.2	4	ug/L	0.1	ND		1	3/31/2021	13:30	4/2/2021	4/15/2021
2627	Thiobencarb	525.2	--	ug/L	0.2	ND		1	3/31/2021	13:30	4/2/2021	4/15/2021
2383	Total PCBs	505	0.0005	mg/L	0.0005	ND		1	3/31/2021	13:30	4/5/2021	4/6/2021
2910	Total Phenols	420.4	--	mg/L	0.001	ND	R2	1	3/31/2021	13:30		4/26/2021
2020	Toxaphene	505	0.003	mg/L	0.001	ND		1	3/31/2021	13:30	4/5/2021	4/6/2021
2055	Trifluralin	505	--	mg/L	0.001	ND		1	3/31/2021	13:30	4/5/2021	4/6/2021

Qualifiers:

R2: The laboratory is not accredited for this analyte. The resulting value should be used for informational purposes only.

Christine MacMillan, Technical Director

Analyst	Tests
ZSC	200.7
DMJ	200.8,2330B
PC	2320B,2120B,5540C,2340C,2150B,150.1,2130B
CF	2540C
SG	300.1,300.0
SB	524.2 THMs,524.2,504.1,515.4,531.2,505,549.2,547
JF	525.2,548.1
DHG	420.4

Laboratory ID: 0055

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

ANALYTICAL REPORTS

SAMPLE CODE: 417633

4/7/2021

Customer: Archie's Spring Water
Arch Abraham
45345 Telegraph Rd
Elyria , OH 44035

Source: Cherry Knoll Spring
Source City: Amherst
Source State: OH
Sample Temperature: 12 C
Field pH: 6.9

Date/Time Received: 4/1/2021 09:25
Collected by: D. Abraham

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	3/31/2021	13:30		4/1/2021	14:30
3001	Standard Plate Count	9215B	500	CFU/ml	1	<1	Q	1	3/31/2021	13:30		4/1/2021	14:22
				Pour Plate Method, 35°C/48hr, Plate Count Agar									
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND		1	3/31/2021	13:30		4/1/2021	14:30

Qualifiers:

Q: Sample analyzed beyond the accepted holding time.

Analyst	Tests
GK	9223B
CF	9215B

Sarah Buchanan

Sarah Buchanan, Project Manager

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Susan Henderson
National Testing Laboratories
6571 Wilson Mills Road
Cleveland OH 44143

REPORT OF LABORATORY ANALYSIS FOR 2,3,7,8-TCDD

Report Summary:

Enclosed are analytical results of one drinking water sample analyzed for 2,3,7,8-TCDD content. This sample was analyzed according to Method 1613B by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.The results reported for this sample and the associated quality control samples were all within the criteria described in Method 1613B. If you have any questions or concerns regarding these results, please contact Joanne Richardson, your Pace Project Manager. The samples were received outside of required temperature range. Analysis was completed upon client approval.

Pace Project Number:
10554384

Report Prepared Date:
April 14, 2021

Product Source

Sample ID: 417634
Source Name: Cherry Knoll Spring
Source Location: Amherst, OH
PWS ID: N/A
Laboratory Sample ID: 10554384001
Date Sampled: 03/31/2021 @ 13:30
Date Received: 04/08/2021 @ 09:15

This report has been reviewed by:

Joanne Richardson

April 14, 2021
Joanne Richardson,
(612) 607-6453
(612) 607-6444 (fax)

NELAP ACCREDITED TNI LABORATORY

Report of Laboratory Analysis

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
		Missouri	10100
A2LA	2926.01	Montana	CERT0092
Alabama	40770	Nebraska	NE-OS-18-06
Alaska-DW	MN00064	Nevada	MN00064
Alaska-UST	17-009	New Hampshire	2081
Arizona	AZ0014	New Jersey	MN002
Arkansas - WW	88-0680	New York	11647
Arkansas-DW	MN00064	North Carolina-	27700
California	2929	North Carolina-	530
Colorado	MN00064	North Dakota	R-036
Connecticut	PH-0256	Ohio-DW	41244
Florida	E87605	Ohio-VAP (170	CL101
Georgia	959	Ohio-VAP (180	CL110
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon- rimary	MN300001
Illinois	200011	Oregon-Second	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky-DW	90062	Tennessee	TN02818
Kentucky-WW	90062	Texas	T104704192
Louisiana-DEQ	AI-84596	Utah	MN00064
Louisiana-DW	MN00064	Vermont	VT-027053137
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Michigan	9909	West Virginia-D	382
Minnesota	027-053-137	West Virginia-D	9952C
Minnesota-Ag	via MN 027-053	Wisconsin	999407970
Minnesota-Petr	1240	Wyoming-UST	via A2LA 2926.
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Reporting Flags

A = Reporting Limit based on signal to noise (EDL)

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interferencepresent

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDEInterference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = SeeDiscussion

REPORT OF LABORATORY ANALYSIS

Report No.....10554384_1613DW_DFR

National Testing Laboratories, Ltd.
Quality Water Analysis

CHAIN OF CUSTODY

Initiated by: ☐ Client ☑ National Testing Laboratories, Ltd. ☐ Other

CLIENT/COMPANY NAME:

CLIENT COMMENTS:

TYPES OF SAMPLES:

DRINKING WATER = D SOIL SAMPLE = S
GROUND WATER = G SLUDGE/WASTE = W
POOL WATER = P OTHER TYPE = O

SAMPLE #	COLLECTION DATE	COLLECTION TIME	SAMPLE SITE DESCRIPTION	SAMPLE TYPE	# OF CONTAINERS	Nitrate	LAB #
417599	4.5.21	1304	2170540	D	2	X	
417634	3.31.21	1330	2170449	D	2	X	

TEST(S) REQUESTED PER SAMPLE (X)

WO# : 10554384

10554384

RECEIVER SIGNATURE CONFIRMS THAT THE BOTTLES RECEIVED ARE CONSISTENT WITH THE REQUIRED TESTING PROTOCOL.

SAMPLED BY: (Signature) (1)	DATE	TIME	RELINQUISHED BY: (Signature) (4)	DATE	TIME
SHIPPED BY: (Signature) (2)	DATE 4.7.21	TIME 1600	RECEIVED BY: (Signature) (5)	DATE	TIME
RECEIVED BY: (Signature) (3)	DATE	TIME	RELINQUISHED BY: (Signature) (6)	DATE	TIME
			RECEIVED BY: (Signature) (7) Gen / PACE	DATE 4/8/21	TIME 9:15

LABORATORY COMMENTS: CC E

COC-001 2/22/11

See instructions on reverse side →

National Testing Laboratories, Ltd.

Quality Water Analysis

1-800-458-3330

Beverage - Source Water

Order Number: 2170449 417634
Order Date: 3/15/2021
Sample Number:
Product: FDABASE GR
Paid: No **Method:** **P.O.:**
TSR: SBW

Elyria OH 44035

Date Sampled : 03/31/2021
Time Sampled: 13 : 30 Please Use Military Time, e.g. 3:00pm = 15:00
Check Time Zone: ☒ EST ☐ CST ☐ MST ☐ PST

For Laboratory Use ONLY

Lab Accounting Information:
Payment $:
Check #:

Lab Comments/Special Instructions:
2021 Spring Source Water

Source Water Information:

PWS ID# (if applicable): N/A
Source Name: Cherry Knoll Spring
City & State: Amherst oH
(If Different than Above)
Sample Collected By:
(Signature)
Sample Collected By: Damon Abraham
(Please Print)
Sample Temperature: 12°C **Field pH:** 6.9
Measured at Source By: Damon Abraham
Form Completed By: Damon Abraham
Additional Comments:

State Forms:
4c°

Lab Sample Information:
Date Received: 4/1/21
Time Received: 09:25
Received By: LD
☑ Sample receipt criteria checked & acceptable.
☐ Deviations from acceptable sample receipt criteria noted on PSA form.

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

Pace Analytical®	Document Name: Sample Condition Upon Receipt (SCUR) - MN	Document Revised: 12Aug2020 Page 1 of 1
	Document No.: ~~ENV-FRM-MIN4-0150 Rev.01~~	Pace Analytical Services - ~~Minneapolis~~

Sample Condition Upon Receipt

Client Name: National Testing Lab

Project #: WO# : 10554384

PM: JMR Due Date: 04/19/21

CLIENT: NTL

Courier: ☐Fed Ex ☒UPS ☐USPS ☐Client ☐Pace ☐SpeeDee ☐Commercial

Tracking Number: 1ZA1V9310175830767 See Exceptions ☐ ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present? ☐Yes ☒No **Seals Intact?** ☐Yes ☒No **Biological Tissue Frozen?** ☐Yes ☐No ☒N/A

Packing Material: ☐Bubble Wrap ☐Bubble Bags ☐None ☒Other:_____ **Temp Blank?** ☐Yes ☒No

Thermometer: ☐T1(0461) ☒T2(1336) ☐T3(0459) ☐T4(0254) ☐T5(0489) **Type of Ice:** ☒Wet ☒Blue ☐None ☐Dry ☐Melted

Did Samples Originate in West Virginia? ☐Yes ☒No **Were All Container Temps Taken?** ☐Yes ☐No ☒N/A

Temp should be above freezing to 6°C **Cooler Temp Read w/temp blank:**_____ °C

Correction Factor: +0.2 **Cooler Temp Corrected w/temp blank:**_____ °C

Average Corrected Temp (no temp blank only): 6.6 °C ☒See Exceptions ENV-FRM-MIN4-0142 ☐1 Container

USDA Regulated Soil: (☒N/A, water sample/Other:_____) **Date/Initials of Person Examining Contents:** ED 4/8/21

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐Yes ☐No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐Yes ☐No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present and Filled Out?	☒Yes	☐No		1.
Chain of Custody Relinquished?	☒Yes	☐No		2.
Sampler Name and/or Signature on COC?	☐Yes	☒No	☐N/A	3.
Samples Arrived within Hold Time?	☒Yes	☐No		4.
Short Hold Time Analysis (<72 hr)?	☐Yes	☒No		5. ☐Fecal Coliform ☐HPC ☐Total Coliform/E coli ☐BOD/cBOD ☐Hex Chrome ☐Turbidity ☐Nitrate ☐Nitrite ☐Orthophos ☐Other_____
Rush Turn Around Time Requested?	☐Yes	☒No		6.
Sufficient Volume?	☒Yes	☐No		7.
Correct Containers Used? -Pace Containers Used?	☒Yes ☒Yes	☐No ☐No		8.
Containers Intact?	☒Yes	☐No		9.
Field Filtered Volume Received for Dissolved Tests?	☐Yes	☐No	☒N/A	10. Is sediment visible in the dissolved container? ☐Yes ☐No
Is sufficient information available to reconcile the samples to the COC? Matrix: ☒Water ☐Soil ☐Oil ☐Other_____	☒Yes	☐No		11. If no, write ID/ Date/Time on Container Below: See Exception ☐ ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐Yes	☐No	☒N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐Yes	☐No	☒N/A	☐NaOH ☐HNO_3 ☐H_2SO_4 ☐Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☒Yes	☐No	☐N/A	Positive for Res. Chlorine? ☐Yes ☐No pH Paper Lot# See Exception ☐ ENV-FRM-MIN4-0142
				Res. Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Extra labels present on soil VOA or WIDRO containers?	☐Yes	☐No	☒N/A	13. See Exception ☐ ENV-FRM-MIN4-0140
Headspace in VOA Vials (greater than 6mm)?	☐Yes	☐No	☒N/A	
Trip Blank Present?	☐Yes	☐No	☒N/A	14.
Trip Blank Custody Seals Present?	☐Yes	☐No	☒N/A	Pace Trip Blank Lot # (if purchased):_____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐Yes ☐No

Person Contacted: Susan Henderson **Date/Time:** April 9, 2021 6:09 AM

Comments/Resolution: OK to proceed with the analysis above the recommended received temperature.

Project Manager Review: Joanne Richardson **Date:** 4-8-21

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Pace Analytical®	Document Name: Sample Condition Upon Receipt (SCUR) Exception Form	Document Revised: 04Jun2020 Page 1 of 1
	Document No.: ENV-FRM-MIN4-0142 Rev.01	Pace Analytical Services - Minneapolis

SCUR Exceptions:

Workorder #: 10554384

Out of Temp Sample IDs	Container Type	# of Containers

PM Notified? ☐Yes ☐No

If yes, indicate who was contacted/date/time.
If no, indicate reason why.

Multiple Cooler Project? ☐Yes ☐No
If you answered yes, fill out information to the left.

No Temp Blank		
Read Temp	Corrected Temp	Average Temp
6.0	6.2	6.6
6.0	6.2	
6.8	7.0	
6.9	7.1	

Tracking Number/Temperature	

Issue Type:

Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preserv.	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance after addition?	Initials
								☐Yes ☐No	
								☐Yes ☐No	
								☐Yes ☐No	
								☐Yes ☐No	

Comments:

Pace Analytical™

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414

Tel 612-607-1700
Fax 612-607-6444

Drinking Water Analysis Results
2,3,7,8-TCDD -- USEPA Method 1613B

Sample ID.....417634 Date Collected.....03/31/2021 Spike.....200 pg
Client..... National Testing Laborato Date Received.....04/08/2021 IS Spike.....2000 pg
Lab Sample ID.....10554384001 Date Extracted.....04/09/2021 CS Spike.....200 pg

	Sample 417634	Method Blank	Lab Spike	Lab Spike Dup
[2,3,7,8-TCDD]	**ND**	ND	--	--
LOQ	5.0 pg/L	5.0 pg/L	--	--
2,3,7,8-TCDD Recovery	--	--	100%	96%
pg Recovered	--	--	200pg/L	192pg/L
Spike Recovery Limit	--	--	73-146%	73-146%
RPD				4.1%
IS Recovery	**68%**	69%	55%	62%
pg Recovered	1366 pg/L	1371 pg/L	1096 pg/L	1249 pg/L
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%
CS Recovery	**69%**	65%	54%	63%
pg Recovered	138 pg/L	129 pg/L	108 pg/L	126 pg/L
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%
Filename	E210413B_14	E210413A_16	E210413A_14	E210413A_15
Analysis Date	04/14/2021	04/13/2021	04/13/2021	04/13/2021
Analysis Time	04:04	16:56	15:38	16:17
Analyst	CHS	SMT	SMT	SMT
Volume	0.916L	1.041L	1.040L	1.016L
Dilution	NA	NA	NA	NA
ICAL Date	03/22/2021	03/22/2021	03/22/2021	03/22/2021
CCAL Filename	E210413B_02	E210413A_02	E210413A_02	E210413A_02

! = Outside the Control Limits
ND = Not Detected
LOQ = Limit of Quantitation
Limits = Control Limits from Method 1613 (10/94 Revision), Tables 6A and 7A
RPD = Relative Percent Difference of Lab Spike Recoveries
IS = Internal Standard [2,3,7,8-TCDD-$^{13}C_{12}$]
CS = Cleanup Standard [2,3,7,8-TCDD-$^{37}Cl_4$]

Analyst: _____

Project No.....10554384

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2170449
Pace Project No.: 30414004

Sample: 417634 **Lab ID: 30414004001** Collected: 03/31/21 13:30 Received: 04/07/21 10:05 Matrix: Drinking Water
PWS: Site ID: Sample Type:

Comments:
- SOURCE WATER, Cherry Knoll Spring, Amherst OH
- sample number: 417634
- sample collected 03/31/21 @13:30 by Damon Abraham
- Upon receipt at the laboratory, 5 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	SM 7110C-11	**0.361 ± 0.811 (1.92) C:NA T:NA**	pCi/L	04/20/21 08:48	12587-46-1	
	Pace Analytical Services - Greensburg					
Gross Beta	EPA 900.0	**0.029 ± 0.938 (2.09) C:NA T:NA**	pCi/L	04/15/21 07:41	12587-47-2	
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.708 ± 0.480 (0.521) C:NA T:78%**	pCi/L	04/21/21 13:45	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.0298 ± 0.367 (0.863) C:63% T:83%**	pCi/L	04/26/21 12:08	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.708 ± 0.847 (1.38)**	pCi/L	04/27/21 10:48	7440-14-4	

REPORT OF LABORATORY ANALYSIS

eurofins | Eaton Analytical

110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: National Testing Laboratories (Cleveland)

Attn: Susan Henderson
6571 Wilson Mills Road
Cleveland, OH 44143

Report: 514164
Priority: Standard Written
Status: Final
PWS ID: Not Supplied
PA Lab ID: 68466

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4867056	417634/2170449	335.4	03/31/21 13:30	Client	04/02/21 09:45

Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Caleb Hunsberger at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA. EEA is accredited by the National Environmental Laboratory Accreditation Program (NELAP).

Caleb Hunsberger ASM

Authorized Signature Title

04/12/2021
Date

Client Name: National Testing Laboratories (Cleveland)
Report #: 514164

Client Name: National Testing Laboratories (Cleveland) Report #: 514164

Sampling Point: 417634/2170449 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
57-12-5	Cyanide, Total	335.4	0.2 *	0.02	< 0.02	mg/L	04/08/21 10:18	04/08/21 11:58	4867056

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

If applicable, the calculation of the matrix spike (MS) or matrix spike duplicate (MSD) percent recovery is as follows: (MS or MSD value - Sample value) * 100 / spike target / dilution factor = **Recovery %**

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.