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This report package contains 26 pages

This package contains reports from the following laboratories:

- National Testing Laboratories, Ltd. (9 pages)
- Pace Analytical Services, Inc.- Minneapolis, MN (9 pages)
- Pace Analytical Services, Inc.-Greensburg, PA (1 page)
- Eurofins Eaton Analytical, Inc. (6 pages)

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



Laboratory ID: 999462860; 105-10108

**National Testing Laboratories, Ltd**

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

**ANALYTICAL REPORTS**

**SAMPLE CODE: 401827**

**1/28/2020**

**Customer:** Hayden Water Company  
Tom Hayden  
N4380 County Rd E  
Plymouth, WI 53073

**Source:** Artesian Wells  
**Source Type:** Other  
**Brand Name:** Pure Steam Distilled Artesian Wells  
**Production Code:** 12/12/19  
**Container Size:** 1 Gallon

**Date/Time Received:** 12/16/2019 08:48

**Collected by:** B. Johnston

The results herein conform to TNI and ISO/IEC 17025:2005 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
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	ND	1	1/6/2020 13:00		1/10/2020
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/6/2020 13:00		1/9/2020
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	1/6/2020 13:00		1/9/2020
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/6/2020 13:00		1/10/2020
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/6/2020 13:00		1/10/2020
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/6/2020 13:00		1/10/2020
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/6/2020 13:00		1/10/2020
1016	Calcium	200.7	--	mg/L	2.0	ND	1	1/6/2020 13:00		1/10/2020
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/6/2020 13:00		1/10/2020
1022	Copper	200.7	1.0	mg/L	0.002	ND	1	1/6/2020 13:00		1/10/2020
1028	Iron	200.7	0.3	mg/L	0.020	ND	1	1/6/2020 13:00		1/10/2020
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	1/6/2020 13:00		1/9/2020
1031	Magnesium	200.7	--	mg/L	0.10	ND	1	1/6/2020 13:00		1/10/2020
1032	Manganese	200.7	0.05	mg/L	0.004	ND	1	1/6/2020 13:00		1/10/2020
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	1	1/6/2020 13:00		1/10/2020
1036	Nickel	200.7	--	mg/L	0.005	ND	1	1/6/2020 13:00		1/10/2020
1042	Potassium	200.7	--	mg/L	1.0	ND	1	1/6/2020 13:00		1/10/2020
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/6/2020 13:00		1/9/2020
1049	Silica	200.7	--	mg/L	0.05	ND	1	1/6/2020 13:00		1/10/2020

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

## ANALYTICAL REPORTS

SAMPLE CODE: 401827

1/28/2020

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	1/6/2020 13:00		1/10/2020
1052	Sodium	200.7	--	mg/L	1	ND	1	1/6/2020 13:00		1/10/2020
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/6/2020 13:00		1/9/2020
4009	Uranium	200.8	0.030	mg/L	0.001	ND	1	1/6/2020 13:00		1/9/2020
1095	Zinc	200.7	5.000	mg/L	0.004	ND	1	1/6/2020 13:00		1/10/2020
<b>Physical Factors</b>										
1927	Alkalinity (Total as CaCO3)	2320B	--	mg/L	20	ND	1	1/6/2020 13:00		1/16/2020
1905	Apparent Color	2120B	15	CU	3	ND	1	1/6/2020 13:00		1/6/2020 18:50
1910	Corrosivity	2330B	--	SI	-5.80	R2	1	1/6/2020 13:00		1/16/2020
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	1/6/2020 13:00		1/7/2020 16:55
MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole										
1915	Hardness (as CaCO3)	2340C	--	mg/L	10	ND	1	1/6/2020 13:00		1/22/2020
1920	Odor Threshold	2150B	3	ton	1	ND	1	1/6/2020 13:00		1/6/2020 16:35
1925	pH	150.1	5-7	pH Units	5.6		1	1/6/2020 13:00		1/6/2020 17:20
4254	pH Temperature	150.1	--	Deg, C	22		1	1/6/2020 13:00		1/6/2020 17:20
1930	Total Dissolved Solids	2540C	500	mg/L	5	ND	1	1/6/2020 13:00		1/9/2020
0100	Turbidity	2130B	1	NTU	0.1	ND	1	1/6/2020 13:00		1/6/2020 17:45
<b>Inorganic Analytes - Other</b>										
1011	Bromate	300.1	0.010	mg/L	0.005	ND	1	1/6/2020 13:00		1/7/2020
1004	Bromide	300.1	--	mg/L	0.005	ND	1	1/6/2020 13:00		1/7/2020
1006	Chloramine as Cl2	4500Cl-G	4.0	mg/L	0.05	ND	1	1/6/2020 13:00		1/6/2020 18:25
1017	Chloride	300.0	250	mg/L	1.0	ND	1	1/6/2020 13:00		1/7/2020 10:51
1012	Chlorine as Cl2	4500Cl-G	4.0	mg/L	0.05	ND	1	1/6/2020 13:00		1/6/2020 18:22
1008	Chlorine Dioxide as ClO2	4500ClO2D	0.8	mg/L	0.1	ND	1	1/6/2020 13:00		1/6/2020 18:30
1009	Chlorite	300.1	1.0	mg/L	0.005	ND	1	1/6/2020 13:00		1/7/2020
1025	Fluoride	300.0	4.0	mg/L	0.10	ND	1	1/6/2020 13:00		1/7/2020 10:51
1040	Nitrate as N	300.0	10	mg/L	0.05	ND	1	1/6/2020 13:00		1/7/2020 10:51
1041	Nitrite as N	300.0	1	mg/L	0.05	ND	1	1/6/2020 13:00		1/7/2020 10:51
1044	Ortho Phosphate	300.0	--	mg/L	2.0	ND	1	1/6/2020 13:00		1/7/2020 10:51
1055	Sulfate	300.0	250	mg/L	5.0	ND	1	1/6/2020 13:00		1/7/2020 10:51
<b>Organic Analytes - Trihalomethanes</b>										
2943	Bromodichloromethane	524.2 THMs	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2942	Bromoform	524.2 THMs	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2941	Chloroform	524.2 THMs	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2944	Dibromochloromethane	524.2 THMs	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2950	Total THMs	524.2 THMs	0.080	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
<b>Organic Analytes - Haloacetic Acids</b>										
2454	Dibromoacetic Acid	552.2 HAAs	--	ug/L	1.0	ND	1	1/6/2020 13:00	1/7/2020	1/9/2020

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2451	Dichloroacetic Acid	552.2 HAAs --		ug/L	1.0	ND	1	1/6/2020 13:00	1/7/2020	1/9/2020
2453	Monobromoacetic Acid	552.2 HAAs --		ug/L	1.0	ND	1	1/6/2020 13:00	1/7/2020	1/9/2020
2450	Monochloroacetic Acid	552.2 HAAs --		ug/L	1.0	ND	1	1/6/2020 13:00	1/7/2020	1/9/2020
2452	Trichloroacetic Acid	552.2 HAAs --		ug/L	1.0	ND	1	1/6/2020 13:00	1/7/2020	1/9/2020
2456	Total HAAs	552.2 HAAs 60		ug/L	1.0	ND	1	1/6/2020 13:00	1/7/2020	1/9/2020
<b>Organic Analytes - Volatiles</b>										
2986	1,1,1,2-Tetrachloroethane	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2981	1,1,1-Trichloroethane	524.2	0.2	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2988	1,1,2,2-Tetrachloroethane	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2985	1,1,2-Trichloroethane	524.2	0.005	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2978	1,1-Dichloroethane	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2977	1,1-Dichloroethene	524.2	0.007	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2410	1,1-Dichloropropene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2420	1,2,3-Trichlorobenzene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2414	1,2,3-Trichloropropane	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2378	1,2,4-Trichlorobenzene	524.2	0.07	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2418	1,2,4-Trimethylbenzene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2968	1,2-Dichlorobenzene	524.2	0.6	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2980	1,2-Dichloroethane	524.2	0.005	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2983	1,2-Dichloropropane	524.2	0.005	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2424	1,3,5-Trimethylbenzene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2967	1,3-Dichlorobenzene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2412	1,3-Dichloropropane	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2969	1,4-Dichlorobenzene	524.2	0.075	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2416	2,2-Dichloropropane	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2965	2-Chlorotoluene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2966	4-Chlorotoluene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2030	4-Isopropyltoluene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2990	Benzene	524.2	0.005	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2993	Bromobenzene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2430	Bromochloromethane	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2214	Bromomethane	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2982	Carbon Tetrachloride	524.2	0.005	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2989	Chlorobenzene	524.2	0.1	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2216	Chloroethane	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2210	Chloromethane	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2380	cis-1,2-Dichloroethene	524.2	0.07	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2228	cis-1,3-Dichloropropene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2408	Dibromomethane	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2212	Dichlorodifluoromethane	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020

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## ANALYTICAL REPORTS

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1/28/2020

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
2964	Dichloromethane	524.2	0.005	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2992	Ethylbenzene	524.2	0.7	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2246	Hexachlorobutadiene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2994	Isopropylbenzene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2251	Methyl Tert Butyl Ether	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2247	Methyl-Ethyl Ketone	524.2	--	mg/L	0.005	ND	1	1/6/2020 13:00		1/10/2020
2248	Naphthalene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2422	n-Butylbenzene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2997	o-Xylene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2963	p and m-Xylenes	524.2	--	mg/L	0.0010	ND	1	1/6/2020 13:00		1/10/2020
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	1/6/2020 13:00		1/10/2020
2428	sec-Butylbenzene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2996	Styrene	524.2	0.1	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2426	tert-Butylbenzene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2987	Tetrachloroethene	524.2	0.005	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2991	Toluene	524.2	1	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2979	trans-1,2-Dichloroethene	524.2	0.1	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2224	trans-1,3-Dichloropropene	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2984	Trichloroethene	524.2	0.005	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2218	Trichlorofluoromethane	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2904	Trichlorotrifluoroethane	524.2	--	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2976	Vinyl Chloride	524.2	0.002	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
2955	Xylenes (Total)	524.2	10	mg/L	0.0005	ND	1	1/6/2020 13:00		1/10/2020
Organic Analytes - Others										
2931	1,2-Dibromo-3-chloropropane	504.1	0.0002	mg/L	0.00001	ND	1	1/6/2020 13:00	1/9/2020	1/10/2020
2946	1,2-Dibromoethane	504.1	0.00005	mg/L	0.00001	ND	1	1/6/2020 13:00	1/9/2020	1/10/2020
2105	2,4-D	515.4	70	ug/L	0.1	ND	1	1/6/2020 13:00	1/8/2020	1/16/2020
2066	3-Hydroxycarbofuran	531.2	--	ug/L	1.0	ND	1	1/6/2020 13:00		1/7/2020
2051	Alachlor	525.2	2	ug/L	0.2	ND	1	1/6/2020 13:00	1/10/2020	1/16/2020
2047	Aldicarb	531.2	7	ug/L	1.0	ND	1	1/6/2020 13:00		1/7/2020
2044	Aldicarb sulfone	531.2	7	ug/L	1.0	ND	1	1/6/2020 13:00		1/7/2020
2043	Aldicarb sulfoxide	531.2	7	ug/L	1.0	ND	1	1/6/2020 13:00		1/7/2020
2356	Aldrin	505	--	mg/L	0.00007	ND	1	1/6/2020 13:00	1/13/2020	1/13/2020
2050	Atrazine	525.2	3	ug/L	0.1	ND	1	1/6/2020 13:00	1/10/2020	1/16/2020
2625	Bentazon	515.4	--	ug/L	1	ND	1	1/6/2020 13:00	1/8/2020	1/16/2020
2306	Benzo(A)pyrene	525.2	0.2	ug/L	0.1	ND	1	1/6/2020 13:00	1/10/2020	1/16/2020
2076	Butachlor	525.2	--	ug/L	0.2	ND	1	1/6/2020 13:00	1/10/2020	1/16/2020
2021	Carbaryl	531.2	--	ug/L	1.0	ND	1	1/6/2020 13:00		1/7/2020
2046	Carbofuran	531.2	40	ug/L	1.0	ND	1	1/6/2020 13:00		1/7/2020
2959	Chlordane	505	0.002	mg/L	0.0001	ND	1	1/6/2020 13:00	1/13/2020	1/13/2020

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## ANALYTICAL REPORTS

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1/28/2020

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
2031	Dalapon	515.4	200	ug/L	1	ND	1	1/6/2020 13:00	1/8/2020	1/16/2020
2035	Di(2-ethylhexyl) adipate	525.2	400	ug/L	0.2	ND	1	1/6/2020 13:00	1/10/2020	1/16/2020
2039	Di(2-ethylhexyl) phthalate	525.2	6	ug/L	0.6	ND	1	1/6/2020 13:00	1/10/2020	1/16/2020
2440	Dicamba	515.4	--	ug/L	1	ND	1	1/6/2020 13:00	1/8/2020	1/16/2020
2933	Dichloran	505	--	mg/L	0.001	ND	1	1/6/2020 13:00	1/13/2020	1/13/2020
2070	Dieldrin	505	--	mg/L	0.00002	ND	1	1/6/2020 13:00	1/13/2020	1/13/2020
2041	Dinoseb	515.4	7	ug/L	0.2	ND	1	1/6/2020 13:00	1/8/2020	1/16/2020
2032	Diquat	549.2	20	ug/L	0.4	ND	1	1/6/2020 13:00	1/10/2020	1/15/2020
2033	Endothall	548.1	100	ug/L	9	ND	1	1/6/2020 13:00	1/13/2020	1/20/2020
2005	Endrin	505	0.002	mg/L	0.00001	ND	1	1/6/2020 13:00	1/13/2020	1/13/2020
2034	Glyphosate	547	700	ug/L	6	ND	1	1/6/2020 13:00		1/9/2020
2065	Heptachlor	505	0.0004	mg/L	0.00001	ND	1	1/6/2020 13:00	1/13/2020	1/13/2020
2067	Heptachlor Epoxide	505	0.0002	mg/L	0.00001	ND	1	1/6/2020 13:00	1/13/2020	1/13/2020
2274	Hexachlorobenzene	505	0.001	mg/L	0.0001	ND	1	1/6/2020 13:00	1/13/2020	1/13/2020
2042	Hexachlorocyclopentadiene	505	0.05	mg/L	0.0001	ND	1	1/6/2020 13:00	1/13/2020	1/13/2020
2010	Lindane	505	0.0002	mg/L	0.00002	ND	1	1/6/2020 13:00	1/13/2020	1/13/2020
2022	Methomyl	531.2	--	ug/L	1.0	ND	1	1/6/2020 13:00		1/7/2020
2015	Methoxychlor	505	0.04	mg/L	0.0001	ND	1	1/6/2020 13:00	1/13/2020	1/13/2020
2045	Metolachlor	525.2	--	ug/L	0.2	ND	1	1/6/2020 13:00	1/10/2020	1/16/2020
2595	Metribuzin	525.2	--	ug/L	0.2	ND	1	1/6/2020 13:00	1/10/2020	1/16/2020
2626	Molinate	525.2	--	ug/L	0.2	ND	1	1/6/2020 13:00	1/10/2020	1/16/2020
2036	Oxamyl	531.2	200	ug/L	1.0	ND	1	1/6/2020 13:00		1/7/2020
2934	Pentachloronitrobenzene	505	--	mg/L	0.0001	ND	1	1/6/2020 13:00	1/13/2020	1/13/2020
2326	Pentachlorophenol	515.4	1	ug/L	0.04	ND	1	1/6/2020 13:00	1/8/2020	1/16/2020
2040	Picloram	515.4	500	ug/L	0.1	ND	1	1/6/2020 13:00	1/8/2020	1/16/2020
2077	Propachlor	525.2	--	ug/L	0.2	ND	1	1/6/2020 13:00	1/10/2020	1/16/2020
2110	Silvex 2,4,5-TP	515.4	50	ug/L	0.2	ND	1	1/6/2020 13:00	1/8/2020	1/16/2020
2037	Simazine	525.2	4	ug/L	0.1	ND	1	1/6/2020 13:00	1/10/2020	1/16/2020
2627	Thiobencarb	525.2	--	ug/L	0.2	ND	1	1/6/2020 13:00	1/10/2020	1/16/2020
2383	Total PCBs	505	0.0005	mg/L	0.0005	ND	1	1/6/2020 13:00	1/13/2020	1/13/2020
2910	Total Phenols	420.4	--	mg/L	0.001	ND	R2 1	1/6/2020 13:00		1/7/2020
2020	Toxaphene	505	0.003	mg/L	0.001	ND	1	1/6/2020 13:00	1/13/2020	1/13/2020
2055	Trifluralin	505	--	mg/L	0.001	ND	1	1/6/2020 13:00	1/13/2020	1/13/2020

### Qualifiers:

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

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# National Testing Laboratories, Ltd

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

## ANALYTICAL REPORTS

SAMPLE CODE: 401827

1/28/2020

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



Analyst	Tests
ZSC	200.7,200.8
DMJ	200.8
PC	2320B,2120B,2330B,5540C,2340C,2150B,150.1,2130B
CF	2540C
SG	300.1,300.0
DHG	4500CI-G,4500CI02D,420.4
SB	524.2 THMs,524.2,531.2,549.2,547
JPT	552.2 HAAs,504.1,515.4,505
JF	525.2,548.1

Christine MacMillan, Technical Director

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Laboratory ID: 999462860; 105-10108

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

**ANALYTICAL REPORTS**

**SAMPLE CODE: 401826**

**1/10/2020**

**Customer:** Hayden Water Company  
Tom Hayden  
N4380 County Rd E  
Plymouth, WI 53073

**Source:** Artesian Wells  
**Source Type:** Other  
**Brand Name:** Pure Steam Distilled Artesian Wells  
**Production Code:** 12/12/19  
**Container Size:** 1 Gallon

**Date/Time Received:** 12/16/2019 08:48

**Collected by:** B. Johnston

The results herein conform to TNI and ISO/IEC 17025:2005 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
<b>Microbiologicals</b>										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/6/2020 13:00		1/6/2020 16:15
3001	Standard Plate Count	9215B	500	CFU/ml	1	<1	1	1/6/2020 13:00		1/6/2020 15:50
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/6/2020 13:00		1/6/2020 16:15

Analyst	Tests
GK	9223B,9215B

*Sarah Buchanan*

Sarah Buchanan, Project Manager

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Laboratory ID: 999462860; 105-10108

**National Testing Laboratories, Ltd**

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

**ANALYTICAL REPORTS**

**SAMPLE CODE: 401828**

**1/22/2020**

**Customer:** Hayden Water Company  
Tom Hayden  
N4380 County Rd E  
Plymouth, WI 53073

**Source:** Artesian Wells  
**Source Type:** Other  
**Brand Name:** Pure Steam Distilled Artesian Wells  
**Production Code:** 12/12/19  
**Container Size:** 1 Gallon

**Date/Time Received:** 12/16/2019 08:48

**Collected by:** B. Johnston

The results herein conform to TNI and ISO/IEC 17025:2005 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
<b>Microbiologicals</b>										
3000	Total Coliform by P/A	9223B	--	P/A	--	--	1	1/6/2020 13:00		1/6/2020 15:38
Total Coliform and E.coli were ABSENT in this sample.										
<b>USP XXIII</b>										
1003	Ammonia (as NH3)	USP XXIII	--	Pass/Fail		Pass	1	1/6/2020 13:00		1/8/2020
1016	Calcium	USP XXIII	--	Pass/Fail		Pass	1	1/6/2020 13:00		1/8/2020
1901	Carbon Dioxide (Free CO2)	USP XXIII	--	Pass/Fail		Pass	1	1/6/2020 13:00		1/8/2020
1017	Chloride	USP XXIII	--	Pass/Fail		Pass	1	1/6/2020 13:00		1/8/2020
	Heavy Metals (USP)	USP XXIII	--	Pass/Fail		Pass	1	1/6/2020 13:00		1/8/2020
	Oxidizables (USP)	USP XXIII	--	Pass/Fail		Pass	1	1/6/2020 13:00		1/8/2020
1925	pH	USP XXIII	--	pH Units		5.6	1	1/6/2020 13:00		1/6/2020 17:20
1055	Sulfate	USP XXIII	--	Pass/Fail		Pass	1	1/6/2020 13:00		1/8/2020
	Total Solids	USP XXIII	10	mg/L	10	ND	1	1/6/2020 13:00		1/14/2020

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# National Testing Laboratories, Ltd

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

## ANALYTICAL REPORTS

SAMPLE CODE: 401828

1/22/2020

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

*Sarah Buchanan*

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

Sarah Buchanan, Project Manager

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**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. This report was revised on January 17, 2020 to correct the sample ID to 401827.

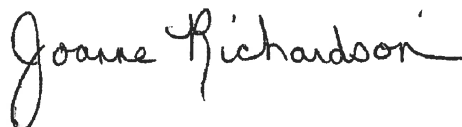
**Pace Project Number:**  
10504787

**Report Prepared Date:**  
January 17, 2020

**Finished Product**

Sample ID: 401827  
Source Name: Artesian Wells  
Source Location: Plymouth WI  
PWS ID: N/A  
Date & Time Opened: 01/10/2020 @ 09:45  
Opened By: HS  
Laboratory Sample ID: 10504787001  
Date Sampled: 01/10/2020 @ 09:45  
Date Received: 01/09/2020 @ 09:25

**This report has been reviewed by:**



January 17, 2020

Joanne Richardson,  
(612) 607-6453  
(612) 607-6444 (fax)



**Report of Laboratory Analysis**

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The results relate only to the samples included in this report.





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 #
A2LA	2926.01	Minnesota - Pet	1240
Alabama	40770	Mississippi	MN00064
Alaska - DW	MN00064	Missouri - DW	10100
Alaska - UST	17-009	Montana	CERT0092
Arizona	AZ0014	Nebraska	NE-OS-18-06
Arkansas - DW	MN00064	Nevada	MN00064
Arkansas - WW	88-0680	New Hampshire	2081
CNMI Saipan	MP0003	New Jersey (N	MN002
California	2929	New York	11647
Colorado	MN00064	North Carolina	27700
Connecticut	PH-0256	North Carolina -	27700
EPA Region 8+	via MN 027-053	North Carolina -	530
Florida (NELAP	E87605	North Dakota	R-036
Georgia	959	Ohio - DW	41244
Guam	17-001r	Ohio - VAP	CL101
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon - Primar	MN300001
Illinois	200011	Oregon - Secon	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky - DW	90062	South Dakota	NA
Kentucky - WW	90062	Tennessee	TN02818
Louisiana - DE	03086	Texas	T104704192
Louisiana - DW	MN00064	Utah (NELAP)	MN00064
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Massachusetts	M-MN064	West Virginia -	382
Michigan	9909	West Virginia -	9952C
Minnesota	027-053-137	Wisconsin	999407970
Minnesota - De	via MN 027-053	Wyoming - UST	2926.01

## REPORT OF LABORATORY ANALYSIS

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## Reporting Flags

- A = Reporting Limit based on signal to noise
- 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 = Interference present
- J = Estimated value
- L = Suppressive interference, analyte may be biased low
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- 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
- \* = See Discussion

## REPORT OF LABORATORY ANALYSIS

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[illegible]

COC-001 2/22/11

**See instructions on reverse side →**

8918



**National Testing  
Laboratories, Ltd.**  
*Quality Water Analysis*

1-800-458-3330

**Beverage - Finished Product**

Order Number: 2142899

Order Date: 10/23/2019

Sample Number:

Product:

FDABASE GDR

Paid: No Method:

P.O.: Plymouth, WI

TSR: SBW

Plymouth

WI 53073

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: Distilled

Source Name: Artemis Wells

(Source Information is Required for All Finished Products)

City & State: Plymouth, WI

(If Different than Above)

Product Collected By: Brittney Johnston

(Signature)

Product Collected By: \_\_\_\_\_

(Please Print)

Brand Name/Product Type: Distilled Water

XYZ Spring Water or XYZ Distilled Water

Container Size: 1-Gallon X4

Production Code/Lot Number: 12122019/PW4

Form Completed By: Tom Hayden

Additional Comments:

**For Laboratory Use ONLY**

Lab Accounting Information:

Payment \$: \_\_\_\_\_

Check #: \_\_\_\_\_

Lab Comments/Special Instructions:

2019 Distilled Product Annual

Sioyin

State Forms:

Lab Sample Information:

Date Received: 12, 16, 19

Time Received: 08:48

Received By: LB

Date Opened: \_\_\_/\_\_\_/\_\_\_

Time Opened: \_\_\_:\_\_\_

Opened By: \_\_\_\_\_

☒ 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: \_\_\_\_\_

INCOMPLETE INFORMATION MAY DELAY ANALYSIS AND/OR INVALIDATE RESULTS

	Document Name: Sample Condition Upon Receipt Form	Document Revised: 14Nov2019 Page 1 of 1
	Document No.: F-MN-L-213-rev.30	Pace Analytical Services - Minneapolis

Sample Condition Upon Receipt	Client Name: <u>NTL</u>	Project #: <b>WO# : 10504787</b>
Courier:	<input type="checkbox"/> Fed Ex <input checked="" type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Client <input type="checkbox"/> Pace <input type="checkbox"/> Speedee <input type="checkbox"/> Commercial <input type="checkbox"/> See Exceptions	PM: JMR    Due Date: 01/20/20 CLIENT: NTL
Tracking Number:	<u>12 AIV 931 01 7534 802W</u>	

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: Foam    Temp Blank? ☐ Yes ☒ No  
 Thermometer: ☐ T1(0461)    ☐ T2(1336)    ☒ T3(0459)    Type of Ice: ☒ Wet    ☐ Blue    ☒ None    ☐ Dry    ☐ Melted  
☐ T4(0254)    ☐ T5(0489)

Note: Each West Virginia Sample must have temp taken (no temp blanks)

Temp should be above freezing to 6°C	Cooler Temp Read w/temp blank: _____ °C	Average Corrected Temp (no temp blank only): <u>16.8</u> °C
Correction Factor: <u>+0.2</u>	Cooler Temp Corrected w/temp blank: _____ °C	<input checked="" type="checkbox"/> See Exceptions <input type="checkbox"/> 1 Container

USDA Regulated Soil: ☒ N/A, water sample/Other: \_\_\_\_\_

Did samples originate in a quarantined 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

Date/Initials of Person Examining Contents: 1/19/2015  
 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?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrome <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Field Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is sufficient information available to reconcile the samples to the COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. If no, write ID/ Date/Time on Container Below: <input type="checkbox"/> See Exception
Matrix: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Soil <input type="checkbox"/> Oil <input type="checkbox"/> Other		
All containers needing acid/base preservation have been checked?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , <2pH, NaOH >9 Sulfide, NaOH >12 Cyanide)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> NaOH <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Positive for Res. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    See Exception
		Chlorine? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    pH Paper Lot# <input type="checkbox"/>
		Res. Chlorine    0-6 Roll    0-6 Strip    0-14 Strip
Extra labels present on soil VOA or WIDRO containers?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> See Exception
Headspace in VOA Vials (greater than 6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Pace Trip Blank Lot # (if purchased): _____

#### CLIENT NOTIFICATION/RESOLUTION

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Field Data Required? ☐ Yes ☐ No  
 Comments/Resolution: Finished product temperature not applicable.

#### Project Manager Review:

Joanne Richardson

Date: 1-9-20

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).

Labeled by: 153







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


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

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

Sample ID.....**401827** Date Collected.....NA Spike.....200 pg  
Client.....National Testing Laborato Date Received.....01/09/2020 IS Spike.....2000 pg  
Lab Sample ID.....10504787001 Date Extracted.....01/14/2020 CS Spike.....200 pg

	Sample 401827	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	--	--	101%	103%
pg Recovered	--	--	203pg/L	205pg/L
Spike Recovery Limit	--	--	73-146%	73-146%
RPD			1.1%	
IS Recovery	<b>81%</b>	66%	77%	82%
pg Recovered	1623 pg/L	1311 pg/L	1532 pg/L	1634 pg/L
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%
CS Recovery	<b>78%</b>	58%	72%	79%
pg Recovered	157 pg/L	117 pg/L	143 pg/L	158 pg/L
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%
Filename	E200115B_09	E200115B_05	E200115B_03	E200115B_04
Analysis Date	01/15/2020	01/15/2020	01/15/2020	01/15/2020
Analysis Time	17:01	15:23	14:34	14:58
Analyst	SMT	SMT	SMT	SMT
Volume	0.977L	0.991L	0.997L	1.021L
Dilution	NA	NA	NA	NA
ICAL Date	12/11/2019	12/11/2019	12/11/2019	12/11/2019
CCAL Filename	E200115B_02	E200115B_02	E200115B_02	E200115B_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-<sup>13</sup>C]  
CS = Cleanup Standard [2,3,7,8-TCDD-<sup>37</sup>Cl<sub>4</sub>]

Analyst: 

Project No.....10504787



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

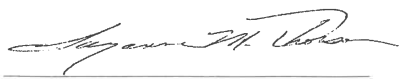
# Drinking Water Analysis Results 2,3,7,8-TCDD -- USEPA Method 1613B

Tel 12-607-1700  
Fax 12-607-6444

Sample ID.....401827 Date Collected.....01/10/2020 Spike.....200 pg  
Client..... National Testing Laboratory Date Received.....01/09/2020 IS Spike.....2000 pg  
Lab Sample ID.....10504787001 Date Extracted.....01/14/2020 CS Spike.....200 pg

	Sample 401827	Method Blank	Lab Spike	Lab Spike Dup
[2,3,7,8-TCDD]	ND	ND	--	--
EDL	1.7 pg/L	3.2 pg/L	--	--
2,3,7,8-TCDD Recovery	--	--	101%	103%
pg Recovered	--	--	203pg/L	205pg/L
Spike Recovery Limit	--	--	73-146%	73-146%
RPD			1.1%	
IS Recovery	81%	66%	77%	82%
pg Recovered	1623 pg/L	1311 pg/L	1532 pg/L	1634 pg/L
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%
CS Recovery	78%	58%	72%	79%
pg Recovered	157 pg/L	117 pg/L	143 pg/L	158 pg/L
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%
Filename	E200115B_09	E200115B_05	E200115B_03	E200115B_04
Analysis Date	01/15/2020	01/15/2020	01/15/2020	01/15/2020
Analysis Time	17:01	15:23	14:34	14:58
Analyst	SMT	SMT	SMT	SMT
Volume	0.977L	0.991L	0.997L	1.021L
Dilution	NA	NA	NA	NA
ICAL Date	12/11/2019	12/11/2019	12/11/2019	12/11/2019
CCAL Filename	E200115B_02	E200115B_02	E200115B_02	E200115B_02

! = Outside the Control Limits  
ND = Not Detected  
EDL = Estimated Detection Limit  
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-<sup>13</sup>C<sub>12</sub>]  
CS = Cleanup Standard [2,3,7,8-TCDD-<sup>37</sup>Cl<sub>4</sub>]

Analyst: 

Project No.....10504787

## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2142899  
Pace Project No.: 30344620

**Sample: 401827**      **Lab ID: 30344620001**      Collected: 01/13/20 10:45      Received: 01/13/20 10:45      Matrix: Drinking Water  
PWS:      Site ID:      Sample Type:

Comments: • FINISHED WATER, Artesian Wells, Plymouth WI  
• Cont. size: 1-Gallon, Prod. code: 12122019/PW DIST  
• sample opened 01/13/2020 @10:45 by NMR  
• Sample collection dates and times were not present on the sample containers.  
• Upon receipt at the laboratory, 7.5 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
Gross Alpha	EPA 900.0	<b>0.341 ± 0.448 (0.869)</b> C:NA T:NA	pCi/L	01/24/20 08:23	12587-46-1	
Gross Beta	EPA 900.0	<b>0.979 ± 0.834 (1.72)</b> C:NA T:NA	pCi/L	01/24/20 08:23	12587-47-2	
Radium-226	EPA 903.1	<b>0.199 ± 0.206 (0.293)</b> C:NA T:96%	pCi/L	01/24/20 11:39	13982-63-3	
Radium-228	EPA 904.0	<b>-0.120 ± 0.275 (0.677)</b> C:79% T:83%	pCi/L	01/21/20 11:05	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.199 ± 0.481 (0.970)</b>	pCi/L	01/27/20 09:11	7440-14-4	

## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.



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

Report: 475462

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

Priority: Standard Written

Status: Final

PWS ID: Not Supplied

Ohio Lab ID# 87775

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4535232	401827/2142899	505	01/06/20 13:00	Client	01/10/20 10:00

### 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 Traci Chlebowski at (574) 233-4777.

*Note: This report may not be reproduced, except in full, without written approval from EEA.*

*Traci Chlebowski ASM*

Authorized Signature

Title

01/18/2020

Date

Client Name: National Testing Laboratories

Report #: 475462

Client Name: National Testing Laboratories

Report #: 475462

Sampling Point: 401827/2142899

PWS ID: Not Supplied

## Semi-volatile Organic Chemicals

Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
12674-11-2	Aroclor 1016	505	---	0.08	< 0.08	ug/L	01/13/20 12:30	01/14/20 04:17	4535232
11104-28-2	Aroclor 1221	505	---	0.19	< 0.19	ug/L	01/13/20 12:30	01/14/20 04:17	4535232
11141-16-5	Aroclor 1232	505	---	0.23	< 0.23	ug/L	01/13/20 12:30	01/14/20 04:17	4535232
53469-21-9	Aroclor 1242	505	---	0.26	< 0.26	ug/L	01/13/20 12:30	01/14/20 04:17	4535232
12672-29-6	Aroclor 1248	505	---	0.1	< 0.1	ug/L	01/13/20 12:30	01/14/20 04:17	4535232
11097-69-1	Aroclor 1254	505	---	0.1	< 0.1	ug/L	01/13/20 12:30	01/14/20 04:17	4535232
11096-82-5	Aroclor 1260	505	---	0.2	< 0.2	ug/L	01/13/20 12:30	01/14/20 04:17	4535232
57-74-9	Chlordane	505	2 &	0.1	< 0.1	ug/L	01/13/20 12:30	01/14/20 04:17	4535232
8001-35-2	Toxaphene	505	3 &	1.0	< 1.0	ug/L	01/13/20 12:30	01/14/20 04:17	4535232

Any positive Aroclor result would require analysis for total PCB as decachlorobiphenyl by method 508A (MCL = 0.5 ug/L)

† 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	SOQ
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.

**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.

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## Laboratory Report

Client: National Testing Laboratories (Cleveland)

Report: 475624

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

Priority: Standard Written

Status: Final

PWS ID: Not Supplied

Ohio Lab ID# 87775

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4537423	401827/2142899	335.4	01/06/20 13:00	Client	01/14/20 09:30

### Report Summary

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

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Authorized Signature

Title

01/22/2020

Date

Client Name: National Testing Laboratories (Cleveland)

Report #: 475624



Client Name: National Testing Laboratories (Cleveland)

Report #: 475624

Sampling Point: 401827/2142899

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	0.1 &	0.02	< 0.02	mg/L	01/15/20 14:45	01/15/20 15:37	4537423

† 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	SOQ
Symbol:	*	Λ	!	&

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