



State of Tennessee

**DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES**

Certifies That

Microbac Laboratories–New England Div, Dayville, CT

*Having Met the Requirements of the Regulations for the
Certification of Laboratories Analyzing Drinking Water
is hereby Approved as a*

State Certified Laboratory in Chemistry

To perform the Analyses as Indicated on the Certified Parameter

List For the Public Water Systems of Tennessee

Laboratory ID Number 04903

Prasad Subbanna
Laboratory Certification Officer
Division of Water Resources

Effective Date: 4/11/2022

Issue Date: 4/11/2022

Expiration Date: 1/16/2023

*This certification is subject to performance on E.P.A.
Proficiency Testing Samples, laboratory inspections,
payment of annual fees, is nontransferable, and
supersedes previously issued certificates.*

Certified Parameters - 2021

TENNESSEE

Microbac - New England Division

TN04903

EPA # CT00008

4/14/2022

Attn: Melisa Montgomery
61 Louisa Viens Drive
Dayville, CT 06241

| Parameter | EPA Parameter # | Approved Method | Study Type | Date Complete | PT Provider / WS # |
|---------------------------------|--------------------|--------------------|------------------|------------------|--------------------|
| Disinfectant Residuals | | | | | |
| Free Chlorine Residual | 1013 | SM - 4500-CI G | Proficiency Test | 4/30/2021 | ABS / QTA 03-21 |
| Total Chlorine Residual | 1012 | SM - 4500-CI G | Proficiency Test | 4/30/2021 | ABS / QTA 03-21 |
| Disinfection By-Products | | | | | |
| Bromide | 1004 | EPA - 300.1 | Proficiency Test | 4/30/2021 | ABS / QTA 03-21 |
| HAA | | | | | |
| Dibromoacetic Acid (HAA5) | 2454 | EPA - 552.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Dichloroacetic Acid (HAA5) | 2451 | EPA - 552.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Monobromoacetic Acid (HAA5) | 2453 | EPA - 552.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Monochloroacetic Acid (HAA5) | 2450 | EPA - 552.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Trichloroacetic Acid (HAA5) | 2452 | EPA - 552.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| THM | | | | | |
| Bromodichloromethane | 2943 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Bromoform | 2942 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Chlorodibromomethane | 2944 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Chloroform | 2941 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Herbicides | | | | | |
| 2,4,5-TP (Silvex) | 2110 | EPA - 515.3 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| 2,4-D | 2105 | EPA - 515.3 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Alachlor | 2051 | EPA - 525.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Alachlor | 2051 | EPA - 505 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Dalapon | 2031 | EPA - 515.3 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Dinoseb | 2041 | EPA - 515.3 | Proficiency Test | 7/22/2021 | ABS / QTA 07-21 |
| Diquat | 2032 | EPA - 549.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Glyphosate | 2034 | EPA - 547 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Picloram | 2040 | EPA - 515.3 | Proficiency Test | 7/22/2021 | ABS / QTA 07-21 |
| Pentachlorophenol | 2326 | EPA - 515.3 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Inorganics | | | | | |
| Calcium | 1016 | EPA - 200.7 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |

| <u>Parameter</u> | <u>EPA Parameter #</u> | <u>Approved Method</u> | <u>Study Type</u> | <u>Date Complete</u> | <u>PT Provider / WS #</u> |
|----------------------------|----------------------------|----------------------------|-------------------|--------------------------|---------------------------|
| Chloride | 1017 | SM - 4500-Cl-E | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Chloride | 1017 | EPA - 300.0 | Proficiency Test | 4/30/2021 | ABS / QTA 03-21 |
| Conductivity | 1064 | SM - 2510 B | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Cyanide | 1024 | SM - 4500-CN-E | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Fluoride | 1025 | SM - 4500-F-C | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Iron | 1028 | EPA - 200.7 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| MBAS (Foaming Agent) | 1089 | SM - 5540 C | Proficiency Test | 4/30/2021 | ABS / QTA 03-21 |
| Nitrate | 1040 | SM - 4500-NO3-F | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Nitrite | 1041 | SM - 4500-NO3-F | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Ortho-phosphate | 1044 | EPA - 365.1 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| pH | 1925 | SM - 4500-H+B | Proficiency Test | 4/30/2021 | ABS / QTA 03-21 |
| Potassium | 1042 | EPA - 200.7 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Silica | 1049 | SM - 4500-Si-E | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Sodium | 1052 | EPA - 200.7 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Sulfate | 1055 | SM - 4500-SO4 E | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| TOC (total organic carbon) | 2920 | SM - 5310 C | Proficiency Test | 4/30/2021 | ABS / QTA 03-21 |
| Total Dissolved Solids | 1930 | SM - 2540 C | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Turbidity | 0100 | SM - 2130 B | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Alkalinity, Total | 1927 | SM - 2320 B | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Hardness, Calcium | 1919 | SM - 2340 B | Proficiency Test | 4/30/2021 | ABS / QTA 03-21 |

Metals

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|-----------|------|-------------|------------------|-----------|------------------|
| Antimony | 1074 | EPA - 200.8 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Arsenic | 1005 | EPA - 200.8 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Barium | 1010 | EPA - 200.7 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Barium | 1010 | EPA - 200.8 | Proficiency Test | 5/30/2021 | NY-DH / ELAP442 |
| Beryllium | 1075 | EPA - 200.7 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Beryllium | 1075 | EPA - 200.8 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Cadmium | 1015 | EPA - 200.7 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Cadmium | 1015 | EPA - 200.8 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Chromium | 1020 | EPA - 200.8 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Chromium | 1020 | EPA - 200.7 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Copper | 1022 | EPA - 200.8 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Copper | 1022 | EPA - 200.7 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Lead | 5000 | EPA - 200.8 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Magnesium | 1031 | EPA - 200.7 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Manganese | 1032 | EPA - 200.8 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Manganese | 1032 | EPA - 200.7 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Mercury | 1035 | EPA - 245.1 | Proficiency Test | 8/10/2021 | ABS / QTA 080321 |
| Nickel | 1036 | EPA - 200.8 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Nickel | 1036 | EPA - 200.7 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Selenium | 1045 | EPA - 200.8 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |

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| Thallium | 1085 | EPA - 200.8 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Uranium (Trace Metal) | 4400 | EPA - 200.8 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Aluminum | 1002 | EPA - 200.7 | Proficiency Test | 4/30/2021 | ABS / QTA 03-21 |
| Aluminum | 1002 | EPA - 200.8 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Silver | 1050 | EPA - 200.7 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Silver | 1050 | EPA - 200.8 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Zinc | 1095 | EPA - 200.8 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Zinc | 1095 | EPA - 200.7 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |

Organics

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|-----------------------------|------|-------------|------------------|-----------|-----------------|
| Aldicarb | 2047 | EPA - 531.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Aldicarb Sulfone | 2044 | EPA - 531.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Aldicarb Sulfoxide | 2043 | EPA - 531.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| PCBs (as Aroclors) | 2383 | EPA - 505 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| DBCP (Dibromochloropropane) | 2931 | EPA - 504.1 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| EDB (Ethylene dibromide) | 2946 | EPA - 504.1 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| bis(2-ethylhexyl)phthalate | 2039 | EPA - 525.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Di(2-ethylhexyl)adipate | 2035 | EPA - 525.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |

Pesticides

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|---------------------------|------|-------------|------------------|-----------|-----------------|
| Atrazine | 2050 | EPA - 525.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Hexachlorocyclopentadiene | 2042 | EPA - 505 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Hexachlorocyclopentadiene | 2042 | EPA - 525.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Carbofuran | 2046 | EPA - 531.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Chlordane | 2959 | EPA - 505 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Endrin | 2005 | EPA - 525.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Endrin | 2005 | EPA - 505 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Heptachlor | 2065 | EPA - 525.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Heptachlor | 2065 | EPA - 505 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Heptachlor Epoxide | 2067 | EPA - 505 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Heptachlor Epoxide | 2067 | EPA - 525.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Hexachlorobenzene | 2274 | EPA - 505 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Hexachlorobenzene | 2274 | EPA - 525.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Lindane | 2010 | EPA - 505 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Lindane | 2010 | EPA - 525.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Methoxychlor | 2015 | EPA - 525.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Methoxychlor | 2015 | EPA - 505 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Oxamyl (Vydate) | 2036 | EPA - 531.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |

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|------------------|----------------------------|----------------------------|-------------------|--------------------------|---------------------------|
| Simazine | 2037 | EPA - 525.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Toxaphene | 2020 | EPA - 505 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |

VOCs - Regulated

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|--------------------------------------|------|-------------|------------------|-----------|-----------------|
| 1,1,1-Trichloroethane | 2981 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| 1,1,2-Trichloroethane | 2985 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| 1,1-Dichloroethylene | 2977 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| 1,2,4-Trichlorobenzene | 2378 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| 1,2-Dichlorobenzene | 2968 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| 1,2-Dichloroethane | 2980 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| 1,2-Dichloropropane | 2983 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| 1,4-Dichlorobenzene | 2969 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Benzene | 2990 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Carbon Tetrachloride | 2982 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Chlorobenzene | 2989 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| cis-1,2-Dichloroethylene | 2380 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Ethylbenzene | 2992 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Methylene chloride (dichloromethane) | 2964 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Styrene | 2996 | EPA - 524.2 | Proficiency Test | 5/10/2021 | NY-DH / ELAP442 |
| Tetrachloroethylene | 2987 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Toluene | 2991 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Total Xylenes | 2955 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| trans-1,2-dichloroethylene | 2979 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Trichloroethylene | 2984 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
| Vinyl Chloride | 2976 | EPA - 524.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |

VOCs - Synthetics

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|----------------|------|-------------|------------------|-----------|-----------------|
| Benzo(a)pyrene | 2306 | EPA - 525.2 | Proficiency Test | 5/20/2021 | NY-DH / ELAP442 |
|----------------|------|-------------|------------------|-----------|-----------------|