

WEST VIRGINIA  
Department of



BUREAU FOR PUBLIC HEALTH

Certification Number: **9906 C**  
Date Issued: **January 01, 2018**  
Expiration Date: **December 31, 2018**

Office of Laboratory Services  
Environmental Drinking Water Laboratory Certification Program

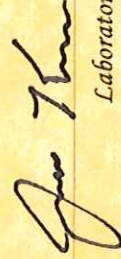
*Certifies that*

**Eurofins Lancaster Laboratories Environmental, LLC**  
**2425 New Holland Pike**  
**Lancaster, PA 17601**

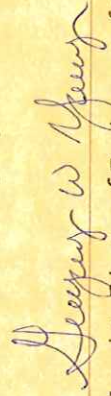
Having duly met the requirements of the regulation (64CSR 3-13) for the Certification of Laboratories Analyzing Drinking Water  
Is hereby approved as a

*State Certified Drinking Water Laboratory*

To perform the analyses as indicated on the Certified Parameter List which must accompany this certificate



Joe Thun  
Laboratory Director



Jeanyne W. Spurgeon  
Associate Director of Environmental Programs

Surrender Upon Revocation  
Certificate Not Transferable  
Customers are urged to verify the laboratory's current certification status.  
Conspicuously display in the laboratory with the Certified Parameter List in a location on the premises visible to the public.

Not Valid Unless Embossed



BUREAU FOR PUBLIC HEALTH

Office of Laboratory Services  
Environmental Drinking Water Laboratory Certification Program

**LABORATORY CERTIFIED PARAMETER LIST**

**Eurofins Lancaster Laboratories Environmental, LLC**  
**2425 New Holland Pike**  
**Lancaster, PA 17601**

Certificate: **9906 C**  
Issue Date: **1/1/2018**  
Expiration Date: **12/31/2018**

*Certification reciprocity certificate*

*State of Pennsylvania Laboratory ID 36-00037*

**Group: Trace Metals**

|           | Method             | Status    | Description |
|-----------|--------------------|-----------|-------------|
| Antimony  | US EPA 200.8 R 5.4 | Certified |             |
| Arsenic   | US EPA 200.8 R 5.4 | Certified |             |
| Barium    | US EPA 200.8 R 5.4 | Certified |             |
| Barium    | US EPA 200.7 R 4.4 | Certified |             |
| Beryllium | US EPA 200.8 R 5.4 | Certified |             |
| Cadmium   | US EPA 200.8 R 5.4 | Certified |             |
| Chromium  | US EPA 200.7 R 4.4 | Certified |             |
| Chromium  | US EPA 200.8 R 5.4 | Certified |             |
| Copper    | US EPA 200.8 R 5.4 | Certified |             |
| Copper    | US EPA 200.7 R 4.4 | Certified |             |
| Lead      | US EPA 200.8 R 5.4 | Certified |             |
| Mercury   | US EPA 245.1 R 3.0 | Certified |             |
| Nickel    | US EPA 200.8 R 5.4 | Certified |             |
| Nickel    | US EPA 200.7 R 4.4 | Certified |             |
| Selenium  | US EPA 200.8 R 5.4 | Certified |             |
| Sodium    | US EPA 200.7 R 4.4 | Certified |             |
| Thallium  | US EPA 200.8 R 5.4 | Certified |             |

**Group: Inorganics**

|                       | Method             | Status    | Description |
|-----------------------|--------------------|-----------|-------------|
| Cyanide               | US EPA 335.4 R 1.0 | Certified |             |
| Fluoride              | US EPA 300.0 R 2.1 | Certified |             |
| Fluoride              | SM4500F C 20th ED  | Certified |             |
| Nitrate-N             | US EPA 353.2 R 2.0 | Certified |             |
| Nitrate-N             | US EPA 300.0 R 2.1 | Certified |             |
| Nitrite-N             | US EPA 300.0 R 2.1 | Certified |             |
| Nitrite-N             | US EPA 353.2 R 2.0 | Certified |             |
| Total Nitrate-Nitrite | US EPA 353.2 R 2.0 | Certified |             |

*This is to certify that the laboratory has been approved to perform the indicated procedures on drinking water in accordance with West Virginia 64CSR 3-13.*

Wednesday, January 31, 2018

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**Group: Organics, Pesticides**

|                           | Method             | Status    | Description |
|---------------------------|--------------------|-----------|-------------|
| Alachlor                  | US EPA 525.2 R 2.0 | Certified |             |
| Aldicarb                  | US EPA 531.1 R 3.1 | Certified |             |
| Aldicarb Sulfone          | US EPA 531.1 R 3.1 | Certified |             |
| Aldicarb Sulfoxide        | US EPA 531.1 R 3.1 | Certified |             |
| Atrazine                  | US EPA 525.2 R 2.0 | Certified |             |
| Carbofuran                | US EPA 531.1 R 3.1 | Certified |             |
| Endrin                    | US EPA 525.2 R 2.0 | Certified |             |
| Heptachlor                | US EPA 525.2 R 2.0 | Certified |             |
| Heptachlor Epoxide        | US EPA 525.2 R 2.0 | Certified |             |
| Hexachlorobenzene         | US EPA 525.2 R 2.0 | Certified |             |
| Hexachlorocyclopentadiene | US EPA 525.2 R 2.0 | Certified |             |
| Lindane                   | US EPA 525.2 R 2.0 | Certified |             |
| Methoxychlor              | US EPA 525.2 R 2.0 | Certified |             |
| Oxamyl (Vydate)           | US EPA 531.1 R 3.1 | Certified |             |
| Simazine                  | US EPA 525.2 R 2.0 | Certified |             |

**Group: Organics, Trihalomethanes**

|                       | Method             | Status    | Description |
|-----------------------|--------------------|-----------|-------------|
| Bromoform             | US EPA 524.2 R 4.1 | Certified |             |
| Bromodichloromethane  | US EPA 524.2 R 4.1 | Certified |             |
| Chloroform            | US EPA 524.2 R 4.1 | Certified |             |
| Chlorodibromomethane  | US EPA 524.2 R 4.1 | Certified |             |
| Total Trihalomethanes | US EPA 524.2 R 4.1 | Certified |             |

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**Group: Organics, Volatile Organic Chemicals**

| Method                     | Status             | Description |
|----------------------------|--------------------|-------------|
| 1,1,1-Trichloroethane      | US EPA 524.2 R 4.1 | Certified   |
| 1,1,2-Trichloroethane      | US EPA 524.2 R 4.1 | Certified   |
| 1,1-Dichloroethylene       | US EPA 524.2 R 4.1 | Certified   |
| 1,2,4-Trichlorobenzene     | US EPA 524.2 R 4.1 | Certified   |
| 1,2-Dichlorobenzene        | US EPA 524.2 R 4.1 | Certified   |
| 1,2-Dichloroethane         | US EPA 524.2 R 4.1 | Certified   |
| 1,2-Dichloropropane        | US EPA 524.2 R 4.1 | Certified   |
| 1,4-Dichlorobenzene        | US EPA 524.2 R 4.1 | Certified   |
| Benzene                    | US EPA 524.2 R 4.1 | Certified   |
| Carbon Tetrachloride       | US EPA 524.2 R 4.1 | Certified   |
| Chlorobenzene              | US EPA 524.2 R 4.1 | Certified   |
| cis-1,2-Dichloroethylene   | US EPA 524.2 R 4.1 | Certified   |
| Dichloromethane            | US EPA 524.2 R 4.1 | Certified   |
| Ethylbenzene               | US EPA 524.2 R 4.1 | Certified   |
| Styrene                    | US EPA 524.2 R 4.1 | Certified   |
| Tetrachloroethylene        | US EPA 524.2 R 4.1 | Certified   |
| Toluene                    | US EPA 524.2 R 4.1 | Certified   |
| trans-1,2-Dichloroethylene | US EPA 524.2 R 4.1 | Certified   |
| Trichloroethylene          | US EPA 524.2 R 4.1 | Certified   |
| Vinyl Chloride             | US EPA 524.2 R 4.1 | Certified   |
| Xylenes (Total)            | US EPA 524.2 R 4.1 | Certified   |

**Group: Organics, Synthetic Organic Chemicals**

| Method                      | Status             | Description |
|-----------------------------|--------------------|-------------|
| 2,3,7,8-TCDD (Dioxin)       | US EPA 1613B       | Certified   |
| Benzo(a)pyrene              | US EPA 525.2 R 2.0 | Certified   |
| Dibromochloropropane (DBCP) | US EPA 504.1 R 1.1 | Certified   |
| Di(2-ethylhexyl)adipate     | US EPA 525.2 R 2.0 | Certified   |
| Di(2-ethylhexyl)phthalate   | US EPA 525.2 R 2.0 | Certified   |
| Ethylene dibromide (EDB)    | US EPA 504.1 R 1.1 | Certified   |

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Attachment I

WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF WATER AND WASTE MANAGEMENT

List of Certified Parameters  
for

**EUROFINS LANCASTER LABORATORIES**  
**ENVIRONMENTAL LLC**  
**LANCASTER, PENNSYLVANIA**

PARAMETERS CERTIFIED

NONPOTABLE WATER INORGANIC NONMETALS

| <u>ANALYTE</u>                 | <u>METHOD</u>         | <u>TECHNOLOGY</u>  |
|--------------------------------|-----------------------|--------------------|
| Acidity                        | SM2310 B-97           | Titrimetric        |
| Alkalinity                     | SM2320 B-97           | Titrimetric        |
| Ammonia                        | EPA350.1 Rev 2.0-1993 | Spectrophotometric |
| Ammonia                        | SM4500-NH3 C-97       | Titrimetric        |
| Ammonia                        | SM4500-NH3 D-97       | ISE                |
| Bromide                        | EPA300.0 Rev 2.1-1993 | IC                 |
| Bromide                        | SW9056A               | IC                 |
| Carbon, Total Organic (TOC)    | SW9060A               | Combustion         |
| Chloride                       | EPA300.0 Rev 2.1-1993 | IC                 |
| Chloride                       | SM4500-Cl C-97        | Titrimetric        |
| Chloride                       | SW9056A               | IC                 |
| Chlorine, Free                 | SM4500-Cl F-00        | Titrimetric        |
| Chromium, Hexavalent           | SM3500-Cr B-09        | Spectrophotometric |
| Chromium, Hexavalent           | SW3060A               | Digestion          |
| Chromium, Hexavalent           | SW7196                | Spectrophotometric |
| Chromium, Hexavalent           | SW7199                | IC                 |
| Color                          | SM2120 B-01           | Visual Comparison  |
| Conductance, Specific          | EPA120.1 Rev 1982     | Probe              |
| Conductance, Specific          | SM2510 B-97           | Probe              |
| Conductance, Specific          | SW9050A               | Probe              |
| Cyanide, Total                 | EPA335.4 Rev 1.0-1993 | Spectrophotometric |
| Cyanide, Total                 | SW9012B               | Spectrophotometric |
| Cyanide, Weak Acid Dissociable | SM4500-CN E-11        | Spectrophotometric |
| Cyanide, Weak Acid Dissociable | SM4500-CN I-99        | Distillation       |
| Fluoride                       | EPA300.0 Rev 2.1-1993 | IC                 |
| Fluoride                       | SM4500-F B-97         | Distillation       |
| Fluoride                       | SM4500-F C-97         | ISE                |
| Hardness, Calcium              | SM2340 B-97           | Calculation        |
| Hardness, Total                | EPA130.2 Rev 1978     | Titrimetric        |

|                                                |                       |                    |
|------------------------------------------------|-----------------------|--------------------|
| Hardness, Total                                | SM2340 C-97           | Titrimetric        |
| Iron, Ferrous                                  | SM3500-Fe B(4.c)-97   | Spectrophotometric |
| Nitrate                                        | EPA300.0 Rev 2.1-1993 | IC                 |
| Nitrate                                        | EPA353.2 Rev 2.0-1993 | Calculation        |
| Nitrate                                        | SW9056A               | IC                 |
| Nitrate-Nitrite                                | EPA353.2 Rev 2.0-1993 | Spectrophotometric |
| Nitrite                                        | EPA300.0 Rev 2.1-1993 | IC                 |
| Nitrite                                        | EPA353.2 Rev 2.0-1993 | Spectrophotometric |
| Nitrite                                        | SW9056A               | IC                 |
| Nitrogen, Total Kjeldahl (TKN)                 | EPA351.2 Rev 2.0-1993 | Colorimetric       |
| Oil & Grease                                   | EPA1664 A             | Gravimetric        |
| Oxygen Demand, Biochemical (BOD)               | SM5210 B-01           | Probe              |
| Oxygen Demand, Carbonaceous Biochemical (CBOD) | SM5210 B-01           | Probe              |
| Oxygen Demand, Chemical (COD)                  | EPA410.4 Rev 2.0-1993 | Spectrophotometric |
| Oxygen, Dissolved                              | SM4500-O G-01         | Probe              |
| pH (Hydrogen Ion)                              | EPA150.1 Rev 1978     | Electrode          |
| pH (Hydrogen Ion)                              | SM4500-H B-00         | Electrode          |
| Phenolics, Total                               | EPA420.4 Rev 1.0-1993 | Spectrophotometric |
| Phenolics, Total                               | SW9066                | Colorimetric       |
| Phosphorus, Ortho                              | EPA365.3 Rev 1978     | Spectrophotometric |
| Phosphorus, Ortho                              | SM4500-P E-99         | Spectrophotometric |
| Phosphorus, Total                              | EPA365.1 Rev 2.0-1993 | Spectrophotometric |
| Phosphorus, Total                              | SM4500-P B(5)-99      | Digestion          |
| Phosphorus, Total                              | SM4500-P F-99         | Spectrophotometric |
| Silica                                         | SM4500-SiO2 C-97      | Spectrophotometric |
| Solids, Dissolved                              | SM2540 C-97           | Gravimetric        |
| Solids, Settleable                             | SM2540 F-97           | Imhoff             |
| Solids, Suspended                              | SM2540 D-97           | Gravimetric        |
| Solids, Total                                  | SM2540 B-97           | Gravimetric        |
| Solids, Volatile                               | EPA160.4              | Gravimetric        |
| Sulfate                                        | EPA300.0 Rev 2.1-1993 | IC                 |
| Sulfate                                        | SW9056A               | IC                 |
| Sulfide                                        | SM4500-S D-00         | Spectrophotometric |
| Sulfide                                        | SM4500-S F-00         | Titrimetric        |
| Sulfite                                        | SM4500-SO3 B-00       | Titrimetric        |
| Surfactants (MBAS)                             | SM5540 C-00           | Spectrophotometric |
| Temperature                                    | EPA170.1              | Thermometric       |
| Turbidity                                      | EPA180.1 Rev 2.0-1993 | Turbidimetric      |

#### NONPOTABLE WATER TRACE METALS

| <u>METAL</u> | <u>METHOD</u>         | <u>TECHNOLOGY</u> |
|--------------|-----------------------|-------------------|
| Aluminum     | EPA200.7 Rev 4.4-1994 | ICP               |
| Aluminum     | EPA200.8 Rev 5.4-1994 | ICP-MS            |
| Aluminum     | SW6010B               | ICP               |
| Aluminum     | SW6010C               | ICP               |
| Aluminum     | SW6020                | ICP-MS            |
| Aluminum     | SW6020A               | ICP-MS            |
| Antimony     | EPA200.7 Rev 4.4-1994 | ICP               |
| Antimony     | EPA200.8 Rev 5.4-1994 | ICP-MS            |
| Antimony     | SW6010B               | ICP               |

|           |                       |        |
|-----------|-----------------------|--------|
| Antimony  | SW6010C               | ICP    |
| Antimony  | SW6020                | ICP-MS |
| Antimony  | SW6020A               | ICP-MS |
| Arsenic   | EPA200.7 Rev 4.4-1994 | ICP    |
| Arsenic   | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Arsenic   | SW6010B               | ICP    |
| Arsenic   | SW6010C               | ICP    |
| Arsenic   | SW6020                | ICP-MS |
| Arsenic   | SW6020A               | ICP-MS |
| Barium    | EPA200.7 Rev 4.4-1994 | ICP    |
| Barium    | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Barium    | SW6010B               | ICP    |
| Barium    | SW6010C               | ICP    |
| Barium    | SW6020                | ICP-MS |
| Barium    | SW6020A               | ICP-MS |
| Beryllium | EPA200.7 Rev 4.4-1994 | ICP    |
| Beryllium | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Beryllium | SW6010B               | ICP    |
| Beryllium | SW6010C               | ICP    |
| Beryllium | SW6020                | ICP-MS |
| Beryllium | SW6020A               | ICP-MS |
| Boron     | EPA200.7 Rev 4.4-1994 | ICP    |
| Boron     | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Boron     | SW6010B               | ICP    |
| Boron     | SW6010C               | ICP    |
| Boron     | SW6020                | ICP-MS |
| Boron     | SW6020A               | ICP-MS |
| Cadmium   | EPA200.7 Rev 4.4-1994 | ICP    |
| Cadmium   | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Cadmium   | SW6010B               | ICP    |
| Cadmium   | SW6010C               | ICP    |
| Cadmium   | SW6020                | ICP-MS |
| Cadmium   | SW6020A               | ICP-MS |
| Calcium   | EPA200.7 Rev 4.4-1994 | ICP    |
| Calcium   | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Calcium   | SW6010B               | ICP    |
| Calcium   | SW6010C               | ICP    |
| Calcium   | SW6020                | ICP-MS |
| Calcium   | SW6020A               | ICP-MS |
| Chromium  | EPA200.7 Rev 4.4-1994 | ICP    |
| Chromium  | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Chromium  | SW6010B               | ICP    |
| Chromium  | SW6010C               | ICP    |
| Chromium  | SW6020                | ICP-MS |
| Chromium  | SW6020A               | ICP-MS |
| Cobalt    | EPA200.7 Rev 4.4-1994 | ICP    |
| Cobalt    | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Cobalt    | SW6010B               | ICP    |
| Cobalt    | SW6010C               | ICP    |
| Cobalt    | SW6020                | ICP-MS |
| Cobalt    | SW6020A               | ICP-MS |
| Copper    | EPA200.7 Rev 4.4-1994 | ICP    |
| Copper    | EPA200.8 Rev 5.4-1994 | ICP-MS |

|               |                       |           |
|---------------|-----------------------|-----------|
| Copper        | SW6010B               | ICP       |
| Copper        | SW6010C               | ICP       |
| Copper        | SW6020                | ICP-MS    |
| Copper        | SW6020A               | ICP-MS    |
| Iron          | EPA200.7 Rev 4.4-1994 | ICP       |
| Iron          | EPA200.8 Rev 5.4-1994 | ICP-MS    |
| Iron          | SW6010B               | ICP       |
| Iron          | SW6010C               | ICP       |
| Iron          | SW6020                | ICP-MS    |
| Iron          | SW6020A               | ICP-MS    |
| Lead          | EPA200.7 Rev 4.4-1994 | ICP       |
| Lead          | EPA200.8 Rev 5.4-1994 | ICP-MS    |
| Lead          | SW6010B               | ICP       |
| Lead          | SW6010C               | ICP       |
| Lead          | SW6020                | ICP-MS    |
| Lead          | SW6020A               | ICP-MS    |
| Lithium       | EPA200.7 Rev 4.4-1994 | ICP       |
| Lithium       | SW6010B               | ICP       |
| Lithium       | SW6010C               | ICP       |
| Magnesium     | EPA200.7 Rev 4.4-1994 | ICP       |
| Magnesium     | EPA200.8 Rev 5.4-1994 | ICP-MS    |
| Magnesium     | SW6010B               | ICP       |
| Magnesium     | SW6010C               | ICP       |
| Magnesium     | SW6020                | ICP-MS    |
| Magnesium     | SW6020A               | ICP-MS    |
| Manganese     | EPA200.7 Rev 4.4-1994 | ICP       |
| Manganese     | EPA200.8 Rev 5.4-1994 | ICP-MS    |
| Manganese     | SW6010B               | ICP       |
| Manganese     | SW6010C               | ICP       |
| Manganese     | SW6020                | ICP-MS    |
| Manganese     | SW6020A               | ICP-MS    |
| Mercury       | EPA1631 E             | CVAF      |
| Mercury       | EPA245.1 Rev 3.0-1994 | CVAA      |
| Mercury       | SW7470A               | CVAA      |
| Metals        | EPA200.2              | Digestion |
| Metals, Total | SW3005A               | Digestion |
| Metals, Total | SW3010A               | Digestion |
| Metals, Total | SW3020A               | Digestion |
| Molybdenum    | EPA200.7 Rev 4.4-1994 | ICP       |
| Molybdenum    | EPA200.8 Rev 5.4-1994 | ICP-MS    |
| Molybdenum    | SW6010B               | ICP       |
| Molybdenum    | SW6010C               | ICP       |
| Molybdenum    | SW6020                | ICP-MS    |
| Molybdenum    | SW6020A               | ICP-MS    |
| Nickel        | EPA200.7 Rev 4.4-1994 | ICP       |
| Nickel        | EPA200.8 Rev 5.4-1994 | ICP-MS    |
| Nickel        | SW6010B               | ICP       |
| Nickel        | SW6010C               | ICP       |
| Nickel        | SW6020                | ICP-MS    |
| Nickel        | SW6020A               | ICP-MS    |
| Potassium     | EPA200.7 Rev 4.4-1994 | ICP       |
| Potassium     | EPA200.8 Rev 5.4-1994 | ICP-MS    |
| Potassium     | SW6010B               | ICP       |

|           |                       |        |
|-----------|-----------------------|--------|
| Potassium | SW6010C               | ICP    |
| Potassium | SW6020                | ICP-MS |
| Potassium | SW6020A               | ICP-MS |
| Selenium  | EPA200.7 Rev 4.4-1994 | ICP    |
| Selenium  | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Selenium  | SW6010B               | ICP    |
| Selenium  | SW6010C               | ICP    |
| Selenium  | SW6020                | ICP-MS |
| Selenium  | SW6020A               | ICP-MS |
| Silicon   | SW6010B               | ICP    |
| Silicon   | SW6010C               | ICP    |
| Silver    | EPA200.7 Rev 4.4-1994 | ICP    |
| Silver    | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Silver    | SW6010B               | ICP    |
| Silver    | SW6010C               | ICP    |
| Silver    | SW6020                | ICP-MS |
| Silver    | SW6020A               | ICP-MS |
| Sodium    | EPA200.7 Rev 4.4-1994 | ICP    |
| Sodium    | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Sodium    | SW6010B               | ICP    |
| Sodium    | SW6010C               | ICP    |
| Sodium    | SW6020                | ICP-MS |
| Sodium    | SW6020A               | ICP-MS |
| Strontium | EPA200.7 Rev 4.4-1994 | ICP    |
| Strontium | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Strontium | SW6010B               | ICP    |
| Strontium | SW6010C               | ICP    |
| Strontium | SW6020                | ICP-MS |
| Strontium | SW6020A               | ICP-MS |
| Tellurium | SW6010B               | ICP    |
| Tellurium | SW6010C               | ICP    |
| Thallium  | EPA200.7 Rev 4.4-1994 | ICP    |
| Thallium  | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Thallium  | SW6010B               | ICP    |
| Thallium  | SW6010C               | ICP    |
| Thallium  | SW6020                | ICP-MS |
| Thallium  | SW6020A               | ICP-MS |
| Thorium   | SW6010B               | ICP    |
| Thorium   | SW6010C               | ICP    |
| Tin       | EPA200.7 Rev 4.4-1994 | ICP    |
| Tin       | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Tin       | SW6010B               | ICP    |
| Tin       | SW6010C               | ICP    |
| Tin       | SW6020                | ICP-MS |
| Tin       | SW6020A               | ICP-MS |
| Titanium  | EPA200.7 Rev 4.4-1994 | ICP    |
| Titanium  | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Titanium  | SW6010B               | ICP    |
| Titanium  | SW6010C               | ICP    |
| Titanium  | SW6020                | ICP-MS |
| Titanium  | SW6020A               | ICP-MS |
| Tungsten  | SW6010B               | ICP    |
| Tungsten  | SW6010C               | ICP    |

|           |                       |        |
|-----------|-----------------------|--------|
| Uranium   | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Uranium   | SW6020                | ICP-MS |
| Uranium   | SW6020A               | ICP-MS |
| Vanadium  | EPA200.7 Rev 4.4-1994 | ICP    |
| Vanadium  | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Vanadium  | SW6010B               | ICP    |
| Vanadium  | SW6010C               | ICP    |
| Vanadium  | SW6020                | ICP-MS |
| Vanadium  | SW6020A               | ICP-MS |
| Zinc      | EPA200.7 Rev 4.4-1994 | ICP    |
| Zinc      | EPA200.8 Rev 5.4-1994 | ICP-MS |
| Zinc      | SW6010B               | ICP    |
| Zinc      | SW6010C               | ICP    |
| Zinc      | SW6020                | ICP-MS |
| Zinc      | SW6020A               | ICP-MS |
| Zirconium | SW6010B               | ICP    |
| Zirconium | SW6010C               | ICP    |

#### NONPOTABLE WATER MICROBIOLOGY

| <u>GROUP</u>          | <u>METHOD</u> | <u>TECHNOLOGY</u> |
|-----------------------|---------------|-------------------|
| Coliform, Fecal (MF)  | SM9222 D-97   | Membrane Filter   |
| Coliform, Total (MPN) | Colilert      | Multiple Well     |

#### NONPOTABLE WATER VOLATILE ORGANIC CHEMICALS

| <u>GROUP</u>                       | <u>METHOD</u> | <u>TECHNOLOGY</u> |
|------------------------------------|---------------|-------------------|
| Closed System Purge & Trap         | SW5035A       | Extraction        |
| Closed System Purge & Trap         | SW5035        | Extraction        |
| Dissolved Gases                    | RSK175        | GC                |
| Halogenated & Aromatic Volatiles   | SW8021B       | GC                |
| Nonhalogenated Volatile Organics   | SW8015B       | GC/FID            |
| Nonhalogenated Volatile Organics   | SW8015C       | GC/FID            |
| Purge & Trap For Aqueous Samples   | SW5030B       | Extraction        |
| Purgeable Aromatics                | EPA602        | GC                |
| Purgeables                         | EPA624        | GC/MS             |
| Total Petroleum Hydrocarbons (GRO) | SW8015B       | GC/FID            |
| Total Petroleum Hydrocarbons (GRO) | SW8015C       | GC/FID            |
| Volatile Organic Compounds         | SW8260B       | GC/MS             |
| Volatile Organic Compounds         | SW8260C       | GC/MS             |

#### NONPOTABLE WATER EXTRACTABLE AND SEMI-VOLATILE ORGANIC CHEMICALS

| <u>GROUP</u>             | <u>METHOD</u> | <u>TECHNOLOGY</u> |
|--------------------------|---------------|-------------------|
| Base/Neutrals & Acids    | EPA625        | GC/MS             |
| Carbamate Pesticide      | EPA531.1 LC   | HPLC              |
| Carbonyl Compounds       | SW8315A       | HPLC              |
| Chlorinated Herbicides   | SW8151A       | GC                |
| Continuous Liquid-Liquid | SW3520C       | Extraction        |
| EDB & DBCP               | SW8011        | GC/ECD            |

|                                           |                    |            |
|-------------------------------------------|--------------------|------------|
| Florisil Cleanup                          | SW3620B            | Cleanup    |
| Gel-Permeation Cleanup                    | SW3640A            | Cleanup    |
| Microextraction                           | SW3511             | Extraction |
| Nitroaromatics & Nitramines               | SW8330             | HPLC       |
| Nitroaromatics & Nitramines               | SW8330A            | HPLC       |
| Nitroaromatics & Nitramines               | SW8330B            | HPLC       |
| Nonhalogenated Semi-Volatile Organics     | SW8015B            | GC/FID     |
| Nonhalogenated Semi-Volatile Organics     | SW8015C            | GC/FID     |
| Nonhalogenated Semi-Volatile Organics     | SW8015D            | GC/FID     |
| Organochlorine Pesticides                 | SW8081A            | GC         |
| Organochlorine Pesticides                 | SW8081B            | GC         |
| Organochlorine Pesticides & PCBs          | EPA608             | GC         |
| Organophosphorus Compounds                | SW8141A            | GC         |
| Organophosphorus Compounds                | SW8141B            | GC         |
| Perfluorinated Compounds                  | ISO 25101:2009 (E) | LC/MS      |
| Polychlorinated Biphenyls                 | SW8082             | GC         |
| Polychlorinated Biphenyls                 | SW8082A            | GC         |
| Semivolatile Organic Compounds            | SW8270C            | GC/MS      |
| Semivolatile Organic Compounds            | SW8270C            | SIM        |
| Semivolatile Organic Compounds            | SW8270D            | GC/MS      |
| Semivolatile Organic Compounds            | SW8270D            | SIM        |
| Separatory Funnel Liquid-Liquid           | SW3510C            | Extraction |
| Silica Gel Cleanup                        | SW3630C            | Cleanup    |
| Solvent Extractable Nonvolatile Compounds | SW8321A            | HPLC/UV    |
| Solvent Extractable Nonvolatile Compounds | SW8321B            | HPLC/TS/MS |
| Sulfur Cleanup                            | SW3660B            | Cleanup    |
| Sulfuric Acid/Permanganate Cleanup        | SW3665A            | Cleanup    |
| Total Petroleum Hydrocarbons (DRO)        | SW8015B            | GC/FID     |
| Total Petroleum Hydrocarbons (DRO)        | SW8015C            | GC/FID     |
| Total Petroleum Hydrocarbons (DRO)        | SW8015D            | GC/FID     |

### HAZARDOUS WASTE CHARACTERISTICS

| <u>PROCEDURE</u>        | <u>METHOD</u> | <u>TECHNOLOGY</u> |
|-------------------------|---------------|-------------------|
| Ignitability            | SW1010A       | Closed Cup        |
| Paint Filter Test       | SW9095B       | Gravimetric       |
| SPLP- Metals & Organics | SW1312        | Extraction        |

### SOLID AND CHEMICAL INORGANIC NONMETALS

| <u>ANALYTE</u>              | <u>METHOD</u>         | <u>TECHNOLOGY</u>  |
|-----------------------------|-----------------------|--------------------|
| Ammonia                     | EPA350.1              | Discrete           |
| Bromide                     | EPA300.0 Rev 2.1-1993 | IC                 |
| Carbon, Total Organic (TOC) | SW9060A               | Combustion         |
| Chloride                    | EPA300.0 Rev 2.1-1993 | IC                 |
| Chromium, Hexavalent        | SW3060A               | Digestion          |
| Chromium, Hexavalent        | SW7196A               | Spectrophotometric |
| Cyanide, Total              | SW9012B               | Spectrophotometric |

|                   |                       |              |
|-------------------|-----------------------|--------------|
| Fluoride          | EPA300.0 Rev 2.1-1993 | IC           |
| Nitrate           | EPA300.0 Rev 2.1-1993 | IC           |
| Nitrite           | EPA300.0 Rev 2.1-1993 | IC           |
| Oil & Grease      | SW9071B               | Gravimetric  |
| pH (Hydrogen Ion) | SW9045D               | Electrode    |
| Phenolics, Total  | SW9066                | Colorimetric |
| Sulfate           | EPA300.0 Rev 2.1-1993 | IC           |
| Sulfate           | SW9056A               | IC           |

#### SOLID AND CHEMICAL TRACE METALS

| <u>METAL</u> | <u>METHOD</u> | <u>TECHNOLOGY</u> |
|--------------|---------------|-------------------|
| Aluminum     | SW6010B       | ICP               |
| Aluminum     | SW6010C       | ICP               |
| Aluminum     | SW6020        | ICP-MS            |
| Aluminum     | SW6020A       | ICP-MS            |
| Antimony     | SW6010B       | ICP               |
| Antimony     | SW6010C       | ICP               |
| Antimony     | SW6020        | ICP-MS            |
| Antimony     | SW6020A       | ICP-MS            |
| Arsenic      | SW6010B       | ICP               |
| Arsenic      | SW6010C       | ICP               |
| Arsenic      | SW6020        | ICP-MS            |
| Arsenic      | SW6020A       | ICP-MS            |
| Barium       | SW6010B       | ICP               |
| Barium       | SW6010C       | ICP               |
| Barium       | SW6020        | ICP-MS            |
| Barium       | SW6020A       | ICP-MS            |
| Beryllium    | SW6010B       | ICP               |
| Beryllium    | SW6010C       | ICP               |
| Beryllium    | SW6020        | ICP-MS            |
| Beryllium    | SW6020A       | ICP-MS            |
| Boron        | SW6010B       | ICP               |
| Boron        | SW6010C       | ICP               |
| Boron        | SW6020        | ICP-MS            |
| Boron        | SW6020A       | ICP-MS            |
| Cadmium      | SW6010B       | ICP               |
| Cadmium      | SW6010C       | ICP               |
| Cadmium      | SW6020        | ICP-MS            |
| Cadmium      | SW6020A       | ICP-MS            |
| Calcium      | SW6010B       | ICP               |
| Calcium      | SW6010C       | ICP               |
| Calcium      | SW6020        | ICP-MS            |
| Calcium      | SW6020A       | ICP-MS            |
| Chromium     | SW6010B       | ICP               |
| Chromium     | SW6010C       | ICP               |
| Chromium     | SW6020        | ICP-MS            |
| Chromium     | SW6020A       | ICP-MS            |
| Cobalt       | SW6010B       | ICP               |
| Cobalt       | SW6010C       | ICP               |
| Cobalt       | SW6020        | ICP-MS            |
| Cobalt       | SW6020A       | ICP-MS            |

|               |         |             |
|---------------|---------|-------------|
| Copper        | SW6010B | ICP         |
| Copper        | SW6010C | ICP         |
| Copper        | SW6020  | ICP-MS      |
| Copper        | SW6020A | ICP-MS      |
| Iron          | SW6010B | ICP         |
| Iron          | SW6010C | ICP         |
| Iron          | SW6020  | ICP-MS      |
| Iron          | SW6020A | ICP-MS      |
| Lead          | SW6010B | ICP         |
| Lead          | SW6010C | ICP         |
| Lead          | SW6020  | ICP-MS      |
| Lead          | SW6020A | ICP-MS      |
| Lithium       | SW6010B | ICP         |
| Lithium       | SW6010C | ICP         |
| Magnesium     | SW6010B | ICP         |
| Magnesium     | SW6010C | ICP         |
| Magnesium     | SW6020  | ICP-MS      |
| Magnesium     | SW6020A | ICP-MS      |
| Manganese     | SW6010B | ICP         |
| Manganese     | SW6010C | ICP         |
| Manganese     | SW6020  | ICP-MS      |
| Manganese     | SW6020A | ICP-MS      |
| Mercury       | SW7471A | CVAA        |
| Mercury       | SW7471B | CVAA        |
| Metals, Total | SW3050B | Digestion   |
| Molybdenum    | SW6010B | ICP         |
| Molybdenum    | SW6010C | ICP         |
| Molybdenum    | SW6020  | ICP-MS      |
| Molybdenum    | SW6020A | ICP-MS      |
| Nickel        | SW6010B | ICP         |
| Nickel        | SW6010C | ICP         |
| Nickel        | SW6020  | ICP-MS      |
| Nickel        | SW6020A | ICP-MS      |
| Potassium     | SW6010B | ICP         |
| Potassium     | SW6010C | ICP         |
| Potassium     | SW6020  | ICP-MS      |
| Potassium     | SW6020A | ICP-MS      |
| Selenium      | SW6010B | ICP         |
| Selenium      | SW6010C | ICP         |
| Selenium      | SW6020  | ICP-MS      |
| Selenium      | SW6020A | ICP-MS      |
| Silica        | SW6010B | Calculation |
| Silica        | SW6010C | Calculation |
| Silver        | SW6010B | ICP         |
| Silver        | SW6010C | ICP         |
| Silver        | SW6020  | ICP-MS      |
| Silver        | SW6020A | ICP-MS      |
| Sodium        | SW6010B | ICP         |
| Sodium        | SW6010C | ICP         |
| Sodium        | SW6020  | ICP-MS      |
| Sodium        | SW6020A | ICP-MS      |
| Strontium     | SW6010B | ICP         |
| Strontium     | SW6010C | ICP         |

|           |         |        |
|-----------|---------|--------|
| Strontium | SW6020  | ICP-MS |
| Strontium | SW6020A | ICP-MS |
| Sulfur    | SW6010B | ICP    |
| Sulfur    | SW6010C | ICP    |
| Tellurium | SW6010B | ICP    |
| Tellurium | SW6010C | ICP    |
| Thallium  | SW6010B | ICP    |
| Thallium  | SW6010C | ICP    |
| Thallium  | SW6020  | ICP-MS |
| Thallium  | SW6020A | ICP-MS |
| Thorium   | SW6010B | ICP    |
| Thorium   | SW6010C | ICP    |
| Tin       | SW6010B | ICP    |
| Tin       | SW6010C | ICP    |
| Tin       | SW6020  | ICP-MS |
| Tin       | SW6020A | ICP-MS |
| Titanium  | SW6010B | ICP    |
| Titanium  | SW6010C | ICP    |
| Titanium  | SW6020  | ICP-MS |
| Titanium  | SW6020A | ICP-MS |
| Tungsten  | SW6010B | ICP    |
| Tungsten  | SW6010C | ICP    |
| Vanadium  | SW6010B | ICP    |
| Vanadium  | SW6010C | ICP    |
| Vanadium  | SW6020  | ICP-MS |
| Vanadium  | SW6020A | ICP-MS |
| Zinc      | SW6010B | ICP    |
| Zinc      | SW6010C | ICP    |
| Zinc      | SW6020  | ICP-MS |
| Zinc      | SW6020A | ICP-MS |
| Zirconium | SW6010B | ICP    |
| Zirconium | SW6010C | ICP    |

#### SOLID AND CHEMICAL VOLATILE ORGANIC CHEMICALS

| <u>GROUP</u>                       | <u>METHOD</u> | <u>TECHNOLOGY</u> |
|------------------------------------|---------------|-------------------|
| Closed System Purge & Trap         | SW5035        | Extraction        |
| Closed System Purge & Trap         | SW5035A       | Extraction        |
| Halogenated & Aromatic Volatiles   | SW8021B       | GC                |
| Nonhalogenated Volatile Organics   | SW8015B       | GC/FID            |
| Total Petroleum Hydrocarbons (GRO) | SW8015B       | GC/FID            |
| Volatile Organic Compounds         | SW8260B       | GC/MS             |
| Volatile Organic Compounds         | SW8260C       | GC/MS             |

#### SOLID AND CHEMICAL EXTRACTABLE AND SEMI-VOLATILE ORGANIC CHEMICALS

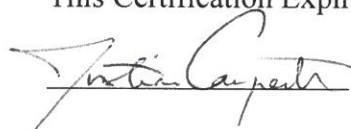
| <u>GROUP</u>           | <u>METHOD</u> | <u>TECHNOLOGY</u> |
|------------------------|---------------|-------------------|
| Carbonyl Compounds     | SW8315A       | HPLC              |
| Chlorinated Herbicides | SW8151A       | Extraction        |
| Florisil Cleanup       | SW3620B       | Cleanup           |
| Gel-Permeation Cleanup | SW3640A       | Cleanup           |

|                                           |         |            |
|-------------------------------------------|---------|------------|
| Microwave Extraction                      | SW3546  | Extraction |
| Nitroaromatics & Nitramines               | SW8330  | HPLC       |
| Nitroaromatics & Nitramines               | SW8330A | HPLC       |
| N-Methylcarbamates                        | SW8318A | HPLC       |
| Organochlorine Pesticides                 | SW8081A | GC         |
| Organochlorine Pesticides                 | SW8081B | GC         |
| Organophosphorus Compounds                | SW8141A | GC         |
| Organophosphorus Compounds                | SW8141B | GC         |
| Polychlorinated Biphenyls                 | SW8082  | GC         |
| Polychlorinated Biphenyls                 | SW8082A | GC         |
| Semivolatile Organic Compounds            | SW8270C | GC/MS      |
| Semivolatile Organic Compounds            | SW8270C | SIM        |
| Semivolatile Organic Compounds            | SW8270D | GC/MS      |
| Semivolatile Organic Compounds            | SW8270D | SIM        |
| Silica Gel Cleanup                        | SW3630C | Cleanup    |
| Solvent Extractable Nonvolatile Compounds | SW8321B | HPLC/TS/MS |
| Soxhlet                                   | SW3540C | Extraction |
| Sulfur Cleanup                            | SW3660B | Cleanup    |
| Sulfuric Acid/Permanganate Cleanup        | SW3665A | Cleanup    |
| Total Petroleum Hydrocarbons (DRO)        | SW8015B | GC/FID     |
| Ultrasonic                                | SW3550C |            |

This laboratory may test **ONLY** for those environmental parameters listed above for compliance reporting purposes. All testing must be by the test method cited in the current application for certification.

This Certification Expires July 31, 2018.

Certificate No 055

 Issued on October 03, 2017

Justin Carpenter  
QA Auditor

*NOTE: This Attachment I supersedes and voids all previous Attachment I documents previously issued by WV DEP*