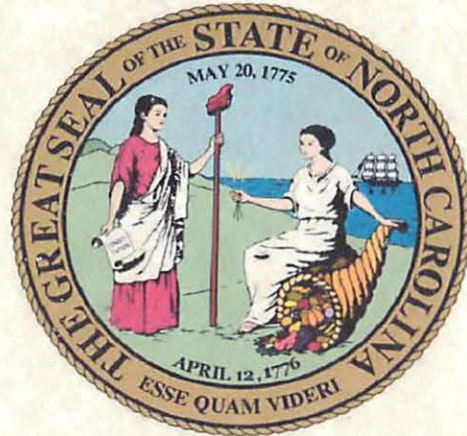


**DIVISION OF WATER RESOURCES
LABORATORY CERTIFICATION BRANCH**

In accordance with the provisions of N.C.G.S. 143-215.3 (a) (1), 143-215.3 (a)(10) and NCAC 2H.0800:



2024

Enthalpy Analytical LLC

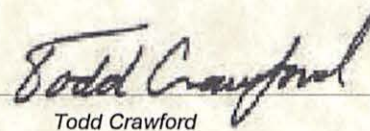
Is hereby certified to perform environmental analysis as listed on the Laboratory's Certified Parameter List and report monitoring data to DEQ for compliance with NPDES effluent, surface water, groundwater, soil and pretreatment regulations.

By reference 15A NCAC 2H .0800 is made a part of this certificate.

This certificate does not guarantee validity of data generated, but indicates the methodology, equipment, quality control procedures, records, and proficiency of the laboratory have been examined and found to be acceptable.

This certificate shall be valid until 12/31/2024

Certificate No. 495


Todd Crawford

North Carolina Wastewater/Groundwater Laboratory Certification

Certified Parameters Listing

Lab Name: Enthalpy Analytical LLC
Address: 1941 Reymet Road
Richmond, VA 23237-

Certificate Number: 495
Effective Date: 1/1/2024
Expiration Date: 12/31/2024
Date of Last Amendment: 12/4/2024

The above named laboratory, having duly met the requirements of 15A NCAC 2H.0800, is hereby certified for the measurement of the parameters listed below.

CERTIFIED PARAMETERS

INORGANIC

ALKALINITY

SM 2320 B-2021 (Aqueous)

BACTERIA - COLIFORM FECAL

IDEXX Colilert @18 (MPN) (Aqueous)

BOD

SM 5210 B-2016 (Aqueous)

BROMIDE

EPA 300.0, Rev. 2.1, 1993 (Aqueous)

SW-846 9056 A (Aqueous)

CBOD

SM 5210 B-2016 (Aqueous)

CHLORIDE

EPA 300.0, Rev. 2.1, 1993 (Aqueous)

SW-846 9056 A (Aqueous)

SW-846 9056 A (Non-Aqueous)

COD

SM 5220 D-2011 (Aqueous)

CONDUCTIVITY

SM 2510 B-2021 (Aqueous)

CYANIDE

Lachat 10-204-00-1-X, Rev. 2.2, 2005 (SM 4500 CN E -2021 Automated) (Total) (Aqueous)

SW-846 9012 B (Total) (Aqueous)

SW-846 9012 B (Total) (Non-Aqueous)

FLASH POINT

SW-846 1010 B (D93-80) (Aqueous)

FLUORIDE

EPA 300.0, Rev. 2.1, 1993 (Aqueous)

SW-846 9056 A (Non-Aqueous)

HARDNESS TOTAL - METALS

SM 2340 B-2021 (Ca EPA 200.7, Rev. 4.4, 1994 + Mg EPA 200.7, Rev. 4.4, 1994) (Aqueous)

SM 2340 B-2021 (Ca SM 3120B-2020 + Mg SM 3120B-2020) (Aqueous)

INORGANIC PHENOLS

EPA 420.1, Rev. 1978 (Aqueous)

NITROGEN, AMMONIA

EPA 350.1, Rev. 2.0, 1993 (Aqueous)

NITROGEN, NITRATE

SM 4500 NO₃⁻ F-2019 (Aqueous)

EPA 300.0, Rev. 2.1, 1993 (Aqueous)

SW-846 9056 A (Non-Aqueous)

NITROGEN, NITRITE

SM 4500-NO₂⁻ B-2021 (Automated) (Aqueous)

EPA 300.0, Rev. 2.1, 1993 (Aqueous)

SW-846 9056 A (Aqueous)

SW-846 9056 A (Non-Aqueous)

NITROGEN, NO₃ + NO₂

SM 4500 NO₃⁻ F-2019 (Aqueous)

NITROGEN, TOTAL KJELDAHL

EPA 351.2, Rev. 2.0, 1993 (Aqueous)

OIL & GREASE

EPA 1664 Rev. B (Aqueous)

ORGANIC CARBON, TOTAL

SM 5310 C-2014 (Aqueous)

SW-846 9060 A (Aqueous)

PAINT FILTER LIQUIDS

SW-846 9095B

pH

SW-846 9040 C (Aqueous)

SW-846 9045 D (Non-Aqueous)

PHOSPHATE, ORTHO

SM 4500 P E-2021 (Aqueous)

PHOSPHORUS, TOTAL

SM 4500 P E-2021 (Aqueous)

RESIDUE, DISSOLVED 180 C

SM 2540 C-2020 (Aqueous)

RESIDUE, SETTLEABLE

SM 2540 F-2020 (Aqueous)

RESIDUE, SUSPENDED

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CERTIFIED PARAMETERS

SM 2540 D-2020 (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
RESIDUE, TOTAL	SW-846 6010 D (Aqueous)
SM 2540 B-2020 (Aqueous)	SW-846 6010 D (Non-Aqueous)
SM 2540 G-2020 (Non-Aqueous)	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
RESIDUE, VOLATILE	SW-846 6020 B (Aqueous)
SM 2540 G-2020 (Non-Aqueous)	SW-846 6020 B (Non-Aqueous)
SILICA - METALS	BARIUM
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)	SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)	SW-846 6010 D (Non-Aqueous)
SULFATE	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
EPA 300.0, Rev. 2.1, 1993 (Aqueous)	SW-846 6020 B (Aqueous)
SW-846 9056 A (Aqueous)	SW-846 6020 B (Non-Aqueous)
SW-846 9056 A (Non-Aqueous)	BERYLLIUM
SULFIDE	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SM 4500 S ²⁻ D-2021 (Aqueous)	SW-846 6010 D (Aqueous)
SM 4500 S ²⁻ F-2021 (Aqueous)	SW-846 6010 D (Non-Aqueous)
TURBIDITY	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SM 2130 B-2020 (Aqueous)	SW-846 6020 B (Aqueous)
METAL	SW-846 6020 B (Non-Aqueous)
ALUMINUM	BORON
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)	SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)	SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	CADMIUM
SW-846 6020 B (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
ANTIMONY	SW-846 6010 D (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SW-846 6010 D (Non-Aqueous)
SW-846 6010 D (Aqueous)	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6010 D (Non-Aqueous)	SW-846 6020 B (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	SW-846 6020 B (Non-Aqueous)
SW-846 6020 B (Aqueous)	CALCIUM
SW-846 6020 B (Non-Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
ARSENIC	SW-846 6010 D (Aqueous)

This certification requires maintenance of an acceptable quality assurance program, use of approved methodology, and satisfactory performance on evaluation samples. Laboratories are subject to civil penalties and/or decertification for infractions as set forth in 15A NCAC 2H.0807.

North Carolina Wastewater/Groundwater Laboratory Certification

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CERTIFIED PARAMETERS

SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)

CHROMIUM HEXAVALENT

SM 3500 Cr B-2020 (Aqueous)
SW-846 7196 A (Aqueous)
SW-846 7196 A (Non-Aqueous)
EPA 218.6, Rev. 3.3, 1994 (Aqueous)
SW-846 7199 (Aqueous)
SW-846 7199 (Non-Aqueous)

CHROMIUM TOTAL

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)

COBALT

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)

COPPER

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)

IRON

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)

SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)

LEAD

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)

LITHIUM

SW-846 6010 D (Aqueous)
SW-846 6020 B (Aqueous)

MAGNESIUM

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)

MANGANESE

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)

MERCURY

EPA 245.1, Rev. 3.0, 1994 (Aqueous)
SW-846 7470 A (Aqueous)
SW-846 7471 B (Non-Aqueous)
SW-846 6020 B (Aqueous)

MOLYBDENUM

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)

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CERTIFIED PARAMETERS

SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)
NICKEL
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)
POTASSIUM
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SELENIUM
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)
SILVER
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)
SODIUM
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)

SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
STRONTIUM
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
SW-846 6020 B (Aqueous)
THALLIUM
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)
TIN
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
TITANIUM
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
VANADIUM
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)

North Carolina Wastewater/Groundwater Laboratory Certification

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CERTIFIED PARAMETERS

ZINC	SM 6200 B-2020 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SW-846 8260 D (Aqueous)
SW-846 6010 D (Aqueous)	SW-846 8260 D (Non-Aqueous)
SW-846 6010 D (Non-Aqueous)	TOTAL ORGANIC HALIDES
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	SW-846 9020 B (Aqueous)
SW-846 6020 B (Aqueous)	TPH DIESEL RANGE, ORGANICS
SW-846 6020 B (Non-Aqueous)	SW-846 8015 C (Aqueous)
ORGANIC	SW-846 8015 C (Non-Aqueous)
1,2-DIBROMOETHANE (EDB)	TPH GASOLINE RANGE, ORGANICS
SW-846 8011 (Includes DBCP) (Aqueous)	SW-846 8015 C (Aqueous)
BASE NEUTRAL/ACID, ORGANICS	SW-846 8015 C (Non-Aqueous)
EPA 625.1, Dec 2016 (Aqueous)	VOLATILE PETROLEUM HYDROCARBONS
SW-846 8270 E (Aqueous)	MADEP, Feb 2018, Rev. 2.1 (Aqueous)
SW-846 8270 E (Non-Aqueous)	MADEP, Feb 2018, Rev. 2.1 (Non-Aqueous)
CHLORINATED ACID HERBICIDES	
SW-846 8151 A (Aqueous)	
SW-846 8151 A (Non-Aqueous)	
EXTRACTABLE PETROLEUM HYDROCARBONS	
MADEP, December 2019, Rev. 2.1 (Aqueous)	
MADEP, December 2019, Rev. 2.1 (Non-Aqueous)	
PESTICIDES, ORGANOCHLORINE	
EPA 608.3, Dec 2016 (Aqueous)	
SW-846 8081 B (Aqueous)	
SW-846 8081 B (Non-Aqueous)	
PESTICIDES, ORGANOPHOSPHORUS	
SW-846 8141 B (Aqueous)	
SW-846 8141 B (Non-Aqueous)	
POLYCHLORINATED BIPHENYLS (PCBs)	
EPA 608.3, Dec 2016 (Aqueous)	
SW-846 8082 A (Aqueous)	
SW-846 8082 A (Non-Aqueous)	
SW-846 8082 A (Oil)	
PURGEABLE, ORGANICS	
EPA 624.1, Dec 2016 (Aqueous)	

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