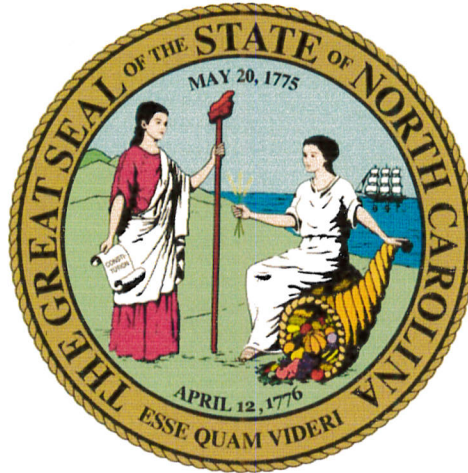


DIVISION OF WATER RESOURCES LABORATORY CERTIFICATION BRANCH

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



2023

Rogers & Callcott Engineers Inc.

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 12/31/2023

Certificate No. 27

A handwritten signature in black ink, reading "Todd Crawford".

Todd Crawford

North Carolina Wastewater/Groundwater Laboratory Certification

Certified Parameters Listing

Lab Name: Rogers & Callcott Engineers Inc.
Address: 426 Fairforest Way
Greenville, SC 29607

Certificate Number: 27
Effective Date: 1/1/2023
Expiration Date: 12/31/2023
Date of Last Amendment: 10/13/2021

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-2011 (Aqueous)

BACTERIA - COLIFORM FECAL

IDEXX Colilert ®18 (MPN) (Aqueous)

SM 9221 E-2014 (MPN) (Aqueous)

SM 9221 E-2014 (MPN) (Biosolids)

BACTERIA - E. coli

IDEXX Colilert® (24 hr) (MPN) (Aqueous)

BOD

SM 5210 B-2016 (Aqueous)

CHLORIDE

EPA 300.0, Rev. 2.1, 1993 (Aqueous)

EPA 300.0, Rev. 2.1, 1993 (Non-Aqueous)

SW-846 9056 A (Aqueous)

SW-846 9056 A (Non-Aqueous)

CHLORINE, TOTAL RESIDUAL

SM 4500 Cl G-2011 (Aqueous)

COD

EPA 410.4, Rev. 2.0, 1993 (Aqueous)

COLOR, ADMI

SM 2120 E-1993 (ADMI) (Aqueous)

COLOR, PC

SM 2120 B-2011 (PtCo) (Aqueous)

CONDUCTIVITY

SM 2510 B-2011 (Aqueous)

SW-846 9050 A (Aqueous)

CYANIDE

SW-846 9014 (Total) (Colorimetric) (Aqueous)

SW-846 9014 (Total) (Colorimetric) (Non-Aqueous)

SM 4500 CN⁻ E-2016 (Total) (Aqueous)

DISSOLVED OXYGEN

SM 4500 O G-2016 (Aqueous)

FLASH POINT

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

FLUORIDE

EPA 300.0, Rev. 2.1, 1993 (Aqueous)

EPA 300.0, Rev. 2.1, 1993 (Non-Aqueous)

SW-846 9056 A (Aqueous)

SW-846 9056 A (Non-Aqueous)

HARDNESS TOTAL - METALS

SM 2340 B-2011 (Ca EPA 200.7, Rev. 4.4, 1994 + Mg EPA 200.7, Rev. 4.4, 1994) (Aqueous)

INORGANIC PHENOLS

EPA 420.1, Rev. 1978 (Aqueous)

SW-846 9065 (Aqueous)

MBAS

SM 5540 C-2011 (Aqueous)

NITROGEN, AMMONIA

EPA 350.1, Rev. 2.0, 1993 (Aqueous)

NITROGEN, NITRATE

EPA 300.0, Rev. 2.1, 1993 (Aqueous)

EPA 300.0, Rev. 2.1, 1993 (Non-Aqueous)

SW-846 9056 A (Aqueous)

SW-846 9056 A (Non-Aqueous)

NITROGEN, NITRITE

SM 4500-NO₂⁻ B-2011 (Automated) (Aqueous)

EPA 300.0, Rev. 2.1, 1993 (Aqueous)

EPA 300.0, Rev. 2.1, 1993 (Non-Aqueous)

SW-846 9056 A (Aqueous)

SW-846 9056 A (Non-Aqueous)

NITROGEN, NO₃ + NO₂

SM 4500 NO₃⁻ H-2016 (Aqueous)

NITROGEN, TOTAL KJELDAHL

EPA 351.2, Rev. 2.0, 1993 (Aqueous)

OIL & GREASE

EPA 1664 Rev. B (Aqueous)

ORGANIC CARBON, TOTAL

SM 5310 B-2014 (Aqueous)

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CERTIFIED PARAMETERS

SW-846 9060 A (Aqueous)

PAINT FILTER LIQUIDS

SW-846 9095B

pH

SM 4500 H+B-2011 (Aqueous)

SW-846 9040 C (Aqueous)

SW-846 9045 D (Non-Aqueous)

PHOSPHATE, ORTHO

SM 4500 P E-2011 (Aqueous)

PHOSPHORUS, TOTAL

SM 4500 P E-2011 (Aqueous)

EPA 200.7, Rev. 4.4 (1994) (Aqueous)

SW-846 6010 D (Aqueous)

SW-846 6010 D (Non-Aqueous)

RESIDUE, DISSOLVED 180 C

SM 2540 C-2015 (Aqueous)

RESIDUE, SETTLEABLE

SM 2540 F-2015 (Aqueous)

RESIDUE, SUSPENDED

SM 2540 D-2015 (Aqueous)

RESIDUE, TOTAL

SM 2540 B-2015 (Aqueous)

RESIDUE, VOLATILE

SM 2540 G-2015 (Non-Aqueous)

SILICA - NUTRIENTS

SM 4500 SiO2 C-2011 (Aqueous)

SULFATE

EPA 300.0, Rev. 2.1, 1993 (Aqueous)

EPA 300.0, Rev. 2.1, 1993 (Non-Aqueous)

SW-846 9056 A (Aqueous)

SW-846 9056 A (Non-Aqueous)

SULFIDE

SM 4500 S²⁻ F-2011 (Aqueous)

TEMPERATURE

SM 2550 B-2010 (Aqueous)

TURBIDITY

EPA 180.1, Rev. 2.0, 1993 (Aqueous)

VECTOR ATTRACTION REDUCTION: OPTION 1

Reduction in Volatile Solids

VECTOR ATTRACTION REDUCTION: OPTION 4

Specific Oxygen Uptake Rate

METAL

ALUMINUM

EPA 200.7, Rev. 4.4, 1994 (Aqueous)

SW-846 6010 D (Aqueous)

SW-846 6010 D (Non-Aqueous)

ANTIMONY

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)

ARSENIC

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)

BARIUM

EPA 200.7, Rev. 4.4, 1994 (Aqueous)

SW-846 6010 D (Aqueous)

SW-846 6010 D (Non-Aqueous)

SW-846 6020 B (Aqueous)

BERYLLIUM

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)

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CERTIFIED PARAMETERS

SW-846 6020 B (Aqueous)	SW-846 6010 D (Non-Aqueous)
BORON	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SW-846 6020 B (Aqueous)
SW-846 6010 D (Aqueous)	IRON
SW-846 6010 D (Non-Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
CADMIUM	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)	LEAD
SW-846 6020 B (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
CALCIUM	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)
CHROMIUM HEXAVALENT	LITHIUM
SM 3500 Cr B-2011 (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 7196 A (Aqueous)	SW-846 6010 D (Aqueous)
SW-846 7196 A (Non-Aqueous)	SW-846 6010 D (Non-Aqueous)
CHROMIUM TOTAL	MAGNESIUM
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)	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)	MANGANESE
COBALT	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)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	SW-846 6020 B (Aqueous)
SW-846 6020 B (Aqueous)	MERCURY
COPPER	EPA 245.1, Rev. 3.0, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SW-846 7470 A (Aqueous)
SW-846 6010 D (Aqueous)	SW-846 7471 B (Non-Aqueous)

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CERTIFIED PARAMETERS

MOLYBDENUM

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)

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)

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)

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)

SODIUM

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

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)

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)

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)

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)

ZINC

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)

ORGANIC

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CERTIFIED PARAMETERS

BASE NEUTRAL/ACID, ORGANICS

EPA 625.1, Dec 2016 (Aqueous)
SW-846 8270 E (Aqueous)
SW-846 8270 E (Non-Aqueous)

PESTICIDES, ORGANOCHLORINE

EPA 608.3, Dec 2016 (Aqueous)
SW-846 8081 B (Aqueous)
SW-846 8081 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)
SW-846 8260 D (Aqueous)
SW-846 8260 D (Non-Aqueous)