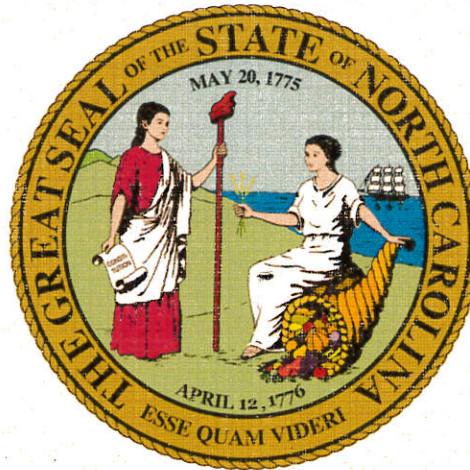


DIVISION OF WATER RESOURCES LABORATORY CERTIFICATION BRANCH

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



2019

James R. Reed & Associates Inc.

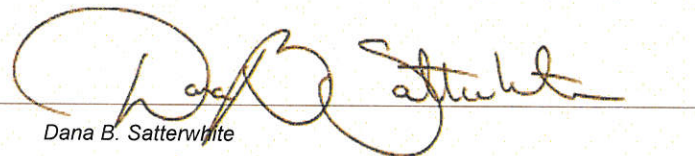
Is hereby certified to perform environmental analysis as listed on Attachment I and report monitoring data to DEQ for compliance with NPDES effluent, surface water, groundwater, and pretreatment regulations.

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 12/31/2019

Certificate No. 289


Dana B. Satterwhite

**North Carolina Wastewater/Groundwater Laboratory Certification
Certified Parameters Listing**

Lab Name: James R. Reed & Associates Inc.
Address: 770 Pilot House Dr.
Newport News, VA 23606-1943

Certificate Number: 289
Effective Date: 1/1/2019
Expiration Date: 12/31/2019
Date of Last Amendment: 7/1/2019

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

BOD

SM 5210 B-2011 (Aqueous)

CHLORIDE

SM 4500 Cl⁻ C-2011 (Aqueous)

COD

Hach 8000 (Aqueous)

CYANIDE

EPA 335.4, Rev. 1.0, 1993 (Total) (Aqueous)

SW-846 9012 B (Total) (Aqueous)

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

FLASH POINT

SW-846 1010 A (Pensky-Martens) (Aqueous)

FLUORIDE

SM 4500 F⁻ C-2011 (Aqueous)

INORGANIC PHENOLS

EPA 420.4, Rev. 1.0, 1993 (Aqueous)

SW-846 9066 (Aqueous)

NITROGEN, AMMONIA

SM 4500 NH₃ D-2011 (Aqueous)

NITROGEN, NITRITE

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

NITROGEN, NO₃ + NO₂

EPA 353.2, Rev. 2.0, 1993 (Aqueous)

NITROGEN, TOTAL KJELDAHL

EPA 351.2, Rev. 2.0, 1993 (Aqueous)

OIL & GREASE

EPA 1664 Rev. B (Aqueous)

pH

SM 4500 H+B-2011 (Aqueous)

PHOSPHORUS, TOTAL

EPA 365.1, Rev. 2.0, 1993 (Aqueous)

RESIDUE, SUSPENDED

SM 2540 D-2011 (Aqueous)

METAL

ANTIMONY

EPA 200.7, Rev. 4.4, 1994 (Aqueous)

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

SW-846 6010 D (Aqueous)

SW-846 6010 D (Non-Aqueous)

ARSENIC

EPA 200.7, Rev. 4.4, 1994 (Aqueous)

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

SW-846 6010 D (Aqueous)

SW-846 6010 D (Non-Aqueous)

BARIUM

EPA 200.7, Rev. 4.4, 1994 (Aqueous)

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

SW-846 6010 D (Aqueous)

SW-846 6010 D (Non-Aqueous)

BERYLLIUM

EPA 200.7, Rev. 4.4, 1994 (Aqueous)

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

SW-846 6010 D (Aqueous)

SW-846 6010 D (Non-Aqueous)

CADMIUM

EPA 200.7, Rev. 4.4, 1994 (Aqueous)

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

SW-846 6010 D (Aqueous)

SW-846 6010 D (Non-Aqueous)

CHROMIUM TOTAL

EPA 200.7, Rev. 4.4, 1994 (Aqueous)

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

SW-846 6010 D (Aqueous)

SW-846 6010 D (Non-Aqueous)

COPPER

EPA 200.7, Rev. 4.4, 1994 (Aqueous)

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

SW-846 6010 D (Aqueous)

SW-846 6010 D (Non-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
Certified Parameters Listing

Lab Name: James R. Reed & Associates Inc.
Address: 770 Pilot House Dr.
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Certificate Number: 289
Effective Date: 1/1/2019
Expiration Date: 12/31/2019
Date of Last Amendment: 7/1/2019

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

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

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

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

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

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

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

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

THALLIUM

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

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

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

ORGANIC
BASE NEUTRAL/ACID, ORGANICS
EPA 625.1 (Aqueous)
SW-846 8270 E (Aqueous)
SW-846 8270 E (Non-Aqueous)

PURGEABLE, ORGANICS
EPA 624.1 (Aqueous)
SW-846 8260 D (Aqueous)
SW-846 8260 D (Non-Aqueous)