




Environmental Laboratory Certification Program

In accordance with the provisions of Regulation 61-81, entitled "State Environmental Laboratory Certification Regulations"

**DAVIS & BROWN INC
124 W MCIVER RD
FLORENCE, SOUTH CAROLINA 29501-1515**

is hereby certified to perform analyses as documented on the attached parameter list(s). This certification does not guarantee validity of the data generated, but indicates the laboratory's adherence to prescribed methodology, quality control, records keeping, and reporting procedures. This certificate is the property of S.C. DHEC and must be surrendered upon demand. This certificate is non-transferable and is valid only for the parameters and methodology listed on the attached parameter list(s).

Laboratory Director: WILLIAM SCOTT FIELDS
Certifying Authority: SC
Date of Issue: September 09, 2022
Date of Expiration: January 12, 2025
Certificate Number: 21117001



Program Manager
Office of Environmental Laboratory Certification

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
 ENVIRONMENTAL LABORATORY CERTIFICATION PROGRAM
 INTERIM APPROVAL**

**DAVIS & BROWN INC (Laboratory ID 21117)
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STATUS

CLEAN WATER ACT

INORGANIC - DEMAND

BIOCHEMICAL OXYGEN DEMAND(BOD)	SM 5210 B-2016	5 DAY DO DEPLETION	C
CARBONACEOUS BOD	SM 5210 B-2016	5 DAY DO DEPLETION	C
CHEMICAL OXYGEN DEMAND (COD)	EPA 410.4 (1993)	SPECTROPHOTOMETRIC, MANUAL OR AUTOMATED	C
DISSOLVED OXYGEN	HACH 10360 (2011)	LUMINESCENCE BASED SENSOR	C
DISSOLVED OXYGEN	SM 4500-O G-2016	ELECTRODE	C
TOTAL ORGANIC CARBON (TOC)	SM 5310 B-2014	HIGH TEMPERATURE COMBUSTION (TOC)	C

INORGANIC - MINERAL

ALKALINITY	SM 2320 B-2011	TITRIMETRIC	C
CHLORIDE	EPA 300.0 (1993)	ION CHROMATOGRAPHY	C
HYDROGEN-ION CONC. (PH)	SM 4500-H B-2011	ELECTROMETRIC MEASUREMENT	C
SPECIFIC CONDUCTANCE	SM 2510 B-2011	CONDUCTANCE AT 25 DEGREES C	C
SULFATE	EPA 300.0 (1993)	ION CHROMATOGRAPHY	C

INORGANIC - MISCELLANEOUS

CYANIDE, TOTAL	SM 4500-CN B,C-2016	SAMPLE PRETREATMENT, MANUAL DISTILLATION	C
CYANIDE, TOTAL	SM 4500-CN E-2016	SPECTROPHOTOMETRIC (MANUAL)	C
OIL & GREASE	EPA 1664B (2010)	OIL & GREASE - HEM/SGT-HEM	C
PHENOLICS, TOTAL RECOVERABLE	EPA 420.1 (1978)	MANUAL DISTILLATION WITH COLORIMETRIC(4AAP)	C
RESIDUAL CHLORINE	SM 4500-CL G-2011	DPD COLORIMETRIC METHOD	C
SULFIDE	SM 4500-S2 F-2011	TITRIMETRIC (IODINE)	C
TEMPERATURE	SM 2550 B-2010	THERMOMETRIC	C

INORGANIC - NUTRIENT

AMMONIA-NITROGEN	SM 4500-NH3 B-2011	DISTILLATION	C
AMMONIA-NITROGEN	SM 4500-NH3 D-2011	ELECTRODE	C
KJELDAHL-NITROGEN	SM 4500-NH3 B-2011	DISTILLATION	C
KJELDAHL-NITROGEN	SM 4500-NH3 D-2011	ELECTRODE	C
NITRATE-NITROGEN	EPA 300.0 (1993)	ION CHROMATOGRAPHY	C
NITRITE-NITROGEN	EPA 300.0 (1993)	ION CHROMATOGRAPHY	C
PHOSPHORUS	SM 4500-P B(5)-2011	DIGESTION	C
PHOSPHORUS	SM 4500-P E-2011	ASCORBIC ACID (MANUAL SINGLE REAGENT)	C
TOTAL ORGANIC NITROGEN	EPA TKN-NH3-N	TOTAL KJELDAHL-N MINUS AMMONIA-N	C

INORGANIC - RESIDUE

RESIDUE, FILTERABLE (TDS)	SM 2540 C-2015	GRAVIMETRIC (180)	C
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INORGANIC - RESIDUE

RESIDUE, NONFILTERABLE (TSS)	SM 2540 D-2015	GRAVIMETRIC 103-105	C
RESIDUE, TOTAL (TS)	SM 2540 B-2015	GRAVIMETRIC 103-105	C
RESIDUE, VOLATILE (VS)	EPA 160.4 (1979)	GRAVIMETRIC (550)	C
TOTAL, FIXED & VOLATILE SOLIDS	SM 2540G (18TH)	PERCENT SOLIDS FOR BIOSOLIDS	C

INORGANIC - TRACE METAL

ALUMINUM	EPA 200.7 (1994)	ICP/AES	C
ANTIMONY	EPA 200.7 (1994)	ICP/AES	C
ANTIMONY	SM 3113 B-2010	AA FURNACE	C
ARSENIC	EPA 200.7 (1994)	ICP/AES	C
ARSENIC	SM 3113 B-2010	AA FURNACE	C
BARIUM	EPA 200.7 (1994)	ICP/AES	C
BERYLLIUM	EPA 200.7 (1994)	ICP/AES	C
BORON	EPA 200.7 (1994)	ICP/AES	C
CADMIUM	EPA 200.7 (1994)	ICP/AES	C
CADMIUM	SM 3113 B-2010	AA FURNACE	C
CALCIUM	EPA 200.7 (1994)	ICP/AES	C
CHROMIUM	EPA 200.7 (1994)	ICP/AES	C
CHROMIUM	SM 3113 B-2010	AA FURNACE	C
CHROMIUM, HEXAVALENT	SM 3500-CR B-2011	COLORIMETRIC (DIPHENYLCARBAZIDE)	C
COBALT	EPA 200.7 (1994)	ICP/AES	C
COPPER	EPA 200.7 (1994)	ICP/AES	C
COPPER	SM 3113 B-2010	AA FURNACE	C
IRON	EPA 200.7 (1994)	ICP/AES	C
LEAD	EPA 200.7 (1994)	ICP/AES	C
LEAD	SM 3113 B-2010	AA FURNACE	C
MAGNESIUM	EPA 200.7 (1994)	ICP/AES	C
MANGANESE	EPA 200.7 (1994)	ICP/AES	C
MOLYBDENUM	EPA 200.7 (1994)	ICP/AES	C
NICKEL	EPA 200.7 (1994)	ICP/AES	C
POTASSIUM	EPA 200.7 (1994)	ICP/AES	C
SAMPLING FOR LOW-LEVEL METALS	EPA 1669 (1996)	SAMPLING FOR LOW-LEVEL METALS	C
SELENIUM	EPA 200.7 (1994)	ICP/AES	C
SELENIUM	SM 3113 B-2010	AA FURNACE	C
SILVER	EPA 200.7 (1994)	ICP/AES	C
SILVER	SM 3113 B-2010	AA FURNACE	C
SODIUM	EPA 200.7 (1994)	ICP/AES	C
THALLIUM	EPA 279.2 (1978)	AA FURNACE	C
VANADIUM	EPA 200.7 (1994)	ICP/AES	C

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			STATUS
CLEAN WATER ACT			
INORGANIC - TRACE METAL			
ZINC	EPA 200.7 (1994)	ICP/AES	C
MICROBIOLOGY			
BIOSOLIDS PREPARATION	EPA/625/R-92/013 APP F	SLUDGE ANALYSIS PREPARATION	C
E. COLI (MPN)	SM 9223 B-2016	COLILERT/COLILERT-18	C
FECAL COLIFORM (MPN)	COLILERT-18 (2010)	MULTIPLE WELL	C
FECAL COLIFORM (MPN)	SM 9221-C E-2014	MULTIPLE TUBE FERMENTATION	C
SAFE DRINKING WATER ACT			
INORGANIC - DEMAND			
TOTAL AND DISSOLVED ORGANIC CARBON	SM 5310 B-2014	HIGH TEMPERATURE COMBUSTION (TOC)	C
INORGANIC - MINERAL			
ALKALINITY	SM 2320 B-2011	TITRIMETRIC	C
CHLORIDE	EPA 300.0 (1993)	ION CHROMATOGRAPHY	C
FLUORIDE	SM 4500-F C-2011	ELECTRODE (MANUAL)	C
HYDROGEN-ION CONC. (PH)	SM 4500-H B-2011	ELECTROMETRIC MEASUREMENT	C
SPECIFIC CONDUCTANCE	SM 2510 B-2011	CONDUCTANCE AT 25 DEGREES C	C
SULFATE	EPA 300.0 (1993)	ION CHROMATOGRAPHY	C
INORGANIC - MISCELLANEOUS			
COLOR	SM 2120 B-2011	VISUAL - PLATINUM COBALT	C
RESIDUAL CHLORINE	SM 4500-CL G-2011	DPD COLORIMETRIC METHOD	C
TEMPERATURE	SM 2550 B-2010	THERMOMETRIC	C
TURBIDITY	EPA 180.1 (1993)	NEPHELOMETRIC	C
INORGANIC - NUTRIENT			
NITRATE-NITROGEN	EPA 300.0 (1993)	ION CHROMATOGRAPHY	C
NITRITE-NITROGEN	EPA 300.0 (1993)	ION CHROMATOGRAPHY	C
ORTHOPHOSPHATE	SM 4500-P E-2011	ASCORBIC ACID (MANUAL SINGLE REAGENT)	C
INORGANIC - RESIDUE			
RESIDUE, FILTERABLE (TDS)	SM 2540 C-2015	GRAVIMETRIC (180)	C

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SAFE DRINKING WATER ACT

INORGANIC - TRACE METAL

ALUMINUM	EPA 200.7 (1994)	ICP/AES	C
ANTIMONY	SM 3113 B-2010	AA FURNACE	C
ARSENIC	SM 3113 B-2010	AA FURNACE	C
BARIUM	EPA 200.7 (1994)	ICP/AES	C
BERYLLIUM	EPA 200.7 (1994)	ICP/AES	C
CADMIUM	EPA 200.7 (1994)	ICP/AES	C
CADMIUM	SM 3113 B-2010	AA FURNACE	C
CALCIUM	EPA 200.7 (1994)	ICP/AES	C
CHROMIUM	EPA 200.7 (1994)	ICP/AES	C
COPPER	EPA 200.7 (1994)	ICP/AES	C
COPPER	SM 3113 B-2010	AA FURNACE	C
IRON	EPA 200.7 (1994)	ICP/AES	C
LEAD	SM 3113 B-2010	AA FURNACE	C
MAGNESIUM	EPA 200.7 (1994)	ICP/AES	C
MANGANESE	EPA 200.7 (1994)	ICP/AES	C
NICKEL	EPA 200.7 (1994)	ICP/AES	C
SELENIUM	SM 3113 B-2010	AA FURNACE	C
SILVER	EPA 200.7 (1994)	ICP/AES	C
SILVER	SM 3113 B-2010	AA FURNACE	C
SODIUM	EPA 200.7 (1994)	ICP/AES	C
ZINC	EPA 200.7 (1994)	ICP/AES	C

MICROBIOLOGY

E. COLI CONFIRMATION	SM 9222 H-2015	EC BROTH WITH MUG (EC-MUG)	C
HETEROTROPHIC BACTERIA	SM 9215 B-2016	POUR PLATE METHOD	C
TOTAL COLIFORM (MF)	SM 9222 B-2015	MEMBRANE FILTRATION	C
TOTAL COLIFORM/E.COLI	SM 9223 B-2016	COLILERT/COLILERT-18	C
TOTAL COLIFORM/E.COLI(MPN)	SM 9223 B-2016	COLILERT/COLILERT-18	C

SOLID & HAZARDOUS WASTES

INORGANIC - DEMAND

TOTAL ORGANIC CARBON (TOC)	EPA 9060A (2004)	CARBONACEOUS ANALYZER	C
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INORGANIC - HAZARDOUS WASTE CHARACTERISTICS

TCLP - BOTTLE EXTRACTION	EPA 1311 (1992)	TOXICITY CHARACTERISTIC LEACHING PROCEDURE	C
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SOLID & HAZARDOUS WASTES			
INORGANIC - MINERAL			
CHLORIDE	EPA 9056A (2007)	ION CHROMATOGRAPHY	C
HYDROGEN-ION CONC. (PH)	EPA 9040C (2004)	ELECTROMETRIC	C
HYDROGEN-ION CONC. (PH)	EPA 9045D (2004)	SOIL AND WASTE	C
SULFATE	EPA 9056A (2007)	ION CHROMATOGRAPHY	C
INORGANIC - MISCELLANEOUS			
PAINT FILTER LIQUIDS TEST	EPA 9095B (2004)	FILTRATION	C
INORGANIC - NUTRIENT			
NITRATE-NITROGEN	EPA 9056A (2007)	ION CHROMATOGRAPHY	C
NITRITE-NITROGEN	EPA 9056A (2007)	ION CHROMATOGRAPHY	C
INORGANIC - TRACE METAL			
ALUMINUM	EPA 6010D (2018)	ICP/AES	C
ANTIMONY	EPA 6010D (2018)	ICP/AES	C
ANTIMONY	EPA 7010 (2007)	GRAPHITE FURNACE AA SPECTROPHOTOMETRY	C
ARSENIC	EPA 6010D (2018)	ICP/AES	C
ARSENIC	EPA 7010 (2007)	GRAPHITE FURNACE AA SPECTROPHOTOMETRY	C
BARIUM	EPA 6010D (2018)	ICP/AES	C
BERYLLIUM	EPA 6010D (2018)	ICP/AES	C
BORON	EPA 6010D (2018)	ICP/AES	C
CADMIUM	EPA 6010D (2018)	ICP/AES	C
CADMIUM	EPA 7010 (2007)	GRAPHITE FURNACE AA SPECTROPHOTOMETRY	C
CALCIUM	EPA 6010D (2018)	ICP/AES	C
CHROMIUM	EPA 6010D (2018)	ICP/AES	C
CHROMIUM	EPA 7010 (2007)	GRAPHITE FURNACE AA SPECTROPHOTOMETRY	C
CHROMIUM, HEXAVALENT	EPA 7196A (1992)	COLORIMETRIC	C
COBALT	EPA 6010D (2018)	ICP/AES	C
COPPER	EPA 6010D (2018)	ICP/AES	C
IRON	EPA 6010D (2018)	ICP/AES	C
LEAD	EPA 6010D (2018)	ICP/AES	C
LEAD	EPA 7010 (2007)	GRAPHITE FURNACE AA SPECTROPHOTOMETRY	C
MAGNESIUM	EPA 6010D (2018)	ICP/AES	C
MANGANESE	EPA 6010D (2018)	ICP/AES	C
METALS DIGESTION	EPA 3005A (1992)	AQUEOUS ACID DIGESTION TOTAL OR DISSOLVED METALS FLAA OR ICP	C
METALS DIGESTION	EPA 3010A (1992)	AQUEOUS ACID DIGESTION TOTAL METALS FLAA OR ICP	C
METALS DIGESTION	EPA 3015A (2007)	AQUEOUS MICROWAVE ACID DIGESTION TOTAL METALS FLAA OR ICP	C

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SOLID & HAZARDOUS WASTES

INORGANIC - TRACE METAL

METALS DIGESTION	EPA 3020A (1992)	AQUEOUS ACID DIGESTION TOTAL METALS GFAA	C
METALS DIGESTION	EPA 3050B (1996)	SOLID ACID DIGESTION	C
METALS DIGESTION	EPA 3051A (2007)	NON-AQUEOUS MICROWAVE ACID DIGESTION	C
METALS DIGESTION	EPA 3060A (1996)	ALKALINE DIGESTION HEX CHROM	C
MOLYBDENUM	EPA 6010D (2018)	ICP/AES	C
NICKEL	EPA 6010D (2018)	ICP/AES	C
POTASSIUM	EPA 6010D (2018)	ICP/AES	C
SELENIUM	EPA 6010D (2018)	ICP/AES	C
SELENIUM	EPA 7010 (2007)	GRAPHITE FURNACE AA SPECTROPHOTOMETRY	C
SILVER	EPA 6010D (2018)	ICP/AES	C
SILVER	EPA 7010 (2007)	GRAPHITE FURNACE AA SPECTROPHOTOMETRY	C
THALLIUM	EPA 7010 (2007)	GRAPHITE FURNACE AA SPECTROPHOTOMETRY	C
VANADIUM	EPA 6010D (2018)	ICP/AES	C
ZINC	EPA 6010D (2018)	ICP/AES	C