



ARIZONA DEPARTMENT
OF HEALTH SERVICES

ENVIRONMENTAL LABORATORY LICENSE

Issued to:

Laboratory Director: Leslie S Bucina
Owner/Representative: N. Cabot Earle, Jr.

Microbac Laboratories, Inc Ohio Valley Division

AZ0723

is in compliance with Environmental Laboratory's applicable standards for the State of Arizona and maintains on file a List of Parameters for which the laboratory is certified to perform analysis.

PERIOD OF LICENSURE FROM: 02/25/2018 TO: 02/25/2019



A handwritten signature in black ink, appearing to read "S. Baker".

Steven D. Baker, Chief
Office of Laboratory Licensure & Certification
Bureau of State Laboratory Services

Arizona Department Of Health Services Office of Laboratory Licensure and Certification

250 N.17th Avenue, Phoenix, Arizona 85007-3246

SW

| Parameter | EPA Method | Certified On |
|---|------------|-----------------------|
| ALUMINUM | EPA 6010C | 2/25/2008 12:00:00 AM |
| ANTIMONY | EPA 6010C | 2/25/2008 12:00:00 AM |
| ANTIMONY | EPA 6020A | 3/8/2017 2:58:44 PM |
| ARSENIC | EPA 6010C | 2/25/2008 12:00:00 AM |
| ARSENIC | EPA 6020A | 3/8/2017 2:58:44 PM |
| BARIUM | EPA 6010C | 2/25/2008 12:00:00 AM |
| BARIUM | EPA 6020A | 3/8/2017 2:58:45 PM |
| BERYLLIUM | EPA 6010C | 2/25/2008 12:00:00 AM |
| BORON | EPA 6010C | 3/8/2017 2:58:53 PM |
| BROMIDE | EPA 9056A | 4/23/2008 12:00:00 AM |
| CADMIUM | EPA 6010C | 2/25/2008 12:00:00 AM |
| CADMIUM | EPA 6020A | 3/8/2017 2:58:46 PM |
| CALCIUM | EPA 6010C | 2/25/2008 12:00:00 AM |
| CHLORIDE | EPA 9056A | 4/23/2008 12:00:00 AM |
| CHLORIN. HERBS BY GC METHYLATION | EPA 8151A | 4/22/2009 12:00:00 AM |
| CHROMIUM, TOTAL | EPA 6010C | 2/25/2008 12:00:00 AM |
| CHROMIUM, TOTAL | EPA 6020A | 3/8/2017 2:58:46 PM |
| CLOSED SYSTEM PURGE AND TRAP EXTRACT. VOCS | EPA 5035A | 4/23/2008 12:00:00 AM |
| COBALT | EPA 6010C | 2/25/2008 12:00:00 AM |
| COBALT | EPA 6020A | 3/8/2017 2:58:47 PM |
| CONTINUOUS LIQUID-LIQUID EXTRACTION | EPA 3520C | 4/23/2008 12:00:00 AM |
| COPPER | EPA 6010C | 2/25/2008 12:00:00 AM |
| COPPER | EPA 6020A | 3/8/2017 2:58:48 PM |
| CORROSIVITY PH DETERMINATION | EPA 9040C | 4/23/2008 12:00:00 AM |
| CYANIDE | EPA 9010C | 4/28/2008 12:00:00 AM |
| CYANIDE | EPA 9014 | 4/28/2008 12:00:00 AM |
| EDB AND DBCP BY MICROEXTRACTION AND GC | EPA 8011 | 4/23/2008 12:00:00 AM |
| FLASH POINT BY PENSKY MARTEMS CUP | EPA 1010A | 4/23/2008 12:00:00 AM |

SW

| Parameter | EPA Method | Certified On |
|---|------------|------------------------|
| FLORISIL CLEANUP | EPA 3620C | 4/23/2008 12:00:00 AM |
| FLUORIDE | EPA 9056A | 4/23/2008 12:00:00 AM |
| IRON | EPA 6010C | 2/25/2008 12:00:00 AM |
| LEAD | EPA 6010C | 2/25/2008 12:00:00 AM |
| LEAD | EPA 6020A | 3/8/2017 2:58:48 PM |
| LITHIUM | EPA 6010C | 2/25/2008 12:00:00 AM |
| MAGNESIUM | EPA 6010C | 2/25/2008 12:00:00 AM |
| MANGANESE | EPA 6010C | 2/25/2008 12:00:00 AM |
| MANGANESE | EPA 6020A | 3/8/2017 2:58:49 PM |
| MERCURY | EPA 7470A | 2/25/2008 12:00:00 AM |
| MERCURY | EPA 7471B | 2/25/2008 12:00:00 AM |
| MICROWAVE ASSISTED DIGESTIONS | EPA 3015A | 2/25/2008 12:00:00 AM |
| MICROWAVE ASSISTED DIGESTIONS | EPA 3051A | 2/25/2008 12:00:00 AM |
| MICROWAVE ASSISTED DIGESTIONS | 3546 | 3/8/2017 2:58:55 PM |
| MOLYBDENUM | EPA 6010C | 2/25/2008 12:00:00 AM |
| NICKEL | EPA 6010C | 2/25/2008 12:00:00 AM |
| NICKEL | EPA 6020A | 3/8/2017 2:58:50 PM |
| NITRATE | EPA 9056A | 4/23/2008 12:00:00 AM |
| NITRITE | EPA 9056A | 4/23/2008 12:00:00 AM |
| NITROAROMATICS AND NITRAMINES BY HPLC | EPA 8330A | 4/23/2008 12:00:00 AM |
| NITROAROMATICS, NITRAMINES & NITRATE ESTERS | EPA 8330B | 12/16/2008 12:00:00 AM |
| NONHALOGENATED ORGANICS USING GC/FID | EPA 8015D | 4/23/2008 12:00:00 AM |
| OIL AND GREASE AND PETROLEUM HYDROCARBONS | EPA 1664B | 4/23/2008 12:00:00 AM |
| ORGANOCHLORINE PESTICIDES BY GC | EPA 8081B | 4/23/2008 12:00:00 AM |
| PCBS BY GC | EPA 8082A | 4/23/2008 12:00:00 AM |
| PERCHLORATE | EPA 6850 | 9/5/2013 12:00:00 AM |
| PH (HYDROGEN ION) | EPA 9045D | 4/23/2008 12:00:00 AM |
| PHOSPHORUS | EPA 6010C | 3/8/2017 2:58:54 PM |
| POTASSIUM | EPA 6010C | 2/25/2008 12:00:00 AM |
| PRESSURIZED FLUID EXTRACTION | EPA 3545A | 4/23/2008 12:00:00 AM |

SW

| Parameter | EPA Method | Certified On |
|--|------------|-----------------------|
| PURGE AND TRAP FOR AQUEOUS SAMPLES | EPA 5030C | 4/23/2008 12:00:00 AM |
| SELENIUM | EPA 6010C | 2/25/2008 12:00:00 AM |
| SELENIUM | EPA 6020A | 3/8/2017 2:58:50 PM |
| SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS | EPA 8270C | 4/23/2008 12:00:00 AM |
| SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION | EPA 3510C | 4/23/2008 12:00:00 AM |
| SILICA | EPA 6010C | 3/8/2017 2:58:55 PM |
| SILVER | EPA 6010C | 2/25/2008 12:00:00 AM |
| SILVER | EPA 6020A | 3/8/2017 2:58:51 PM |
| SODIUM | EPA 6010C | 2/25/2008 12:00:00 AM |
| SPE | EPA 3535A | 4/23/2008 12:00:00 AM |
| SPLP | EPA 1312 | 5/29/2018 12:22:20 PM |
| STRONTIUM | EPA 6010C | 2/25/2008 12:00:00 AM |
| SULFATE | EPA 9056A | 4/23/2008 12:00:00 AM |
| TCLP | EPA 1311 | 2/25/2008 12:00:00 AM |
| THALLIUM | EPA 6010C | 2/25/2008 12:00:00 AM |
| THALLIUM | EPA 6020A | 3/8/2017 2:58:52 PM |
| TIN | EPA 6010C | 2/25/2008 12:00:00 AM |
| TITANIUM | EPA 6010C | 2/25/2008 12:00:00 AM |
| TOCS | EPA 9060A | 4/23/2008 12:00:00 AM |
| ULTRASONIC EXTRACTION | EPA 3550C | 4/23/2008 12:00:00 AM |
| VANADIUM | EPA 6010C | 2/25/2008 12:00:00 AM |
| VANADIUM | EPA 6020A | 3/8/2017 2:58:52 PM |
| VOCs by GC/MS, INCLUDING N-HEXANE | EPA 8260B | 4/23/2008 12:00:00 AM |
| WASTE DILUTION | EPA 3580A | 4/23/2008 12:00:00 AM |
| ZINC | EPA 6010C | 2/25/2008 12:00:00 AM |
| ZINC | EPA 6020A | 3/8/2017 2:58:53 PM |

Total Count: 84

WW

| Parameter | EPA Method | Certified On |
|-------------------|------------------|-----------------------|
| ALKALINITY, TOTAL | EPA 310.2 (1974) | 4/23/2008 12:00:00 AM |

WW

| Parameter | EPA Method | Certified On |
|--------------------------|--------------------|-----------------------|
| KJELDAHL, TOTAL NITROGEN | EPA 351.2 (2.0) | 4/23/2008 12:00:00 AM |
| ORTHOPHOSPHATE | SM 4500-P E (2011) | 4/23/2008 12:00:00 AM |
| PHOSPHORUS, TOTAL | EPA 365.4 (1974) | 4/22/2009 12:00:00 AM |
| URANIUM | EPA 200.8 | 5/29/2018 12:22:20 PM |
| | | Total Count: 5 |

Instrument

| Instrument | Instrument Code | Quantity | Certified On |
|---|-----------------|----------------|------------------------|
| GAS CHROMATOGRAPH | GC | 10 | 12/18/2013 12:00:00 AM |
| HIGH PERFORMANCE LIQUID CHROMATOGRAPH/MASS SPEC | HPLC/MS | 1 | 12/18/2013 12:00:00 AM |
| GAS CHROMATOGRAPH/MASS SPECTROMETER | GC/MS | 10 | 1/17/2012 12:00:00 AM |
| INDUCTIVELY COUPLED PLASMA/MASS SPECTROMETER | ICP/MS | 1 | 2/9/2012 12:00:00 AM |
| HIGH PERFORMANCE LIQUID CHROMATOGRAPH | HPLC | 4 | 3/11/2008 12:00:00 AM |
| ION CHROMATOGRAPH | IC | 3 | 12/19/2014 12:00:00 AM |
| AUTOMATED AUTOANALYZER | AUTOANALYZER | 2 | 12/19/2014 12:00:00 AM |
| INDUCTIVELY COUPLED PLASMA SPECTROMETER | ICP | 3 | 12/18/2013 12:00:00 AM |
| MERCURY ANALYZER | MA | 1 | 12/13/2007 12:00:00 AM |
| | | Total Count: 9 | |

Software

| Software Code | Certified On |
|---------------------------------|------------------------|
| PERKIN ELMER - ICP | 12/13/2007 12:00:00 AM |
| TJA(THERMO JARREL ASH) - ICP | 12/13/2007 12:00:00 AM |
| PERKIN ELMER - ICP/MS | 2/9/2012 12:00:00 AM |
| LEMAN-HYDRA - MA | 12/13/2007 12:00:00 AM |
| ENVIROQUANT/CHEMSTATION - GC | 3/11/2008 12:00:00 AM |
| ENVIROQUANT/CHEMSTATION - GC/MS | 3/11/2008 12:00:00 AM |
| HP CHEMSTATION-HPLC | 3/11/2008 12:00:00 AM |
| SMACTCHEM - AUTO ANALYZER | 3/11/2008 12:00:00 AM |
| OTHER - HPLC | 1/17/2012 12:00:00 AM |
| Total Count: 9 | |