



ARIZONA DEPARTMENT
OF HEALTH SERVICES

ENVIRONMENTAL LABORATORY LICENSE

Issued to:

Laboratory Director: Pat Byrne

Owner/Representative: Mr. Jim Klippel

ALS Environmental
AZ0339

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: 05/24/2021 TO: 05/23/2022



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

SDW

Parameter	EPA Method	Certified On
DETERMINATION OF SELECTED PERFLUORINATED ALKYL ACIDS (LC/MS/MS)	EPA 537.1	4/22/2021 4:13:30 PM
1, 4 DIOXANE	EPA 8270D	1/19/2021 11:43:33 AM
ALUMINUM	EPA 200.7 (4.4)	7/29/2003 12:00:00 AM
ALUMINUM	EPA 200.8 (5.4)	7/29/2003 12:00:00 AM
ANTIMONY	EPA 200.8 (5.4)	7/29/2003 12:00:00 AM
ARSENIC	EPA 200.8 (5.4)	7/29/2003 12:00:00 AM
BARIUM	EPA 200.8 (5.4)	7/29/2003 12:00:00 AM
BARIUM	EPA 200.7 (4.4)	7/29/2003 12:00:00 AM
BERYLLIUM	EPA 200.7 (4.4)	7/29/2003 12:00:00 AM
BERYLLIUM	EPA 200.8 (5.4)	7/29/2003 12:00:00 AM
CADMIUM	EPA 200.7 (4.4)	7/29/2003 12:00:00 AM
CADMIUM	EPA 200.8 (5.4)	7/29/2003 12:00:00 AM
CALCIUM	EPA 200.7 (4.4)	7/29/2003 12:00:00 AM
CHROMIUM TOTAL	EPA 200.7 (4.4)	7/29/2003 12:00:00 AM
CHROMIUM TOTAL	EPA 200.8 (5.4)	7/29/2003 12:00:00 AM
COPPER	EPA 200.8 (5.4)	7/29/2003 12:00:00 AM
DETERMINATION OF PER - AND PFAS (ESPE / LCMS)	EPA 533	4/22/2021 4:13:30 PM
DETERMINATION OF SELECTED PERFLUORINATED ALKYL ACIDS (LC/MS/MS)	EPA 537	3/24/2017 2:25:08 PM
IRON	EPA 200.7 (4.4)	7/29/2003 12:00:00 AM
LEAD	EPA 200.8 (5.4)	7/29/2003 12:00:00 AM
MAGNESIUM	EPA 200.7 (4.4)	7/29/2003 12:00:00 AM
MANGANESE	EPA 200.7 (4.4)	7/29/2003 12:00:00 AM
MANGANESE	EPA 200.8 (5.4)	7/29/2003 12:00:00 AM
MERCURY	EPA 245.1 (3.0)	7/29/2003 12:00:00 AM
NICKEL	EPA 200.7 (4.4)	7/29/2003 12:00:00 AM
NICKEL	EPA 200.8 (5.4)	7/29/2003 12:00:00 AM
ORTHOPHOSPHATE	SM 4500-P E (2011)	4/7/2009 12:00:00 AM

SDW

Parameter	EPA Method	Certified On
SELENIUM	EPA 200.8 (5.4)	7/29/2003 12:00:00 AM
SILICA	EPA 200.7 (4.4)	7/29/2003 12:00:00 AM
SILVER	EPA 200.7 (4.4)	7/29/2003 12:00:00 AM
SILVER	EPA 200.8 (5.4)	7/29/2003 12:00:00 AM
SODIUM	EPA 200.7 (4.4)	7/29/2003 12:00:00 AM
STRONTIUM	EPA 200.7 (4.4)	7/29/2003 12:00:00 AM
THALLIUM	EPA 200.8 (5.4)	7/29/2003 12:00:00 AM
VOCS BY GC/MS	EPA 524.2 (4.1)	7/29/2003 12:00:00 AM
VOCS BY GC/MS-ADDITIONAL	EPA 524.2 (4.1)	7/23/2003 12:00:00 AM
ZINC	EPA 200.7 (4.4)	7/29/2003 12:00:00 AM
ZINC	EPA 200.8 (5.4)	7/29/2003 12:00:00 AM

Total Count: 38

SW

Parameter	EPA Method	Certified On
ALUMINUM	EPA 6010C	4/18/2011 12:00:00 AM
ALUMINUM	EPA 6020A	4/22/2021 4:13:30 PM
ANTIMONY	EPA 6010C	4/18/2011 12:00:00 AM
ANTIMONY	EPA 6020A	4/22/2021 4:13:30 PM
ARSENIC	EPA 6010C	4/18/2011 12:00:00 AM
ARSENIC	EPA 6020A	4/22/2021 4:13:30 PM
AUTOMATED SOXHLET EXTRACTION	EPA 3541	6/9/2008 12:00:00 AM
BARIUM	EPA 6010C	4/18/2011 12:00:00 AM
BARIUM	EPA 6020A	4/22/2021 4:13:30 PM
BERYLLIUM	EPA 6010C	4/18/2011 12:00:00 AM
BERYLLIUM	EPA 6020A	4/22/2021 4:13:30 PM
BORON	EPA 6010C	4/18/2011 12:00:00 AM
CADMIUM	EPA 6010C	4/18/2011 12:00:00 AM
CADMIUM	EPA 6020A	4/22/2021 4:13:30 PM
CHLORIDE	EPA 9056A	4/18/2011 12:00:00 AM
CHROMIUM, TOTAL	EPA 6020	4/18/2011 12:00:00 AM
CHROMIUM, TOTAL	EPA 6010C	4/18/2011 12:00:00 AM
CHROMIUM, TOTAL	EPA 6020A	4/22/2021 4:13:30 PM

SW

Parameter	EPA Method	Certified On
CLOSED SYSTEM PURGE AND TRAP EXTRACT. VOCS	EPA 5035A	4/18/2011 12:00:00 AM
COBALT	EPA 6010C	4/18/2011 12:00:00 AM
COBALT	EPA 6020A	4/22/2021 4:13:30 PM
CONTINUOUS LIQUID-LIQUID EXTRACTION	EPA 3520C	6/9/2008 12:00:00 AM
COPPER	EPA 6010C	4/18/2011 12:00:00 AM
COPPER	EPA 6020A	4/22/2021 4:13:30 PM
FLORISIL CLEANUP	EPA 3620C	6/9/2008 12:00:00 AM
FLUORIDE	EPA 9056A	4/18/2011 12:00:00 AM
GEL-PERMEATION CLEANUP	EPA 3640A	6/9/2008 12:00:00 AM
IRON	EPA 6010C	4/18/2011 12:00:00 AM
IRON	EPA 6020A	4/22/2021 4:13:30 PM
LEAD	EPA 6010C	4/18/2011 12:00:00 AM
LEAD	EPA 6020A	4/22/2021 4:13:30 PM
MAGNESIUM	EPA 6010C	4/18/2011 12:00:00 AM
MANGANESE	EPA 6010C	4/18/2011 12:00:00 AM
MANGANESE	EPA 6020A	4/22/2021 4:13:30 PM
MERCURY	EPA 7470A	4/18/2011 12:00:00 AM
MERCURY	EPA 7471B	4/18/2011 12:00:00 AM
MICROWAVE EXTRACTION	EPA 3546	3/24/2017 2:25:08 PM
MOLYBDENUM	EPA 6010C	4/18/2011 12:00:00 AM
NICKEL	EPA 6010C	4/18/2011 12:00:00 AM
NICKEL	EPA 6020A	4/22/2021 4:13:30 PM
NITRATE	EPA 9056A	4/18/2011 12:00:00 AM
OIL AND GREASE AND PETROLEUM HYDROCARBONS	EPA 1664B	10/12/2011 12:00:00 AM
ORGANIC COMPOUNDS IN WATER BY MICROEXTRACTION	EPA 3511	3/24/2017 2:25:08 PM
ORGANOCHLORINE PESTICIDES BY GC	EPA 8081B	6/9/2008 12:00:00 AM
PCBS BY GC	EPA 8082A	6/9/2008 12:00:00 AM
PHOSPHORUS	EPA 6010C	4/18/2011 12:00:00 AM
PURGE AND TRAP FOR AQUEOUS SAMPLES	EPA 5030C	4/18/2011 12:00:00 AM
SEDIMENTS, SLUDGES AND SOILS	EPA 3050B	4/18/2011 12:00:00 AM

SW

Parameter	EPA Method	Certified On
SELENIUM	EPA 6020A	3/25/2015 12:00:00 AM
SELENIUM	EPA 6010C	4/18/2011 12:00:00 AM
SEMIVOLATILE ORGANIC COMPOUNDS BY EPA SW-846	METHOD 8270D/8000D	4/22/2021 4:13:30 PM
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS	EPA 8270C	6/9/2008 12:00:00 AM
SILVER	EPA 6010C	4/18/2011 12:00:00 AM
SPE	EPA 3535A	4/2/2001 12:00:00 AM
STRONTIUM	EPA 6010C	4/18/2011 12:00:00 AM
SULFATE	EPA 9056A	4/18/2011 12:00:00 AM
SULFURIC ACID/PERMANGANATE CLEANUP	EPA 3665A	6/9/2008 12:00:00 AM
TCLP	EPA 1311	3/25/2015 12:00:00 AM
THALLIUM	EPA 6010C	4/18/2011 12:00:00 AM
TIN	EPA 6010C	4/18/2011 12:00:00 AM
TITANIUM	EPA 6010C	4/18/2011 12:00:00 AM
TOCS	EPA 9060A	4/18/2011 12:00:00 AM
TOTAL METALS	EPA 3010A	4/18/2011 12:00:00 AM
TOTAL METALS	EPA 3020A	4/18/2011 12:00:00 AM
TOX	EPA 9020B	6/9/2009 12:00:00 AM
ULTRASONIC EXTRACTION	EPA 3550C	4/2/2001 12:00:00 AM
VANADIUM	EPA 6010C	4/18/2011 12:00:00 AM
VOCs by GC/MS, INCLUDING N-HEXANE	EPA 8260B	4/18/2011 12:00:00 AM
VOCs by GC/MS, INCLUDING N-HEXANE	EPA 8260C/8000D	4/22/2021 4:13:30 PM
ZINC	EPA 6010C	4/18/2011 12:00:00 AM

Total Count: 70

Instrument

Instrument	Instrument Code	Quantity	Certified On
HIGH PERFORMANCE LIQUID CHROMATOGRAPH/MASS SPEC	HPLC/MS	1	3/23/2015 12:00:00 AM
GAS CHROMATOGRAPH/MASS SPECTROMETER	GC/MS	3	3/23/2015 12:00:00 AM
MERCURY ANALYZER	MA	1	4/4/2007 12:00:00 AM
TOTAL ORGANIC ANALYZER	TOX	1	3/24/2015 12:00:00 AM

Instrument

Instrument	Instrument Code	Quantity	Certified On
INDUCTIVELY COUPLED PLASMA SPECTROMETER	ICP	1	3/16/2011 12:00:00 AM
ATOMIC ABSORPTION SPECTROPHOTOMETER	AA	1	3/16/2011 12:00:00 AM
INDUCTIVELY COUPLED PLASMA/MASS SPECTROMETER	ICP/MS	1	3/16/2011 12:00:00 AM
ION CHROMATOGRAPH	IC	1	4/7/2009 12:00:00 AM
GAS CHROMATOGRAPH	GC	3	3/23/2015 12:00:00 AM
INDUCTIVELY COUPLED PLASMA/MASS SPECTROMETER	ICP/MS	1	3/9/2017 5:07:19 PM
INDUCTIVELY COUPLED PLASMA/MASS SPECTROMETER	ICP/MS	1	3/9/2017 5:07:19 PM

Total Count: 11

Software

Software Code	Certified On
ENVIROQUANT - GC	9/18/2001 12:00:00 AM
CETAC QUICK TRACE-MERCURY ANALYZER	3/29/2004 12:00:00 AM
THERMO FARRELL ASH (TJA) - ICP	3/29/2004 12:00:00 AM
CHEMSTATION - HPLC	3/16/2011 12:00:00 AM
TJA(THERMO JARREL ASH) - ICP/MS	3/16/2011 12:00:00 AM
ENVIROQUANT/CHEMSTATION - GC/MS	3/16/2011 12:00:00 AM
CHROMELEON (DIONEX) - IC	3/16/2011 12:00:00 AM
PERKIN ELMER - ICP/MS	3/24/2017 2:25:08 PM
AGILENT - ICP/MS	3/24/2017 2:25:08 PM

Total Count: 9