APPENDIX H

First Quarter 2017 Analytical Laboratory Methods, Method Detection Limits, Reporting Limits, QA/QC Procedures, and ELAP Certifications

TABLE H
LABORATORY MDLs, REPORTING LIMITS, STATE MINIMUM LEVELS AND PERMIT LIMITS COMPARISON

FIRST QUARTER 2017 REPORTING SUMMARY
NPDES PERMIT CA0001309
THE BOEING COMPANY
VENTURA COUNTY, CALIFORNIA

							Permit Limits (PL)					
Method	**Analyte**	**Units**	**TestAmerica Laboratory 2017 MDL**	**TestAmerica Laboratory 2017 RL**	**SWRCB ML**	**Laboratory vs ML[1]**	**Monthly Average Limits**	**Daily Maximum Limits**	**Daily Maximum Limits**	**Daily Maximum Limits**	**Receiving Water Limits**	**Receiving Water Sediment Limits**
							019, 020	**001, 002 011, 018**	**003-007, 009, 010**	**008**	**Arroyo Simi**	**Arroyo Simi**
EPA 624 - Low-level	1,1,1-Trichloroethane	µg/L	0.250	0.500	2	--[b]						
	1,1,2,2-Tetrachloroethane	µg/L	0.250	0.500	1	--[b]						
	1,1,2-Trichloroethane	µg/L	0.250	0.500	2	--[b]						
	1,1-Dichloroethane	µg/L	0.250	0.500	1	--[b]						
	1,1-Dichloroethene	µg/L	0.250	0.500	2	--[a]	3.2	6.0				
	1,2-Dichlorobenzene	µg/L	0.200	0.500	2	--[b]						
	1,2-Dichloroethane	µg/L	0.250	0.500	2	PL<ML		0.5				
	1,2-Dichloropropane	µg/L	0.250	0.500	1	--[b]						
	1,3-Dichlorobenzene	µg/L	0.250	0.500	2	--[b]						
	1,3-Dichloropropene (reported as cis & trans)	µg/L	0.250	0.500	2	--[b]						
	1,4-Dichlorobenzene	µg/L	0.250	0.500	2	--[b]						
	Benzene	µg/L	0.250	0.500	2	--[b]						
	Bromodichloromethane	µg/L	0.250	0.500	2	--[b]						
	Bromoform	µg/L	0.400	1.00	2	--[b]						
	Bromomethane	µg/L	0.250	0.500	2	--[b]						
	Carbon tetrachloride	µg/L	0.250	0.500	2	--[b]						
	Chlorobenzene	µg/L	0.250	0.500	2	--[b]						
	Chloroethane	µg/L	0.400	1.00	2	--[b]						
	Chloroform	µg/L	0.250	0.500	2	--[b]						
	Chloromethane	µg/L	0.250	0.500	2	--[b]						
	Dibromochloromethane	µg/L	0.250	0.500	2	--[b]						
	Ethylbenzene	µg/L	0.250	0.500	2	--[b]						
	Methylene chloride	µg/L	0.880	2.00	2	--[b]						
	Tetrachloroethene	µg/L	0.250	0.500	2	--[b]						
	Toluene	µg/L	0.250	0.500	2	--[b]						
	trans-1,2-Dichloroethene	µg/L	0.250	0.500	1	--[b]						
	Trichloroethene	µg/L	0.250	0.500	2	--[a]		5.0				
	Vinyl chloride	µg/L	0.250	0.500	2	--[b]						
	m,p-Xylenes	µg/L	0.500	1.00	n/a	--[d]						
	Naphthalene	µg/L	0.400	1.00	1	--[d]						
	o-Xylene	µg/L	0.250	0.500	n/a	--[d]						
	Trichlorofluoromethane	µg/L	0.250	0.500	n/a	--[d]						
VOC - Add-ons (EPA 624)	1,1,2-Trichloro-1,2,2-Trifluoromethane (Freon 113)	µg/L	0.500	2.00	n/a	--[d]						
	1,2-Dichloro-1,1,2-Trichloroethane (Freon 123a)	µg/L	1.00	2.00	n/a	--[d]						
	Cyclohexane (TIC)	µg/L	1.00	2.00	n/a	--[d]						

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VENTURA COUNTY, CALIFORNIA

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							019, 020	**001, 002 011, 018**	**003-007, 009, 010**	**008**	**Arroyo Simi**	**Arroyo Simi**
EPA 624/8260B A-A+2CVE LOW	Acrolein	µg/L	2.50	5.00	5	--[b]						
	Acrylonitrile	µg/L	1.00	2.00	2	--[b]						
	2-Chloroethylvinylether	µg/L	1.00	2.00	1	ML<RL						
EPA 625+NDMA+Hydrazine -Low-level	1,2,4-Trichlorobenzene	µg/L	0.500	1.00	5	--[b]						
	1,2-Dichlorobenzene	µg/L	0.200	0.500	2	--[b]						
	1,2-Diphenylhydrazine/Azobenzene	µg/L	0.500	1.00	1	--[b]						
	1,3-Dichlorobenzene	µg/L	0.200	0.500	1	--[b]						
	1,4-Dichlorobenzene	µg/L	0.200	0.500	1	--[b]						
	2,4,6-Trichlorophenol	µg/L	0.500	1.00	10	PL<ML	6.5	13				
	2,4-Dichlorophenol	µg/L	1.00	2.00	5	--[b]						
	2,4-Dimethylphenol	µg/L	1.00	2.00	2	--[b]						
	2,4-Dinitrophenol	µg/L	2.00	5.00	5	--[b]						
	2,4-Dinitrotoluene	µg/L	2.00	5.00	5	--[a]	9.1	18				
	2,6-Dinitrotoluene	µg/L	2.00	5.00	5	--[b]						
	2-Chloronaphthalene	µg/L	0.200	0.500	10	--[b]						
	2-Chlorophenol	µg/L	0.500	1.00	5	--[b]						
	2-Nitrophenol	µg/L	1.00	2.00	10	--[b]						
	3,3-Dichlorobenzidine	µg/L	2.00	5.00	5	--[b]						
	4,6-Dinitro-2-methylphenol	µg/L	2.00	5.00	5	--[b]						
	4-Bromophenyl phenyl ether	µg/L	0.500	1.00	5	--[b]						
	4-Chloro-3-methylphenol	µg/L	0.200	2.00	1	ML<RL						
	4-Chlorophenyl phenyl ether	µg/L	0.200	0.500	5	--[b]						
	4-Nitrophenol	µg/L	2.00	5.00	10	--[b]						
	Acenaphthene	µg/L	0.200	0.500	1	--[b]						
	Acenaphthylene	µg/L	0.200	0.500	10	--[b]						
	Anthracene	µg/L	0.200	0.500	10	--[b]						
	Benzidine	µg/L	5.00	10.0	5	ML<RL						
	Benzo(a)anthracene	µg/L	2.00	5.00	5	--[b]						
	Benzo(a)pyrene	µg/L	0.500	2.00	10	--[b]						
	Benzo(b)fluoranthene	µg/L	1.00	2.00	10	--[b]						
	Benzo(g,h,i)perylene	µg/L	2.00	5.00	5	--[b]						
	Benzo(k)fluoranthene	µg/L	0.250	0.500	10	--[b]						
	Bis(2-chloroethoxy)methane	µg/L	0.200	0.500	5	--[b]						
	Bis(2-chloroethyl)ether	µg/L	0.200	0.500	1	--[b]						
	Bis(2-chloroisopropyl)ether	µg/L	0.200	0.500	2	--[b]						
	Bis(2-ethylhexyl)phthalate	µg/L	2.00	5.00	5	PL<ML&RL		4.0				
	Butyl benzyl phthalate	µg/L	2.00	5.00	10	--[b]						
	Chrysene	µg/L	0.200	0.500	10	--[b]						

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							019, 020	**001, 002 011, 018**	**003-007, 009, 010**	**008**	**Arroyo Simi**	**Arroyo Simi**
EPA 625+NDMA+Hydrazine -Low-level	Dibenz(a,h)anthracene	µg/L	0.250	0.500	10	--[b]						
	Diethyl phthalate	µg/L	0.500	1.00	2	--[b]						
	Dimethyl phthalate	µg/L	0.250	0.500	2	--[b]						
	Di-n-butyl phthalate	µg/L	1.00	2.00	10	--[b]						
	Di-n-octyl phthalate	µg/L	2.00	5.00	10	--[b]						
	Fluoranthene	µg/L	0.200	0.500	1	--[b]						
	Fluorene	µg/L	0.200	0.500	10	--[b]						
	Hexachlorobenzene	µg/L	0.500	1.00	1	--[b]						
	Hexachlorobutadiene	µg/L	0.500	2.00	1	ML<RL						
	Hexachlorocyclopentadiene	µg/L	2.00	5.00	5	--[b]						
	Hexachloroethane	µg/L	0.500	3.00	1	ML<RL						
	Indeno(1,2,3-cd)pyrene	µg/L	1.00	2.00	10	--[b]						
	Isophorone	µg/L	0.500	1.00	1	--[b]						
	Naphthalene	µg/L	0.500	1.00	1	--[b]						
	Nitrobenzene	µg/L	0.500	1.00	1	--[b]						
	n-Nitrosodimethylamine	µg/L	1.00	2.00	5	--[a]	8.1	16				
	n-Nitroso-di-n-propylamine	µg/L	1.00	2.00	5	--[b]						
	n-Nitrosodiphenylamine	µg/L	0.500	2.00	1	ML<RL						
	Pentachlorophenol	µg/L	1.00	2.00	5	--[a]	8.2	16.5				
	Phenanthrene	µg/L	0.200	0.500	5	--[b]						
	Phenol	µg/L	0.500	1.00	1	--[b]						
	Pyrene	µg/L	0.200	0.500	10	--[b]						
PCB, Low Level (EPA 608)	Aroclor 1016	µg/L	0.250	0.500	0.5	PL<ML&MDL					0.0003	
	Aroclor 1221	µg/L	0.250	0.500	0.5	PL<ML&MDL					0.0003	
	Aroclor 1232	µg/L	0.250	0.500	0.5	PL<ML&MDL					0.0003	
	Aroclor 1242	µg/L	0.250	0.500	0.5	PL<ML&MDL					0.0003	
	Aroclor 1248	µg/L	0.250	0.500	0.5	PL<ML&MDL					0.0003	
	Aroclor 1254	µg/L	0.250	0.500	0.5	PL<ML&MDL					0.0003	
	Aroclor 1260	µg/L	0.250	0.500	0.5	PL<ML&MDL					0.0003	
	Aroclor 1016	µg/g	0.017	0.049	n/a	--[c]						0.12
	Aroclor 1221	µg/g	0.017	0.049	n/a	--[c]						0.12
	Aroclor 1232	µg/g	0.017	0.049	n/a	--[c]						0.12
	Aroclor 1242	µg/g	0.017	0.049	n/a	--[c]						0.12
	Aroclor 1248	µg/g	0.017	0.049	n/a	--[c]						0.12
	Aroclor 1254	µg/g	0.017	0.049	n/a	--[c]						0.12
	Aroclor 1260	µg/g	0.017	0.049	n/a	--[c]						0.12

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							019, 020	**001, 002 011, 018**	**003-007, 009, 010**	**008**	**Arroyo Simi**	**Arroyo Simi**
Pesticides, Low Level (EPA 608)	Aldrin	µg/L	0.0015	0.0050	0.005	--[b]						
	alpha-BHC	µg/L	0.0025	0.0050	0.01	--[a]	0.01	0.03				
	beta-BHC	µg/L	0.0040	0.0100	0.005	MDL<ML<RL						
	delta-BHC	µg/L	0.0035	0.0050	0.005	--[b]						
	gamma-BHC (Lindane)	µg/L	0.0030	0.0100	0.02	--[b]						
	Chlordane	µg/L	0.0800	0.100	0.1	PL<ML&MDL					0.001	
	4,4'-DDD	µg/L	0.00400	0.00500	0.05	PL<ML&MDL					0.0014	
	4,4'-DDE	µg/L	0.00300	0.00500	0.05	PL<ML&MDL					0.001	
	4,4'-DDT	µg/L	0.00400	0.0100	0.01	PL<ML&MDL					0.001	
	Dieldrin	µg/L	0.00200	0.00500	0.01	PL<ML&MDL					0.0002	
	Endosulfan I	µg/L	0.00300	0.00500	0.02	--[b]						
	Endosulfan II	µg/L	0.00200	0.00500	0.01	--[b]						
	Endosulfan sulfate	µg/L	0.00300	0.0100	0.05	--[b]						
	Endrin	µg/L	0.00200	0.00500	0.01	--[b]						
	Endrin aldehyde	µg/L	0.00200	0.0100	0.01	--[b]						
	Heptachlor	µg/L	0.00300	0.0100	0.01	--[b]						
	Heptachlor epoxide	µg/L	0.00250	0.00500	0.01	--[b]						
	Toxaphene	µg/L	0.250	0.500	0.5	PL<ML&MDL					0.0003	
	Chlordane	µg/g	0.0100	0.0500	n/a	PL<MDL						0.0033
	4,4'-DDD	µg/g	0.00150	0.00500	n/a	PL<RL						0.002
	4,4'-DDE	µg/g	0.00150	0.00500	n/a	PL<MDL						0.0014
	4,4'-DDT	µg/g	0.00150	0.00500	n/a	PL<MDL						0.0003
	Dieldrin	µg/g	0.00150	0.00500	n/a	PL<MDL						0.0002
	Toxaphene	µg/g	0.0500	0.200	n/a	PL<MDL						0.0006
(EPA 525.2)	Chlorpyrifos	µg/L	0.500	1.00	n/a	PL<MDL					0.02	
	Diazinon	µg/L	0.120	0.250	n/a	PL<RL					0.16	
SW8141	Chlorpyrifos	µg/L	0.500	1.00	n/a	PL<MDL					0.02	
	Diazinon	µg/L	0.120	0.250	n/a	PL<RL					0.16	
ICP/MS 200.8	Antimony	µg/L	0.500	2.00	0.5	ML<RL		6.0	6.0	6.0		
	Cadmium	µg/L	0.250	1.00	0.25	ML<RL	2.0	4.0/3.1	4.0	4.0/3.1		
	Copper	µg/L	0.500	2.00	0.5	ML<RL	5.8	14	13	14		
	Iron	µg/L	8.00	20.0	n/a	--[c]		300				
	Lead	µg/L	0.500	1.00	0.5	ML<RL	2.6	5.2	5.2	5.2		
	Selenium	µg/L	0.500	2.00	2	--[a]	4.1	8.2/5		5		
	Silver	µg/L	0.500	1.00	0.25	ML<RL	2.0	4.1				
	Thallium	µg/L	0.500	1.00	1	--[a]		2.0	2.0	2.0		
	Zinc	µg/L	2.5	20	1	--[a]	43	119	120	120		

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							019, 020	**001, 002 011, 018**	**003-007, 009, 010**	**008**	**Arroyo Simi**	**Arroyo Simi**
ICP 200.7	Aluminum	µg/L	50.0	100	n/a	--[d]						
	Arsenic	µg/L	8.90	10.0	10	--[a]		10.0				
	Barium	µg/L	5.00	10.0	n/a	--[c]		1000				
	Beryllium	µg/L	1.00	2.00	2	--[a]		4.0				
	Boron	mg/L	0.0250	0.0500	n/a	--[c]			1.0	1.0		
	Chromium	µg/L	2.50	5.00	10	--[a]	see Cr VI	see Cr VI				
	Cobalt	µg/L	5.00	10.0	n/a	--[d]						
	Hardness as CaCO3	mg/L	0.2	0.3	n/a	--[d]						
	Iron	mg/L	0.0500	0.100	n/a	--[c]		0.3				
	Manganese	µg/L	10.0	20.0	n/a	--[c]		50				
	Nickel	µg/L	5.00	10.0	20	--[a]	35	94	86	86		
	Silver	µg/L	5.00	10.0	10	PL<ML&MDL	2.0	4.1				
	Vanadium	µg/L	5.00	10.0	n/a	--[d]						
	Zinc	µg/L	12.0	20.0	20	--[a]	43	119	120	120		
Mercury (EPA 245.1)	Mercury	µg/L	0.100	0.200	0.5	PL<MDL	0.05	0.10	0.13	0.13		
Chromium VI (EPA 218.6)	Chromium VI	µg/L	0.250	1.00	10	PL<ML	8.0	16				
Cyanide by EPA (SM4500)	Cyanide	µg/L	2.50	5.00	5	PL<ML&RL	4.3	8.5	9.5	9.5		
Asbestos by EPA 600	Asbestos	MFL	n/a [2]	n/a [2]	n/a	--[d]						
EPA 8260B-Mod	1,4-Dioxane	µg/L	0.500	2.00	n/a	--[d]						
EPA 8015-Mod	Diesel Range Organics (DRO)	mg/L	0.100	0.500	n/a	--[d]						
	Gasoline Range Organics (GRO)	mg/L	0.0250	0.0500	n/a	--[d]						
EPA 314.0	Perchlorate	µg/L	0.950	4.00	n/a	--[c]		6.0	6.0	6.0		
EPA 1613	TCDD TEQ	µg/L	n/a	n/a	n/a	--[e]	1.4E-08	2.8E-08	2.8E-08	2.8E-08		
General Chemistry, (Field Test)	Dissolved Oxygen [3]	mg/L	n/a	1	n/a	--[d]						
	Total Residual Chlorine [3]	mg/L	n/a	0.1	n/a	--[c]		0.1				
General Chemistry, EPA 120.1	Conductivity (µmhos/cm)	µmhos/cm	n/a	1.00	n/a	--[d]						
General Chemistry, EPA 1664	Oil & Grease (1664-HEM)	mg/L	1.40	5.00	n/a	--[c]	10	15	15	15		
General Chemistry, EPA 180.1	Turbidity (NTU)	NTU	0.0400	0.100	n/a	--[d]						

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General Chemistry, EPA 300	Chloride	mg/L	0.250	0.500	n/a	--[c]		150	150	150		
	Nitrate + Nitrite-N	mg/L	0.07	0.26	n/a	--[c]		8	10	8		
	Nitrate-N	mg/L	0.0550	0.110	n/a	--[c]		8		8		
	Nitrite-N	mg/L	0.0700	0.150	n/a	--[c]		1		1		
	Sulfate	mg/L	0.250	0.500	n/a	--[c]		300	250	300		
General Chemistry, SM2540C	Total Dissolved Solids	mg/L	5.00	10.0	n/a	--[c]		950	850	950		
General Chemistry, SM2540D	Total Suspended Solids (TSS)	mg/L	0.500	1.00	n/a	--[c]	15	45				
General Chemistry, SM2540F	Settleable Solids (ml/L/Hr)	ml/L	n/a	0.100	n/a	--[c]	0.1	0.3				
General Chemistry, SM4500F-C	Fluoride	mg/L	0.250	0.500	n/a	--[c]		1.6	1.6	1.6		
General Chemistry, SM4500-NH3	Ammonia-N	mg/L	0.100	0.200	n/a	--[c]	1.96	10.1		10.1		
General Chemistry, SM5210B	BOD	mg/L	0.500	2.00	n/a	--[c]	20	30				
General Chemistry, SM5310B	Total Organic Carbon	mg/L	0.650	1.00	n/a	--[d]						
General Chemistry, SM5540	Detergents (MBAS)	mg/L	0.0500	0.100	n/a	--[c]		0.5				
Radiochemistry	Uranium	pCi/L	n/a	1.00 [4]	n/a	--[c]		20	20	20		
Radiochemistry, EPA 900	Gross Alpha	pCi/L	n/a	3.00 [4]	n/a	--[c]		15	15	15		
	Gross Beta	pCi/L	n/a	4.00 [4]	n/a	--[c]		50	50	50		
Radiochemistry, EPA 901.1	Cesium-137	pCi/L	n/a	20.0 [4]	n/a	--[c]		200	200	200		
	Potassium-40	pCi/L	n/a	200 [4]	n/a	--[d]						
Radiochemistry, EPA 903/904	Radium 226 + 228	pCi/L	n/a	n/a	n/a	--[e]		5.0	5.0	5.0		
Radiochemistry, EPA 905.0	Strontium 90	pCi/L	n/a	3.00 [4]	n/a	--[c]		8.0	8.0	8.0		
Radiochemistry, EPA 906.0	Tritium	pCi/L	n/a	500 [4]	n/a	--[c]		20000	20000	20000		
8315M (Truesdail Lab)	Monomethyl hydrazine	µg/L	0.245	10.0	n/a	--[d]						

TABLE H
LABORATORY MDLs, REPORTING LIMITS, STATE MINIMUM LEVELS AND PERMIT LIMITS COMPARISON

FIRST QUARTER 2017 REPORTING SUMMARY
NPDES PERMIT CA0001309
THE BOEING COMPANY
VENTURA COUNTY, CALIFORNIA

							Permit Limits (PL)					
Method	**Analyte**	**Units**	**TestAmerica Laboratory 2017 MDL**	**TestAmerica Laboratory 2017 RL**	**SWRCB ML**	**Laboratory vs ML[1]**	**Monthly Average Limits**	**Daily Maximum Limits**	**Daily Maximum Limits**	**Daily Maximum Limits**	**Receiving Water Limits**	**Receiving Water Sediment Limits**
							019, 020	**001, 002 011, 018**	**003-007, 009, 010**	**008**	**Arroyo Simi**	**Arroyo Simi**
Toxicity (Aquatic Lab), EPA 1002	Chronic Toxicity	Pass or Fail, % Effect	n/a	n/a	n/a	n/a	Pass or Fail	Pass or % Effect <50	Pass or % Effect <50	Pass or % Effect <50		
Biological, SM9221F	E. Coli	MPN/100ml	n/a	1.80	n/a	--[c]					235	

TABLE H
LABORATORY MDLs, REPORTING LIMITS, STATE MINIMUM LEVELS AND PERMIT LIMITS COMPARISON

FIRST QUARTER 2017 REPORTING SUMMARY
NPDES PERMIT CA0001309
THE BOEING COMPANY
VENTURA COUNTY, CALIFORNIA

Notes:
Benchmark limitations: Outfalls 001, 002
Compliance limitations: Outfalls 003-011, 018-020

Columns are used to compare laboratory's reporting limits (RLs) and method detection limits (MDLs) to the SWRCB Minimum Levels (MLs) and the permit limits (PLs).
(1) This column indicates the status of analytical capabilities if the ML is less than the laboratory RL and/or MDL. See explanation for "--" below.
The following designations summarize the comparison of RLs, MDLs, MLs, and permit limits:
-- = Laboratory reporting limit meets ML if applicable and permit limit requirements
- --[a] Laboratory reporting limit meets ML and permit limit requirements
- --[b] Laboratory reporting limit meets ML. This analyte has no permit limit requirements.
- --[c] Laboratory reporting limit meets permit limit. This analyte has no ML.
- --[d] This analyte has no ML or permit limit.
- --[e] This analyte is a calculation and does not have a reporting limit. This calculation has no ML.

(2) The RL and MDL for asbestos varies based upon the sample.
(3) Total residual chlorine (TRC) and dissolved oxygen (DO) are measured in the field. The RL is the lowest limit of the instrument. The MDL is not relevant for field parameters.
(4) This value is the minimum detectable activity (MDA) which applies only to radiological constituents.

ML<RL = The laboratory RL does not meet the ML
MDL<ML<RL = The ML is less than RL, but greater than the MDL
PL<ML = The established permit limit is less than the ML
PL<ML&RL = The permit limit is less than the ML and the RL
PL<ML&MDL = The permit limit is less than the ML and the MDL
PL<RL = The permit limit is less than the RL
PL< MDL = The permit limit is less than the MDL
The receiving water sediment limits do not have a ML and are included for reference only.

Acronyms:
MFL = million fibers per liter
mg/L = milligrams per liter
MPN = most probable number per 100 milliliters
pCi/L = picoCuries per liter
SWRCB = State Water Resources Control Board
TIC = tentatively identified compound
µg/L = micrograms per liter
µg/g = micrograms per gram
n/a = not applicable

FACILITY SOP ATTACHMENT

SOP NUMBER: IR-QAM, Rev. 4 (09/18/2015)	**CHANGE FORM ID:** **CF1**
SOP TITLE: Quality Assurance Manual	
REASON FOR ADDITION OR CHANGE (Use additional sheets if necessary): Change in approval signatories.	
CHANGE OR ADDITION (Use additional sheets if necessary): The current Title Page (page 2 of 187) has been updated to reflect recent management changes at the Irvine facility. See attached.	
Prepared By: **D. Dawes**	
APPROVED BY:	
Laboratory Director — Date: 10-26-15	
Quality Assurance Manager — Date: 10-26-2015	
Technical Manager — Date: 10-26-15	

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Title Page Attachment

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Quality Assurance Manual
Approval Signatories

Laboratory Director – Linda Scharpenberg — Date: 10-26-15

Quality Assurance Manager – Maria Friedman — Date: 10-26-2015

Technical Manager – Debby Wilson — Date: 10-26-15

Quality Assurance Manual

TestAmerica Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614
Tel 949-261-1022
Fax 949-260-3299

www.testamericainc.com

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Quality Assurance Manual
Approval Signatories

M Haley

Laboratory Director and Technical Manager – Fred Haley

9/15/2015

Date

Quality Assurance Manager – Maria Friedman

9-15-2015

Date

SECTION 2

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REFERENCED CORPORATE DOCUMENTS

Document Reference	Title
CA-Q-M-002	Corporate Quality Management Plan
CW-L-P-004	Ethics Policy
CW-L-S-002	Internal Investigation of Potential Data Discrepancies and Determination for Data Recall
CW-Q-S-001	Corporate Document Control & Archiving
CA-L-P-002	Contract Compliance Policy
CA-L-S-002	Subcontracting Procedures
CW-F-S-007	Capital Expenditure, Controlled Purchase Requests & Fixed Asset Capitalization
CW-F-P-002	Company Wide Authorization Matrix
CW-F-P-004	Procurement and Contracts Policy
CA-Q-S-001	Acid & Solvent Lot Testing and Approval
CW-E-M-001	Environmental Health and Safety Manual
CA-T-P-001	Qualified Products List
CW-Q-S-003	Internal Auditing
CW-Q-S-004	Management Systems Review
CW-Q-WI-003	Management Systems Review Checklist
CW-Q-S-002	Writing a Standard Operating Procedure (SOP)
CA-Q-S-006	Detection Limits
CA-Q-S-002	Acceptable Manual Integration Practices
CA-I-P-002	Electronic Reporting and Signature Policy

REFERENCED LABORATORY DOCUMENTS

Document Reference	Title
IR-QA-DOC	Document Control & Review
IR-QA-CNTRLLIM	Control Charts and Statistical Process Control
IR-QA-TRAIN	Training and Documentation
IR-QA-MDL	Determination of Method Detection Limits
IR-IT-COMPSEC	Computer Security
IR-QA-STDCNTRL	Reagent and Standard Preparation, Control and Documentation
IR-SC-FIELD	Field Sampling
IR-QA SUBSAMP	Subsampling
IR-SC-LOGIN	Sample Login
IR-EHS-WASTE	Hazardous Waste Disposal

SECTION 3

INTRODUCTION, SCOPE, AND APPLICABILITY

3.1 INTRODUCTION AND COMPLIANCE REFERENCES

TestAmerica Irvine's QAM is a document prepared to define the overall policies, organization objectives, and functional responsibilities for achieving TestAmerica's data quality goals. The laboratory maintains a local perspective in its scope of services and client relations and maintains a national perspective in terms of quality.

The QAM has been prepared to assure compliance with TNI Standard, dated 2009, Volume 1 Modules 2 and 4. In addition, the policies and procedures outlined in this manual are compliant with TestAmerica's CQMP (Corporate Quality Document No. CA-Q-M-002) and the various accreditation and certification programs listed in Appendix 3. The CQMP provides a summary of TestAmerica's quality and data integrity system. It contains requirements and general guidelines under which all TestAmerica facilities shall conduct their operations.

The QAM has been prepared to be consistent with the requirements of the following documents:

- EPA 600/4-88/039, *Methods for the Determination of Organic Compounds in Drinking Water,* EPA, Revised July 1991.
- EPA 600/R-95/131, *Methods for the Determination of Organic Compounds in Drinking Water,* Supplement III, EPA, August 1995.
- EPA 600/4-79-019, *Handbook for Analytical Quality Control in Water and Wastewater Laboratories,* EPA, March 1979.
- *Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, September 1986, Final Update I, July 1992, Final Update IIA, August 1993, Final Update II, September 1994; Final Update IIB, January 1995; Final Update III, December 1996; Final Update IV, January 2008.*
- Federal Register, 40 CFR Parts 136, 141, 172, 173, 178, 179 and 261.
- *Manual for the Certification of Laboratories Analyzing Drinking Water (EPA 815-R-05-004, January 2005)*
- *Statement of Work for Inorganics & Organics Analysis, SOM and ISM, current versions, USEPA Contract Laboratory Program Multi-media, Multi-concentration.*
- APHA, *Standard Methods for the Examination of Water and Wastewater,* 18th, 19th, 20th, 21st, 22nd, and on-line Editions.
- Toxic Substances Control Act (TSCA)

3.2 TERMS AND DEFINITIONS

A QA Program is a company-wide system designed to ensure that data produced by the laboratory conforms to the standards set by state and/or federal regulations. The program functions at the management level through company goals and management policies, and at the analytical level through SOPs and QC. The TestAmerica program is

designed to minimize systematic error, encourage constructive documented problem solving, and provide a framework for continuous improvement within the organization.

Refer to Appendix 2 for the Glossary/Acronyms.

3.3 SCOPE / FIELDS OF TESTING

The laboratory analyzes a broad range of environmental and industrial samples every month. Sample matrices vary among air, drinking water, effluent water, groundwater, hazardous waste, sludge, and soils. The QA Program contains specific procedures and methods to test samples for chemical, physical, and biological parameters. The Program also contains guidelines on maintaining documentation of analytical processes, reviewing results, servicing clients, and tracking samples through the laboratory. The technical and service requirements of all analytical requests are thoroughly evaluated before commitments are made to accept the work. Measurements are made using published reference methods or methods developed and validated by the laboratory.

The methods covered by this manual include the most frequently requested methodologies needed to provide analytical services in the United States and its territories. The specific list of test methods used by the laboratory can be found in the laboratory's QA server. The approach of this manual is to define the minimum level of QA and QC necessary to meet these requirements. All methods performed by the laboratory shall meet these criteria as appropriate. In some instances, QAPPs, project-specific DQOs, or local regulations may require criteria other than those contained in this manual. In these cases, the laboratory will abide by the requested criteria following review and acceptance of the requirements by the Laboratory Director and the QA Manager. In some cases, QAPPs and DQOs may specify less stringent requirements. The Laboratory Director and the QA Manager must determine if it is in the laboratory's best interest to follow the less stringent requirements.

3.4 MANAGEMENT OF THE MANUAL

3.4.1 Review Process

The template on which this manual is based is reviewed annually by Corporate Quality Management personnel to assure it remains in compliance with Section 3.1. This manual itself is reviewed annually by senior laboratory management to assure that it reflects current practices and meets the requirements of the laboratory's clients and regulators as well as the CQMP. Occasionally, the manual may need changes in order to meet new or changing regulations and operations. The QA Manager will review the changes in the normal course of business and incorporate changes into revisions of the document. All updates will be reviewed by the senior laboratory management staff. The laboratory updates and approves such changes according to the procedures in laboratory SOP No. IR-QA-DOC.

SECTION 4

MANAGEMENT REQUIREMENTS

4.1 OVERVIEW

TestAmerica Irvine is a local operating unit of TestAmerica Laboratories, Inc. The organizational structure, responsibilities, and authorities of the corporate staff of TestAmerica Laboratories, Inc. are presented in the CQMP. The laboratory has day-to-day independent operational authority overseen by corporate officers (e.g., CEO, Executive VP of Operations, Corporate Quality, etc.). The laboratory's operational and support staff work under the direction of the Laboratory Director. The organizational structure for both Corporate and TestAmerica Irvine is presented in Figure 4-1.

4.2 ROLES AND RESPONSIBILITIES

In order for the QA Program to function properly, all members of the staff must clearly understand and meet their individual responsibilities as they relate to the QA Program. The following descriptions briefly define key roles and their relationship to the QA Program.

4.2.1 Additional Requirements for Laboratories

The responsibility for quality resides with every employee of the laboratory. All employees have access to the QAM, are trained to this manual, and are responsible for upholding the standards therein. Each employee carries out his/her daily tasks in a manner consistent with the goals and in accordance with the procedures in this manual and the laboratory's SOPs. Role descriptions for Corporate personnel are defined in the CQMP. This manual is specific to the operations of TestAmerica's Irvine laboratory.

4.2.2 Chief Executive Officer

The CEO is a member of the Board of Directors and is ultimately responsible for the quality and performance of all TestAmerica facilities. The CEO establishes the overall quality standard and data integrity program for the Analytical Business, providing the necessary leadership and resources to assure that the standard and integrity program are met.

4.2.3 Executive Vice President of Operations

The Executive VPO reports directly to the CEO of TestAmerica. The VPO oversees the operations of all TestAmerica laboratories and the EMLab P&K business unit. The VP's of Operations report directly to Exec. VP of Operations.

4.2.4 Vice President of Operations

Each VP of Operations reports directly to the Executive VP of Operations and is a part of the Executive Committee. Each VP of Operations is responsible for the overall administrative and operational management of their respective laboratories. The VP's responsibilities include allocation of personnel and resources, long-term planning, goal setting, and achieving the financial, business, and quality objectives of TestAmerica. The VP's ensure timely compliance with Corporate Management directives, policies, and management systems reviews. The VP's are also responsible for restricting any laboratory from performing analyses that cannot be consistently and successfully performed to meet the standards set forth in this manual.

4.2.5 Vice President of Quality, Technical & Operations Support

The Vice President reports directly to the CEO. With the assistance of all laboratory and senior management team members as well as the Executive Committee, the VP has the responsibility for the establishment, general overview and Corporate maintenance of the Quality Assurance and Environmental, Health and Safety Program within TestAmerica. The VP supports the CEO in decisions regarding long-term planning, resource allocation and capital expenditures. Additional responsibilities include:

- Review of QA/QC aspects of Corporate SOPs, national projects and expansions or changes in services.
- Maintenance of Corporate Policies, Quality Memorandums and SOPs. Maintenance of data investigation records that are reported to Corporate Management.
- Work with various organizations outside of TestAmerica to further the development of quality standards and represent TestAmerica at various trade meetings.
- With the assistance of the Corporate Senior Management Teams and the EHS Directors, development and implementation of the TestAmerica Environmental, Health and Safety Program.

4.2.6 Vice President of Client Service

The VP of Client Services leads the CSO and is responsible for client satisfaction, driving operational excellence and improving client responsiveness. The VP provides direction to the Client Service Directors, Programs Managers and Project Managers.

4.2.7 Executive Director of Quality and EHS

The Executive Director of Quality and EHS reports directly to the VP of Quality, Technical & Operations Support. With the aid of the Executive Committee, Laboratory Directors, Quality Directors and QA Managers, the Exec. Director of Quality & EHS has the responsibility for the establishment, general overview and Corporate maintenance of the Quality Assurance Program within TestAmerica. Additional responsibilities include:

- Review of QA/QC aspects of Corporate SOPs & Policies, national projects and expansions or changes in services.
- Work with various organizations outside of TestAmerica to further the development of quality standards and represent TestAmerica at various trade meetings.
- Preparation of a monthly report that includes quality metrics across the analytical laboratories and a summary of any quality related initiatives and issues.

4.2.8 Quality Assessment Director

The Quality Assessment Director reports to the Exec. Director of Quality & EHS. The Quality Assessment Director has QA oversight of laboratories; responsible for the internal audit system, schedule and procedure; monitors laboratory internal audit findings; identifies common laboratory weaknesses; and monitors corrective action closures. Together with the Quality Compliance Director, the Quality Systems Director, and the Exec. Director of Quality & EHS, the Quality Assessment Director has the responsibility for the establishment, general overview and maintenance of the Analytical Quality Assurance Program within TestAmerica.

4.2.9 Quality Compliance Director

The Quality Compliance Director reports to the Exec. Director of Quality & EHS. The Quality Compliance Director has QA oversight of laboratories; monitors and communicates DoD / DoE requirements; develops corporate tools for ensuring and improving compliance; develops corporate assessment tools; identifies common laboratory weaknesses; and monitors corrective action closures. Together with the Quality Assessment Director, Quality Systems Director and the Exec. Director of Quality & EHS, the Quality Compliance Director has the responsibility for the establishment, general overview and maintenance of the Analytical Quality Assurance Program within TestAmerica.

4.2.10 Quality Systems Director

The Quality Systems Director reports to the Exec. Director of Quality & EHS. The Quality Systems Director has QA oversight of laboratories; develops quality policies, procedures and management tools; monitors and communicates regulatory and certification requirements; identifies common laboratory weaknesses; and monitors corrective action closures. Together with the Quality Assessment Director, Quality Compliance Director and the Exec. Director of Quality & EHS, the Quality Systems Director has the responsibility for the establishment, general overview and maintenance of the Analytical Quality Assurance Program within TestAmerica.

4.2.11 Quality Information Manager

The Quality Information Manager is responsible for managing all company official documents (e.g., Policies, Procedures, Work Instructions), the company's accreditation database, intranet websites, external laboratory subcontracting, regulatory limits for clients on the company's TotalAccess website; internal and external client support for various company groups (e.g., Client Services, EHS, Legal, IT, Sales) for both quality and operational functions. The Quality Information Manager reports to the Exec. Director of Quality & EHS; and works alongside the Quality Assessment, Quality Compliance and Quality System Directors and EHS Managers to support both the Analytical Quality Assurance and EHS Programs within TestAmerica.

4.2.12 Technical Services Director

The Technical Services Director is responsible for establishing, implementing and communicating TestAmerica's Analytical Business's Technical Policies, SOPs, and Manuals. Other responsibilities include conducting technical assessments as required, acting as a technical resource in national contracts review, coordinating new technologies, establishing best practices, advising staff on technology advances, innovations, and applications.

4.2.13 Ethics and Compliance Officers

TestAmerica has designated two senior members of the Corporate staff to fulfill the role of ECO – Exec. Director of Quality and EHS and the Corporate Counsel. Each ECO acts as a back-up to the other ECO and both are involved when data investigations occur. Each ECO has a direct line of communication to the entire senior Corporate and lab management staff.

The ECOs ensure that the organization distributes the data integrity and ethical practices policies to all employees and ensures annual trainings and orientation of new hires to the ethics program and its policies. The ECO is responsible for establishing a mechanism to foster employee reporting of incidents of illegal, unethical, or improper practices in a safe and confidential environment.

The ECOs monitor and audit procedures to determine compliance with policies and to make recommendations for policy enhancements to the CEO, VPOs, Laboratory Director or other appropriate individuals within the laboratory. The ECO will assist the laboratory QA Manager in the coordination of internal auditing of ethical policy related activities and processes within the laboratory, in conjunction with the laboratories regular internal auditing function.

The ECOs will also participate in investigations of alleged violations of policies and work with the appropriate internal departments to investigate misconduct, remedy the situation, and prevent recurrence of any such activity.

4.2.14 Chief Information Officer

The CIO is responsible for establishing, implementing and communicating TestAmerica's IT Policies, SOPs and Manuals. Other responsibilities include coordinating new technologies, development of electronic communication tools such as TestAmerica's intranet and internet sites, ensuring data security and documentation of software, ensuring compliance with the NELAC standard, and assistance in establishing, updating, and maintaining LIMS at the various TestAmerica facilities.

4.2.15 Environmental Health and Safety Managers (Corporate)

The EHS Managers report directly to the Exec. Director of Quality and EHS. The EHS Managers are responsible for the development and implementation of the TestAmerica Environmental, Health and Safety program. Responsibilities include:

- Consolidation and tracking all safety and health-related information and reports for the company, and managing compliance activities for TestAmerica locations.
- Coordination/preparation of the corporate Environmental, Health and Safety Manual Template that is used by each laboratory to prepare its own laboratory-specific Safety Manual/ CHP.
- Preparation of information and training materials for laboratory EHS Coordinators.
- Assistance in the internal and external coordination of employee exposure and medical monitoring programs to insure compliance with applicable safety and health regulations.
- Serving as DOT focal point and providing technical assistance to location management.
- Serving as Hazardous Waste Management main contact and providing technical assistance to location management.

4.2.16 Laboratory Director

The Laboratory Director is responsible for the overall quality, safety, financial, technical, human resource, and service performance of the whole laboratory. The Laboratory Director provides the resources necessary to implement and maintain an effective and comprehensive QA and Data Integrity Program.

The Laboratory Director shall:

- Ensure that all tasks performed at the laboratory are conducted according to the requirements of this QAM and appropriate QAPPs (if applicable).
- Ensure that all analysts and supervisors have the appropriate education and training to properly carry out the duties assigned to them and ensures that this training has been documented.

- Ensure that employees are free from any commercial, financial, and other undue pressures which might adversely affect the quality of their work.
- Ensure TestAmerica's human resource policies are adhered to and maintained.
- Ensure that sufficient numbers of qualified individuals are employed to supervise and perform the work of the laboratory.
- Communicate resource needs to Corporate Management.
- Supervise staff, set goals and objectives for both the business and the employees, and achieve the financial, business, and quality objectives of the laboratory.
- Establish the priority of sample analysis in order to meet QA and client deadlines.
- Maintain well-versed technical understanding of analytical methodology for the evaluation of laboratory operations, development of procedural improvements, investigation of nonconforming results, and implementation of corrective actions.
- Ensure that appropriate corrective actions are taken to address analyses identified as requiring such actions by internal and external performance or procedural audits. The Laboratory Director may temporarily suspend procedures that do not meet the standards set forth in the QAM or laboratory SOPs.
- Review and approve all SOPs prior to their implementation and ensure all approved SOPs are implemented and adhered to.
- Pursue and maintain appropriate laboratory certification and contract approvals.
- Ensure that client-specific reporting and QC requirements are met.

4.2.17 QA Manager

The QA Manager has responsibility and authority to ensure the continuous implementation of the Quality System.

The QA Manager reports directly to the Laboratory Director and their Corporate Quality Director. Corporate Quality may be used as a resource in dealing with regulatory requirements, certifications, and other QA-related concerns.

The QA Manager shall:

- Serve as the focal point for QA/QC in the laboratory.
- Have functions independent from laboratory operations for which he/she has QA oversight.

- Have the final authority to accept or reject data and to stop work in progress in the event that procedures or practices compromise the validity or integrity of analytical data.
- Communicate and monitor standards of performance to ensure that systems are in place to produce the level of quality defined in this document.
- Identify areas where corrective action is required and ensure implementation and completion of the resulting action.
- Notify laboratory management of deficiencies in the quality system and ensure corrective action is taken. Procedures that do not meet the standards set forth in the QAM or laboratory SOPs shall be investigated following the procedures outlined in Section 12 and, if deemed necessary, may be temporarily suspended during the investigation.
- Objectively monitor standards of performance in QA/QC without outside (e.g., managerial) influence.
- Maintain, improve, and evaluate the corrective action database and the corrective and preventive action systems.
- Prepare monthly reports to management.
- Maintain, approve, and implement the QAM.
- Conduct internal system and data audits to monitor laboratory conformance to the QAM, SOPs, and policies.
- Provide and document employee training regarding quality system, ethics, and client confidentiality.
- Evaluate the thoroughness and effectiveness of training.
- Review and approve documentation of analyst training records (e.g., demonstration of capability).
- Review and approve MDL studies and MDL verification, method validation studies, and statistical control limits.
- Have documented training and/or experience in QA/QC procedures and the laboratory's Quality System.
- Have a general knowledge of the analytical test methods for which data audit/review is performed (and/or have the means of getting this information when needed).
- Provide assistance in the development and approval of laboratory management documents including SOPs as well as the control, revision, and distribution thereof.
- Direct the controlled distribution of laboratory quality documents.
- Oversee laboratory participation in performance evaluation programs and regulatory certification and accreditation programs.
- Monitor and communicate to management regulatory changes that may affect the laboratory.

- Act as point of contact regarding QA matters for the laboratory, including external audits.
- Develop suggestions and recommendations to improve quality systems.
- Comply with the 2009 TNI Standard.

4.2.18 Technical Manager

The Technical Manager's scope of responsibility ranges from the new-hire process and existing technology through the ongoing training and development programs for existing analysts and second- and third-generation instrumentation. At TestAmerica Irvine, the Laboratory Director is also the Technical Manager.

The Technical Manager shall:

- Exercise day-to-day supervision of laboratory operations for the appropriate field of accreditation and reporting of results.
- Monitor the validity of the analyses performed and data generated in the laboratory to assure reliable data. This activity begins with the review and support of all new business contracts, ensuring data quality, analyzing internal and external nonconformances to identify root cause issues, implementing the resulting corrective and preventive actions, and facilitating the data review process (training, development, and accountability at the bench).
- Review and approve, with input from the QA Manager, proposals from marketing, in accordance with an established procedure for the review of requests and contracts.
- Manage laboratory operations: work scheduling, sample tracking, and prompt reporting of results.
- Supervise and train employees, set goals and objectives for the employees, and achieve the quality objectives of the laboratory.
- Determine qualifications required for technical positions and evaluate job candidates against those requirements.
- Certify technical laboratory employees based on education and background to ensure that employees have demonstrated capability in the activities for which they are responsible.
- Enhance efficiency and improve quality through technical advances and improved LIMS utilization.
- Forecast capital needs based on instrument life cycle and manage asset inventory.
- Coordinate audit responses with the Operations Group.
- Comply with the 2009 TNI Standard.

4.2.19 Operations Manager

The Operations Manager manages and directs the analytical production sections of the laboratory and assists the Technical Manager in determining efficient means to maximize instrument utilization. The Operations Manager reports directly to the Laboratory Director. In the absence of the Operations Manager, the Laboratory Director will fulfill this role.

The Operations Manager shall:

- Evaluate the level of internal/external non-conformances for all departments.
- Continuously evaluate production capacity and improve capacity utilization.
- Continuously evaluate turnaround time and address any problems that may hinder meeting the required and committed turnaround time from the various departments.
- Develop and improve the training of all analysts in cooperation with the Technical Manager and the QA Manager and in compliance with regulatory requirements.
- Ensure efficient utilization of supplies.
- Constantly monitor and modify, if needed, the procedures for processing samples through the departments.
- Coordinate audit responses with Department Managers or supervisors.
- Comply with the 2009 TNI Standard.

4.2.20 Department Manager

Department Managers are accountable for all analyses and analysts under their experienced supervision. The scope of responsibility ranges from the new-hire process and existing technology through the ongoing training and development programs for existing analysts and new instrumentation. Department Managers report directly to the Operations Manager.

The Department Manager shall:

- Manage the department's laboratory operations including work scheduling, sample tracking, analysis, data review, and prompt reporting of results.
- Ensure that all tasks performed by the department are conducted according to the requirements of the QAM, laboratory SOPs, policies, and QAPPs (if applicable).
- Perform frequent SOP reviews to ensure that current practices are consistent with the published SOP. Changes in procedures or deviations from the SOP must be immediately reported to the Operations Manager and the QA Manager for approval and update to the applicable SOP.

- Provide guidance to laboratory analysts in resolving problems encountered during daily sample preparation/analysis.
- Perform second-level review of raw data for accuracy and completeness, check calibrations and calculations, reconcile any nonconforming data, and accept or reject data based on conformance with established QA/QC criteria.
- Report nonconformance situations to the Operations Manager and the QA Manager.
- Provide written responses to external and internal audit issues.
- Identify, initiate, and implement corrective actions through root-cause analysis and investigations.
- Develop, implement, and schedule a system for preventive maintenance, troubleshooting, and repair of analytical instruments and equipment, to ensure they meet performance criteria and calibration requirements.
- Maintain adequate and valid inventory of reagents, standards, spare parts, and other relevant resources required to perform daily analysis.
- Ensure all logbooks are reviewed, maintained current, and are properly labeled or archived.
- Achieve optimum TAT on analyses and conform to holding times.
- Supervise, train, and set goals and objectives for the analysts to achieve the quality objectives of the laboratory.

4.2.21 Analyst

The analyst is responsible for the generation, interpretation, review, and reporting of data. Laboratory analysts report directly to their respective Department Managers.

The analyst shall:

- Perform analyses based on understanding of and conformance to the requirements of the QAM, laboratory SOPs, policies, and QAPPs (if applicable).
- Ensure sample analysis is completed within specified holding time, and immediately notifies the Department Manager if holding time will not be met.
- Ensure that all steps related to sample analysis are timely and completely documented, with integrity and accuracy.
- Document standard and sample preparation, instrument calibration and maintenance, and data calculations and review in logbooks, laboratory notebooks, bench sheets, and in the LIMS, as appropriate.
- Document all nonconformance situations, instrument problems, matrix effects, and QC failures, which might affect the quality and reliability of

the data, in logbooks, laboratory notebooks, bench sheets, and in an NCM using the NCM program in the LIMS, as appropriate.

- Report changes or deviations from the SOPs to the Department Manager, who will then report the changes or deviations to the Operations Manager and the QA Manager.
- Perform 100% initial technical review of sample preparation, calculations, qualitative identification, and raw data, with the authority to stop, accept, or reject data based on conformance with well-defined QA/QC criteria. This review must be completed prior to submitting data for second-level review.
- Perform second-level review of data, as appropriate.
- Report analytical results within the specified TAT.
- Suggest method improvements to the Department Manager.
- Identify, initiate, and implement corrective actions through root-cause analysis and investigations.
- Monitor, calibrate, and maintain support laboratory equipment such as refrigerators, freezers, water systems, process meters, and gas supply systems, as necessary.

4.2.22 Manager of Project Management

The Manager of Project Management reports directly to the Client Service Director (Western Region) and indirectly to the Laboratory Director. The Manager of Project Management serves as the interface between the laboratory's Project Management team, technical departments, and clients.

The Manager of Project Management shall:

- Oversee training and growth of the Project Management team.
- Act as technical liaison for the Project Management team.
- Provide human resource management support to the Project Management team.
- Assist PMs with responses to client inquiries or with resolutions to problems or complaints.
- Ensure that client specifications, when known, are met by communicating project and QA requirements to the laboratory.
- Notify Department Managers or supervisors of incoming projects and sample delivery schedules.
- Discuss with client any project-related problems, resolve service issues, and coordinate technical details with the laboratory staff.
- Monitor the status of projects in-house to ensure timely and accurate delivery of reports.
- Prepare price quotes or project bids.

4.2.23 Project Manager

The PM serves as the liaison between the laboratory and its clients and is instrumental in assisting both the laboratory and the client during the course of a project. PMs report directly to the Manager of Project Management.

The PM shall:

- Understand contractual requirements and effectively communicate client needs to laboratory staff.
- Coordinate client requests for sample containers and other services.
- Coordinate/arrange sample pick-up from client offices or project sites.
- Notify laboratory staff of incoming projects and sample delivery schedules.
- Investigate problems with samples and containers received from the field.
- Review sample login sheets.
- Monitor analytical work progress, provide clients with project status, and ensure timely delivery of reports.
- Notify clients of project-related nonconformances, changes, or difficulties encountered during analysis.
- Assist clients with technical questions and coordinate communication with the laboratory staff regarding technical issues.
- Conduct completeness review of all reports generated for the project.
- Approve final reports, as designated by the Laboratory Director.
- Coordinate subcontract work.
- Resolve service issues and maintain client satisfaction.
- Prepare price quotes or project bids.

4.2.24 Sample Control Supervisor

The Sample Control Supervisor is responsible for the daily activities within the Sample Control department. The Sample Control Supervisor reports directly to the Operations Manager.

The Sample Control Supervisor shall:

- Supervise the department's laboratory operations including, but not limited to, courier scheduling, initiation of container lot testing, sample container order preparation, sample receiving and tracking, shipping, and login.
- Ensure that all tasks performed by the department are conducted according to the requirements of the QAM, laboratory SOPs, policies, and QAPPs (if applicable).

- Perform frequent SOP reviews to ensure that current practices are consistent with the published SOP. Changes in procedures or deviations from the SOP must be immediately reported to the Operations Manager and the QA Manager for approval and update to the applicable SOP.
- Assist PMs and analysts in resolving inconsistencies and problems with samples received.
- Assist in routing workshare and subcontract analyses.
- Report nonconforming situations to the Operations Manager and the QA Manager.
- Provide written responses to external and internal audit issues.
- Identify, initiate, and implement corrective actions through root-cause analysis and investigations.
- Ensure all logbooks are reviewed, maintained current, and are properly labeled or archived.

4.2.25 Environmental Health and Safety Coordinator

The EHS Coordinator ensures that systems are maintained for the safe operation of the laboratory. The EHS Coordinator reports directly to the Laboratory Director and to Corporate EHS, for advice and resources.

The EHS Coordinator shall:

- Conduct ongoing and necessary safety training for current and new employees.
- Assist in developing and maintaining the Chemical Hygiene/Safety Manual.
- Oversee the inspection and maintenance of general safety equipment (e.g., fire extinguishers, safety showers, eyewash fountains, etc.) and ensure prompt repairs when needed.
- Supervise and schedule fire drills and emergency evacuation drills.
- Ensure that general protective equipment are available when needed.
- Assist in the internal and external coordination of the medical consultation/monitoring program conducted by TestAmerica's medical consultants.
- Oversee hazardous waste accumulation and disposal, and maintain all hazardous waste-related documentation such as manifests, biennial reports, and waste profiles.

4.3 DEPUTIES

The following table defines who assumes the responsibilities of key personnel in their absence:

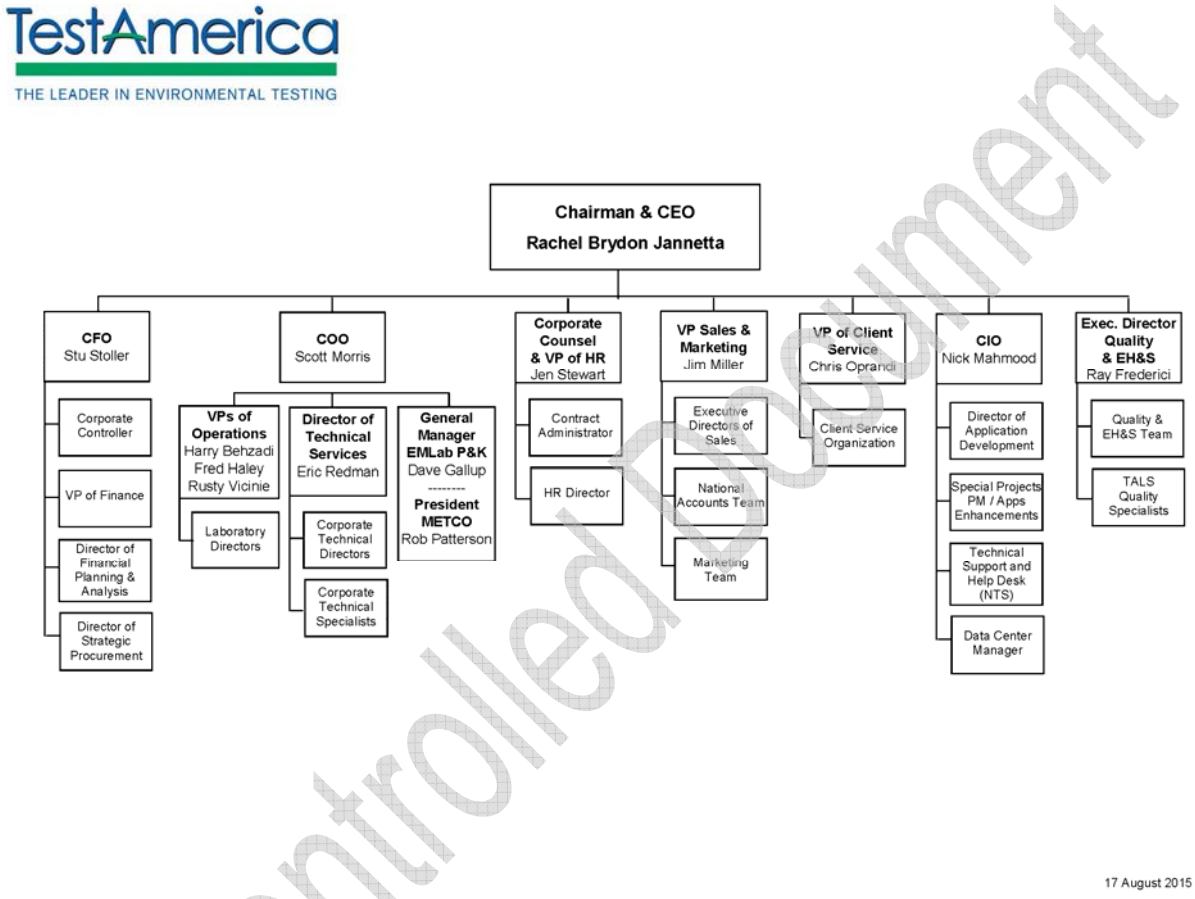
Table 4-1. Key Personnel and Deputies

Key Personnel	Deputy[1]
Laboratory Director[2]	Operations Manager
QA Manager	Senior QA Specialist
Operations Manager	Laboratory Director
Department Manager	Department Group Leader
Manager of Project Management	Manager of Project Manager Assistants
EHS Coordinator	Laboratory Director

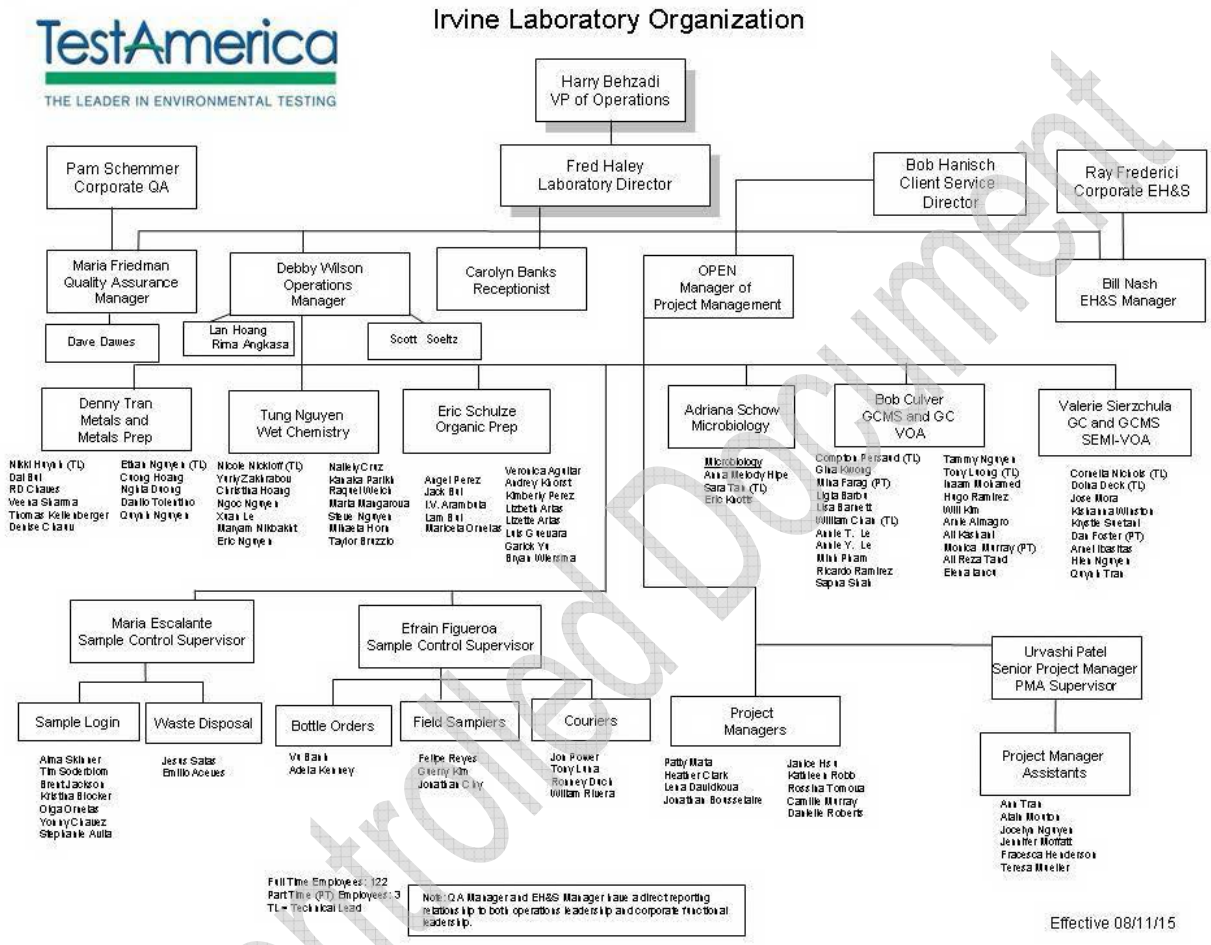
[1] The assigned deputy for each key person is another full-time staff member, at the laboratory, who meets the qualifications of the key person whose functions they would perform in their absence.
[2] If the Laboratory Director will be absent for more than 65 consecutive calendar days, the regulatory agencies shall be notified in writing.

Figure 4-1. Corporate and Laboratory Organization Charts

Corporate



TestAmerica Irvine



SECTION 5

QUALITY SYSTEM

5.1 QUALITY POLICY STATEMENT

It is TestAmerica's Policy to:

- ❖ Provide data of known quality to its clients by adhering to approved methodologies, regulatory requirements, and the QA/QC protocols.
- ❖ Effectively manage all aspects of the laboratory and business operations by the highest ethical standards.
- ❖ Continually improve systems and provide support to quality improvement efforts in laboratory, administrative, and managerial activities. TestAmerica recognizes that the implementation of a QA program requires management's commitment and support as well as the involvement of the entire staff.
- ❖ Provide clients with the highest level of professionalism and the best service practices in the industry.
- ❖ Comply with ISO/IEC 17025:2005(E) and the 2009 TNI Standard, and continually improve the effectiveness of the management system.

Every staff member at the laboratory plays an integral part in QA and is held responsible and accountable for the quality of their work. It is, therefore, required that all laboratory staff are trained and agree to comply with applicable procedures and requirements established by this document.

5.2 ETHICS AND DATA INTEGRITY

TestAmerica is committed to ensuring the integrity of its data and meeting the quality needs of its clients. The elements of TestAmerica's Ethics and Data Integrity Program include:

- An Ethics Policy (Corporate Legal Document No. CW-L-P-004) and Employee Ethics Statements
- ECOs
- A Training Program
- Self-governance through disciplinary action for violations
- A confidential mechanism for anonymously reporting alleged misconduct and a means for conducting internal investigations of all alleged misconduct (Corporate Legal SOP No. CW-L-S-002)
- Procedures and guidance for recalling data, if necessary (Corporate Legal SOP No. CW-L-S-002)
- Effective external and internal monitoring system that includes procedures for internal audits (Section 15)

- Producing results that are accurate and include QA/QC information that meets client's pre-defined DQOs
- Presenting services in a confidential, honest, and forthright manner
- Providing employees with guidelines and an understanding of the Ethical and Quality Standards of our industry
- Operating our facilities in a manner that protects the environment and the health and safety of employees and the public
- Obeying all pertinent federal, state, and local laws and regulations, and encouragement to other members of our industry to do the same
- Educating clients as to the extent and kinds of services available
- Asserting competency only for work for which adequate personnel and equipment are available and for which adequate preparation has been made
- Promoting the status of environmental laboratories, their employees, and the value of services rendered by them

5.3 QUALITY SYSTEM DOCUMENTATION

The laboratory's Quality System is communicated through a variety of documents:

- QAM – Each laboratory has a laboratory-specific QAM.
- Corporate SOPs and Policies – Corporate SOPs and Policies are developed for use by all relevant laboratories. They are incorporated into the laboratory's normal SOP distribution, training, and tracking system. Corporate SOPs may be general or technical.
- Work Instructions – Subsets of procedural steps, tasks, or forms associated with an operation of a management system (e.g., checklists, pre-formatted bench sheets, forms).
- Laboratory SOPs – General and Technical
- Laboratory QA/QC Policy Memoranda
- QAS – Controlled documents that list client-specific project requirements. The QAS can be supplemented with Work Instructions, if necessary.

5.3.1 Order of Precedence

In the event of a conflict or discrepancy between policies, the order of precedence is as follows:

- CQMP
- Corporate SOPs and Policies
- Laboratory QA/QC Policy Memorandum
- Laboratory QAM
- Laboratory SOPs and Policies

- Other (Work Instructions, memos, flow charts, QAS, etc.)

Note: The laboratory has the responsibility and authority to operate in compliance with regulatory requirements of the jurisdiction in which the work is performed. Where the CQMP conflicts with those regulatory requirements, the regulatory requirements of the jurisdiction shall hold primacy. The laboratory QAM shall take precedence over the CQMP in those cases.

5.4 QA/QC OBJECTIVES FOR THE MEASUREMENT OF DATA

QA and QC are activities undertaken to achieve the goal of producing data that accurately characterize the sites or materials that have been sampled. QA is generally understood to be more comprehensive than QC.

QA can be defined as the integrated system of activities that ensures that a product or service meets defined standards.

QC is generally understood to be limited to the analyses of samples and to be synonymous with the term *"analytical quality control."* QC refers to the routine application of statistically based procedures to evaluate and control the accuracy of results from analytical measurements. The QC program includes procedures for estimating and controlling precision and bias, and for determining RLs.

RFPs and QAPPs provide a mechanism for the client and the laboratory to discuss the DQOs in order to ensure that analytical services closely correspond to client needs. The client is responsible for developing the QAPP. In order to ensure the ability of the laboratory to meet the DQOs specified in the QAPP, clients are advised to allow time for the laboratory to review the QAPP before being finalized. Additionally, the laboratory will provide support to the client for developing the sections of the QAPP that concern laboratory activities.

Historically, laboratories have described their QC objectives in terms of precision, accuracy, representativeness, comparability, completeness, selectivity, and sensitivity (PARCCSS).

5.4.1 Precision

The laboratory objective for precision is to meet the performance for precision demonstrated for the methods on similar samples and to meet DQOs of the EPA and/or other regulatory programs. Precision is defined as the degree of reproducibility of measurements under a given set of analytical conditions (exclusive of field sampling variability). Precision is documented on the basis of replicate analysis, usually duplicate, MSD, or LCSD samples.

5.4.2 Accuracy

The laboratory objective for accuracy is to meet the performance for accuracy demonstrated for the methods on similar samples and to meet DQOs of the

EPA and/or other regulatory programs. Accuracy is defined as the degree of bias in a measurement system. Accuracy may be documented through the use of LCS and/or MS. A statement of accuracy is expressed as an interval of acceptance recovery about the mean recovery.

5.4.3 Representativeness

The laboratory objective for representativeness is to provide data which is representative of the sampled medium. Representativeness is defined as the degree to which data represent a characteristic of a population or set of samples and is a measurement of both analytical and field sampling precision. The representativeness of the analytical data is a function of the procedures used in procuring and processing the samples. Representativeness can be documented by the RPD between separately procured, but otherwise identical samples or sample aliquots.

The representativeness of the data from the sampling sites depends on both the sampling procedures and the analytical procedures. The laboratory may provide guidance to the client regarding proper sampling and handling methods in order to assure the integrity of the samples.

5.4.4 Comparability

The comparability objective is to provide analytical data for which the accuracy, precision, representativeness, and RL statistics are similar to these quality indicators generated by other laboratories for similar samples, and data generated by the laboratory over time.

The comparability objective is documented by inter-laboratory studies carried out by regulatory agencies or carried out for specific projects or contracts, by comparison of periodically generated statements of accuracy, precision, and RLs, with those of other laboratories.

5.4.5 Completeness

The completeness objective for data is 90% (or as specified by a particular project), expressed as the ratio of the valid data to the total data over the course of the project. Data will be considered valid if they are adequate for their intended use. Data usability will be defined in a QAPP, project scope, or regulatory requirement. Data validation is the process for reviewing data to determine its usability and completeness. If the completeness objective is not met, actions will be taken internally and with the data user to improve performance. This may take the form of an audit to evaluate the methodology and procedures as possible sources for the difficulty or may result in a recommendation to use a different method.

5.4.6 Selectivity

Selectivity is defined as the capability of a test method or instrument to respond to a target substance or constituent in the presence of non-target substances. Target analytes are separated from non-target constituents and subsequently identified/detected through one or more of the following, depending on the analytical method: extractions (separation), digestions (separation), interelement corrections (separation), use of matrix modifiers (separation), specific retention times (separation and identification), confirmations with different columns or detectors (separation and identification), specific wavelengths (identification), specific mass spectra (identification), specific electrodes (separation and identification), etc.

5.4.7 Sensitivity

Sensitivity refers to the amount of analyte necessary to produce a detector response that can be reliably detected (the MDL) or quantified (the RL).

5.5 CRITERIA FOR QUALITY INDICATORS

The laboratory maintains the precision and accuracy acceptability limits for performed analyses using the Analysis/Matrix table in the LIMS. This table includes an effective date, is updated each time new limits are generated, and is managed by the laboratory's QA department. Unless otherwise noted, limits within these tables are laboratory-generated. Some acceptability limits are derived from EPA methods when they are required. Where EPA method limits are not required, the laboratory has developed limits from evaluation of data from similar matrices. Criteria for development of control limits are contained in laboratory SOP No. IR-QA-CNTRLIM.

5.6 STATISTICAL QUALITY CONTROL

Statistically-derived precision and accuracy limits are required by selected methods (such as SW-846) and programs. The laboratory routinely utilizes statistically-derived limits to evaluate method performance and determine when corrective action is appropriate. The analysts are instructed to use the current limits in the LIMS (dated and approved by the QA Manager). All historical limits can be queried from the LIMS. If a method defines the QC limits, the method limits are used.

If a method requires the generation of historical limits, the laboratory develops such limits from recent data in the QC database of the LIMS, following the guidelines described in Section 24. All calculations and limits are documented and dated when approved and effective. On occasion, clients request contract-specified limits for a specific project.

Current QC limits are entered and maintained in the LIMS analyte database. As sample results and the related QC are entered into LIMS, the sample QC values are compared with the limits in LIMS to determine if they are within the acceptable range. The analyst then evaluates if the sample needs to be rerun or re-extracted/rerun or if a comment should be added to the report explaining the reason for the QC outlier.

5.6.1 QC Charts

When QC limits are calculated, QC charts are generated showing warning and control limits for the purpose of evaluating trends. The QA Manager evaluates these trends to determine if adjustments need to be made to the current QC limits or if a need for corrective action is indicated. All findings are documented and kept on file. Refer to laboratory SOP No. IR-QA-CNTRLIM for more details regarding generation of control limits and development of control charts.

5.7 QUALITY SYSTEM METRICS

In addition to the QC parameters discussed above, the entire quality system is evaluated on a monthly basis through the use of specific metrics (refer to Section 16). These metrics are used to drive continuous improvement in the laboratory's Quality System.

SECTION 6

DOCUMENT CONTROL

6.1 OVERVIEW

The QA department is responsible for the control of documents used in the laboratory to ensure that approved and up-to-date documents are in circulation and out-of-date (obsolete) documents are archived or destroyed. The following documents, at a minimum, must be controlled:

- Laboratory QAM
- Laboratory SOPs
- Laboratory Policies
- Work Instructions and Forms
- QAS
- Corporate Policies and Procedures distributed outside the Intranet

Corporate Quality posts Corporate Manuals, SOPs, Policies, Work Instructions, White Papers, and Training Materials on the company Intranet site. These Corporate documents are only considered controlled when they are read on the Intranet site. Printed copies are considered uncontrolled unless the laboratory physically distributes them as controlled documents. A detailed description of the procedure for issuing, authorizing, controlling, distributing, and archiving Corporate documents is found in Corporate SOP No. CW-Q-S-001. The laboratory's internal document control procedure is defined in SOP No. IR-QA-DOC.

The laboratory posts SOPs and Policies on the local QA server. These documents are only considered controlled when they are read on the local QA server. Access to these documents via the local QA server is restricted to viewing only; documents cannot be printed. Additionally, copying of these documents is prohibited. The QA department will provide an uncontrolled copy (watermarked or labeled as "Uncontrolled") upon request.

The QA department also maintains access to various references and document sources integral to the operation of the laboratory. This includes reference methods and regulations. Instrument manuals (hardcopies or electronic copies) are also maintained by the laboratory.

The laboratory maintains control of records for raw analytical data and supporting records such as audit reports and responses, logbooks, training files, MDL studies, PT studies, certifications and related correspondence, and NCMs. Raw analytical data consists of bound logbooks, instrument printouts, any other notes, magnetic media, electronic data, and final reports.

6.2 DOCUMENT APPROVAL AND ISSUE

The pertinent elements of a document control system for each document include a unique document title and number, pagination, the total number of pages of the item or an 'end of document' page, the effective date, the revision number, and the laboratory's name. The QA department is responsible for the maintenance of this system.

Controlled documents are authorized by the QA department. In order to develop a new document, a Department Manager or Supervisor submits a draft (hardcopy or electronic) to the QA department for suggestions and approval before use. Upon approval, the QA department adds the identifying version information to the document and retains that document as the official document on file. That document is then provided to all applicable operational units (may include electronic access). Controlled documents are identified as such and records of their distribution are kept by the QA department. Document control may be achieved by either electronic or hardcopy distribution.

The QA department maintains a list of the official versions of controlled documents.

Quality system policies and procedures will be reviewed at a minimum of every two years and revised as appropriate. Quality system policies and procedures that affect Drinking Water projects will be reviewed annually and revised as appropriate. Changes to documents occur when a procedural change warrants.

6.3 PROCEDURES FOR DOCUMENT CONTROL POLICY

For changes to the QAM, refer to the procedures discussed in Section 3.4. For changes to SOPs, refer to laboratory SOP No. IR-QA-DOC.

Forms, worksheets, Work Instructions, and information are organized by department in the local QA server.

Uncontrolled copies must not be used within the laboratory.

Subsequent employee training in these documents is discussed in laboratory SOP No. IR-QA-TRAIN.

6.4 OBSOLETE DOCUMENTS

All invalid or obsolete documents are removed, or otherwise prevented from unintended use, using specific procedures as described above. In general, obsolete documents are collected from employees according to distribution lists (if applicable) and are marked obsolete on the cover or destroyed. At least one copy of the obsolete document is archived for the retention period described in Section 14.

SECTION 7

SERVICE TO THE CLIENT

7.1 OVERVIEW

The laboratory has established procedures for the review of work requests and contracts, oral or written. The procedures include evaluation of the laboratory's capability and resources to meet the contract's requirements within the requested time period. All requirements, including the methods to be used, must be adequately defined, documented, and understood. For many environmental sampling and analysis programs, testing design is site- or program-specific and does not necessarily "fit" into a standard laboratory service or product. It is the laboratory's intent to provide both standard and customized environmental laboratory services to our clients.

A thorough review of technical and QC requirements contained in contracts is performed to ensure project success. The appropriateness of requested methods, and the laboratory's capability to perform them must be established. Projects, proposals, and contracts are reviewed for adequately defined requirements and the laboratory's capability to meet those requirements. Alternate test methods that are capable of meeting the client's requirements may be proposed by the laboratory. A review of the laboratory's capability to analyze non-routine analytes is also part of this review process.

All projects, proposals, and contracts are reviewed for the client's requirements in terms of compound lists, test methodology requested, sensitivity (detection and reporting levels), accuracy (percent recovery), and precision requirements (RPD). The reviewer ensures that the laboratory's test methods are suitable to achieve these requirements and that the laboratory holds the appropriate certifications and approvals to perform the work. The laboratory and any potential subcontract laboratories must be certified, as required, for all proposed tests.

The laboratory must determine if it has the necessary physical, personnel, and information resources to meet the contract, and if the personnel have the expertise needed to perform the testing requested. Each proposal is checked for its impact on the capacity of the laboratory's equipment and personnel. As part of the review, the proposed TAT will be checked for feasibility.

Electronic or hardcopy deliverable requirements are evaluated against the laboratory's capacity for production of the documentation.

If the laboratory cannot provide all services but intends to subcontract such services, whether to another TestAmerica facility or to an outside firm, this will be documented and discussed with the client prior to contract approval. Refer to Section 8 for subcontracting procedures.

The laboratory informs the client of the results of the review if it indicates any potential conflict, deficiency, lack of accreditation, or inability of the laboratory to complete the work satisfactorily. Any discrepancy between the client's requirements and the laboratory's capability to meet those requirements is resolved in writing before

acceptance of the contract. It is necessary that the contract be acceptable to both the laboratory and the client. Amendments initiated by the client and/or TestAmerica, are documented in writing.

All contracts, QAPPs, SAPs, contract amendments, and documented communications become part of the project record.

The same contract review process used for the initial review is repeated when there are amendments to the original contract by the client, and the participating personnel are informed of the changes.

7.2 REVIEW SEQUENCE AND KEY PERSONNEL

Appropriate personnel will review the work request at each stage of evaluation.

For routine projects and other simple tasks, a review by the PM is considered adequate. The PM confirms that the laboratory has any required certifications, that it can meet the client's data quality and reporting requirements and that the laboratory has the capacity to meet the client's TAT needs. It is recommended that, where there is a sales person assigned to the account, an attempt should be made to contact that sales person to inform them of the incoming samples.

For new, complex, or large projects, the proposed contract is given to the CRM or CRM Proposal team, who will decide which laboratory will receive the work based on the scope of work and other requirements, including certification, testing methodology, and available capacity to perform the work. The contract review process is outlined in Corporate Legal Document No. CA-L-P-002.

This review encompasses all facets of the operation. The scope of work is distributed to the appropriate personnel (not necessarily in the order below) as needed, based on scope of contract, to evaluate all of the requirements shown above:

- Contract Administrator
- VP of Operations
- Laboratory Operations Manager
- Laboratory Manager of Project Management
- Laboratory PM
- Laboratory and/or Corporate Technical Managers
- Laboratory and/or Corporate IT
- AEs
- Laboratory and/or Corporate Quality
- Laboratory and/or Corporate EHS
- Laboratory Director - reviews the formal laboratory quote and makes final acceptance for their facility

The CRM, Contract Administrator, AE, or Client Relations Manager then submits the final proposal to the client.

In the event that one of the above personnel is not available to review the contract, his or her backup will fulfill the review requirements.

The Contracts department maintains copies of all signed contracts. A copy is also kept with the assigned laboratory PM.

7.3 DOCUMENTATION

Appropriate records are maintained for every contract or work request. All stages of the contract review process are documented and include records of any significant changes. These records are kept on file with the assigned laboratory PM.

The contract will be distributed to and maintained by the appropriate sales/marketing personnel and the AE. A copy of the contract and formal quote will be filed with the laboratory PM and the Laboratory Director.

Records are maintained of pertinent discussions with a client relating to the client's requirements or the results of the work during the period of execution of the contract. The PM keeps a phone log or e-mail documentation of conversations with the client. These records are stored with the project or client folder, as appropriate, and become part of the project records.

7.3.1 Project-Specific Quality Planning

Communication of contract-specific technical and QC criteria is an essential activity in ensuring the success of site-specific testing programs. To achieve this goal, the laboratory assigns a PM to each client. It is the PM's and the Technical Manager's responsibility to ensure that project-specific technical and QC requirements are effectively evaluated and communicated to the laboratory personnel before and during the project. QA department involvement may be needed to assist in the evaluation of custom QC requirements.

PMs are the primary client contact and they ensure resources are available to meet project requirements. Although PMs do not have direct reports or staff in production, they coordinate opportunities and work with laboratory management and supervisory staff to ensure available resources are sufficient to perform work for the client's project. Project Management is positioned between the client and the laboratory resources.

The laboratory has established procedures in order to ensure that communication is inclusive and effective. These include, but are not limited to, use of project memos and QAS; discussion/notification during daily production meetings; conducting meetings with the project teams; and/or conducting start-up meetings between the laboratory personnel and the client.

Whenever a new or revised technical SOP or SOP Change Form is issued, QA will notify all PMs if there are any changes that will affect how final results will be reported compared to the previous revision. QA and the PM will work together to ensure the client is properly notified of the change. Changes in a technical SOP that should be considered with regards to impact on client data include, but are not limited to:

- Increase in RL
- Deletion of target analytes from a method
- Change in method name or method reference (e.g., 8260B to 8260C)
- Change in how target analytes are qualitatively or quantitatively determined (e.g., how peaks are identified, how integrations are performed)

During the project, any change that may occur within an active project is agreed upon between the client/regulatory agency and the PM/laboratory. These changes (e.g., use of a non-standard method or modification of a method) and approvals must be documented prior to implementation. Documentation pertains to any document, e.g., letter, e-mail, variance, contract addendum, which has been signed by both parties.

Such changes are also communicated to the laboratory, as stated above. Project notes are updated. After the modification is implemented into the laboratory process, documentation of the modification is made in the case narrative of the data report(s).

The laboratory strongly encourages client visits to the laboratory and for formal/informal information sharing session with employees in order to effectively communicate ongoing client needs as well as project-specific details for customized testing programs.

7.4 SPECIAL SERVICES

The laboratory cooperates with clients and their representatives to monitor the laboratory's performance in relation to work performed for the client. It is the laboratory's goal to meet all client requirements in addition to statutory and regulatory requirements. The laboratory has procedures to ensure confidentiality to clients (Sections 15 and 25).

The laboratory's standard procedures for reporting data are described in Section 25. Special services are also available and provided upon request. These services include:

- Reasonable access for our clients or their representatives to the relevant areas of the laboratory for the witnessing of tests performed for the client.
- Assist client-specified third party data validators, as specified in the client's contract.
- Supplemental information pertaining to the analysis of their samples.

Note: An additional charge may apply for additional data/information that was not requested prior to the time of sample analysis or previously agreed upon.

7.5 CLIENT COMMUNICATION

PMs are the primary communication link to the clients. They shall inform their clients of any delays in project completion as well as any nonconformances in either sample receipt or sample analysis. Project Management will maintain ongoing client communication throughout the entire client project.

The Laboratory Director, QA Manager, and Technical Manager are available to discuss any technical questions or concerns that the client may have.

7.6 REPORTING

The laboratory works with our clients to produce any special communication reports required by the contract.

7.7 CLIENT SURVEYS

The laboratory assesses both positive and negative client feedback. The results are used to improve overall laboratory quality and client service.

TestAmerica's Sales and Marketing teams periodically develop laboratory- and client-specific surveys to assess client satisfaction.

SECTION 8

SUBCONTRACTING OF TESTS

8.1 OVERVIEW

For the purpose of this QAM, the phrase “subcontract laboratory” refers to a laboratory external to the TestAmerica laboratories. The phrase “worksharing” refers to internal transfers of samples between the TestAmerica laboratories. The term outsourcing refers to the act of subcontracting tests.

When contracting with our clients, the laboratory makes commitments regarding the services to be performed and the data quality for the results to be generated. When the need arises to outsource testing for our clients because of project scope, changes in laboratory capabilities, capacity, or unforeseen circumstances, we must be assured that the subcontractors or worksharing laboratories understand the requirements and will meet the same commitments we have made to the client. Refer to Corporate Legal Document No. CA-L-S-002.

When outsourcing analytical services, the laboratory will assure, to the extent necessary that the subcontract or worksharing laboratory maintains a program consistent with the requirements of this document, the requirements specified in TNI/ISO 17025 and/or the client’s QAPP. All QC guidelines specific to the client’s analytical program are transmitted to the subcontractor and agreed upon before sending the samples to the subcontract facility. Additionally, work requiring accreditation will be placed with an appropriately accredited laboratory. The laboratory performing the subcontracted work will be identified in the final report, as will non-TNI accredited work where required.

PMs and AEs for the Export Lab (TestAmerica laboratory that transfers samples to another laboratory) are responsible for obtaining client approval prior to subcontracting any samples. The laboratory will advise the client of a subcontract arrangement in writing and, when possible, approval from the client shall be retained in the client folder or project folder. Standard TestAmerica Terms & Conditions include the flexibility to subcontract samples within the TestAmerica laboratories. Therefore, additional advance notification to clients for intra-laboratory subcontracting is not necessary unless specifically required by a client contract.

Note: In addition to the client, some regulatory agencies (e.g., USDA) or contracts, may require notification prior to placing such work.

8.2 QUALIFYING AND MONITORING SUBCONTRACTORS

Whenever a PM (or AE) becomes aware of a client requirement or laboratory need where samples must be outsourced to another laboratory, the other laboratory shall be selected based on the following:

- The first priority is to attempt to place the work in a qualified TestAmerica laboratory.
- Firms specified by the client for the task. Documentation that a subcontractor was

designated by the client must be maintained with the project file. This documentation can be as simple as placing a copy of an e-mail from the client in the client folder or project folder.

- Firms listed as pre-qualified and currently under a subcontract with TestAmerica. A listing of all approved subcontract laboratories is available on the TestAmerica Intranet site. Supporting documentation is maintained by Corporate offices and by the TestAmerica laboratory originally requesting approval of the subcontract laboratory. Verify necessary accreditation, where applicable (e.g., TNI, A2LA, or State certification).
- Firms identified in accordance with the company's Small Business Subcontracting program as small, women-owned, veteran-owned, and/or minority-owned businesses.
- TNI or A2LA accredited laboratories.
- Firms selected must hold the appropriate certification to perform the work required.

All TestAmerica laboratories are pre-qualified for worksharing provided they hold the appropriate accreditations, can adhere to the project/program requirements, and the client approved sending samples to that laboratory. The client must provide acknowledgment that the samples can be sent to that laboratory (an e-mail is sufficient documentation or if acknowledgment is verbal, the date, time, and name of person providing acknowledgment must be documented). The originating laboratory is responsible for communicating all technical, quality, and deliverable requirements as well as other contract needs.

When the potential subcontract laboratory has not been previously approved, AEs or PMs may nominate a laboratory as a subcontractor based on need. The decision to nominate a laboratory must be approved by the Laboratory Director. The Laboratory Director requests that the QA Manager begin the process of approving the subcontract laboratory, as outlined in Corporate Legal Document No. CA-L-S-002 on subcontracting. The client must provide acknowledgment that the samples can be sent to that laboratory (an e-mail is sufficient documentation or if acknowledgment is verbal, the date, time, and name of person providing acknowledgment must be documented).

8.2.1 Once the appropriate accreditation and legal information is received by the laboratory, it is evaluated for acceptability (where applicable) and forwarded to the Corporate QIM for review. Once all documents are reviewed for completeness, the Corporate QIM will forward the documents to the Purchasing Manager for formal signature and contracting with the laboratory. The approved vendor will be added to the approved subcontractor list on the Intranet site and the Finance Group is concurrently notified for JD Edwards assignment.

8.2.2 The client will assume responsibility for the quality of the data generated from the use of a subcontractor they have requested the laboratory to use. The qualified subcontractors on the Intranet site are known to meet minimal standards. TestAmerica does not certify laboratories. The subcontractor is

on our approved list and can only be recommended to the extent that we would use them.

8.2.3 The status and performance of qualified subcontractors will be monitored periodically by the Corporate Contracts and/or Quality departments. Any problems identified will be brought to the attention of TestAmerica's Corporate Finance or Corporate Quality personnel.

- Complaints shall be investigated. Documentation of the complaint, investigation, and corrective action will be maintained in the subcontractor's file on the Intranet site. Complaints must be posted using the Vendor Performance Report.
- Information must be updated on the Intranet when new information is received from the subcontract laboratories.
- Subcontractors in good standing will be retained on the Intranet listing. The QA Manager will notify all TestAmerica laboratories, Corporate Quality, and Corporate Contracts if any laboratory requires removal from the Intranet site. This notification will be posted on the Intranet site and e-mailed to all Laboratory Directors, QA Managers, and Sales personnel.

8.3 OVERSIGHT AND REPORTING

The PM must request that the selected subcontractor be presented with a subcontract, if one is not already executed between the laboratory and the subcontractor. The subcontract must include terms which flow down the requirements of our clients, either in the subcontract itself or through the mechanism of jobs relating to individual projects. A standard subcontract and the Laboratory Subcontractor Vendor Package (posted on the Intranet) can be used to accomplish this, and Corporate Counsel can tailor the document or assist with negotiations, if needed. The PM (or AE) responsible for the project must advise and obtain client consent to the subcontract as appropriate, and provide the scope of work to ensure that the proper requirements are made a part of the subcontract and are made known to the subcontractor.

Prior to sending samples to the subcontract laboratory, the PM confirms their certification status to determine if it is current and scope-inclusive. The information is documented in a Subcontracted Sample Form (Figure 8-1) and the form is retained in the client folder or project folder. For TestAmerica laboratories, certifications can be viewed on the company's TotalAccess Database.

The Sample Control department is responsible for ensuring compliance with QA requirements and applicable shipping regulations when shipping samples to a subcontract laboratory.

All subcontracted samples must be accompanied by a TestAmerica COC form. A copy of the original COC sent by the client must also be included with all samples subcontracted within TestAmerica. Client COCs are only forwarded to external subcontractors when samples are shipped directly from the project site to the subcontract laboratory. Under routine circumstances, client COCs are not provided to external subcontractors.

Through communication with the subcontract laboratory, the PM monitors the status of the subcontracted analyses, facilitates successful execution of the work, and ensures the timeliness and completeness of the analytical report.

Non-TNI accredited work must be identified in the subcontractor's report as appropriate. If accreditation is not required, the report does not need to include this information.

Reports submitted from subcontract laboratories are not altered and are included in their original form in the final project report. This clearly identifies the data as being produced by a subcontract laboratory. If subcontract laboratory data is incorporated into the originating laboratory's EDD (i.e., imported), the report must explicitly indicate which laboratory produced the data for which methods and samples. A copy of the subcontract laboratory's report must be included in the originating laboratory's final report, regardless of whether the subcontract laboratory's results are incorporated into the originating laboratory's report.

Note: The results submitted by a TestAmerica workshare laboratory may be transferred electronically and the results reported by the TestAmerica worksharing laboratory are identified on the final report. The report must explicitly indicate which laboratory produced the data and for which methods and samples. The final report must include a copy of the completed COC for all worksharing reports.

8.4 CONTINGENCY PLANNING

The Laboratory Director may waive the full qualification of a subcontractor process temporarily to meet emergency needs; however, this decision and justification must be documented in the client files or project files and the Purchase Order Terms and Conditions For Subcontracted Laboratory Services must be sent with the samples and COC. In the event this provision is utilized, the laboratory (e.g., PM) will be required to verify and document the applicable accreditations of the subcontractor. All other quality and accreditation requirements will still be applicable, but the subcontractor need not have signed a subcontract with TestAmerica at this time. The comprehensive approval process must then be initiated within 30 calendar days of subcontracting.

Figure 8-1.

Example - Subcontracted Sample Form

Date/Time: _____

Subcontracted Laboratory Information:

- Subcontractor's Name:
- Subcontractor Point of Contact: _____
- Subcontractor's Address: _____
- Subcontractor's Phone: _____
- Analyte/Method: _____
- Certified for State of Origin: _____
- TNI Certified: Yes_____No_____
- **USDA Permit (__Domestic __ Foreign)** **Yes**_____**No**_____
- A2LA (or ISO 17025) Certified: Yes_____No_____
- CLP-like Required: Yes_____No_____
  (Full doc required)
- Requested Sample Due Date: _____
  (Must be put on COC)
- Client POC Approval on file to Subcontract Samples to Sub Laboratory Yes_____No_____

Project Manager: _____

Laboratory Sample # Range: _____
(Only of Subcontracted Samples)

Laboratory Project Number (Billing Control #): _____

All subcontracted samples are to be sent via bonded carrier and Priority Overnight. Please attach tracking number below and maintain these records in the project files.

PM Signature_____**Date**_____

SECTION 9

PURCHASING SERVICES AND SUPPLIES

9.1 OVERVIEW

Evaluation and selection of suppliers and vendors is performed, in part, on the basis of the quality of their products, their ability to meet the demand for their products on a continuous and short-term basis, the overall quality of their services, their past history, and competitive pricing. This is achieved through evaluation of objective evidence of quality furnished by the supplier, which can include certificates of analysis, recommendations, and proof of historical compliance with similar programs for other clients. To ensure that quality critical consumables and equipment conform to specified requirements, which may affect quality, all purchases from specific vendors are approved by a member of the supervisory or management staff. Capital expenditures are made in accordance with Corporate Finance Document No. CW-F-S-007.

Contracts will be signed in accordance with Corporate Finance Document No. CW-F-P-002. RFPs will be issued where more information is required from the potential vendors than just price. Process details regarding procurement are available in Corporate Finance Policy No. CW-F-P-004. RFPs allow TestAmerica to determine if a vendor is capable of meeting requirements such as supplying to all of the TestAmerica laboratories, meeting required quality standards, and adhering to necessary ethical and environmental standards. The RFP process also allows potential vendors to outline any additional capabilities they may offer.

9.2 GLASSWARE

Glassware used for volumetric measurements must be Class A or verified for accuracy according to laboratory procedure. Pyrex (or equivalent) glass should be used where possible. For safety purposes, thick-wall glassware should be used where available.

9.3 REAGENTS, STANDARDS, AND SUPPLIES

Purchasing guidelines for equipment and reagents must meet with the requirements of the specific method and testing procedures for which they are being purchased. Solvents and acids are pre-tested in accordance with Corporate Quality Document No. CA-Q-S-001.

9.3.1 Purchasing

Chemical reagents, solvents, glassware, and general supplies are ordered as needed to maintain sufficient quantities on hand. Materials used in the analytical process must be of a known quality. The wide variety of materials and reagents available makes it advisable to specify recommendations for the name, brand, and grade of materials to be used in any determination. This information is contained in the laboratory SOPs.

The analyst completes a requisition in JD Edwards when requesting reagents, standards, or supplies or, for select items, may check the item out of the on-site consignment system that contains items approved for laboratory use. The Operations Manager approves orders placed in JD Edwards, as necessary.

9.3.2 Receiving

It is the responsibility of the Sample Control department to receive the shipment. It is the responsibility of the analyst who ordered the materials to document the date the materials were received. Once the ordered reagents or materials are received, the analyst compares the information on the label or packaging to the original order to ensure that the purchase meets the quality level specified. SDS are available online through the company's Intranet website. Anyone may review these for relevant information on the safe handling and emergency precautions of on-site chemicals.

9.3.3 Specifications

Methods in use in the laboratory specify the grade of reagent that must be used in the procedure. If the quality of the reagent is not specified, analytical reagent grade will be used. It is the responsibility of the analyst to check the procedure carefully for the suitability of grade of reagent.

Chemicals must not be used past the manufacturer's expiration date and must not be used past the expiration date noted in the laboratory SOPs. If expiration dates are not provided, the laboratory may contact the manufacturer to determine an expiration date.

The laboratory assumes a five year expiration date on inorganic dry chemicals and solvents, unless noted otherwise by the manufacturer or by the reference source method. Chemicals/solvents should not be used past the manufacturer's or SOP's expiration date.

Wherever possible, standards must be traceable to national or international standards of measurement or to national or international reference materials. Records to that effect are available to the user.

Compressed gases in use are checked for pressure and secure positioning daily. To prevent a tank from going to dryness, or introducing potential impurities, the pressure should be closely watched as it decreases to approximately 15% of the original reading, at which point it should be replaced. For example, a standard sized laboratory gas cylinder containing 3,000 psig of gas should be replaced when it drops to approximately 500 psig. The quality of the gases must meet method or manufacturer specification or be of a grade that does not cause any analytical interference.

Water used in the preparation of standards or reagents must have a specific conductivity of less than 1- µmho/cm (or specific resistivity greater than 1.0

megaohm-cm) at 25°C. The specific conductivity (or specific resistivity) is checked and recorded daily. If the water's specific conductivity is greater than the specified limits, the Department Manager, Technical Manager, and QA Manager must be notified immediately in order to decide on cessation (based on intended use) of activities, and make arrangements for correction. More stringent method or client requirements, when applicable, must be met.

The laboratory may purchase reagent grade (or other similar quality) water for use in the laboratory. This water must be certified "clean" by the supplier for all target analytes or otherwise verified by the laboratory prior to use. This verification must be documented and submitted to the QA department.

Standard lots are verified before first time use if the laboratory switches manufacturers or has historically had a problem with the type of standard.

Purchased bottleware used for sampling must be certified clean and the certificates must be maintained. If uncertified sampling bottleware is purchased, all lots must be verified clean prior to use. This verification must be documented and submitted to the QA department.

Records of manufacturer's certification and traceability statements are maintained in files or binders in each laboratory section or uploaded in the LIMS. These records include, at a minimum, the date of receipt, the lot number (when applicable), and the expiration date (when applicable). Incorporation of the item into the record indicates that the analyst has compared the new certificate with the previous one for the same purpose and that no difference is noted, unless approved and so documented by the Technical Manager or QA Manager.

9.3.4 Storage

Reagent and chemical storage is important from the aspects of both integrity and safety. Light-sensitive reagents may be stored in brown-glass containers. Storage conditions must meet the Corporate EHS Document No. CW-E-M-001 and laboratory SOPs or manufacturer instructions.

9.4 PURCHASE OF EQUIPMENT / INSTRUMENTS / SOFTWARE

When a new piece of equipment/instrument/software is needed, either for additional capacity or for replacing inoperable ones, the analyst or the Department Manager makes a request to the Technical Manager and/or the Laboratory Director. If they agree, the procedures outlined in Corporate Technical Services Document No. CA-T-P-001, regarding qualified products list, are followed. A decision is made as to which piece of equipment/instrument/software can best satisfy the requirements. The appropriate written requests are completed and the Corporate Purchasing Group places the order.

Upon receipt of a new or used piece of equipment/instrument, a New Instrumentation Checklist is initiated (see Figure 9-1). The checklist must be submitted to the QA department so that the equipment/instrument may be assigned an identification name

and added to the equipment/instrument list. QA will also notify the IT department so that the instrument may be synchronized for backups. The capability of the equipment/instrument is assessed to determine if it is adequate for the specific application. A calibration curve is generated, followed by MDL studies, DOCs, and other relevant criteria (refer to Section 19). The manufacturer's operation manual is retained at the laboratory bench.

Upon receipt of new software, the IT department is notified so that the new software may be added to the software list. The capability of the software is assessed to determine if it is adequate for the specific application. Its operation must be deemed reliable and evidence of verification must be retained by either the IT department or the QA department, depending on software use. Software certificates supplied by the vendors, if any, are filed with the IT department. Records of software purchases are also maintained by the IT department.

9.5 SERVICES

Service to analytical instruments (except analytical balances) is performed on an as-needed basis. Routine preventative maintenance is discussed in Section 20. The need for service is determined by analysts, Department Managers, or the Technical Manager. The service providers that perform the services are approved by the Technical Manager and the Laboratory Director.

9.6 SUPPLIERS

TestAmerica selects vendors through a competitive proposal/bid process, strategic business alliances, or negotiated vendor partnerships (contracts). This process is defined in Corporate Finance Policy No. CW-F-P-004. The level of control used in the selection process is dependent on the anticipated spending amount and the potential impact on TestAmerica business. Vendors that provide test and measuring equipment, solvents, standards, certified containers, instrument-related service contracts, or subcontract laboratory services shall be subject to more rigorous controls than vendors that provide off-the-shelf items of defined quality that meet the end use requirements. The JD Edwards purchasing system includes all suppliers/vendors that have been approved for use.

Evaluation of suppliers is accomplished by ensuring the supplier ships the product or material ordered and that the material is of the appropriate quality. This is documented by signing off on packing slips or other supply receipt documents. The purchasing documents contain the data that adequately describe the services and supplies ordered.

Any issues of vendor performance are to be reported immediately by the laboratory staff to the Corporate Purchasing Group by completing a Vendor Performance Report.

The Corporate Purchasing Group will work through the appropriate channels to gather the information required to clearly identify the problem and will contact the vendor to report the problem and to make any necessary arrangements for exchange, return authorization, credit, etc.

As deemed appropriate, the Vendor Performance Reports will be summarized and reviewed to determine corrective action necessary, or service improvements required by vendors.

The laboratory has access to a listing of all approved suppliers of critical consumables, supplies, and services. This information is provided through the JD Edwards purchasing system.

9.6.1 New Vendor Procedure

TestAmerica employees who wish to request the addition of a new vendor must complete a JD Edwards Vendor Add Request Form.

New vendors are evaluated based upon criteria appropriate to the products or services provided as well as their ability to provide those products and services at a competitive cost. Vendors are also evaluated to determine if there are ethical reasons or potential conflicts of interest with TestAmerica employees that would make it prohibitive to do business with them as well as their financial stability. The QA department is consulted with vendor and product selection that have an impact on quality.

Figure 9-1.

New Instrumentation Checklist

Instrumentation/Equipment Checklist

To be completed by the department:

Department:			
ID Number:			
Date Installed:			
Method(s) Performed:			

Type*:			
Manufacturer:			
Model Number:			
Serial Number:			

*IC, GC, Autosampler, Balance, ASE etc.

To be completed by QA:

Item	Applicable	Date/ Initials	Comments
Maintenance/monitoring logbook created	Yes☐ No☐		
IT informed (so data backup process can be updated)	Yes☐ No☐		
Instrument tagged with ID number	Yes☐ No☐		
Instrument ID number entered into Element	Yes☐ No☐		
Calibrated thermometer placed in unit	Yes☐ No☐		
Instrument has been added to MDL database	Yes☐ No☐		
Laboratory equipment list updated	Yes☐ No☐		

G:\EQUIPMENT\New Instrumentation Checklist_r2.doc
Version 07/09/2009

SECTION 10

COMPLAINTS

10.1 OVERVIEW

The laboratory considers an effective client complaint handling processes to be of significant business and strategic value. Listening to and documenting client concerns captures 'client knowledge' that enables our operations to continually improve processes and client satisfaction. An effective client complaint handling process also provides assurance to the data user that the laboratory will stand behind its data, service obligations, and products.

A client complaint is any expression of dissatisfaction with any aspect of our business services (e.g., communication, responsiveness, data, reports, invoicing, and other functions) expressed by any party, whether received verbally or in written form. Client inquiries, complaints, or noted discrepancies are documented, communicated to management, and addressed promptly and thoroughly.

The laboratory has procedures for addressing both external and internal complaints with the goal of providing satisfactory resolution to complaints in a timely and professional manner.

The nature of the complaint is identified, documented, and investigated, and an appropriate action is determined and taken. In cases where a client complaint indicates that an established policy or procedure was not followed, the QA department must evaluate whether a special audit must be conducted to assist in resolving the issue. A written confirmation or letter to the client, outlining the issue and response taken, is recommended as part of the overall action taken.

The process of complaint resolution and documentation utilizes the procedures outlined in Section 12. The laboratory utilizes the NCM program in the LIMS or the laboratory's iCAT program, as appropriate, to document complaints and the corrective actions performed.

10.2 EXTERNAL COMPLAINTS

An employee that receives a complaint initiates the complaint resolution process by first documenting the complaint in an NCM or in the iCAT, as appropriate.

Complaints fall into two categories: correctable and non-correctable. An example of a correctable complaint would be one where a report re-issue would resolve the complaint. An example of a non-correctable complaint would be one where a client complains that their data was repeatedly late. Non-correctable complaints shall be reviewed for preventive action measures to reduce the likelihood of future occurrence and mitigation of client impact.

The general steps in the complaint handling process are:

- Receiving and Documenting Complaints
- Complaint Investigation and Service Recovery
- Process Improvement

The laboratory shall inform the initiator of the complaint of the results of the investigation and the corrective action taken, if any.

10.3 INTERNAL COMPLAINTS

Internal complaints include, but are not limited to, errors and nonconformances, training issues, internal audit findings, and deviations from methods. Corrective actions may be initiated by any staff member who observes a nonconformance and shall follow the procedures outlined in Section 12. In addition, Corporate Management, Sales and Marketing, and IT may initiate a complaint by contacting the laboratory or through the corrective action system described in Section 12.

10.4 MANAGEMENT REVIEW

The number and nature of client complaints is reported by the QA Manager to the Laboratory Director, the VP of Operations, and the Corporate Quality Director in the QA monthly report. Monitoring and addressing the overall level and nature of client complaints and the effectiveness of the solutions is part of the annual Management Systems Review (Section 16).

SECTION 11

CONTROL OF NONCONFORMING WORK

11.1 OVERVIEW

When data discrepancies are discovered or deviations and departures from laboratory SOPs, policies, and/or client requests have occurred, corrective action is taken immediately. First, the laboratory evaluates the significance of the nonconforming work. Then, a corrective action plan is initiated based on the outcome of the evaluation. If it is determined that the nonconforming work is an isolated incident, the plan could be as simple as adding a qualifier to the final results and/or making a notation in the case narrative. If it is determined that the nonconforming work is a systematic or improper practices issue, the corrective action plan could include a more in depth investigation and a possible suspension of an analytical method. In all cases, the actions taken are documented using the laboratory's corrective action system (refer to Section 12).

Due to the frequently unique nature of environmental samples, sometimes, departures from documented policies and procedures are needed. When an analyst encounters such a situation, the problem is presented to the Department Manager. The Department Manager discusses the reason for the departure and proposes a resolution to the Technical Manager and the QA Manager. Depending on the nature of the departure, the PM or the Laboratory Director may be involved to contact the client to decide on a logical course of action. The analyst documents the departure using the NCM program in the LIMS. The NCM is then attached to the final report to the client.

Project Management may encounter situations whereby a client may request that a special procedure that is not standard laboratory practice be applied to a sample. The laboratory may accept or opt to reject the request based on technical or ethical merit. An example might be the need to report a compound that the laboratory does not normally report. The laboratory would not have validated the method for this compound following the procedures in Section 19 and would have to do so if it chooses to accept the request. Another example might be a request to report a compound based only on a one-point calibration. Such a request would need to be approved by the Technical Manager and the QA Manager, documented, and included in the client folder or project folder.

Any compound reported that is not in compliance with TNI Standard or the analytical method requirements must be reported in an NCM. In addition, regardless of whether the data is being reported to a TNI or non-TNI state, deviations must be reported in an NCM. Deviations must be noted and explained in the final reports to the client.

11.2 RESPONSIBILITIES AND AUTHORITIES

Corporate Legal SOP No. CW-L-S-002 outlines the general procedures for the reporting and investigation of data discrepancies and alleged incidents of misconduct or violations of TestAmerica's data integrity policies as well as the policies and procedures related to the determination of the potential need to recall data.

Under certain circumstances, the Laboratory Director, the Technical Manager, or the QA Manager may authorize departures from documented procedures or policies. The departures may be a result of procedural changes due to the nature of the sample, a one-time procedure for a client, QC failures with insufficient sample to re-analyze, etc. In most cases, the client will be informed of the departure prior to the reporting of the data. Any departures must be well documented using the laboratory's corrective action procedures. This information may also be documented in logbooks and/or data review checklists, as appropriate. Any impacted data must be referenced in a case narrative and/or flagged with an appropriate data qualifier.

Any misrepresentation or possible misrepresentation of analytical data discovered by any laboratory staff member must be reported to facility Senior Management (Laboratory Director, QA Manager, and Operations Manager) within 24 hours of discovery. The reporting of issues involving alleged violations of the company's Data Integrity or Manual Integration procedures must be conveyed to an ECO, Exec. Director of Quality & EHS, and the laboratory's Corporate Quality Director within 24 hours of discovery.

Whether an inaccurate result was reported due to calculation or quantitation errors, data entry errors, improper practices, or failure to follow SOPs, the data must be evaluated to determine the possible effect.

The Laboratory Director, QA Manager, ECOs, Corporate Quality, Executive VP of Operations, VP of Operations, and the Quality Directors have the authority and responsibility to halt work, withhold final reports, or suspend an analysis for due cause as well as authorize the resumption of work.

11.3 EVALUATION OF SIGNIFICANCE AND ACTIONS TAKEN

For each nonconforming issue reported, an evaluation of its significance and the level of management involvement needed is made. This includes reviewing its impact on the final data, whether or not it is an isolated or systematic issue, and how it relates to any special client requirements.

Corporate Legal SOP No. CW-L-S-002 distinguishes between situations when it would be appropriate for laboratory management to make the decision on the need for client notification (written or verbal) and data recall (report revision) and when the decision must be made with the assistance of the ECOs and Corporate Management. Laboratory level decisions are documented and approved using the laboratory's standard nonconformance/corrective action reporting in lieu of the data recall determination form contained in Corporate Legal SOP No. CW-L-S-002.

11.4 PREVENTION OF NONCONFORMING WORK

If it is determined that the nonconforming work could recur, further corrective actions must be made following the laboratory's corrective action system. On a monthly basis, the QA department evaluates nonconformances to determine if any nonconforming work has been repeated multiple times. If so, the laboratory's corrective action process may be followed.

11.5 METHOD SUSPENSION / RESTRICTION (STOP WORK PROCEDURES)

In some cases, it may be necessary to suspend/restrict the use of a method or target compound which constitutes significant risk and/or liability to the laboratory. Suspension/restriction procedures can be initiated by any of the persons noted in Section 11.2, Paragraph 5.

Prior to suspension/restriction, confidentiality will be respected, and the problem with the required corrective and preventive action will be stated in writing and presented to the Laboratory Director.

The Laboratory Director shall arrange for the appropriate personnel to meet with the QA Manager, as needed. This meeting shall be held to confirm that there is a problem, that suspension/restriction of the method is required and will be concluded with a discussion of the steps necessary to bring the method/target analyte or test fully back on line. In some cases, that may not be necessary if all appropriate personnel have already agreed there is a problem and there is agreement on the steps needed to bring the method, target analyte, or test fully back on line.

The QA Manager will also initiate a corrective action report, as described in Section 12, if one has not already been started. A copy of any meeting notes and agreed upon steps should be faxed or e-mailed by the laboratory to the appropriate VP of Operations and member of Corporate Quality. This fax/e-mail acts as notification of the incident.

After suspension/restriction, the laboratory will hold all reports to clients pending review. No faxing, mailing, or distributing through electronic means may occur. The report must not be posted for viewing on the Internet. It is the responsibility of the Laboratory Director to hold all reporting and to notify all relevant laboratory personnel regarding the suspension/restriction (i.e., Project Management, Sample Control, etc.). Clients will NOT generally be notified at this time. Analysis may proceed in some instances, depending on the nonconformance issue.

Within 72 hours, the QA Manager will determine if conformance is now met and reports can be released, OR determine the plan of action to bring work into conformance, and release work. A team, with all principals involved (Laboratory Director, QA Manager, and Operations Manager) can devise a start-up plan to cover all steps from client notification through conformance and release of reports. Project Management and the Directors of Client Services and Sales and Marketing must be notified if clients must be notified or if the suspension/restriction affects the laboratory's ability to accept work. The QA Manager must approve start-up or elimination of any restrictions after all corrective action is complete. This approval is given by final signature on the completed corrective action report.

SECTION 12

CORRECTIVE ACTION

12.1 OVERVIEW

A major component of TestAmerica's QA Program is the problem investigation and feedback mechanism designed to keep the laboratory staff informed on quality-related issues and to provide insight to problem resolution. When nonconforming work or departures from policies and procedures in the quality system or technical operations are identified, the corrective action procedure provides a systematic approach to assess the issues, restore the laboratory's system integrity, and prevent recurrence. Corrective actions are documented using the NCM program in the LIMS or the iCAT, as appropriate. Refer to Figure 12-1 and 12-2, respectively.

12.2 GENERAL

Problems within the quality system or within analytical operations may be discovered in a variety of ways, such as QC sample failures, internal or external audits, PT performance, client complaints, staff observation, etc.

The purpose of a corrective action system is to:

- Identify nonconformance events and assign responsibility for investigating.
- Resolve nonconformance events and assign responsibility for any required corrective action.
- Identify systematic problems before they become serious.
- Identify and track client complaints and provide resolution.

12.2.1 **NCM** – The NCM program in the LIMS is used to document nonconformances (e.g., anomalies and deficiencies). The types of nonconformances to be reported include, but are not limited to, the following:

- Deviations from an established procedure or SOP
- QC outside of limits
- Isolated reporting/calculation errors
- Client complaints requiring report revisions
- Discrepancies in materials / goods received vs. manufacturer packing slips

12.2.2 **iCAT** – The iCAT program is used to document incidents and complaints that are not considered isolated incidents, as well as those that require greater flexibility in the assignment and tracking of corrective actions and associated communications than is afforded by the NCM program. The types of incidents and complaints to be reported in the iCAT include, but are not limited to, the following:

- Client complaints (correctable or non-correctable)
- Internal and external audit findings
- Systematic reporting/calculation errors
- Identified poor process and method performance or questionable trends that are found in the review of NCMs
- Issues found while reviewing NCMs that warrant further investigation
- Data recall investigations
- Failed or unacceptable PT results
- Excessive revised reports

This will provide background documentation to enable root cause analysis and preventive action.

12.3 CLOSED-LOOP CORRECTIVE ACTION PROCESS

Any employee in the company can initiate a corrective action. There are four main components to a closed-loop corrective action process once an issue has been identified: Cause Analysis, Selection and Implementation of Corrective Actions (both short and long term), Monitoring of the Corrective Actions, and Follow-up.

12.3.1 Cause Analysis

- Upon discovery of a nonconformance event, the event must be defined and documented. An NCM or an iCAT record must be initiated, someone is assigned to investigate the issue, and the event is investigated for cause. Table 1 provides some general guidelines on determining responsibility for assessment.
- The cause analysis step is the key to the process as a long-term corrective action cannot be determined until the cause is determined.
- If the cause is not readily obvious, the Operations Manager, the Laboratory Director, or the QA Manager are consulted.

12.3.2 Selection and Implementation of Corrective Actions

- Where corrective action is needed, the laboratory shall identify potential corrective actions. The action(s) most likely to eliminate the problem and prevent recurrence are selected and implemented. Responsibility for implementation is assigned.
- Corrective actions shall be to a degree appropriate to the magnitude of the problem identified through the cause analysis.
- Whatever corrective action is determined to be appropriate, the laboratory shall document and implement the changes. The NCM or the iCAT is used for this documentation.

12.3.3 Root Cause Analysis

Root Cause Analysis is a class of problem solving (investigative) methods aimed at identifying the basic or causal factor(s) that underlie variation in performance or the occurrence of a significant failure. The Root Cause may be buried under seemingly innocuous events, many steps preceding the perceived failure. At first glance, the immediate response is typically directed at a symptom and not the cause. Typically, Root Cause Analysis would be best with three or more incidents to triangulate a weakness.

Systematically analyze and document the Root Causes of the more significant problems that are reported. Identify, track, and implement the corrective actions required to reduce the likelihood of recurrence of significant incidents. Trend the Root Cause data from these incidents to identify Root Causes that, when corrected, can lead to dramatic improvements in performance by eliminating entire classes of problems.

Identify the one event associated with problem and ask why this event occurred. Brainstorm the root causes of failures, for example, by asking why events occurred or conditions existed; and then why the cause occurred five consecutive times until you get to the Root Cause. For each of these sub events or causes, ask why it occurred. Repeat the process for the other events associated with the incident.

Root Cause Analysis does not mean the investigation is over. Look at technique, or other systems outside the normal indicators. Often, creative thinking will find Root Causes that ordinarily would be missed, and continue to plague the laboratory or operation.

12.3.4 Monitoring of the Corrective Actions

- The Laboratory Director, Technical Manager, and the QA Manager are responsible to ensure that the corrective action taken was effective.
- Ineffective actions are documented and re-evaluated until acceptable resolution is achieved. The Technical Manager is accountable to the Laboratory Director to ensure final acceptable resolution is achieved and documented appropriately.
- Each NCM is entered into the LIMS for tracking purposes and a monthly summary of all corrective actions is available for review to aid in ensuring that the corrective actions have taken effect.
- The QA Manager reviews monthly NCMs and iCAT issues for trends. Highlights are included in the QA monthly report (refer to Section 16). If a significant trend develops that adversely affects quality, an audit of the area is performed and corrective action implemented.
- Any out-of-control situations that are not addressed acceptably at the laboratory level may be reported to the Corporate Quality Director by the QA Manager, indicating the nature of the out-of-control situation and problems encountered in solving the situation.

12.3.5 Follow-up Audits

- Follow-up audits may be initiated by the QA Manager and shall be performed as soon as possible when the identification of a nonconformance casts doubt on the laboratory's conformance with its own policies and procedures, or on its conformance with state or federal requirements.
- These audits often follow the implementation of the corrective actions to verify effectiveness. An additional audit would only be necessary when a critical issue or risk to business is discovered.

(Also refer to Section 15.1.4, Special Audits.)

12.3.6 Timeline for corrective action responses

When anomalies, deficiencies, audit findings (internal and external), and client complaints affect the laboratory operations, corrective actions must be immediately initiated and put in place. To that effect, timely responses are expected from each laboratory employee. Table 12-2 defines the timeline for submitting corrective action responses.

12.4 TECHNICAL CORRECTIVE ACTIONS

In addition to providing acceptance criteria and specific protocols for technical corrective actions in the laboratory SOPs, the laboratory has general procedures to be followed to determine when departures from the documented policies, procedures, and QC have occurred (refer to Section 11). The documentation of these procedures is done using the NCM program in the LIMS or the laboratory's iCAT program, as appropriate.

Table 12-1 includes examples of general technical corrective actions. For specific criteria and corrective actions, refer to the analytical methods or specific laboratory SOPs. The laboratory may also maintain Work Instructions on these items.

Table 12-1 provides some general guidelines for identifying the individual(s) responsible for assessing each QC type and initiating corrective action. The table also provides general guidance on how a data set should be treated if associated QC measurements are unacceptable. Specific procedures are included in laboratory SOPs and in Sections 19 and 20. All corrective actions are reviewed monthly, at a minimum, by the QA Manager and highlights are included in the QA monthly report.

To the extent possible, samples shall be reported only if all QC measures are acceptable. If the deficiency does not impair the usability of the results, data will be reported with an appropriate data qualifier and/or the deficiency will be noted in the case narrative. Where sample results may be impaired, the PM is notified via the NCM and appropriate corrective action (e.g., re-analysis) is taken and documented.

12.5 BASIC CORRECTIONS

When mistakes occur in records, each mistake shall be crossed-out [not obliterated (e.g. no white-out)], and the correct value entered alongside. All such corrections shall be initialed (or signed) and dated by the person making the correction. In the case of records stored electronically, the original "uncorrected" file must be maintained intact and a second "corrected" file is created.

This same process applies to adding information to a record. All additions made later to the initial record must also be initialed (or signed) and dated.

When corrections are due to reasons other than obvious transcription errors, the reason for the corrections (or additions) shall also be documented.

Figure 12-1.

Example – NCM Program in LIMS

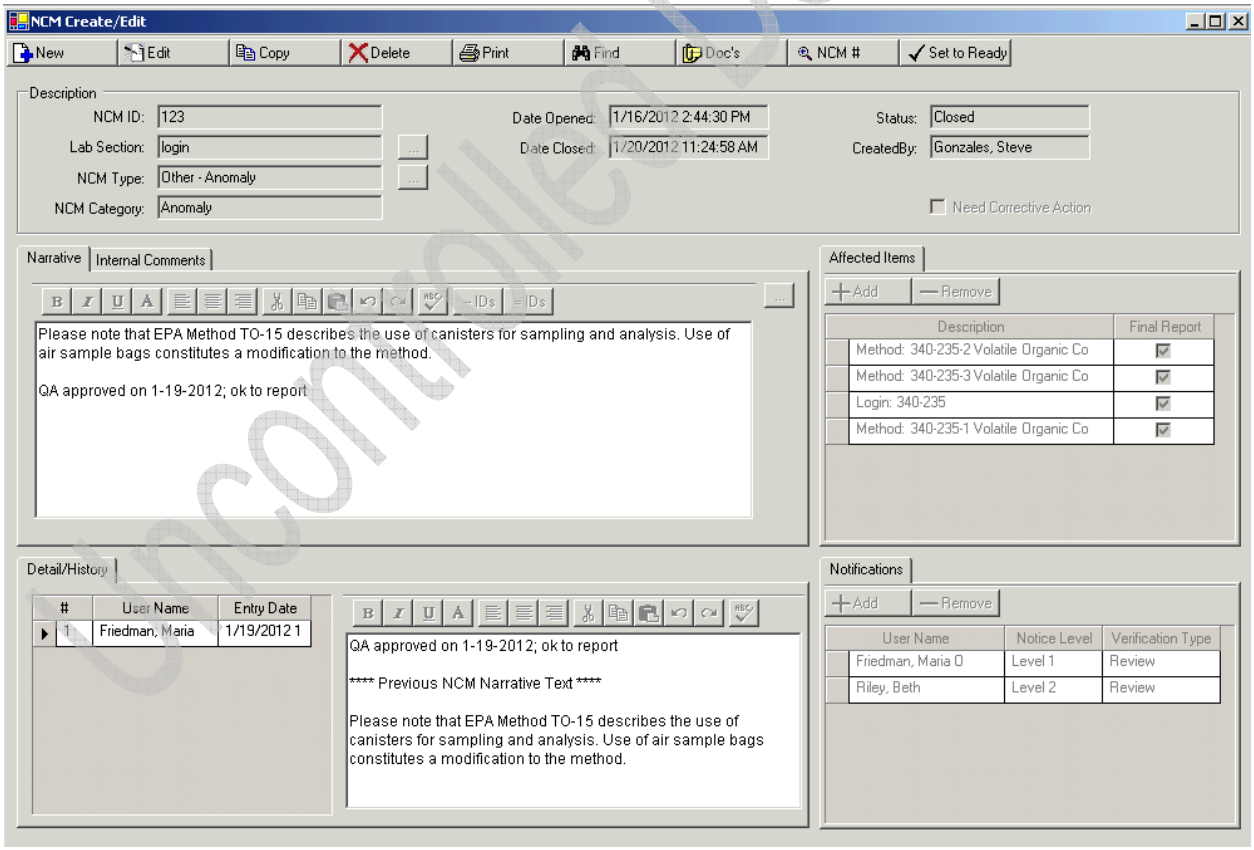


Figure 12-2.

Example – iCAT Program

Incident/Complaint Activity Tracker (iCAT)

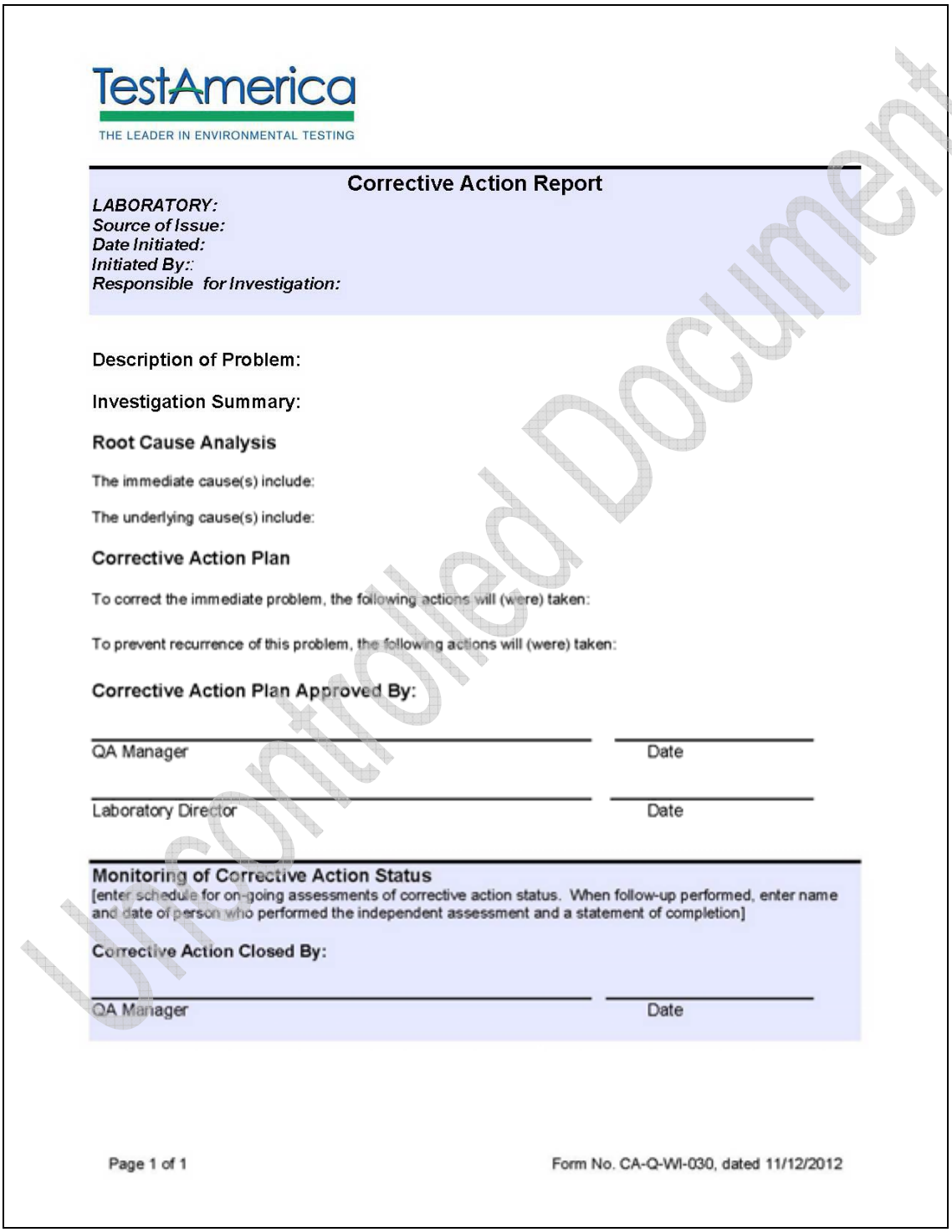
Home | Help | ADD NEW

User Logged In: DaystromW Status: Open Filter: For Any

	#	Opened By	Opened On	Type	Subject	Client	Status	Due Date	Action Item Total	Open Action Items	Pending QA Review	Action Due From
Select	8	WilsonD	2/21/2013	Data Report Issue - Incomplete Data	MRL Reporting		Open	4/30/2013	3	1	2	SchowA
Select	11	WilsonD	2/22/2013	Service Issue - Other	Disposal Requirements		Open	4/30/2013	1	1	0	DaystromW
Select	22	WilsonD	3/15/2013	Data Report Issue - Other	Procedure Changes	Chevron Refinery	Open	4/2/2013	1	1	0	DawesD
Select	23	WilsonD	3/15/2013	Technical Issue - QC Data	Special EDD	Ecology Auto Parts	Open	4/19/2013	1	1	0	DaystromW
Select	24	WilsonD	3/15/2013	Data Report Issue - Errors	Notice of Violation	CH2/Honeywell	Open	4/30/2013	5	1	4	DawesD
Select	25	WilsonD	3/19/2013	Data Report Issue - Other	Arizona Reporting		Open	4/30/2013	1	0	1	
Select	31	FriedmanM	3/28/2013	Audit Finding: external	Tesoro Audit 2013	Tesoro	Open	4/30/2013	3	0	3	
Select	35	FriedmanM	3/28/2013	Audit Finding: external	AZ Audit 2013	AZDHS	Open	3/28/2013	23	5	11	BanhA, HoangL, SchowA
Select	39	WilsonD	4/1/2013	Service Issue - Other	Vials leaking	American Inc for Eaton	Open	4/30/2013	3	1	0	PatelP
Select	40	WilsonD	4/2/2013	PT and Double Blind Failures	Failed NDMA PT sample for Aerojet	CRA for Aerojet Project	Open	4/12/2013	3	0	3	
Select	41	FriedmanM	4/2/2013	Audit finding: internal	Logbooks		Open	4/8/2013	7	5	2	BanhA, NguyenT, PatelP, SchowA, TranD
Select	44	WilsonD	4/4/2013	Technical Issue - Other	URS PAH Project	URS	Open	5/1/2013	4	3	1	BanhA, ReddyS, SierzchulaV
Select	46	WilsonD	4/7/2013	Data Report Issue - Incomplete Data	Did not log in 524	City of San Juan Capistrano	Open	4/15/2013	5	2	2	HarrisAW, WilsonD
Select	47	WilsonD	4/7/2013	Technical Issue - Other	525 contamination issue	TestAmerica Phoenix	Open	4/30/2013	1	0	1	
Select	48	WilsonD	4/7/2013	Audit Finding: external	608 analytes being inactivated	various	Open	4/30/2013	1	1	0	beauchaineb
Select	49	WilsonD	4/7/2013	Other	Cyanide default RL		Open	4/30/2013	1	1	0	SchowA
Select	50	WilsonD	4/7/2013	Other	Policy for MDL and RL's on Summary Analytes		Open	5/15/2013	2	1	1	FriedmanM
Select	51	HoangL	4/9/2013	Audit finding: internal	Checklist		Open	5/15/2013	1	1	0	HoangL
Select	54	HoangL	4/9/2013	Audit finding: internal	EPA 3546		Open	5/10/2013	1	1	0	BanhA

Figure 12-3.

Example – Corrective Action Report



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Corrective Action Report

LABORATORY:
Source of Issue:
Date Initiated:
Initiated By::
Responsible for Investigation:

Description of Problem:

Investigation Summary:

Root Cause Analysis

The immediate cause(s) include:

The underlying cause(s) include:

Corrective Action Plan

To correct the immediate problem, the following actions will (were) taken:

To prevent recurrence of this problem, the following actions will (were) taken:

Corrective Action Plan Approved By:

QA Manager _____ Date _____

Laboratory Director _____ Date _____

Monitoring of Corrective Action Status
[enter schedule for on-going assessments of corrective action status. When follow-up performed, enter name and date of person who performed the independent assessment and a statement of completion]

Corrective Action Closed By:

QA Manager _____ Date _____

Page 1 of 1 Form No. CA-Q-WI-030, dated 11/12/2012

Table 12-1.

Example – General Corrective Action Procedures

QC Activity *(Individual Responsible for Initiation/Assessment)*	Acceptance Criteria	Recommended Corrective Action
Initial Instrument Blank *(Analyst)*	- Instrument response < MDL	- Prepare another blank. - If still unacceptable, determine cause of contamination: reagents, environment, equipment failure, etc.
ICAL standards *(Analyst, Department Manager)*	- See details in laboratory SOP.	- Re-analyze standards. - If still unacceptable, re-prepare standards and recalibrate instrument.
ICV standard (second-source) *(Analyst, Department Manager)*	- See details in laboratory SOP.	- Re-prepare and re-analyze ICV standard. - If still unacceptable, then re-prepare ICAL standards or use new primary standards and recalibrate instrument.
CCV standard *(Analyst, Data Reviewer)*	- See details in laboratory SOP.	- Re-analyze CCV standard. - If still unacceptable, then recalibrate and re-analyze affected samples.
LCS and LCSD *(Analyst, Data Reviewer)*	- % Recovery and RPD within limits specified in the LIMS	- Batch must be re-prepared and re-analyzed. This includes any allowable marginal exceedence. When not using marginal exceedences, the following exceptions apply: 1) when the acceptance criteria for the positive control are exceeded high (i.e., high bias) and there are associated samples that are non-detects, then those non-detects may be reported with data qualifying codes; 2) when the acceptance criteria for the positive control are exceeded low (i.e., low bias), those sample results may be reported if they exceed a maximum regulatory limit/decision level, if known, with data qualifying codes. **Note:** If there is insufficient sample or the holding time cannot be met, contact client and report with flags.

QC Activity *(Individual Responsible for Initiation/Assessment)*	Acceptance Criteria	Recommended Corrective Action
MS and MSD *(Analyst, Data Reviewer)*	- % Recovery and RPD within limits specified in the LIMS	- If the acceptance criteria for duplicates or matrix spikes are not met because of matrix interferences, the acceptance of the analytical batch is determined by the validity of the LCS. - If the LCS is within acceptable limits the batch is acceptable. - The results of the duplicates, matrix spikes and the LCS are reported with the data set. - For matrix spike or duplicate results outside criteria, the data for that sample shall be reported with qualifiers.
Surrogates *(Analyst, Data Reviewer)*	- % Recovery within limits of method or within three standard deviations of the historical mean. See LIMS.	- Individual sample must be re-analyzed (to verify matrix interference, if any). Place comment in LIMS report. - Surrogate results outside criteria shall be reported with qualifiers.
Method Blank *(Analyst, Data Reviewer)*	< RL[1, 2]	- Re-analyze Method Blank. - If still positive, determine source of contamination. If necessary, reprocess (i.e., digest or extract) entire sample batch. Report method blank results. - Qualify the result(s) if the concentration of a targeted analyte in the Method Blank is at or above the reporting limit AND is > 1/10 of the amount measured in the sample.
PT Samples *(QA Manager, Technical Manager, Department Manager)*	- Criteria supplied by PT provider/supplier.	- Any failures or warnings must be investigated for cause. Failures may result in the need to repeat a PT study to show the problem is corrected. Certifying agencies must be informed of the results of the investigation of failures and the planned or performed corrective actions.

[1] Program- or project-specific requirements may dictate that method blank must not contain target analytes greater than ½ the RL.

[2] Except as noted below for certain compounds, or if specified otherwise by the client, the method blank should be below the MDL. Concentrations up to 5X RL will be allowed for the ubiquitous laboratory and reagent contaminants: Methylene chloride, Toluene, Acetone, 2-Butanone, and Phthalates **provided** they appear in similar levels in the reagent blank and client samples. This allowance presumes that the MDL is significantly below any regulatory limit to which the data are to be compared and that blank subtraction will not occur. For Benzene and Ethylene dibromide (EDB) and other analytes for which regulatory limits are extremely close to the MDL, the method blank must be below MDL.

QC Activity *(Individual Responsible for Initiation/Assessment)*	Acceptance Criteria	Recommended Corrective Action
Internal / External Audits *(QA Manager, Department Manager, Laboratory Director)*	- Defined in Quality System documentation such as SOPs, QAM, etc.	- Nonconformances must be investigated, must be reported through the NCM program in the LIMS and in the laboratory's iCAT program, as appropriate, and necessary corrective actions must be performed.
Reporting / Calculation Errors *(Depends on issue – possible individuals include Analysts, Data Reviewers, PMs, Department Manager, QA Manager, Corporate Quality, Corporate Management)*	- Corporate Legal SOP No. CW-L-S-002	- Corrective action is determined by type of error. Follow the procedures in Corporate Legal SOP No. CW-L-S-002.
Client Complaints *(PMs, Laboratory Director, Sales and Marketing)*		- Corrective action is determined by the type of complaint. For example, a complaint regarding an incorrect address on a report will result in the report being corrected and then follow-up must be performed on the reasons the address was incorrect (e.g., database needs to be updated).
QA Monthly Report (refer to Section 16 for an example) *(QA Manager, Laboratory Director)*	- QAM, SOPs	- Corrective action is determined by the type of issue. For example, NCMs for the month are reviewed and possible trends are investigated.

Table 12-2.

Timeline for Corrective Action Responses

Type of Corrective Action Response	Response Time
Acknowledgment (R&U) of QA Policies (either electronic or hardcopy)	1 to 14 calendar days, as designated by the QA Manager based on urgency of corrective action
Acknowledgment (R&U) of SOPs and SOP Revisions	14 to 30 calendar days, as designated by the QA Manager based on urgency of corrective action
Acknowledgment (R&U) of QA Manual and QA Manual Revisions	30 calendar days, or as designated by the QA Manager
Acknowledgment (R&U) of Published Methods	30 calendar days
Internal audit findings	7 to 30 calendar days, as designated by the QA Manager based on urgency of corrective action
External audit findings	7 to 30 calendar days, as designated by external auditor based on client requirements
Data Recall Investigations	3 to 7 days, as designated by QA Manager or Corporate QA Director
Client complaints	1 to 14 calendar days, as designated by the QA Manager based on urgency of corrective action
All Others	1 to 30 calendar days, as designated by the QA Manager based on urgency of corrective action

SECTION 13

PREVENTIVE ACTION / IMPROVEMENT

13.1 OVERVIEW

The laboratory's preventive action programs improve or eliminate potential causes of nonconforming product and/or nonconformance to the Quality System. This preventive action process is a proactive and continuous process of improvement activities that can be initiated through feedback from clients, employees, business providers, and affiliates. The QA department has the overall responsibility to ensure that the preventive action process is in place, and that relevant information on actions is submitted for management review.

Dedicating resources to an effective preventive action system emphasizes the laboratory's commitment to its Quality Program. It is beneficial to identify and address negative trends before they develop into complaints, problems, and corrective actions. Additionally, the laboratory continually strives to improve customer service and client satisfaction through continuous improvements to laboratory systems.

Opportunities for improvement may be discovered during management system reviews, review of the monthly QA Metrics Report, evaluation of internal or external audits, results and evaluation of PT performance, review of control charts and QC results, data analysis and review processing operations, client complaints, staff observation, etc.

The monthly Management Systems Metrics Report shows performance indicators in all areas of the laboratory and Quality System. These areas include revised reports, corrective actions, audit findings, internal auditing and data authenticity audits, client complaints, PT samples, holding time violations, SOPs, ethics training, etc. The metrics report is reviewed monthly by the laboratory management, Corporate QA, and TestAmerica's Executive Committee. These metrics are used in evaluating the management and quality system performance on an ongoing basis and provide a tool for identifying areas for improvement.

Items identified as continuous improvement opportunities to the management system may be issued as goals from the annual management systems review, recommendations from internal audits, white papers, Lesson Learned, Technical Services audit report, Technical Best Practices, or as Corporate or management initiatives.

The laboratory's corrective action process is integral to implementation of preventive actions. A critical piece of the corrective action process is the implementation of actions to prevent further occurrence of a nonconformance event. Historical review of corrective actions and non-conformances provides a valuable mechanism for identifying preventive action opportunities.

13.1.1 The following elements are part of a preventive action/process improvement system:

- Identification of an opportunity for preventive action or process improvement.
- Process for the preventive action or improvement.
- Define the measurements of the effectiveness of the process once undertaken.
- Execution of the preventive action or improvement.
- Evaluation of the plan using the defined measurements.
- Verification of the effectiveness of the preventive action or improvement.
- Close-out by documenting any permanent changes to the Quality System as a result of the Preventive Action or Process Improvement. Documentation of Preventive Action/Process Improvement. is incorporated into the monthly QA reports, corrective action process, and management review.

13.1.2 Any Preventive Actions/Process Improvement undertaken or attempted shall be taken into account during the annual Management Systems Review (Section 16). A highly detailed report is not required; however, a summary of successes and failures within the preventive action program is sufficient to provide management with a measurement for evaluation.

13.2 MANAGEMENT OF CHANGE

The Management of Change process is designed to manage significant events and changes that occur within the laboratory. Through these procedures, the potential risks inherent with a new event or change are identified and evaluated. The risks are minimized or eliminated through pre-planning and the development of preventive measures. Some of the types of changes covered under this system include facility changes, major accreditation changes, addition or deletion to capabilities or instrumentation, key personnel changes, and LIMS changes. TestAmerica Irvine has not implemented the Management of Change process at the time of the effective date of this QAM.

SECTION 14

CONTROL OF RECORDS

14.1 OVERVIEW

The laboratory maintains a records management system appropriate to its needs and that conforms with applicable standards or regulations, as required. The system produces unequivocal, accurate records that document all laboratory activities. The laboratory retains all original observations, calculations and derived data, calibration records, and a copy of the analytical report for a minimum of five years after it has been issued.

The laboratory has established procedures for identification, collection, indexing, access, filing, storage, maintenance, and disposal of quality and technical records. A record index is listed in Table 14-1. Records are of two types, either electronic or hardcopy paper formats, depending on whether the record is computer- or hand-generated (some records may be in both formats). Quality records are maintained by the QA department in the laboratory's local server, which is backed up as part of the regular laboratory backup. Technical records are maintained by the laboratory department responsible for generating the specific technical record. When archived, they are maintained by the individual Department Managers.

Table 14-1. Record Index[1]

	Record Types[1]:	Retention Time:
Technical Records	- Raw data - Logbooks[2] - Certificates of Analysis for standard materials - Analytical records	5 years from the date the laboratory report was mailed to the client[3]
Official Documents	- QAM - Work Instructions - Policies - SOPs - Policy memoranda - Manuals	5 years from document retirement date[3]

[1] Record types encompass hardcopy and electronic records.
[2] Examples of logbook types: Maintenance, Instrument Run/Analysis/Injection, Preparation (standard and samples), Standard and Reagent Receipt, Archiving, Temperature Monitoring (hardcopy or electronic records).
[3] See exceptions under Section 14.1.2.

	Record Types[1]:	Retention Time:
QA Records	- Data investigation[4] - Internal and External audits / responses - Laboratory certifications / permits - Corrective / Preventive actions - Management reviews - Method and software validation/ verification data - MDLs, IDLs, RLs, QC limits - DOCs - Storage blank reports - PT reports	5 years from archival[3]
Project Records	- Sample receipt and COC documentation - Contracts and Amendments - Correspondence - QAPPs - SAPs - Telephone logbooks - Laboratory reports	5 years from the date the laboratory report was mailed to the client[3]
Administrative Records	- Finance and Accounting	10 years
	- Employee Handbook	Indefinitely
	- Personnel files, employee signature and initials, training records (administrative and technical)	Refer to HR Manual
	- Administrative Policies	7 years
	- EHS Manual	7 years
	- Disposal records and permits	Indefinitely

14.1.1 All records are stored and retained in such a way that they are secure and readily retrievable at the laboratory facility or from an off-site location that provides a suitable environment to prevent damage, deterioration, and loss. All records shall be protected against fire, theft, loss, environmental deterioration, and vermin. In the case of electronic records, electronic or magnetic sources, storage media are protected from deterioration caused by magnetic fields and/or electronic deterioration.

Retrieval of archived records, whether from on-site or off-site storage, must be documented.

- For records stored in file boxes or file cabinets on-site, a sign-out sheet, available from the laboratory's designated Record Organizers (either PMAs or the EHS Coordinator), is completed to document who pulled out the record, what record was pulled out, when the record was pulled out, who returned the record, and when the record was returned. The sign-out sheet replaces the same spot where the original record was filed inside the file box or cabinet. The sign-out sheet is pulled out and

[4] Retention time is 5 years or the life of the affected raw data storage, whichever is greater (beyond 5 years, if ongoing project or pending investigation).

completed when the record is returned. This procedure ensures that the chronological order the record was originally filed is not disturbed, remains consistent, and facilitates tracking.

- For records stored off-site, the manifest of the records transferred off-site is consulted to determine which file boxes (that contain the record in question) have to be requested for retrieval:
  - Report Organizers are notified of the request to retrieve a particular record.
  - Report Organizers consult the manifest to determine the barcode assigned to the file box that contained the requested record.
  - Report Organizers transmit the request information to the off-site storage facility and the file box is delivered to the laboratory.
  - Report Organizers maintain records of all transfer of records (in and out) from the off-site storage facility.

Tracking of stored records both on-site and off-site is accomplished using the laboratory's Archived Records database. Details on the use of this database are addressed in laboratory SOP No. IR-QA-DOC.

Retention of records are maintained on-site at the laboratory for at least six months after their generation and moved off-site for the remainder of the required storage time. Records stored off-site should be accessible within two business days of a request for such records. Records are maintained for a minimum of five years unless otherwise specified by a client or regulatory requirement.

For raw data and project records, record retention shall be calculated from the date the project report is issued. For other records, such as controlled documents, QA, or administrative records, the retention time is calculated from the date the record is formally retired. Records related to the programs listed in Table 14-2 have lengthier retention requirements and are subject to the requirements in Section 14.1.3.

14.1.2 Programs with Longer Retention Requirements

Some regulatory programs have longer record retention requirements than the standard record retention time. These are detailed in Table 14-2 with their retention requirements. In these cases, the longer retention requirement is enacted. If special instructions exist such that client data cannot be destroyed prior to notification of the client, the container or box containing that data is marked as to who to contact for authorization prior to destroying the data. Records that must be archived longer than the normal five-year retention span are marked with an identifier that is used during archiving to

segregate such records from the general population. These records are then archived with the special retention time requirement clearly labeled.

Table 14-2. Example: Special Record Retention Requirements

Program	[1]Retention Requirement
Drinking Water – All States	5 years (project records)
Drinking Water Lead and Copper Rule	12 years (project records)
FIFRA – 40 CFR Part 160	Retain for life of research or marketing permit for pesticides regulated by EPA
TSCA - 40 CFR Part 792	10 years after publication of final test rule or negotiated test agreement

[1]Note: Extended retention requirements must be noted with the archive documents or addressed in facility-specific records retention procedures.

14.1.3 The laboratory has procedures to protect and backup records stored electronically and to prevent unauthorized access to or amendment of these records. All analytical data are maintained as hardcopy or in a secure readable electronic format. For analytical reports that are maintained as copies in PDF format, refer to Section 19.14.1 for more information.

14.1.4 The record keeping system allows for historical reconstruction of all laboratory activities that produced the analytical data, as well as rapid recovery of historical data. The history of the sample from when the laboratory took possession of the samples must be readily understood through the documentation. This shall include inter-laboratory transfers of samples and/or extracts.

- The records include the identity of personnel involved in sampling, sample receipt, preparation, and testing. All analytical work contains the initials (at least) of the personnel involved. The laboratory's copy of the COC is stored in the LIMS server. During sample login, the COC is scanned and this copy is stored in the PDF/COC folder in the LIMS server. If a correction was made to a COC at any time before final report is issued, the corrected COC is scanned and is stored with the first scanned copy in the same folder location in the LIMS server. The COC would indicate the name of the sampler. If any sampling notes are provided with a work order, they are kept with this package.
- All information relating to the laboratory facilities equipment, analytical test methods, and related laboratory activities, such as sample receipt, sample preparation, or data verification are documented.
- The record keeping system facilitates the retrieval of all working files and archived records for inspection and verification purposes (e.g., set format for naming electronic files, set format for what is included with a given analytical data set). PDF copies of final reports are automatically designated by the LIMS as "Final" and include the job number (e.g., "440-

12345 Final Report.pdf"). The final report package would include the following information in the following order:

- Cover page
- Table of Contents
- Definitions/Glossary
- Case Narrative (with NCMs, if applicable)
- Detection Summary
- Client Sample Results
- QC Sample Results
- QC Association Summary
- Lab Chronicle
- Certification Summary
- Method Summary
- Sample Summary
- COC
- Receipt Checklists
- Sampling equipment field data sheets and certification, if applicable
- Subcontract report, if applicable
- Raw data, if requested

- Instrument data are stored and identified sequentially by instrument. A given day's analyses are maintained in the order of the analysis. Injection logbooks are maintained for each instrument or method; a copy of each day's injection log or instrument sequence is stored with the data to aid in reconstructing an analytical sequence. Where an analysis is performed without an instrument, bound logbooks or bench sheets are used to record and file data. Standard and reagent information is recorded in logbooks and/or entered into the LIMS for each method.
- Changes to hardcopy records shall follow the procedures outlined in Sections 12 and 19. Changes to electronic records in LIMS or instrument data are recorded in audit trails.
- The reason for a signature or initials on a document is clearly indicated in the records such as "Sampled by," "Received by," "Prepared by," "Reviewed by," "Analyzed by," or Approved by."
- All generated data, except those that are generated by automated data collection systems, are recorded directly, promptly, and legibly in permanent dark ink.
- Hardcopy data may be scanned into PDF for record storage as long as the scanning process can be verified in order to ensure that no data is lost and the data files and storage media must be tested to verify the

laboratory's ability to retrieve the information prior to the destruction of the hardcopy that was scanned.

- Also refer to Section 19.14.1 (Computer and Electronic Data Related Requirements).

14.2 TECHNICAL AND ANALYTICAL RECORDS

14.2.1 The laboratory retains records of original observations, derived data and sufficient information to establish an audit trail, calibration records, staff records, and a copy of each analytical report issued, for a minimum of five years unless otherwise specified by a client or regulatory requirement. The records for each analysis shall contain sufficient information to enable the analysis to be repeated under conditions as close as possible to the original. The records shall include the identity of laboratory personnel responsible for the sampling, performance of each analysis, and reviewing of results.

14.2.2 Observations, data, and calculations are recorded real-time and are identifiable to the specific task.

14.2.3 Changes to hardcopy records shall follow the procedures outlined in Section 12 and 19. Changes to electronic records in LIMS or instrument data are recorded in audit trails.

The essential information to be associated with analysis, such as strip charts, tabular printouts, computer data files, analytical notebooks, and injection logs, include:

- Laboratory sample ID code
- Date of analysis; time of analysis is also required if the holding time is 72 hours or less, or when time critical steps are included in the analysis (e.g., drying, incubation, etc.); instrumental analyses have the date and time of analysis recorded as part of their general operations. Where a time critical step exists in an analysis, location for such a time is included as part of the documentation in a specific logbook or on a benchsheet.
- Instrumentation identification and instrument operating conditions/parameters. Operating conditions/parameters are typically recorded in the instrument maintenance logbook.
- Analysis type
- All manual calculations and manual integrations
- Analyst's or operator's initials/signature
- Sample preparation including, but not limited to, cleanup, separation protocols, incubation periods or subculture, ID codes, volumes, weights, instrument printouts, meter readings, calculations, reagents
- Test results
- Standard and reagent origin, receipt, preparation, and use

- Calibration criteria, frequency, and acceptance criteria
- Data and statistical calculations, review, confirmation, interpretation, assessment, and reporting conventions
- QC protocols and assessment
- Electronic data security, software documentation and verification, software and hardware audits, backups, and records of any changes to automated data entries
- Method performance criteria including expected QC requirements. These are indicated both in the LIMS and in specific analytical report formats.

14.2.4 All logbooks used during receipt, preparation, storage, analysis, and reporting of samples or monitoring of support equipment shall undergo a documented supervisory or peer review on a monthly basis.

14.3 LABORATORY SUPPORT ACTIVITIES

In addition to documenting all of the above-mentioned activities, the following are retained QA records and project records (previous discussions in this section relate where and how these data are stored):

- All original raw data, whether hardcopy or electronic, for calibrations, samples, and QC measures, including analysts' worksheets and data output records (chromatograms, strip charts, and other instrument response readout records)
- A written description or reference to the specific test method used, which includes a description of the specific computational steps used to translate parametric observations into a reportable analytical value
- Copies of final reports
- Archived SOPs
- Correspondence relating to laboratory activities for a specific project
- All corrective action reports, audits, and audit responses
- PT results and raw data
- Results of data review, verification, and cross-checking procedures

14.3.1 Sample Handling Records

Records of all procedures to which a sample is subjected while in the possession of the laboratory are maintained. These include, but are not limited to, records pertaining to:

- Sample preservation, including appropriateness of sample container and compliance with holding time requirement
- Sample identification, receipt, acceptance or rejection, and login
- Sample storage and tracking, including shipping receipts, sample transmittal/COC forms

- Procedures for the receipt and retention of samples, including all provisions necessary to protect the integrity of samples

14.4 ADMINISTRATIVE RECORDS

The laboratory also maintains the administrative records in either electronic or hardcopy form. Refer to Table 14-1.

14.5 RECORDS MANAGEMENT, STORAGE, AND DISPOSAL

All records (including those pertaining to test equipment), certificates, and reports are safely stored, held secure, and in confidence to the client. Certification-related records are available upon request.

All information necessary for the historical reconstruction of data is maintained by the laboratory. Records that are stored only on electronic media must be supported by the hardware and software necessary for their retrieval.

Records that are stored or generated by computers or personal computers have hardcopy, write-protected backup copies, or an electronic audit trail controlling access.

The laboratory has a record management system (a.k.a., document control) for control of laboratory notebooks, instrument logbooks, standards logbooks, and records for data reduction, validation, storage, and reporting. Laboratory notebooks or logbooks issued by the QA department are numbered sequentially. No more than one notebook or logbook is active at a time for a given analysis, instrument, or task, so all data are recorded sequentially within a series of sequential notebooks or logbooks. Records are considered archived when noted as such in the records management system.

14.5.1 Transfer of ownership

In the event that the laboratory transfers ownership or goes out of business, the laboratory shall ensure that the records are maintained or transferred according to client's instructions. Upon ownership transfer, record retention requirements shall be addressed in the ownership transfer agreement and the responsibility for maintaining archives is clearly established. In addition, in cases of bankruptcy, appropriate regulatory and state legal requirements concerning laboratory records must be followed. In the event of the closure of the laboratory, all records will revert to the control of the Corporate headquarters. Should the entire company cease to exist, as much notice as possible will be given to clients and the accrediting bodies who have worked with the laboratory during the previous 5 years of such action.

14.5.2 Records Disposal

Records are removed from the archive and destroyed after five years, unless otherwise specified by a client or regulatory requirement. On a project-specific or program basis, clients may need to be notified prior to record destruction. Records are destroyed in a manner that ensures their

confidentiality such as shredding, mutilation, or incineration. Refer to Tables 14-1 and 14-2.

Electronic copies of records must be destroyed by erasure or physically damaging off-line storage media so no records can be read.

If a third-party records management company is hired to dispose of records, a “Certificate of Destruction” is required.

SECTION 15

AUDITS

15.1 INTERNAL AUDITS

Internal audits are performed to verify that laboratory operations comply with the requirements of the laboratory's quality system and with the external quality programs under which the laboratory operates. Audits are planned and organized by the QA Manager. Personnel conducting the audits should be independent of the area being evaluated. Auditors will have sufficient authority, access to work areas, and organizational freedom necessary to observe all activities affecting quality and to report the assessments to laboratory management and, when requested, to Corporate management.

Audits are conducted and documented, as described in Corporate Quality SOP No. CW-Q-S-003. The types and frequency of routine internal audits are described in Table 15-1. Special or ad hoc assessments may be conducted, as needed, under the direction of the QA Manager.

Table 15-1. Types of Internal Audits and Frequency

Description	Performed by	Frequency
Quality Systems Audits	QA Department, QA-approved designee, or Corporate Quality	All areas of the laboratory, annually
Quality Technical Audits	Joint responsibility: a) QA Manager or designee b) Technical Manager or designee (Refer to Corporate Quality SOP CW-Q-S-003)	50% of methods annually
SOP Method Compliance	Joint responsibility: a) QA Manager or designee b) Technical Manager or designee (Refer to Corporate Quality SOP CW-Q-S-003)	Every 2 years, except for all SOPs affecting Drinking Water analyses (including QA and administrative SOPs)
Special Audits	QA Department or designee	Surveillance or spot checks performed as needed (e.g., to confirm corrective actions from other audits)

Description	Performed by	Frequency
PT	Analysts, with QA oversight	Two successful per year for each TNI field of testing, or as dictated by regulatory requirements

15.1.1 Annual Quality Systems Audit

An annual quality systems audit is required to ensure compliance to analytical methods and SOPs, TestAmerica's Data Integrity and Ethics Policies, TNI quality systems, client and State requirements, and the effectiveness of the internal controls of the analytical process including, but not limited to, data review, QCs, preventive action, and corrective action. The completeness of earlier corrective actions is assessed for effectiveness and sustainability. The audit is divided into sections for each operating or support area of the laboratory, and each section is comprehensive for a given area. The area audits may be performed on a rotating schedule throughout the year to ensure adequate coverage of all areas. This schedule may change as situations in the laboratory warrant.

15.1.2 QA Technical Audits

QA technical audits are based on client projects, associated sample delivery groups, and the methods performed. Reported results are compared to raw data to verify the authenticity of results. The validity of calibrations and QC results are compared to data qualifiers, footnotes, and case narratives. Documentation is assessed by examining injection logs and records of manual integrations. Manual calculations are checked. Where possible, electronic audit miner programs (e.g., Chrom AuditMiner) are used to identify unusual manipulations of the data deserving closer scrutiny. QA technical audits will include all methods within a two-year period.

15.1.3 SOP Method Compliance

Compliance of all SOPs with the source methods and compliance of the operational groups with the SOPs will be assessed by the Technical Manager or qualified designee, at least every two years, or annually for methods, QA, and administrative SOPs related to the Drinking Water program. The work of each newly hired analyst is assessed within three months of working independently (e.g., completion of method IDOC). In addition, as analysts add methods to their capabilities, (new IDOC) reviews of the analyst work products will be performed within three months of completing the documented training.

15.1.4 Special Audits

Special audits are conducted on an as needed basis, generally as a follow-up to specific issues such as client complaints, corrective actions, PT results, data audits, system audits, validation comments, regulatory audits, or suspected ethical improprieties. Special audits are focused on a specific

issue, and report format, distribution, and timeframes are designed to address the nature of the issue.

15.1.5 Performance Testing

The laboratory participates in performance audits conducted through the analysis of PT samples provided by a third party. PT samples are analyzed either annually or semi-annually based on the laboratory's accreditation requirements (e.g., NELAP/TNI and Nevada DEP require semi-annual PT samples while Arizona DHS and California ELAP require annual PT samples). The laboratory generally participates in the following types of PT studies: Drinking Water (WS), Non-potable Water (WP), Underground Storage Tank (UST), and Soil (HW).

It is TestAmerica's policy that PT samples be treated as typical samples in the production process. Furthermore, where PT samples present special or unique problems in the regular production process, they may need to be treated differently, as would any special or unique request submitted by any client. The QA Manager must be consulted and must be in agreement with any decisions made to treat a PT sample differently due to some special circumstance.

Written responses to unacceptable PT results are required. In some cases, it may be necessary for blind QC samples to be submitted to the laboratory to show a return to control.

15.2 EXTERNAL AUDITS

External audits are performed when certifying agencies or clients conduct on-site inspections or submit performance testing samples for analysis. It is TestAmerica's policy to cooperate fully with regulatory authorities and clients. The laboratory makes every effort to provide the auditors with access to personnel, documentation, and assistance. Department Managers are responsible for providing corrective actions to the QA Manager who coordinates the response for any deficiencies discovered during an external audit. Audit responses are due in the time allotted by the client or agency performing the audit. When requested, a copy of the audit report and the laboratory's corrective action plan will be forwarded to Corporate Quality.

The laboratory cooperates with clients and their representatives to monitor the laboratory's performance in relation to work performed for the client. The client may only view data and systems related directly to the client's work. All efforts are made to keep other client information confidential.

15.2.1 Confidential Business Information Considerations

During on-site audits, on-site auditors may come into possession of information claimed as business confidential. A business confidentiality claim is defined as "a claim or allegation that business information is entitled to confidential treatment for reasons of business confidentiality or a request for

a determination that such information is entitled to such treatment." When information is claimed as business confidential, the laboratory must place on (or attach to) the information at the time it is submitted to the auditor, a cover sheet, stamped or typed legend or other suitable form of notice, employing language such as "trade secret," "proprietary," or "company confidential." Confidential portions of documents otherwise non-confidential must be clearly identified. CBI may be purged of references to client identity by the responsible laboratory official at the time of removal from the laboratory. However, sample identifiers may not be obscured from the information. Additional information regarding CBI can be found in the 2009 TNI Standard.

15.3 AUDIT FINDINGS

Audit findings are documented using the iCAT. The laboratory's corrective action responses for both types of audits (internal or external) may include action plans that could not be completed within a pre-defined timeframe. In these instances, a completion date must be set and agreed to by Operations Management and the QA Manager.

Developing and implementing corrective actions to findings is the responsibility of the Department Manager where the finding originated. Findings that are not corrected by specified due dates are reported monthly to management in the QA monthly report. . When requested, a copy of the audit report and the laboratory's corrective action plan will be forwarded to Corporate Quality.

If any audit finding casts doubt on the effectiveness of the operations or on the correctness or validity of the laboratory's test results, the laboratory shall take timely corrective action, and shall notify clients in writing if the investigations show that the laboratory results have been affected. Once corrective action is implemented, a follow-up audit is scheduled to ensure that the problem has been corrected.

Clients must be notified promptly in writing, of any event such as the identification of defective measuring or test equipment that casts doubt on the validity of results given in any test report or amendment to a test report. The investigation must begin within 24 hours of discovery of the problem and all efforts are made to notify the client within two weeks after the completion of the investigation.

SECTION 16

MANAGEMENT REVIEWS

16.1 QUALITY ASSURANCE REPORT

A comprehensive QA report shall be prepared each month by the laboratory's QA department and forwarded to the Laboratory Director, Operations Manager, their Corporate Quality Director as well as their VP of Operations. All aspects of the QA system are reviewed to evaluate the suitability of policies and procedures. During the course of the year, the Laboratory Director, VP of Operations, or Corporate Quality may request that additional information be added to the report.

On a monthly basis, Corporate Quality compiles information from all the monthly laboratory reports. The Corporate Quality Directors prepare a report that includes a compilation of all metrics and notable information and concerns regarding the QA programs within the laboratories. The report also includes a listing of new regulations that may potentially impact the laboratories. This report is presented to the Senior Management Team and VPs of Operations.

16.2 ANNUAL MANAGEMENT SYSTEMS REVIEW

The senior laboratory management team (Laboratory Director, Operations Manager, QA Manager, and Manager of Project Management) conducts an annual review of its quality systems and the LIMS to ensure its continuing suitability and effectiveness in meeting client and regulatory requirements and to introduce any necessary changes or improvements. It will also provide a platform for defining goals, objectives, and action items that feed into the laboratory planning system. Corporate Operations and Corporate Quality may be included in this meeting at the discretion of the Laboratory Director. The LIMS review consists of examining any audits, complaints, or concerns that have been raised through the year that are related to the LIMS. The laboratory will summarize any critical findings that cannot be solved by the laboratory and report them to Corporate IT.

This management systems review (Corporate Quality SOP No. CW-Q-S-004 and Work Instruction No. CW-Q-WI-003) uses information generated during the preceding year to assess the "big picture" by ensuring that routine actions taken and reviewed on a monthly basis are not components of larger systematic concerns. The monthly review should keep the quality systems current and effective, therefore, the annual review is a formal senior management process to review specific existing documentation. Significant issues from the following documentation are compiled or summarized by the QA Manager prior to the review meeting:

- Matters arising from the previous annual review
- Prior monthly QA reports issues
- Laboratory QA metrics
- Review of report re-issue requests
- Review of client feedback and complaints

- Issues arising from any prior management or staff meetings
- Minutes from prior senior laboratory management team meetings. Issues that may be raised from these meetings include:
  - Adequacy of staff, equipment, and facility resources
  - Adequacy of policies and procedures
  - Future plans for resources and testing capability and capacity
- The annual internal double blind PT program sample performance (if performed)
- Compliance to the Ethics Policy and Data Integrity Plan. Include any evidence/incidents of inappropriate actions or vulnerabilities related to data integrity.

A report is generated by the QA Manager and management. The report is distributed to the appropriate VP of Operations and the Corporate Quality Director. The report includes, but is not limited to:

- The date of the review and the names and titles of participants
- A reference to the existing data quality-related documents and topics that were reviewed
- Quality system or operational changes or improvements that will be made as a result of the review [e.g., an implementation schedule including assigned responsibilities for the changes (Action Table)].

Changes to the quality systems requiring update to the QAM shall be included in the next revision of the QAM.

16.3 POTENTIAL INTEGRITY-RELATED MANAGERIAL REVIEWS

Potential integrity issues (data- or business-related) must be handled and reviewed in a confidential manner until such time as a follow-up evaluation, full investigation, or other appropriate actions have been completed and issues clarified. Corporate Legal SOP No. CW-L-S-002 shall be followed. All investigations that result in finding of inappropriate activity are documented and include any disciplinary actions involved, corrective actions taken, and all appropriate notification of clients.

TestAmerica's CEO, Executive VP of Operations, VP of Client & Technical Services, VPs of Operations, and Corporate Quality Directors receive a monthly report from the Exec. Director of Quality & EHS summarizing any current data integrity or data recall investigations. The VPs of Operations are also made aware of progress on these issues for their specific laboratories.

SECTION 17

PERSONNEL

17.1 OVERVIEW

The laboratory's management believes that its highly qualified and professional staff is the single most important aspect in assuring a high level of data quality and service. The staff consists of professionals and support personnel as outlined in the organization charts in Figure 4-1.

All personnel must demonstrate competence in the areas where they have responsibility. Any staff who is undergoing training shall have appropriate supervision until they have demonstrated their ability to perform their job function on their own. Staff shall be qualified for their tasks based on appropriate education, training, experience, and/or demonstrated skills, as required.

The laboratory employs sufficient personnel with the necessary education, training, technical knowledge, and experience for their assigned responsibilities.

All personnel are responsible for complying with all QA/QC requirements that pertain to the laboratory and their area of responsibility. Each staff member must have a combination of experience and education to adequately demonstrate a specific knowledge of their particular area of responsibility. Technical staff must also have a general knowledge of laboratory operations, test methods, QA/QC procedures, and records management.

Laboratory management is responsible for formulating goals for laboratory staff, with respect to education, training and skills, and ensuring that the laboratory has a policy and procedures for identifying training needs and providing training of personnel. The training shall be relevant to the present and anticipated responsibilities of the laboratory staff.

The laboratory only uses personnel that are employed by, or under contract to, the laboratory. Contracted personnel, when used, must meet competency standards of the laboratory and work in accordance to the laboratory's quality system.

17.2 EDUCATION AND EXPERIENCE REQUIREMENTS FOR TECHNICAL PERSONNEL

The laboratory makes every effort to hire analytical staff that possesses a college degree (AA, BA, and BS) in an applied science with some chemistry in the curriculum. Selection of qualified candidates for laboratory employment begins with documentation of minimum education, training, and experience prerequisites needed to perform the prescribed task. Minimum education and training requirements for TestAmerica employees are outlined in job descriptions and are generally summarized for analytical staff in the table below. Where specific education and experience requirements are dictated by regulatory programs or States, these requirements must be met.

The laboratory maintains job descriptions for all personnel who manage, perform, or verify work affecting the quality of the environmental testing the laboratory performs. Job descriptions are located in the TestAmerica Intranet's Human Resources webpage.

Experience and specialized training are occasionally accepted in lieu of a college degree (basic lab skills such as using a balance, colony counting, aseptic or quantitation techniques, etc., are also considered).

As a general rule for analytical staff:

Table 17-1. Education and Experience Guidelines

Specialty	Education	Experience
Extractions, Digestions, some electrode methods (pH, Dissolved Oxygen, Redox, etc.), or Titrimetric and Gravimetric Analyses	H.S. Diploma	On the job training
GFAA, CVAA, FLAA, Single component or short list chromatography (e.g., Fuels, BTEX-GC, IC)	A college degree in an applied science or 2 years of college and at least 1 year of college chemistry, or	2 years prior analytical experience is required
ICP, ICPMS, Long list or complex chromatography (e.g., Pesticides, PCB, Herbicides, etc.), HPLC, GCMS	A college degree in an applied science or 2 years of college chemistry, or	5 years of prior analytical experience is required
Spectra interpretation	A college degree in an applied science or 2 years of college chemistry, and	2 years relevant experience or 5 years of prior analytical experience
Technical Managers/Department Managers	Bachelor degree in an applied science or engineering with 24 semester hours in chemistry (or 16 semester hours in general microbiology and biology for Microbiology), and	2 years experience in environmental analysis of representative analytes for which they will oversee An advanced (MS, PhD) degree may substitute for one year of experience

When an analyst does not meet these requirements, they can perform a task under the direct supervision of a qualified (with approved DOC) personnel (analyst, peer reviewer, Department Manager, or Technical Manager) and are considered an analyst in training. The person supervising an analyst in training is accountable for the quality of the analytical data and must review and approve data and associated corrective actions.

17.3 TRAINING

The laboratory is committed to furthering the professional and technical development of employees at all levels.

Orientation to the laboratory's policies and procedures, in-house method training, and employee attendance at outside training courses and conferences all contribute toward employee proficiency. Below are examples of required employee training:

Table 17-2. Required Employee Training

Required Training	Time Frame	Employee Type
EHS	Prior to laboratory work	All
Ethics – New Hires	1 week of hire	All
Ethics – Comprehensive	90 days of hire	All
Data Integrity	30 days of hire	Technical and PMs
QAM	30 days of hire	All
Ethics – Refresher	Quarterly	All
IDOC	Prior to unsupervised method performance or analysis of client samples	Technical

The laboratory maintains records of relevant authorization/competence, education, professional qualifications, training, skills, and experience of technical personnel (including contracted personnel) as well as the date that approval/authorization was given. These records are kept on file at the laboratory. Also refer to Section 19.4.2.

The training of technical staff is kept up to date by:

- Documentation in each employee training file that they have read, understood, and agreed to follow the most recent version of the QAM and SOPs in their area of responsibility. This documentation is updated as the QAM and the SOPs are updated.
- Documentation from any training courses or workshops on specific equipment, analytical techniques, or other relevant topics are maintained in their training file.
- Documentation of proficiency (refer to Section 19).
- An Ethics Agreement signed by each staff member (renewed each year) and evidence of quarterly ethics training.
- A Confidentiality Agreement signed by each staff member signed at the time of employment and annually.
- Documentation and attestation forms, maintained by Human Resources, on employment status and records, benefit programs, timekeeping/payroll, and employee conduct (e.g., ethics violations). This information is maintained in the employee's secured personnel file.

Evidence of successful training could include such items as:

- Adequate documentation of training within operational areas, including one-on-one

technical training for individual technologies, and particularly for people cross-trained.

- Analysts knowledge to refer to QAM and QA SOPs for quality issues.
- Analysts following SOPs, i.e., practice matches SOPs.
- Analysts regularly communicate to supervisors and QA if SOPs need revision, rather than waiting for auditors to find problems.

Further details regarding the laboratory's training program are described in laboratory SOP No. IR-QA-TRAIN.

17.4 DATA INTEGRITY AND ETHICS TRAINING PROGRAM

Establishing and maintaining a high ethical standard is an important element of a quality system. Ethics and data integrity training is integral to the success of TestAmerica and is provided for each employee at TestAmerica. It is a formal part of the initial employee orientation within one week of hire followed by technical data integrity training within 30 days, comprehensive training within 90 days, and quarterly refresher for all employees. The Laboratory Director or the QA Manager at each facility typically performs the ethics training for their staff.

In order to ensure that all personnel understand the importance TestAmerica places on maintaining high ethical standards at all times, TestAmerica has established an Ethics Policy (Corporate Legal Document No. CW-L-P-004) and an Ethics Statement. All initial and annual training is documented by signature on the signed Ethics Statement demonstrating that the employee has participated in the training and understands their obligations related to ethical behavior and data integrity.

Violations of this Ethics Policy will not be tolerated. Employees who violate this policy will be subject to disciplinary actions up to and including termination. Criminal violations may also be referred to the Government for prosecution. In addition, such actions could jeopardize TestAmerica's ability to do work on Government contracts, and for that reason, TestAmerica has a Zero Tolerance approach to such violations.

Employees are trained as to the legal and environmental repercussions that result from data misrepresentation. Key topics covered in the presentation include:

- Organizational mission and its relationship to the critical need for honesty and full disclosure in all analytical reporting
- Ethics Policy
- How and when to report ethical/data integrity issues; confidential reporting
- Record keeping
- Discussion regarding data integrity procedures
- Specific examples of breaches of ethical behavior (e.g., peak shaving, altering data or computer clocks, improper macros, accepting/offering kickbacks, illegal accounting practices, unfair competition/collusion)

- Internal monitoring; investigations and data recalls
- Consequences for infractions including potential for immediate termination, debarment, or criminal prosecution.
- Importance of proper written narration/data qualification by the analyst and PM with respect to those cases where the data may still be usable but are in one sense or another partially deficient

Additionally, a data integrity hotline (800-736-9407) is maintained by TestAmerica and administered by the Corporate Quality department.

SECTION 18

ACCOMMODATIONS AND ENVIRONMENTAL CONDITIONS

18.1 OVERVIEW

The laboratory is a 45,000 ft^2 secure laboratory facility with controlled access and designed to accommodate an efficient work flow and to provide a safe and comfortable work environment for employees. All visitors sign in and are escorted by laboratory personnel. Access is controlled by various measures.

The laboratory is equipped with structural safety features. Each employee is familiar with the location, use, and capabilities of general and specialized safety features associated with their work place. The laboratory provides and requires the use of protective equipment including safety glasses, protective clothing, gloves, etc. The OSHA and other regulatory agency guidelines regarding required amounts of bench and fume hood space, lighting, ventilation (temperature and humidity controlled), access, and safety equipment are met or exceeded.

Traffic flow through sample preparation and analysis areas is minimized to reduce the likelihood of contamination. Adequate floor space and bench top area is provided to allow unencumbered sample preparation and analysis space. Sufficient space is also provided for storage of reagents and media, glassware, and portable equipment. Ample space is also provided for refrigerated sample storage before analysis and archival storage of samples after analysis. Laboratory HVAC and deionized water systems are designed to minimize potential trace contaminants.

The laboratory is separated into specific areas for sample receiving, sample preparation, volatile organic sample analysis, non-volatile organic sample analysis, inorganic sample analysis, microbiological sample analysis, and administrative functions.

18.2 ENVIRONMENT

Laboratory accommodation, test areas, energy sources, and lighting are adequate to facilitate proper performance of tests. The facility is equipped with HVAC systems appropriate to the needs of environmental testing performed at this laboratory.

The environment in which these activities are undertaken does not invalidate the results or adversely affect the required accuracy of any measurements.

The laboratory provides for the effective monitoring, control, and recording of environmental conditions that may affect the results of environmental tests, as required by the relevant specifications, methods, and procedures. Such environmental conditions include humidity, voltage, pressure, temperature, and vibration levels in the laboratory.

When any of the method- or regulatory-required environmental conditions change to a point where they may adversely affect test results, analytical testing will be discontinued until the environmental conditions are returned to the required levels.

Environmental conditions of the facility housing the computer network and the LIMS are regulated to protect against raw data loss.

18.3 WORK AREAS

There is effective separation between neighboring areas when the activities therein are incompatible with each other. Examples include:

- Microbiological culture handling and sample incubation areas
- Volatile organic chemical handling areas (e.g., sample preparation and waste disposal) and volatile organic chemical analysis areas

Access to and use of all areas affecting the quality of analytical testing is defined and controlled by secure access to the laboratory building, as described below in the Building Security section.

Adequate measures are taken to ensure good housekeeping in the laboratory and to ensure that any contamination does not adversely affect data quality. These measures include regular cleaning to control dirt and dust within the laboratory. Work areas are available to ensure an unencumbered work environment. Work areas include:

- Access and entry ways to the laboratory
- Sample receipt
- Sample storage
- Chemical and waste storage
- Data handling and storage
- Sample processing
- Sample analysis

Refer to the following documents and procedures for specific requirements for microbiological laboratory facility:

- Standard Methods, 20th Ed., 9020B, Section 2
- TNI V1M5, 1.7.3.7.a

18.4 FLOOR PLAN

A floor plan can be found in Appendix 1.

18.5 BUILDING SECURITY

Building keys and alarm codes are distributed to employees, as necessary.

Visitors to the laboratory sign in and out in a visitor's logbook. A visitor is defined as any person who visits the laboratory who is not an employee of that laboratory. In addition to signing into the laboratory, the EHS Manual (Corporate EHS Document No. CW-E-M-

001) contains requirements for visitors and vendors. There are specific safety forms that must be reviewed and signed.

Visitors (with the exception of company employees) are escorted by laboratory personnel at all times, or the location of the visitor is noted in the visitor's logbook. Signs are posted in the laboratory designating employee-only areas: "Authorized employees beyond this point."

SECTION 19

TEST METHODS AND METHOD VALIDATION

19.1 OVERVIEW

The laboratory uses methods that are appropriate to meet our clients' requirements and that are within the scope of the laboratory's capabilities. These include sample handling and transport, sample storage and preparation, and, where appropriate, an estimation of the measurement of uncertainty as well as statistical techniques for analysis of environmental data.

Instructions are available in the laboratory for the operation of equipment as well as for the handling and preparation of samples. All instructions, SOPs, reference methods, and manuals relevant to the work of the laboratory are readily available to all staff. Deviations from published methods are documented (with justification) in the laboratory's approved SOPs. SOPs are submitted to clients for review at their request. Significant deviations from published methods require client approval and regulatory approval, where applicable.

19.2 STANDARD OPERATING PROCEDURES

The laboratory maintains SOPs that accurately reflect all phases of the laboratory such as assessing data integrity, corrective actions, handling customer complaints, as well as all analytical methods and sampling procedures. The laboratory SOPs are derived from the most recently promulgated/approved published methods and are specifically adapted to the laboratory facility. Modifications or clarifications to published methods are clearly noted in the SOPs. All SOPs are controlled in the laboratory:

- All SOPs contain a revision number, effective date, and appropriate approval signatures. Controlled copies are available to all staff.
- Procedures for writing an SOP are incorporated by reference to Corporate Quality Document No. CW-Q-S-002.
- SOPs are reviewed at a minimum of every 2 years (annually for Drinking Water projects), and where necessary, revised to ensure continuing suitability and compliance with applicable requirements.

19.3 LABORATORY METHODS MANUAL

For each test method, the laboratory shall have available the published referenced method as well as the laboratory developed SOP.

Note: If more stringent standards or requirements are included in a mandated test method or regulation than those specified in this manual, the laboratory shall demonstrate that such requirements are met. If it is not clear which requirements are more stringent, the standard from the method or regulation is to be followed. Any exceptions or deviations from the referenced methods or regulations are noted in the specific laboratory SOP.

The laboratory maintains an SOP Index for both technical and non-technical SOPs. Technical SOPs are maintained to describe a specific test method. Non-technical SOPs are maintained to describe functions and processes not related to a specific test method.

19.4 SELECTION OF METHODS

Since numerous methods and analytical techniques are available, continued communication between the client and the laboratory is imperative to assure the correct methods are utilized. Once client methodology requirements are established, this and other pertinent information is summarized by the PM. These mechanisms ensure that the proper analytical methods are applied when the samples arrive for login. For non-routine analytical services (e.g., special matrices, non-routine compound lists, etc.), the method of choice is selected based on client needs and available technology. The methods selected should be capable of measuring the specific parameter of interest, in the concentration range of interest, and with the required precision and accuracy.

19.4.1 Sources of Methods

Routine analytical services are performed using standard EPA-approved methodology. In some cases, modification of standard approved methods may be necessary to provide accurate analyses of particularly complex matrices. When the use of specific methods for sample analysis is mandated through project or regulatory requirements, only those methods shall be used.

When clients do not specify the method to be used or when methods are not required, the methods used will be clearly validated and documented in an SOP and available to clients and/or the end user of the data.

The analytical methods used by the laboratory are those currently accepted and approved by the EPA and the state or territory from which the samples were collected. Reference methods include:

- *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act; Analysis and Sampling Procedures; 40CFR Part 136 as amended by Method Update Rule; May 18, 2012*
- *Methods for Chemical Analysis of Water and Wastes, EPA 600 (4-79-020), 1983.*
- *Methods for the Determination of Inorganic Substances in Environmental Samples, EPA-600/R-93/100, August 1993.*
- *Methods for the Determination of Metals in Environmental Samples, EPA/600/4-91/010, June 1991. Supplement I: EPA-600/R-94/111, May 1994.*
- *Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88-039, December 1988, Revised, July 1991, Supplement I, EPA-600-4-90-020, July 1990, Supplement II, EPA-600/R-92-129, August 1992. Supplement III EPA/600/R-95/131 - August 1995 (EPA 500 Series) (EPA 500 Series methods)*
- *Technical Notes on Drinking Water Methods, EPA-600/R94-173, October 1994*
- *Standard Methods for the Examination of Water and Wastewater, 20th and on-line editions; Eaton, A.D. Clesceri, L.S. Greenberg, A.E. Eds; American Water*

Works Association, Water Pollution Control Federation, American Public Health Association: Washington, D.C.

- *Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, September 1986, Final Update I, July 1992, Final Update IIA, August 1993, Final Update II, September 1994; Final Update IIB, January 1995; Final Update III, December 1996; Final Update IV, January 2008.*
- *Annual Book of ASTM Standards, American Society for Testing & Materials (ASTM), Philadelphia, PA.*
- *Manual for the Certification of Laboratories Analyzing Drinking Water (EPA 815-R-05-004, January 2005)*
- *Code of Federal Regulations (CFR) 40, Parts 136, 141, 172, 173, 178, 179 and 261*

The laboratory reviews updated versions to all the aforementioned references for adaptation based upon capabilities, instrumentation, etc., and implements them as appropriate. As such, the laboratory strives to perform only the latest versions of each approved method as regulations allow or require.

Other reference procedures for non-routine analyses may include methods established by specific states (e.g., Underground Storage Tank methods), ASTM, or equipment manufacturers. Sample type, source, and the governing regulatory agency requiring the analysis will determine the method utilized.

The laboratory shall inform the client when a method proposed by the client may be inappropriate or out-of-date. After the client has been informed, and they wish to proceed contrary to the laboratory's recommendation, it will be documented.

19.4.2 Demonstration of Capability

Before the laboratory may institute a new method and begin reporting results, the laboratory shall confirm that it can properly operate the method. In general, this demonstration does not test the performance of the method in real world samples, but in an applicable and available clean matrix sample. If the method is for the testing of analytes that are not conducive to spiking, DOC may be performed on QC samples.

A DOC is performed whenever there is a change in instrument type (e.g., new instrumentation), matrix, method, or personnel (e.g., analyst has not performed the method within the last 12 months).

Note: The laboratory shall have a DOC for all analytes included in the methods that the laboratory performs, and proficiency DOCs for each analyst shall include all analytes that the laboratory routinely performs. Addition of non-routine analytes does not require new DOCs for all analysts if those analysts are already qualified for routine analytes tested using identical chemistry and instrument conditions.

An IDOC for an analyst must include all analytes that the laboratory performs. The IDOC must be thoroughly documented and approved by the QA Manager prior to independently analyzing client samples or reviewing data (first- or second-level review). All associated documentation must be retained in accordance with the laboratory's archiving procedures.

Ongoing DOCs for analysts may include all analytes that the laboratory performs or only those analytes that are routinely analyzed as long as all analytes that the laboratory performs are included in at least one analyst's DOC (initial or ongoing) every two years. Ongoing DOCs are approved by the QA Manager annually or a new IDOC is performed, in order to continue or resume analyzing client samples or reviewing data (first- or second-level reviews). All associated documentation must be retained in accordance with the laboratory's archiving procedures.

The laboratory must have an approved SOP, demonstrate satisfactory performance, and conduct an MDL study. There may be other requirements, as stated within the published method or regulations (e.g., RT window study).

Note: In some instances, a situation may arise where a client requests that an unusual analyte be reported using a method where this analyte is not normally reported. If the analyte is being reported for regulatory purposes, the method must meet all procedures outlined within this QAM (SOP, MDL, and DOC). If the client states that the information is not for regulatory purposes, the result may be reported as long as the following criteria are met:

- The instrument is calibrated for the analyte to be reported using the criteria for the method and ICV/CCV criteria are met (unless an ICV/CCV is not required by the method or criteria are per project DQOs).
- The laboratory's nominal or default RL is equal to the QL, must be at or above the lowest non-zero standard in the calibration curve, and must be reliably determined. Project RLs are client-specified reporting levels, which may be higher than the QL. Results reported below the QL must be qualified as estimated values. Also see Section 19.6.1.3.
- The client request is documented and the laboratory informs the client of its procedure for working with unusual compounds. The final report must be footnoted or qualified, as applicable: *Reporting Limit based on the low standard of the calibration curve.*

19.4.3 IDOC and Ongoing DOC Procedures

19.4.3.1 The spiking standard used must be prepared independently from those used in instrument calibration.

19.4.3.2 The analyte(s) shall be diluted in a volume of clean matrix sufficient to prepare four aliquots at one to four times the RL (for

IDOCs) or at the concentration specified by a method or the laboratory SOP (for Ongoing DOCs).

19.4.3.3 Four aliquots shall be prepared and analyzed according to the test method. The four aliquots shall be analyzed consecutively on the same day or consecutively over a period of consecutive days, meaning one replicate per day for four days or two consecutive aliquots per day for two days, or three consecutive aliquots in one day and one replicate the next day, however preferred, as long as the aliquots are analyzed in consecutive order in consecutive days.

19.4.3.4 Using all of the results, calculate the mean recovery in the appropriate reporting units and the standard deviations for each parameter of interest.

19.4.3.5 When it is not possible to determine the mean and standard deviations, such as for presence, absence, and logarithmic values, the laboratory will assess performance against criteria described in the laboratory SOP.

19.4.3.6 Compare the information obtained above to the corresponding acceptance criteria for precision and accuracy in the test method (if applicable) or to the laboratory-generated acceptance criteria (or interim criteria) for the LCS, if there is no mandatory criteria established. If any one of the parameters do not meet the acceptance criteria, the performance is unacceptable for that parameter.

19.4.3.7 When one or more of the tested parameters fail at least one of the acceptance criteria, the analyst must proceed according to either option listed below:

- Locate and correct the source of the problem and repeat the test for all parameters of interest beginning with Section 19.4.3.3 above.
- Beginning with Section 19.4.3.3 above, repeat the test for all parameters that failed to meet criteria. Repeated failure, however, will confirm a general problem with the measurement system. If this occurs, locate and correct the source of the problem and repeat the test for all compounds of interest beginning with Section 19.4.3.1 above.

Note: Results of successive LCS analyses can be used to fulfill the DOC requirement. All analytes that the laboratory can possibly report (i.e., those analytes with approved ICAL and MDL studies) must be included in the analyst IDOC. Routine LCS or LCSD analytes may be used for ongoing DOCs.

A certification statement (see Figure 19-1) shall be used to document the completion of each IDOC for an analyst. A similar form may be used to document an ongoing DOC. A copy of the certification is archived in the QA files. Approved DOCs for all analysts are summarized in the QA files.

19.5 LABORATORY-DEVELOPED METHODS AND NON-STANDARD METHODS

Any new method developed by the laboratory must be fully defined in an SOP and validated by qualified personnel with adequate resources to perform the method. Method specifications and the relation to client requirements must be clearly conveyed to the client if the method is a non-standard method (not a published or routinely accepted method). The client must also be in agreement to the use of the non-standard method.

19.6 VALIDATION OF METHODS

Validation is the confirmation by examination and the provision of objective evidence that the particular requirements for a specific intended use are fulfilled.

All non-standard methods, laboratory-designed/developed methods, standard methods used outside of their scope, and major modifications to published methods must be validated to confirm they are fit for their intended use. The validation will be as extensive as necessary to meet the needs of the given application. The results are documented with the validation procedure used and contain a statement as to the fitness for use.

19.6.1 Method Validation and Verification Activities for All New Methods

While method validation can take various courses, the following activities can be required as part of method validation. Method validation records are designated QC records and are archived accordingly.

19.6.1.1 Determination of Method Selectivity

Method selectivity is the demonstrated ability to discriminate the analyte(s) of interest from other compounds in the specific matrix or matrices from other analytes or interference. In some cases, to achieve the required selectivity for an analyte, a confirmation analysis is required as part of the method.

19.6.1.2 Determination of Method Sensitivity

Sensitivity can be both estimated and demonstrated. Whether a study is required to estimate sensitivity depends on the level of method development required when applying a particular measurement system to a specific set of samples. Where estimations and/or demonstrations of sensitivity are required by regulation or client agreement, such as the procedure in 40 CFR Part 136 Appendix B, under the Clean Water Act, these shall be followed.

19.6.1.3 Relationship of Limit of Detection to the Quantitation Limit

An important characteristic of expression of sensitivity is the difference in the LOD and the QL. The LOD is the minimum level at which the presence of an analyte can be reliably concluded. The QL is the minimum concentration of analyte that can be quantitatively determined with acceptable precision and bias. For most instrumental measurement systems, there is a region where semi-quantitative data is generated around the LOD (both above and below the estimated MDL or LOD) and below the QL. In this region, detection of an analyte may be confirmed but quantification of the analyte is unreliable within the accuracy and precision guidelines of the measurement system. When an analyte is detected below the QL, and the presence of the analyte is confirmed by meeting the qualitative identification criteria for the analyte, the analyte can be reliably reported, but the amount of the analyte can only be estimated. If data is to be reported in this region, it must be done so with a qualification that denotes the semi-quantitative nature of the result.

The LOD (MDL) of the analyte shall be multiplied by a correction factor, when applicable, based on actual divided by expected sample weights. The adjusted LOD (MDL) shall not be reported if the adjustment lowers the LOD (MDL) by more than 50%.

The QL (RL) of the analyte shall be multiplied by a correction factor, when applicable, based on actual divided by expected sample weights. The adjusted QL (RL) cannot be lower than the lowest non-zero calibration level.

19.6.1.4 Determination of Interferences

A determination that the method is free from interferences in a blank matrix is performed.

19.6.1.5 Determination of Range

Where appropriate to the method, the quantitation range is determined by comparison of the response of an analyte in a curve to established or targeted criteria. Generally, the upper QL is defined by the highest acceptable calibration concentration. The lower QL cannot be lower than the lowest non-zero calibration level, and can be constrained by required levels of bias and precision.

19.6.1.6 Determination of Accuracy and Precision

Accuracy and precision studies are generally performed using

replicate analyses, with a resulting percent recovery and measure of reproducibility (standard deviation, relative standard deviation) calculated and measured against a set of target criteria.

19.6.1.7 Documentation of Method

The method is formally documented in an SOP. If the method is a minor modification of a standard laboratory method that is already documented in an SOP, an SOP Attachment describing the specific differences in the new method is acceptable in place of a separate SOP.

19.6.1.8 Continued Demonstration of Method Performance

Continued demonstration of method performance is addressed in the SOP. Continued demonstration of method performance is generally accomplished by batch-specific QC samples such as LCS, method blank, or PT samples.

19.7 METHOD DETECTION LIMITS / LIMITS OF DETECTION

MDLs are initially determined in accordance with 40 CFR Part 136, Appendix B or, alternatively, by other technically acceptable practices that have been accepted by regulators. MDL is also sometimes referred to as LOD. The MDL theoretically represents the concentration level for each analyte within a method at which the analyst is 99% confident that the true value is not zero. The MDL is determined for each analyte initially during the method validation process and updated as required in the analytical methods, whenever there is a significant change in the procedure or equipment, or based on project-specific requirements. Generally, the analyst prepares at least 7 replicates of standard spiked at one to five times the estimated MDL (most often at the lowest standard in the calibration curve) into the applicable matrix with all the analytes of interest. Each of these aliquots is analyzed in the same manner as the samples. Where possible, the 7 replicates should be analyzed over two to four days to provide a more realistic MDL.

Refer to Corporate Quality SOP No. CA-Q-S-006 or laboratory SOP No. IR-QA-MDL for details on the MDL study process.

19.8 INSTRUMENT DETECTION LIMITS

The IDL is sometimes used to assess the reasonableness of the MDLs or, in some cases, required by the analytical method or program requirements. IDLs are mostly used in metals analyses but may be useful in demonstration of instrument performance in other areas.

IDLs are calculated to determine an instrument's sensitivity independent of any preparation method. IDLs are calculated either using 7 replicate spike analyses, like MDL but without sample preparation, or by the analysis of 10 instrument blanks and calculating three times the absolute value of the standard deviation.

If IDL is greater than the MDL, it may be used as the reported MDL.

19.9 VERIFICATION OF DETECTION AND REPORTING LIMITS

Once the MDL is determined, it must be verified on each instrument used for the given method, by analyzing a QC sample (prepared in the same manner as client samples) at no more than three times the calculated MDL for single analyte analyses (e.g., most Wet Chemistry methods, Atomic Absorption, etc.) or no more than four times the calculated MDL for multiple analyte analyses (e.g., GC, GC/MS, ICP methods, etc.). MDLV standards, like MDL standards, are analyzed through the entire analytical process under acceptable calibration and batch QC. The analytes must be qualitatively identified. This verification does not apply to methods that are not readily spiked (e.g., pH, Turbidity, etc.) or where the laboratory does not report to the MDL. If the MDL cannot be successfully verified, then the laboratory will not report to the MDL, or redevelop their MDL, or perform and pass two consecutive MDLVs at a higher concentration and set the MDL (or LOD) at the higher concentration.

When the laboratory establishes a QL, it must be initially verified by the analysis of a low-level standard or QC sample at one to two times the RL and annually, thereafter. The annual requirement is waived for methods that have an annually verified MDL. The laboratory will comply with any regulatory requirement.

19.10 RETENTION TIME WINDOWS

Most organic analyses and some inorganic analyses use chromatography techniques for qualitative and quantitative determinations. For every chromatography analysis, or as specified in the reference method, each analyte will have a specific time of elution from the column to the detector. This is known as the analyte's RT. The variance in the expected time of elution is defined as the RT window. As the key to analyte identification in chromatography, RT windows must be established on every column for every analyte used for that method. These records are kept with the files associated with an instrument for later quantitation of the analytes. Procedures to be followed are defined in the laboratory SOPs.

19.11 EVALUATION OF SELECTIVITY

The laboratory evaluates selectivity by following the checks within the applicable analytical methods, which include mass spectral tuning, second column confirmation, ICP interelement interference checks, chromatography RT windows, sample blanks, spectrochemical, atomic absorption, or fluorescence profiles, co-precipitation evaluations, and specific electrode response factors.

19.12 ESTIMATION OF UNCERTAINTY OF MEASUREMENT

19.12.1 Uncertainty is "a parameter associated with the result of a measurement, that characterizes the dispersion of the values that could reasonably be attributed to the measurand" (as defined by the International Vocabulary of Basic and General Terms in Metrology, ISO Geneva, 1993, ISBN 9610171).

Knowledge of the uncertainty of a measurement provides additional confidence in a result's validity. Its value accounts for all the factors which could possibly affect the result, such as adequacy of analyte definition, sampling, matrix effects and interferences, climatic conditions, variances in weights, volumes, standards, analytical procedure, and random variation. Some national accreditation organizations require the use of an "expanded uncertainty": the range within which the value of the measurand is believed to lie within at least a 95% confidence level with the coverage factor k=2.

19.12.2 Uncertainty is not error. Error is a single value, the difference between the true result and the measured result. In environmental samples, the true result is never known. The measurement is the sum of the unknown true value and the unknown error. Unknown error is a combination of systematic error, or bias, and random error. Bias varies predictably, constantly, and independently from the number of measurements. Random error is unpredictable, assumed to be Gaussian in distribution, and reducible by increasing the number of measurements.

19.12.3 The minimum uncertainty associated with results generated by the laboratory can be determined by using the LCS accuracy range for a given analyte. The LCS limits are used to assess the performance of the measurement system since they take into consideration all of the laboratory variables associated with a given test over time (except for variability associated with the sampling and the variability due to matrix effects). The percent recovery of the LCS is compared either to the method-required LCS accuracy limits or to the statistical, historical, in-house LCS accuracy limits.

19.12.4 To calculate the uncertainty for the specific result reported, multiply the result by the decimal of the lower end of the LCS range percent value for the lower end of the uncertainty range, and multiply the result by the decimal of the upper end of the LCS range percent value for the upper end of the uncertainty range. These calculated values represent uncertainties at approximately the 99% confidence level with a coverage factor of k = 3. As an example, for a reported result of 1.0 mg/L with an LCS recovery range of 50 to 150%, the estimated uncertainty in the result would be 1.0 ± 0.5 mg/L.

19.12.5 In the case where a well-recognized test method specifies limits to the values of major sources of uncertainty of measurement (e.g., EPA 524.2, EPA 525, etc.) and specifies the form of presentation of calculated results, no further discussion of uncertainty is required.

19.13 SAMPLE RE-ANALYSIS GUIDELINES

Because there is a certain level of uncertainty with any analytical measurement, a sample re-preparation (where appropriate) and subsequent analysis (hereafter referred to as 're-analysis") may result in either a higher or lower value from an initial sample analysis. There are also variables that may be present that may affect the results of a re-analysis. Based on the above comments, the laboratory will re-analyze samples at a

client's request with the following caveats. Client-specific Contractual Terms & Conditions for re-analysis protocols may supersede the following items:

- Homogenous samples: If a re-analysis agrees with the original result to within the RPD limits for MS/MSD or duplicate sample analyses, or within ± 1 RL for samples ≤ 5x the RL, the original analysis will be reported. At the client's request, both results may be reported on the same report, but not on two separate reports.
- If the re-analysis does not agree (as defined above) with the original result, then the laboratory will investigate the discrepancy and re-analyze the sample a third time for confirmation, if sufficient sample is available.
- Any potential charges related to re-analysis are discussed in the contract terms and conditions or discussed at the time of the request. The client will typically be charged for re-analysis unless it is determined that the laboratory was in error.
- Due to the potential for increased variability, reanalysis may not be applicable to Non-homogenous, Encore, and Sodium Bisulfate preserved samples. See the Department Manager if unsure.

19.14 CONTROL OF DATA

The laboratory has policies and procedures in place to ensure the authenticity, integrity, and accuracy of the analytical data generated by the laboratory.

19.14.1 Computer- and Electronic Data-Related Requirements

The three basic objectives of our computer security procedures and policies are shown below. Details are outlined in laboratory SOP No. IR-IT-COMPSEC. The laboratory is currently using TALS, which is a proprietary LIMS that has been designed to meet the needs of the laboratory. It is referred to as LIMS for the remainder of this section. The LIMS utilizes Microsoft SQL Server, which is an industry standard relational database platform. It is referred to as Database for the remainder of this section.

19.14.1.1 Maintain the Database Integrity: Assurance that data is reliable and accurate through data verification (review) procedures, password-protecting access, anti-virus protection, data change requirements, as well as an internal LIMS permissions procedure.

- LIMS Database Integrity is achieved through data input validation, internal user controls, and data change requirements.
- Spreadsheets and other software developed in-house must be verified with documentation through hand calculations prior to use. QA approval must be received prior to use. Cells containing calculations must be lock-protected and controlled.
- Instrument hardware and software adjustments are safeguarded through maintenance logs, audit trails, and controlled access.

19.14.1.2 **Ensure Information Availability:** Protection against loss of information or service is ensured through scheduled backups, stable file server network architecture, secure storage of media, line filter, Uninterruptible Power Supply, and maintaining older versions of software as revisions are implemented.

19.14.1.3 **Maintain Confidentiality:** Ensure data confidentiality through physical access controls, such as password protection or website access approval, when electronically transmitting data.

19.14.2 Data Reduction

The complexity of the data reduction depends on the analytical method and the number of discrete operations involved (e.g., extractions, dilutions, instrument readings, and concentrations). The analyst calculates the final results from the raw data or uses appropriate computer programs to assist in the calculation of final reportable values.

For manual data entry, the data is reduced by the analyst and then verified by the Department Manager, or alternate analyst, prior to updating the data into LIMS. The spreadsheets, or any other type of applicable documents, are signed by both the analyst and the Department Manager (or alternate analyst) to confirm the accuracy of the manual entry.

Manual integration of peaks will be documented and reviewed and the raw data will be flagged in accordance with Corporate Quality Document No. CA-Q-S-002.

Analytical results are reduced to appropriate concentration units specified by the analytical method, taking into account factors such as dilution, sample weight or volume, etc. Blank correction will be applied only when required by the method or per client instructions; otherwise, it should not be performed. Calculations are independently verified by appropriate laboratory staff. Calculations and data reduction steps for various methods are summarized in the respective laboratory SOPs or program requirements.

19.14.2.1 All raw data must be retained in the worklist or project folder, computer file (if appropriate), and/or injection/run log. All criteria pertinent to the method must be recorded. The documentation is recorded at the time observations or calculations are made and must be signed or initialed/dated (month/day/year). It must be easily identifiable who performed which tasks, if multiple employees were involved.

19.14.2.2 In general, concentration results are reported in milligrams per liter (mg/l) or micrograms per liter (µg/l) for liquids and milligrams per kilogram (mg/kg) or micrograms per kilogram (µg/kg) for solids. For values greater than 10,000 mg/l, results can be reported in

percent, i.e., 10,000 mg/l = 1%. Units are defined in each lab SOP.

19.14.2.3 In reporting, the analyst or the instrument output records the raw data result using values of known certainty plus one uncertain digit. If final calculations are performed external to LIMS, the results should be entered into LIMS with at least three significant figures. In general, results are reported to two significant figures in the final report.

19.14.2.4 For those methods that do not have an instrument printout or an instrumental output compatible with the LIMS, the raw results and dilution factors are entered directly into LIMS by the analyst, and the software calculates the final result for the analytical report. LIMS has a defined significant figure criterion for each analyte.

19.14.2.5 The laboratory strives to import data directly from instruments or calculation spreadsheets to ensure that the reported data are free from transcription and calculation errors. For those analyses with an instrument output compatible with the LIMS, the raw results and dilution factors are transferred into LIMS electronically after reviewing the quantitation report, and removing not needed/not requested or poor spectrally-matched compounds. The analyst prints a copy, if applicable, of what has been entered to check for errors. Otherwise, the instrument's record of calibrations, concentrations, RTs, chromatograms, and mass spectra, if applicable, are retained with the data file. The data file is stored in a folder in the instrument computer. Periodically, this file is transferred to the server and, eventually, to a tape file.

19.14.3 Logbook / Worksheet Use Guidelines

Logbooks and worksheets are filled out 'real time' and have enough information on them to trace the events of the applicable analysis/task (e.g., calibrations, standards, analyst, sample ID, date, time on short holding time tests, temperature when applicable, calculations are traceable, etc.).

- Corrections are made following the procedures outlined in Section 12.
- Logbooks are controlled by the QA department. A record is maintained of all logbooks in the laboratory.
- Unused portions of pages must be Z'd out, initialed/signed, and dated.
- Worksheets are created with the approval of the Technical Manager/QA Manager at the facility. The QA Department controls all worksheets following the procedures in Section 6.
- Logbooks are reviewed monthly by the Department Manager of the department where the logbook resides. The name of the reviewer and date of review is documented on each page of the logbook. Once reviewed, the Department Manager updates the laboratory's Logbook

Tracking Database to mark the latest review performed on a particular logbook. QA uses the same database to track missing or overdue logbook reviews.

19.14.4 Review / Verification Procedures

Review procedures are outlined in the laboratory SOPs to ensure that reported data are free from calculation and transcription errors and that QC parameters have been reviewed and evaluated before data are reported. The laboratory follows Corporate Quality Document No. CA-Q-S-002 regarding manual integrations to ensure the authenticity of the data. The general review concepts are discussed below; more specific information can be found in the laboratory SOPs.

All data, regardless of regulatory program or level of reporting, are subject to a thorough review process. All levels of the review are documented.

19.14.4.1 Log-In Review – The data review process starts at the sample receipt stage. Sample control personnel review COC forms and project instructions from the project management group. This is the basis of the sample information and analytical instructions entered into the LIMS. The log-in instructions are reviewed by the personnel entering the information, and a second level review is conducted by the project management staff.

19.14.4.2 First Level Data Review – The next level of data review occurs with the analysts. As data are generated, analysts review their work to ensure that the results meet project and SOP requirements. First level reviews include inspection of all raw data (e.g., instrument output for continuous analyzers, chromatograms, spectra, and manual integrations), evaluation of calibration/calibration verification data in the day's analytical run, evaluation of QC data, and reliability of sample results. The analyst transfers data into LIMS, data qualifiers are added as needed. All first level reviews are documented.

19.14.4.3 Second Level Data Review – All analytical data are subject to review by a second qualified analyst or supervisor. Second level reviews include inspection of all raw data (e.g., instrument output, chromatograms, and spectra) including 100% of data associated with any changes made by the primary analyst, such as manual integrations or reassignment of peaks to different analytes, or elimination of false negative analytes. The second review also includes evaluation of initial calibration/calibration verification data in the day's analytical run, evaluation of QC data, reliability of sample results, qualifiers and NCM narratives. Manual calculations are checked in second level review. All second level reviews are documented. To ensure data compliance, the Department Manager or another analyst (different from that who

performed the first level data review) performs the second level review.

Issues that deem further review include, but not limited to, the following:

- QC data are outside the specified control limits for accuracy and precision
- Reviewed sample data does not match with reported results
- Unusual detection limit changes are observed
- Samples having unusually high results
- Samples exceeding a known regulatory limit
- Raw data indicating some type of contamination or poor technique
- Inconsistent peak integration
- Transcription errors
- Results outside of calibration range

19.14.4.4 Unacceptable analytical results may require re-analysis of the samples. Any problems are brought to the attention of the Laboratory Director, PM, QA Manager, Technical Manager, or Department Manager for further investigation. Corrective action is initiated whenever necessary.

19.14.4.5 The results are then entered or directly transferred into the computer database and a hard copy (or .pdf) is printed for the client.

19.14.4.6 As a final review prior to the release of the report, the PM reviews the results for appropriateness and completeness. This review and approval ensures that client requirements have been met and that the final report has been properly completed. The process includes, but is not limited to, verifying that chemical relationships are evaluated, COC is followed, cover letters/narratives are present, flags are appropriate, and project-specific requirements are met.

19.14.4.7 Any project that requires a data package is subject to a tertiary data review for transcription errors and acceptable QC requirements. The PM then signs the final report. The accounting personnel also check the report for any clerical or invoicing errors. When complete, the report is sent out to the client.

19.14.4.8 A visual summary of the flow of samples and information through the laboratory, as well as data review and validation, is presented in Figure 19-2.

19.14.5 Manual Integrations

Computerized data systems provide the analyst with the ability to re-integrate raw instrument data in order to optimize the interpretation of the data. Though manual integration of data is an invaluable tool for resolving variations in instrument performance and some sample matrix problems, when used improperly, this technique would make unacceptable data appear to meet QC acceptance limits. Improper re-integrations lead to legally indefensible data, a poor reputation, or possible laboratory decertification. Because guidelines for re-integration of data are not provided in the methods and most methods were written prior to widespread implementation of computerized data systems, the laboratory trains all analytical staff on proper manual integration techniques using Corporate Quality Document No. CA-Q-S-002 as guideline.

19.14.5.1 The analyst must adjust baseline or the area of a peak in some situations, for example, when two compounds are not adequately resolved or when a peak shoulder needs to be separated from the peak of interest. The analyst must use professional judgment and common sense to determine when manual integration is required. Analysts are encouraged to ask for assistance from a senior analyst or Department Manager when in doubt.

19.14.5.2 Analysts shall not increase or decrease peak areas for the sole purpose of achieving acceptable QC recoveries that would have otherwise been unacceptable. The intentional recording or reporting of incorrect information (or the intentional omission of correct information) is against company principles and policy and is ground for immediate termination.

19.14.5.3 Client samples, performance evaluation samples, and QC samples are all treated equally when determining whether or not a peak area or baseline should be manually adjusted.

19.14.5.4 All manual integrations require a second-level review. Manual integrations must be indicated on an expanded scale “after” chromatograms such that the integration performed can be easily evaluated during data review. Expanded scale “before” chromatograms are also required for all manual integrations on QC parameters (calibrations, calibration verifications, LCS, internal standards, surrogates, etc.) unless the laboratory has another documented Corporate-approved procedure in place that can demonstrate an active process for detection and deterrence of improper integration practices.

Figure 19-1.

Example - Demonstration of Capability Documentation

DEMONSTRATION OF CAPABILITY CERTIFICATION STATEMENT

Date: **Page 1 of 1**
Laboratory Name:
Laboratory Address:
Analyst(s) Name(s):

Matrix:
SOP# and Rev#:
Parameter:

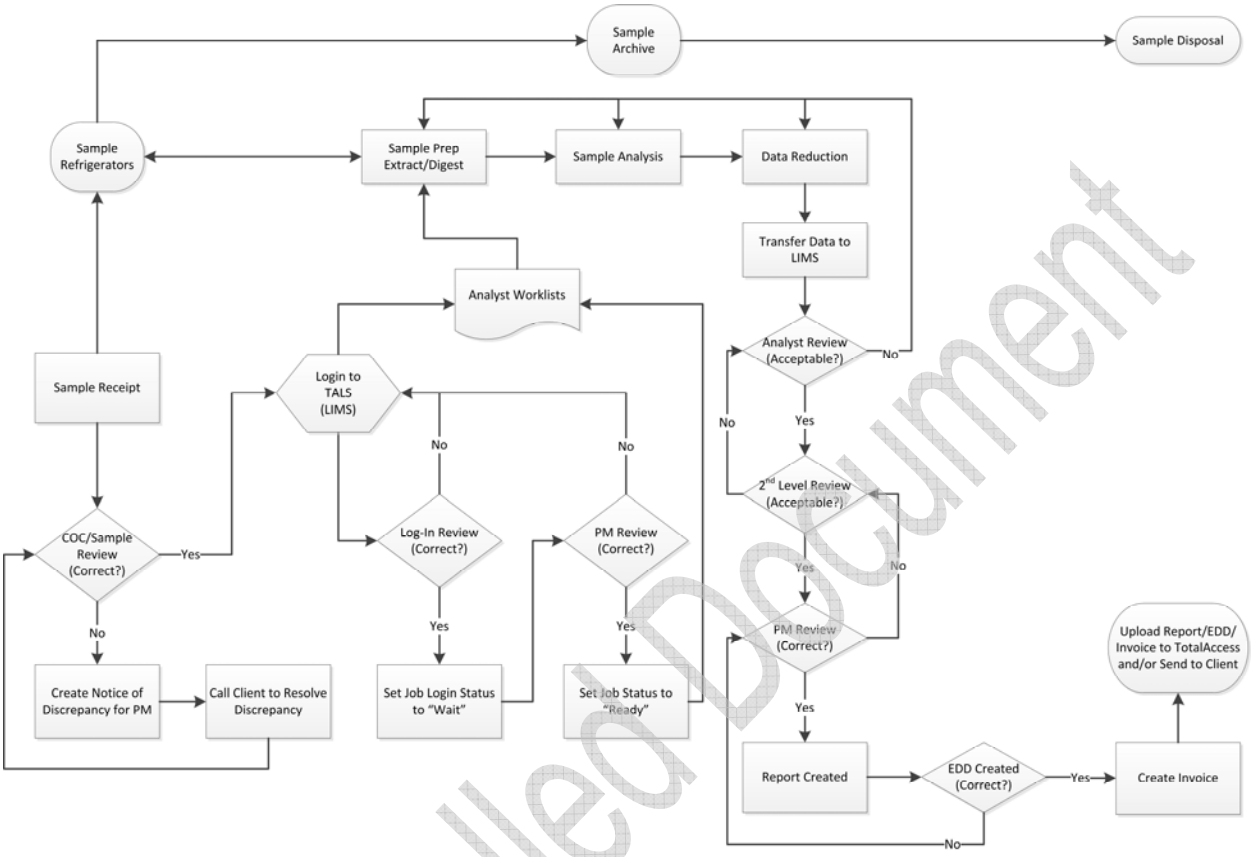
We, the undersigned, CERTIFY that:

1. The analysts identified above, using the cited test method(s), which is in use at this facility for the analyses of samples under the National Environmental Laboratory Accreditation Program, have met the Demonstration of Capability.
2. The test method(s) was performed by the analyst(s) identified on this certification.
3. A copy of the test method(s) and the laboratory-specific SOPs are available for all personnel on-site.
4. The data associated with the demonstration capability are true, accurate, complete, and self explanatory.[1]
5. All raw data (including a copy of this certification form) necessary to reconstruct and validate these analyses have been retained at the facility, and that the associated information is well organized and available for review by authorized assessors.

Technical Director's Name and Title	Signature	Date
Quality Assurance Manager	Signature	Date

[1] True: Consistent with supporting data.
Accurate: Based on good laboratory practices consistent with sound scientific principles/practices.
Complete: Includes the results of all supporting performance testing.
Self-Explanatory: Date properly labeled and stored so that the results are clear and require no additional explanation.

Figure 19-2. TestAmerica Irvine Workflow



SECTION 20

EQUIPMENT AND CALIBRATIONS

20.1 OVERVIEW

The laboratory purchases the most technically advanced analytical instrumentation for sample analyses. Instrumentation is purchased on the basis of accuracy, dependability, efficiency, and sensitivity. Each laboratory is furnished with all items of sampling, preparation, analytical testing, and measurement equipment necessary to correctly perform the tests for which the laboratory has capabilities. Each piece of equipment is capable of achieving the required accuracy and complies with specifications relevant to the method being performed. Before being placed into use, the equipment (including sampling equipment) is calibrated and checked to establish that it meets its intended specification. The calibration routines for analytical instruments establish the range of quantitation. Calibration procedures are specified in laboratory SOPs. A list of laboratory equipment and instrumentation is presented in Table 20-1.

Equipment is only operated by authorized and trained personnel. Manufacturer's instructions for equipment use are readily accessible to all appropriate laboratory personnel.

20.2 PREVENTIVE MAINTENANCE

The laboratory follows a well-defined maintenance program to ensure proper equipment operation and to prevent the failure of laboratory equipment or instrumentation during use. This program of preventive maintenance helps to avoid delays due to instrument failure.

Routine preventive maintenance procedures and frequency, such as cleaning and replacements, should be performed according to the procedures outlined in the manufacturer's manual. Qualified personnel must also perform maintenance when there is evidence of degradation of peak resolution, a shift in the calibration curve, loss of sensitivity, or failure to continually meet one of the QC criteria.

Table 20-2 lists examples of scheduled routine maintenance. It is the responsibility of each Department Manager to ensure that instrument maintenance logbooks are kept for all equipment in their respective departments. Preventative maintenance procedures may be or are outlined in laboratory SOPs or instrument manuals.

Instrument maintenance logbooks are controlled and are used to document instrument problems, instrument repair, and maintenance activities. Maintenance logbooks shall be kept for all major pieces of equipment. Instrument maintenance logbooks may also be used to specify instrument parameters.

- Documentation must include all major maintenance activities such as contracted preventive maintenance and service, and in-house activities such as the replacement of electrical components, lamps, tubing, valves, columns, detectors, cleaning, and adjustments.

- Each entry in the instrument maintenance logbook includes the analyst's initials, the date, a detailed description of the problem (or maintenance needed/scheduled), a detailed explanation of the solution or maintenance performed, and a verification that the equipment is functioning properly (state what was used to determine a return to control, e.g., "CCV run on *'date'* was acceptable" or "Instrument recalibrated on 'date' with acceptable verification," etc.) must also be documented in the instrument maintenance records.

- When maintenance or repair is performed by an outside agency, service receipts detailing the service performed shall be affixed into the logbooks adjacent to pages describing the maintenance performed. The service receipt that is taped or stapled into the logbook must be initialed and dated on the edge, with initials and date overlapping the attached receipt and the page where attached, so it is clear that a page is missing if only half a signature is found in the logbook.

If instruments or support equipment require repair/maintenance (subjected to overloading or mishandling, gives suspect results, or otherwise has shown to be defective or outside of specified limits), they shall be taken out of operation or otherwise isolated, and tagged as out-of-service until such a time as the repairs have been made and the instrument or support equipment can be demonstrated as operational by calibration and/or verification or other tests to demonstrate acceptable performance. The laboratory shall examine the effect of this defect on previous analyses or usage of the support equipment.

- When an instrument or support equipment must be tagged as out-of-service, the same laboratory personnel who affixed the tag-out form must be the same laboratory personnel to remove the tag-out form, after the repair/maintenance has been completed and after documentation of such repair/maintenance has been examined to be complete. The same procedure must be followed when the repair/maintenance is performed by an outside vendor.

  Note: If the repair/maintenance can be started and completed, and 'return to control' demonstrated and documented, within the same work shift, it is not necessary to tag-out the instrument or support equipment.

- For the repair/maintenance to be considered complete, 'return to control' must be demonstrated and documented.

- The repair/maintenance must be documented in the designated maintenance logbooks.

In the event of equipment malfunction that cannot be resolved, service shall be obtained from the instrument vendor manufacturer, or qualified service technician, if such a service can be tendered. If on-site service is unavailable, arrangements shall be made to have the instrument shipped back to the manufacturer for repair. Backup instruments that have been approved for the analysis shall perform the analysis normally carried out by the malfunctioning instrument. If the backup is not available and the analysis cannot

be carried out within the needed timeframe, the samples shall be workshared or subcontracted.

At a minimum, if an instrument is sent out for service or transferred to another facility, it must be recalibrated and verified (including new initial MDL study) prior to return to laboratory operations.

20.3 SUPPORT EQUIPMENT

This section applies to all devices that may not be the actual test instrument, but are necessary to support laboratory operations. These include, but are not limited to, balances, ovens, refrigerators, freezers, incubators, water baths, field sampling devices, temperature measuring devices, thermal/pressure sample preparation devices, and volumetric dispensing devices, if quantitative results are dependent on their accuracy, as in standard preparation and sample dilution into a specified volume. All raw data records associated with the support equipment are retained to document instrument performance.

20.3.1 Weights and Balances

The accuracy of the balances used in the laboratory is checked every working day, before use. All balances are placed on stable counter tops.

Each balance is checked prior to initial serviceable use with at least two certified ASTM Type 1 weights spanning its range of use (weights that have been calibrated to ASTM Type 1 weights may also be used for daily verification). ASTM Type 1 weights used only for calibration of other weights (and no other purpose) are inspected for corrosion, damage, or nicks, at least annually, and if no damage is observed, they are calibrated at least every five years by an outside calibration laboratory. Any weights (including ASTM Type 1) used for daily balance checks or other purposes are recalibrated/recertified annually to NIST standards (this may be done internally if laboratory maintains “calibration only” ASTM Type 1 weights). All balances are serviced annually by a qualified service representative, who supplies the laboratory with a certificate that identifies traceability of the calibration to the NIST standards.

All of this information is recorded in logbooks, and the recalibration or recertification certificates kept in the QA files.

20.3.2 pH, Conductivity, and Turbidity Meters

The pH meters used in the laboratory are accurate to ± 0.1 pH units, and have a scale readability of at least 0.05 pH units. The meters automatically compensate for the temperature, and are calibrated with at least two working range buffer solutions before each use.

Conductivity meters are also calibrated before each use with a known standard to demonstrate the meters do not exceed an error of 1% or one

µmhos/cm.

Turbidity meters are also calibrated before each use.

All of this information is documented in logbooks. Consult pH and Conductivity, and Turbidity SOPs for further information.

20.3.3 Thermometers

All thermometers are calibrated on an annual basis with a NIST-traceable thermometer at temperatures bracketing the range of use. IR thermometers, digital probes, and thermocouples are calibrated quarterly. IR thermometers should be calibrated over the full range of use, including ambient, iced (4°C), and frozen (0 to -5°C), per the Drinking Water Manual.

The mercury NIST thermometer is recalibrated every three years (unless thermometer has been exposed to temperature extremes or apparent separation of internal liquid) by an approved outside service and the provided certificate of traceability is kept on file. The NIST thermometers have increments of no more than 1°C (or 0.5°C or less increments for drinking water microbiological laboratories) and have ranges applicable to method and certification requirements. The NIST-traceable thermometer is used for no other purpose than to calibrate other thermometers.

All of this information is recorded in logbooks, and the recalibration or recertification certificates kept in the QA files.

20.3.4 Refrigerators/Freezer Units, Waterbaths, Ovens, and Incubators

The temperature of all refrigerator units and freezers used for sample and standard storage are monitored each working day (twice for microbiology).

Ovens, waterbaths, and incubators are monitored once on days of use (twice for microbiology).

All of this equipment has a unique identification number, and is assigned a unique thermometer for monitoring.

Samples and standards storage refrigerator temperatures are kept between >0°C and $\leq$ 6°C. Freezers are kept at -15 ± 5°C.

Specific temperature settings/ranges for other refrigerators, ovens waterbaths, and incubators can be found in the laboratory SOPs.

All of this information is documented in daily temperature logbooks and method-specific logbooks.

20.3.5 Autopipettors, Dilutors, and Syringes

Mechanical volumetric dispensing devices including burettes (except Class A Glassware) are given unique identification numbers and the delivery volumes are verified gravimetrically, at a minimum, on a monthly basis.

For those dispensers that are not used for analytical measurements, a label must be applied to the device stating that it is not calibrated. Any device not regularly verified must not be used for any quantitative measurement.

Glass micro-syringes with volumes of ≥ 20 µL are checked for accuracy every six months. Glass micro-syringes with volumes < 20µL are certified by the manufacturer (e.g., Hamilton Company). Certificate of accuracy and precision must be obtained and kept on file in the laboratory.

20.3.6 Autoclaves

The performance of each autoclave shall be initially evaluated by establishing its functional properties and performance, for example heat distribution characteristics with respect to typical uses. Autoclaves shall meet specified temperature tolerances. Pressure cookers shall not be used for sterilization of growth media.

Demonstration of sterilization temperature shall be provided by use of a continuous temperature recording device or by use of a maximum registering thermometer with every cycle. At least once during each month that the autoclave is used, appropriate biological indicators shall be used to determine effective sterilization. The selected biological indicator shall be effective at the sterilization temperature and time needed to sterilize lactose-based media. Temperature sensitive tape shall be used with the contents of each autoclave run to indicate that the autoclave contents have been processed.

Records of autoclave operations shall be maintained for every cycle. Records shall include: date, contents, maximum temperature reached, pressure, time in sterilization mode, total run time (may be recorded as time in and time out) and analyst's initials.

Autoclave maintenance, either internally or by service contract, shall be performed annually, and shall include a pressure check and verification of temperature device. Records of the maintenance shall be maintained in equipment logs.

NOTE: When it has been determined that the autoclave has no leaks, pressure checks can be documented using the formula PV = nRT.

The autoclave mechanical timing device shall be checked quarterly against a stopwatch and the actual time elapsed documented.

20.3.7 Field Sampling Devices (Isco Auto Samplers)

Each Auto Sampler (ISCO) is assigned a unique identification number and is

recorded on the sampling documentation.

The Auto Sampler is calibrated each day of use based on the sample volume required for the specific sampling event. The results are recorded on the field sampling request form. The technician will adjust the delivery volume prior final set-up to ensure the correct aliquot is collected.

20.4 INSTRUMENT CALIBRATIONS

Calibration of analytical instrumentation is essential to the production of quality data. Strict calibration procedures are followed for each method. These procedures are designed to determine and document the MDLs, the working range of the analytical instrumentation, and any fluctuations that may occur from day to day.

Sufficient raw data records are retained to allow an outside party to reconstruct all facets of the ICAL. Records contain, but are not limited to, the following: calibration date, method, instrument, analyst(s) initials or signatures, analysis date, analytes, concentration, response, and type of calibration (average RF, curve, or other calculations that may be used to reduce instrument responses to concentration).

Sample results must be quantitated from the ICAL and may not be quantitated from any CCV, unless otherwise required by regulation, method, or program.

If the ICAL results are outside acceptance criteria, corrective action must be performed and any affected samples re-analyzed, if sufficient sample remains. If the re-analysis is not possible, any data associated with an unacceptable ICAL will be reported with appropriate data qualifiers (refer to Section 12).

Note: Instruments must be calibrated initially and as needed thereafter and at least annually. Project-specific requirements may dictate more frequent calibrations (e.g., quarterly), as agreed upon with the client.

20.4.1 Calibration Standards

Calibration standards are prepared using the procedures indicated in the Reagents and Standards section of the determinative laboratory SOP. If a reference method does not specify the number of calibration points, a minimum of three calibration points (exception being ICP and ICP/MS methods) will be used.

Standards for instrument calibration are obtained from a variety of sources. All standards are traceable to national or international standards of measurement, or to national or international standard reference materials.

The lowest concentration calibration standard that is analyzed during an ICAL must be at or below the stated RL for the method, based on the final volume of extract or sample.

The other concentrations define the working range of the instrument/method or correspond to the expected range of concentrations found in actual samples that are also within the working range of the instrument/method. Results of samples not bracketed by the ICAL standards (within calibration range to at least the same number of significant figures used to report the data) must be reported as having less certainty (e.g., use defined qualifiers or flags and report in an NCM using the NCM program in the LIMS). The exception to these rules is ICP methods or other methods where the referenced method does not specify two or more standards.

All ICALs are verified with a standard obtained from a second source and traceable to a national standard, when available (or vendor-certified different lot, if a second source is not available). Any claim of unavailability of second-source standards must be accompanied by supporting documentation (e.g., e-mails from several prospective vendors where they state that the standard being sought is unavailable). The ICAL verification must occur immediately after the calibration curve has been analyzed, and before the analysis of any samples.

20.4.2 Calibration Verification

The calibration relationship established during the ICAL must be verified at least daily, as specified in the laboratory SOPs in accordance with the referenced analytical methods and in the 2009 TNI Standard. The process of calibration verification applies to both external standard and internal standard calibration techniques, as well as to linear and non-linear calibration models. The ICAL is verified with a standard source secondary (second source standard) to the ICAL standards, but CCVs may use the same source standards as the calibration curve.

Note: The process of calibration verification referred to is fundamentally different from the approach called "calibration" in some methods. As described in those methods, the CF or RF calculated during calibration is used to update the CF or RF used for sample quantitation. This approach, while employed in other EPA programs, amounts to a daily single-point calibration.

All target analytes and surrogates, including those reported as non-detects, must be included in periodic calibration verifications for purposes of RT confirmation and to demonstrate that calibration verification criteria are being met, i.e., RPD, per the 2009 TNI Standard, EL-V1M4 Section 1.7.2.

All samples must be bracketed by periodic analyses of standards that meet the QC acceptance criteria (e.g., calibration and RT). The frequency is found in the determinative methods or laboratory SOPs.

Note: If an internal standard calibration is being used (basically in GC/MS), then bracketing standards are not required; only daily verifications are needed. The results from these verification standards must meet the

CCV and the RT criteria (if applicable).

Generally, ICALs must be verified at the beginning of each 12-hour analytical shift during which samples are analyzed. (Some methods may specify more or less frequent verifications.) The 12-hour analytical shift begins with the injection of the CCV (or the GC/MS tuning standard in GC/MS methods). The shift ends after the completion of the analysis of the last sample, QC, or standard that can be injected within 12 hours of the beginning of the shift.

A CCV must be repeated at the beginning and, for methods that have quantitation by external calibration models, at the end of each analytical batch. Some methods may have more frequent CCV requirements. Most inorganic methods require the CCV to be analyzed after every 10 samples or injections, including matrix or batch QC samples.

If the results of a CCV are outside the established acceptance criteria and analysis of a second consecutive (and immediate) CCV fails to produce results within acceptance criteria, corrective action shall be performed. Once corrective actions have been completed and documented, the laboratory shall demonstrate acceptable instrument / method performance by analyzing two consecutive CCVs, or a new initial instrument calibration shall be performed.

Sample analyses and reporting of data may not occur or continue until the analytical system is calibrated or calibration verified. However, data associated with unacceptable calibration verification may be fully useable under the following special conditions:

- when the acceptance criteria for the CCV are exceeded high (i.e., high bias) and the associated samples within the batch are non-detects, then those non-detects may be reported with a footnote or case narrative explaining the high bias. Otherwise the samples affected by the unacceptable CCV shall be re-analyzed after a new calibration curve has been established, evaluated and accepted; or

- when the acceptance criteria for the CCV are exceeded low (i.e., low bias), those sample results may be reported if they exceed a maximum regulatory limit/decision level, if known. Otherwise the samples affected by the unacceptable CCV shall be re-analyzed after a new calibration curve has been established, evaluated and accepted.

Samples reported under the two conditions identified above will be appropriately flagged.

20.4.2.1 Verification of Linear and Non-Linear Calibrations

Calibration verification for calibrations involves the calculation of the percent drift or the percent difference of the instrument response between the ICAL and each subsequent analysis of the verification standard. (These calculations are available in the

laboratory SOPs.) Verification standards are evaluated based on the percent difference from the average CF or RF of the ICAL or based on percent drift or percent recovery if a linear or quadratic curve is used.

Regardless of whether a linear or non-linear calibration model is used, if initial verification criterion is not met, then no sample analyses may take place until the calibration has been verified or a new ICAL that meets the specifications listed in the laboratory SOPs is performed.

When the acceptance criteria for the calibration verification are exceeded high (i.e., high bias) and the associated samples within the batch are NDs, then those NDs may be reported with a qualifier or case narrative explaining the high bias. Otherwise, the samples affected by the unacceptable calibration verification shall be re-analyzed after a new ICAL has been established, evaluated, and accepted.

When the acceptance criteria for the calibration verification are exceeded low (i.e., low bias), those sample results may be reported if they exceed a maximum regulatory limit/decision level, if known. Otherwise, the samples affected by the unacceptable calibration verification shall be re-analyzed after a new ICAL has been established, evaluated, and accepted.

20.5 TENTATIVELY IDENTIFIED COMPOUNDS – GC/MS ANALYSIS

For samples containing components not associated with the calibration standards, a library search may be made for the purpose of tentative identification. The necessity to perform this type of identification will be determined by the purpose of the analyses being conducted. Data system library search routines should not use normalization routines that would misrepresent the library or unknown spectra when compared to each other.

Note: If the TIC compound is not part of the client target analyte list but is calibrated by the laboratory and is both qualitatively and/or quantitatively identifiable, it should not be reported as a TIC. If the compound is reported on the same form as true TICs, it should be qualified and/or narrated that the reported compound is qualitatively and quantitatively (if verification in control) reported compared to a known standard that is in control (where applicable).

For example, the RCRA permit or waste delisting requirements may require the reporting of non-target analytes. Only after visual comparison of sample spectra with the nearest library searches may the analyst assign a tentative identification.

20.6 GC/MS TUNING

Prior to any GC/MS analytical sequence, including calibration, the instrument parameters for the tune and subsequent sample analyses within that sequence must be set.

Prior to tuning/auto-tuning the mass spectrometer, the parameters may be adjusted within the specifications set by the manufacturer or the analytical method. These generally do not need any adjustment but it may be required based on the current instrument performance. If the tune verification does not pass, it may be necessary to clean the source or perform additional maintenance. Any maintenance is documented in the instrument maintenance logbook.

Table 20-1. Example: Instrumentation List

Equipment/ Instrument	Manufacturer	Model Number	Serial Number	Year put into Service	Methods Performed
Ammonia Probe	Orion	96-12		1/1/2005	SM4500 NH3 D
Auto Sampler	Varian	Archon	14635	1/1/2005	EPA 8015 (GRO)
Auto Sampler	Varian	Archon	14169	1/1/2005	
Auto Sampler	O.I. Analytical	4552	14407	1/1/2006	EPA 8260B-SIM
Auto Sampler	O.I. Analytical	4552	14417	1/1/2006	screening
Auto Sampler	Dionex	AS40	03080145		EPA 300.1
Auto Sampler	Dionex	AS 40	04110044		EPA 300.0/9056
Auto Sampler	Dionex	AS40	06110242	1/1/2002	EPA 300.0/9056
Auto Sampler	Dionex	AS40-1	98050117	10/1/2008	EPA 300.0/9056
Auto Sampler	ManTech	PC-Titrate PC1000-102	MS-9K8-210	1/1/2009	pH (Water samples only) and Conductivity
Auto Sampler	Metrohm	838	1838001005147	3/29/2010	EPA 7199/218.6
Auto Sampler	O.I. Analytical	4552	14217	1/1/2011	EPA 8021
Auto Sampler	Dionex	AS40	98050116	1/1/2007	EPA 300.1
Auto Sampler	Dionex	AS 40	04110044	6/1/2015	
Auto Sampler	Metrohm	9191C	1919002002153	10/3/2013	EPA 300.0/9056
Auto Sampler	Dionex	ICS-AS-DV	10120363	10/3/2013	EPA 7199/218.6
Auto Sampler	Metrohm	838	1838002006220	1/1/2012	EPA 332, 6860
Auto Sampler	Metrohm	838	1838002009651	1/1/2004	EPA 332, 6860
Auto Sampler	Dionex	AS40	06110242	1/1/2007	EPA 300.0/9056
Auto Sampler	Dionex	AS 40	94090145	6/1/2015	EPA 300.0/9056
Auto Sampler	Metrohm	838	1838001009124	6/1/2015	EPA 300.0/9056
Auto Sampler	Metrohm	838	1838001005147	6/1/2015	EPA 7199/218.6
Auto Sampler	Metrohm	838		6/1/2015	EPA 7199/218.6
Auto Sampler	Dionex	AS40	0411072	10/1/2008	EPA 314.0
Auto Sampler	Metrohm	858	1858002003286	5/2/2011	EPA 218.7
Auto Sampler	Dionex	068888	14071159	1/1/2015	EPA 314.1
Auto Sampler (Archon)	Varian	Archon DY505220-16	12731	1/1/2001	
Auto Sampler (Archon)	Varian	Archon	14636	1/1/2004	
Auto Sampler (Archon)	Varian	Archon	14633	1/1/2006	
Auto Sampler (Archon)	Varian	Archon	14634	1/1/2006	
Auto Sampler (Archon)	Varian	Archon	14662	1/1/2006	
Auto Sampler (Archon)	Varian	Archon	13171	1/1/2006	
Auto Sampler (Archon)	Varian	Archon	14638	1/1/2006	
Auto Sampler (Archon)	Varian	Archon	14418	1/1/2006	
Auto Sampler (Archon)	Varian	Archon	14195	1/1/2006	
Auto Sampler (Archon)	Varian	Archon	13388	1/1/2006	

Equipment/ Instrument	Manufacturer	Model Number	Serial Number	Year put into Service	Methods Performed
Auto Sampler (Archon)	Varian	Archon	14411	1/1/2006	EPA 8015
Auto Sampler (Archon)	Varian	Archon	14492	1/1/2006	
Auto Sampler (Archon)	Varian	Archon	14639	1/1/2006	
Auto Sampler (Archon)	Varian	Archon	14637	1/1/2006	
Auto Sampler (Archon)	Varian	Archon	13389	1/1/2006	
Auto Sampler (Archon)	O.I. Analytical	4552	12221	1/1/2009	EPA 524.2, EPA 524.2-SIM
Auto Sampler (Archon)	O.I. Analytical	4552	14420	1/1/2009	EPA 524.2, EPA 524.2-SIM
Auto Sampler (Archon)	EST	Archon	14653	1/1/2009	EPA 524.2, EPA 524.2-SIM
Auto Sampler (Archon)	Varian	Archon	13520	1/1/2009	EPA 524.2, EPA 524.2-SIM
Auto Sampler (DPM)	Varian	Archon	14654	1/1/2005	
Auto Sampler (DPM)	O.I. Analytical	MPM16/DPM16	H308369/89049B	1/1/1993	
Auto Sampler (DPM)	O.I. Analytical	MPM/DPM 16	91349/D122416646	1/1/1993	
Auto Sampler (DPM)	O.I. Analytical	MPM16/DPM16	H303322/C420411196	1/1/1993	
Auto Sampler (DPM)	O.I. Analytical	DPM 16	B704411427	1/1/2003	
Auto Sampler (DPM)	O.I. Analytical	MPM 16		1/1/2011	Diesel
Auto Sampler for GC	Hewlett Packard	18596A	2718A09693	1/1/2005	
Auto Sampler for GC	Hewlett Packard	18596A	2718A08776	1/1/2006	
Auto Sampler for GC	Hewlett Packard	18596B	3445A17015	1/1/2006	
Auto Sampler for GC	Agilent	G2614A	US20914533	1/1/2006	
Auto Sampler for GC	Hewlett Packard	18596B	3206A27724	1/1/2006	
Auto Sampler for GC	Agilent	G2614A	CN24322262	1/1/2006	
Auto Sampler for GC	Hewlett Packard	7673B		1/1/1993	
Auto Sampler for GC	Hewlett Packard	7673B		1/1/1995	
Auto Sampler for GC	Agilent	G2614A	US12812101	1/1/2003	
Auto Sampler for GC	Agilent	G2614A	CN33826431	1/1/2005	
Auto Sampler for GC	Hewlett Packard	7673B		1/1/1993	
Auto Sampler for GC	Agilent	G2614A	CN63340749	1/1/2006	PAH low-level
Auto Sampler for GC	Hewlett Packard	18593B	3120A26939	1/1/1992	1,4-Dioxane
Auto Sampler for GC	Agilent	G2614A	CN55237971	1/1/2006	8081
Auto Sampler for	Agilent	G2614A	CN55237964	1/1/2007	

Equipment/ Instrument	Manufacturer	Model Number	Serial Number	Year put into Service	Methods Performed
GC					
Auto Sampler for GC	Agilent	G2614A	CN42629414	1/1/2006	EPA 8270/625
Auto Sampler for GC	Hewlett Packard			1/1/2008	
Auto Sampler for GC	Agilent	18596B	3202A27470	1/1/2008	
Auto Sampler for GC	Agilent	G2614A	US10510643	1/1/2009	EPA 525.2
Auto Sampler for GC	Agilent	7683	CN42729496	1/18/2013	
Auto Sampler for Hg	Perkin Elmer	AS 91	6060	1/1/1995	
Auto Sampler for ICP	Perkin Elmer	AS 93 Plus	1075	1/1/2002	
Auto Sampler for ICPMS	Perkin Elmer	CETAC	060019ASX	1/1/2001	
Auto Sampler for Mercury	Perkin Elmer	AS 90	3380	1/1/1995	
Auto Sampler for Metals	Perkin Elmer	AS 93 Plus	3023	1/1/2006	
Autoclave	Tuttnaur/Brinkman	3870E	2903420	1/1/2009	
Autoclave	Market Forge	STM-E Type C	3Y0521	1/1/2009	
Automated Extractor	Horizon Technology	SPE-DEX 4790	03-0360	1/1/2003	EPA 1664A
Automated Extractor	Horizon Technology	SPE-DEX 4790	Various	3/25/2014	525.2 (SN: 06-0726, 0729, 0730, 0728, 0731,0711)
Automated Extractor	Horizon Technology	SPE-DEX 4790	09-1208,1209,1210,1207, 06-0718,06-0727 (SPE17-22)	4/21/2014	14Diox, NDMA
Autosampler	Agilent	CETAC ASX 520	120916A520	1/1/2010	EPA 200.8 DW
Autosampler	ESI	SL-4AXF95T3	X4DXS-HS-TDP-16-120401	1/1/2010	EPA 200.8 / 6020 /6020_LL
Autosampler	Metrohm	919	1919002002190	11/5/2012	EPA 7199/218.6
Autosampler	EST	Arcon	12116	4/1/2013	EPA 8260B
Autotitration with autosampler	ManTech	Tetra Rinse/Autosampler	MS-9K9-108	1/1/2002	
Balance, Analytical	Denver	P-214	27150173	6/1/2015	
Balance, Analytical	Denver	P-214	27150174	6/1/2015	
Balance, Analytical	Denver	P-214	27150172	6/1/2015	
Balance, Analytical	Denver	P-214	26850013	1/1/2012	
Balance, Top Loader	Ohaus	C11P9	0605016JHP	1/1/2006	
Balance, Top Loader	Denver	P-602	27050794	6/1/2015	
Balance, Top Loader	Denver	P-602	27150188	6/1/2015	
Balance, Top	Denver	P-602	27150187	6/1/2015	

Equipment/ Instrument	Manufacturer	Model Number	Serial Number	Year put into Service	Methods Performed
Loader					
Balance, Top Loader	Denver	P-602	27150186	6/1/2015	
Balance, Top Loader	Denver	P-602	27150184	6/1/2015	
Balance, Top Loader	Denver	P-602	27150183	6/1/2015	
Balance, Top Loader	Denver	P-602	27150182	6/1/2015	
Balance, Top Loader	Sartorius	12000S	40040045	6/1/2015	
Block Digestor	Bioscience	163-466T		1/1/1997	EPA 410.4
Block Digestor	Bioscience	2091B1		1/1/1997	EPA 410.4
BOD Meter	Accumet	25	C0021582	1/1/2006	BOD
BOD probe	Jenco			1/1/2006	BOD
Centrifuge	Fisher Scientific	AccuSpin 300	40327924	1/1/2003	
Centrifuge	Precision	Durafuge 100	40317924	1/1/2003	
Chiller	Thermoneslab	M75	101226011	1/1/1999	
Chiller	VWR	1177PD	G42546	1/1/2004	
Chiller	VWR	1177PD	106A00879	1/1/2005	
Chiller	VWR	1173PD	106600242	1/1/2005	
Chiller for ICP	Polyscience	N0772026	G36430	1/1/2005	
Chiller for ICP	VWR	1173PD	106800421	1/1/2006	
Chiller for ICP	Polyscience	N0772026	106A00726	1/1/2006	
Chiller for ICPMS	Neslab	CFT-75	199064010	1/1/1999	
COD Reactor	Bioscience Inc.	2091B1	34613302	1/1/2006	
COD Reactor	Bioscience Inc.	163-466T	COD-T349	1/1/2006	
Compound Microscope (10x100)	VWR	BB-P/TB-P	V167531	1/1/2009	
Concentrator	O.I. Analytical	4560	N228460103	1/1/2009	EPA 8260B
Concentrator	O.I. Analytical	4560	M012460798	1/1/2009	EPA 524.2, EPA 524.2-SIM
Concentrator	O.I. Analytical	4560	D306030	1/1/2009	EPA 524.2, EPA 524.2-SIM
Concentrator	O.I. Analytical	4560	N114460213	1/1/2009	EPA 524.2, EPA 524.2-SIM
Concentrator	OI	4660	B425466658P	4/1/2013	EPA 8260B
Conductivity Detector	Dionex	CD25A	03070269	1/1/2007	EPA 300.0/9056
Conductivity Detector	Dionex	CD20	98040309	6/1/2015	EPA 300.0/9056
Conductivity Meter	VWR	21800-012	Q022545	1/1/2009	EPA 120.1, 2510B, 9050A, 2520B
Conductivity Probe	Yellow Springs	32	COD0031	1/1/2006	EPA 120.1, 2510B, 9050A, 2520B
Conductivity/TDS Probe	Corning	M90	001253	1/1/2006	EPA 360.1
Conductivity/TDS Probe	Acument	AP75	943318	1/1/2013	2510B
Cyanide Distillation	Andrew Glass Co	110-10-R	A780509	1/1/1999	

Equipment/ Instrument	Manufacturer	Model Number	Serial Number	Year put into Service	Methods Performed
Cyanide Distillation	Andrew Glass Co	110-10-R	A8X0309	1/1/1999	
Cyanide Distillation	Andrew Glass Co	110-10-R		1/1/1999	
Cyanide Distillation Unit	Andrew Glass Co	MIDI System	MCVA13908221	1/1/2006	
Cyanide Distillation Unit	Andrew Glass Co	MIDI System	33212579	1/1/2006	
Detector	Metrohm	887 UV / 800 Dosino	1887001006158	11/5/2012	EPA 7199/218.6
Digestion Unit	Lachat	BD-46	100700000985	10/10/2012	TKN/Ammonia
Dispenser with Adapter	Fisher Scientific	NA	W2838	1/1/2009	
Drying Oven	Fisher		40200001	1/1/2006	
Drying Oven	Fisher	630G	800121	1/1/2006	
Drying Oven	Scientific Products	DX-61	194002	1/1/2006	
Drying Oven	Fisher	Isotemp Standard OB602G	2032100355237	1/1/2010	TSS, VS, %Solids, %Moisture
Drying Oven	Fisher	Isotemp Standard OB702F	2153100457536	1/1/2010	TDS, TS (Water)
Drying Oven					
Drying Oven	Quincy Lab Inc	30GC	G3-008043	1/1/2006	
Drying Oven	Fisher	Isotemp Standard	613226-529	5/15/2013	TDS, TS (Water)
Drying Oven	Fisher	750F	305N0072	6/8/2015	TDS, TS (Water)
Eluent Generator	Dionex	EG50	03080261	1/1/2007	EPA 300.0/9056
Evaporator	Buchi	Q-101	1000170194	7/24/2014	3510, 3546, 3520
Flashpoint Tester	Koehler	K-162	10A/Y-2	1/1/1992	EPA 1010
Fluoride Probe	Orion	96-09	9609BN	1/1/2006	SM4500F
Gas Chromatograph	Agilent	6890N/1530N	CN10551059	1/1/2007	EPA 8081/608
Gas Chromatograph (Dual ECD)	Hewlett Packard	5890 Series II	3223A43015	1/1/2005	EPA 8081/608
Gas Chromatograph (Dual ECD)	Hewlett Packard	5890 Series II	336A51142	1/1/2005	EPA 8082/608
Gas Chromatograph (Dual ECD)	Agilent	6890N	US10215019	1/1/2002	EPA 608, 8082
Gas Chromatograph (Dual ECD)	Agilent	6890N/G1530N	US10250081	1/1/2005	EPA 8081/608
Gas Chromatograph (Dual ECD)	Agilent	6890N/G1540N	US10423015	1/1/2008	EPA 8081/608
Gas Chromatograph (Dual ECD)	Agilent	6890N/G1540N	US10423014	1/1/2008	EPA 8081/8082
Gas Chromatograph (Dual ECD)	Agilent	7890A/G3440A	CN10741034	1/1/2007	EPA 504.1

Equipment/ Instrument	Manufacturer	Model Number	Serial Number	Year put into Service	Methods Performed
Gas Chromatograph (Dual ECD)	Agilent	6890N/G1530N	US10322076	1/1/2007	EPA 8081, 8082
Gas Chromatograph (Dual ECD)	Agilent	6890N	US10212094	1/1/2009	EPA 508.1
Gas Chromatograph (Dual ECD)	Agilent	6890N	US10402034	1/1/2009	EPA 552.2, EPA 504.1
Gas Chromatograph (Dual ECD)	Agilent	6890N	US10244151	1/1/2010	EPA 505
Gas Chromatograph (Dual ECD)	Hewlett Packard	5890 Series II	3336A56851	1/1/2010	EPA 8082
Gas Chromatograph (Dual FID)	Hewlett Packard	5890 Series II	3126A36534	1/1/2005	EPA 8015 Diesel
Gas Chromatograph (Dual FID)	Agilent	6890N/G1540N	US10546009	1/1/2007	EPA 8015B Diesel
Gas Chromatograph (Dual FID)	Agilent	6890N/G1540N	US10546010	1/1/2007	EPA 8015B Diesel
Gas Chromatograph (FID)	Agilent	6890N	CN10505005	1/18/2013	EPA 8015 Diesel
Gas Chromatograph (FID/PID)	Hewlett Packard	5890 Series II	S/N3133A37156	1/1/1992	EPA 8021
Gas Chromatograph (FID/PID)	Hewlett Packard	5890A	S/N2750A15898	1/1/1997	EPA 8021
Gas Chromatograph (FID/PID)	Hewlett Packard	5890 Series II	S/N3223A2733	1/1/1993	EPA 8015
Gas Chromatograph (FID/PID)	Hewlett Packard	5890 Series II	S/N3336A60064	1/1/1993	EPA 8015
Gas Chromatograph (FID/PID)	Hewlett Packard	5890 Series II	S/N3033A33301	1/1/1998	EPA 8015
Gas Chromatograph (FID/PID)	Hewlett Packard	5890 Series II	2921A23920	1/1/2011	EPA 8015B Diesel
Gas Chromatograph (FID/PID)	Agilent	5890 Series II	S/N3133A37568	1/1/2008	EPA 8015M Methanol/Ethanol
Gas Chromatograph (FID/TCD)	Varian	CP-3800	05262	5/20/2013	RSK-175
Gas Chromatograph (FID/TCD)	Varian	CP-3800	11827	5/20/2013	EPA 25C
Gas Chromatograph/ Mass Spectrometer	Hewlett Packard	6890/5973A	US00007750/US70810354	1/1/2000	EPA 8260B
Gas Chromatograph/ Mass Spectrometer	Hewlett Packard	6890/5973A	US00022931/US82311546	1/1/2000	EPA 8260B

Equipment/ Instrument	Manufacturer	Model Number	Serial Number	Year put into Service	Methods Performed
Gas Chromatograph/ Mass Spectrometer	Agilent	6850/5973N	US00001207/US01140222	1/1/2001	EPA 8260B
Gas Chromatograph/ Mass Spectrometer	Agilent	6850/5973	US00001206/US01140215	1/1/2001	EPA 8260B
Gas Chromatograph/ Mass Spectrometer	Agilent	6850/5973N	US0001947/US10340261	1/1/2002	EPA 8260B SIM
Gas Chromatograph/ Mass Spectrometer	Agilent	6850/5973N	US00002140/US10440793	1/1/2002	EPA 8260B
Gas Chromatograph/ Mass Spectrometer	Agilent	6850/5973N	US00002860/US21843317	1/1/2003	EPA 8260B
Gas Chromatograph/ Mass Spectrometer	Agilent	6890/5973	US00034262/US01112246	1/1/2004	EPA 8260B
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N/5973	CN10318006/US30945515	1/1/2004	EPA 8260B (screener)
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N/5973	CN10318007/US30945517	1/1/2004	EPA 8260B SIM
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N/5973	CN0523048/US43146864	1/1/2006	EPA 8260B
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N/5973	CN01521014/US44647184	1/1/2005	EPA 8260B
Gas Chromatograph/ Mass Spectrometer	Hewlett Packard	6890/5973A	US00020097/US72810389	1/1/1999	EPA 8260B
Gas Chromatograph/ Mass Spectrometer	Hewlett Packard	5890Ser.II/5971	3140A39653	1/1/1993	Screening
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N/5973/G2578A	US10341048/US33210028	1/1/2005	EPA 8270/625-Low level
Gas Chromatograph/ Mass Spectrometer	Hewlett Packard	5890Ser.II/5971	3033A30488/3133A37717	1/1/1993	1,4-Dioxane
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N/5973	US10206070/US10462145	1/1/2006	EPA 8260B (screener)
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N/5973N	US10222064/US10462085	1/1/2006	EPA 8260B

Equipment/ Instrument	Manufacturer	Model Number	Serial Number	Year put into Service	Methods Performed
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N/5975B/G3171A	CN10636107/US62724086	1/1/2006	PAH low-level
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N/5973	US00001682/US92522712	1/1/2001	EPA 8260B
Gas Chromatograph/ Mass Spectrometer	Hewlett Packard	5890IIB/5971A	2921A24077/3188A02848	1/1/1992	1,4-Dioxane
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N/5973 Inert	CN10349032/US33220240	1/30/2008	EPA 625 and EPA 8270C
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N/5973 inert	CN10339005/US35120285	1/1/2007	EPA 8260B and TPH by GCMS
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N / 5973 Inert	CN10345035 / US33220184	1/1/2009	EPA 524.2, EPA 524.2-SIM
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N / 5973	CN10521030 / US40620627	1/1/2009	EPA 524.2, EPA 524.2-SIM
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N / 5973	CN10503040 / US10461983	1/1/2009	EPA 524.2, EPA 524.2-SIM
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N / 5973	US00002015 / US10440578	1/1/2009	EPA 524.2, EPA 524.2-SIM
Gas Chromatograph/ Mass Spectrometer	Agilent	6890N/5973N	US10232062/US21863660	1/1/2009	EPA 525.2
Gas Chromatograph/ Mass Spectrometer	Agilent	6890/G1530N	US10243060	1/1/2010	EPA 525.2
Gas Chromatograph/ Mass Spectrometer	Agilent	6890/5973	US10226108/US21843299	1/1/2010	EPA 8270C PAH SIM
Gas Chromatograph/ Mass Spectrometer	Agilent	7890/5975	CN10752039/US80148288	1/1/2010	EPA 8270C
Gas Chromatograph/ Mass Spectrometer	Agilent	7890/5975	CN10824037/US83140433	1/1/2010	Pyrethroid by EPA 8270C
Gas Chromatograph/ Mass Spectrometer	Hewlett Packerd	5890/5970	3336A60053/3307A00396	1/1/2011	EPA 8270C Screener
Gas Chromatograph/ Mass Spectrometer	Hewlett Packard/O.I.	6890/5973	US00029799	1/1/2011	EPA 8260B

Equipment/ Instrument	Manufacturer	Model Number	Serial Number	Year put into Service	Methods Performed
GFAA	Perkin Elmer	AA600	601S3110501	9/19/2013	HML 939-M Organic Lead
Heat block (analog)	VWR	949312	110705008	1/1/2006	
Heat block (standard)	VWR	949031	4066	1/1/2006	
Hg FIAS Mercury Analyzer	Perkin Elmer	FIMS 400	4167	1/1/1995	EPA 245.1/7470/7471
Hg FIAS Mercury Analyzer	Perkin Elmer	FIMS 400	401510021001	1/1/2010	EPA 245.1/7470/7471
High volume stir plate	VWR	986920	090915011	1/1/2009	Metals Prep
High volume stir plate with heating	VWR	986663	090930001	1/1/2009	Metals Prep
Hot Block 36 Place	Environmental Express	SC154	1763CEC1138	1/1/2006	Hg digestion
Hot Block 36 Place	Environmental Express	SC154	31577	1/1/2006	Metals soil digestion
Hot Block 36 Place	Environmental Express	SC154	31576	1/1/2011	Metals soil digestion
Hot Block 36 Place	Environmental Express	SC154	8031CECW3359	5/26/2015	Metals soil digestion
Hot Block 36 Place	Environmental Express	SC154		1/1/2011	Metals soil digestion
Hot Block 54 Place	Environmental Express	SC154	3098CEC1491	1/1/2006	Metals water digestion
Hot Block 54 Place	Environmental Express	SC154	424CEC0641	1/1/2006	Hg digestion
Hot Block 54 Place	Environmental Express	SC154	4186CEC1997	1/1/2006	Metals water digestion
Hot Block 54 Place	Environmental Express	SC154	4186CEC1998	1/1/2006	Metals water digestion
Hot Block 54 Place	Environmental Express	SC154	8031CECW3355	5/26/2015	Metals soil digestion
Hotplate with Stirrer	VWR	800 Series	58849-001	1/1/2009	
HPLC (DAD)	Agilent	1100	DE14914766	1/1/2009	EPA 549.2
HPLC (DAD)	Hewlet Packard	G1316A	US54000547	1/1/2009	EPA 549.2
HPLC (FLD)	Agilent	1100	DE14903835	1/1/2009	EPA 547
HPLC (FLD)	Agilent	1100	DE14903629	1/1/2009	EPA 531.1, EPA 547
IC Pump/Lamp	Metrohm	818/1010	1818011013123/1153001013131	3/29/2010	EPA 7199/218.6
Ice Machine	Microban	XAC830	63K0426BL075	1/1/2004	None
Incubator for BOD	Fisher	307C	00037-090-00	1/1/2002	
Incubator for BOD	VWR	2020	6003205	1/1/2002	
Incubator for Micro	Fisher Scientific			1/1/2009	

Equipment/ Instrument	Manufacturer	Model Number	Serial Number	Year put into Service	Methods Performed
Incubator for Micro (35C)	VWR	1915	800902	1/1/2009	For MTF and QC
Incubator for Micro (35C)	VWR	1915	1102003	1/1/2009	For P/A, HOC-SIM, HPC-PP, Q-Tray
Incubator for Micro (55C)	Fisher Scientific	516D	502N0034	1/1/2009	
Incubator, small				1/1/2009	
Inductively Coupled Plasma Spectrophotometer	Perkin Elmer	Optima 4300 DV	077N1100901	1/1/2002	EPA 200.7/6010B
Inductively Coupled Plasma Spectrophotometer	Perkin Elmer	Optima 5300DV	077N5112802	1/1/2006	EPA 200.7/6010B
Inductively Coupled Plasma Spectrophotometer	Perkin Elmer	Optima 8300	078N1051001	1/1/2011	EPA 200.7/6010B
Inductively Coupled Plasma Spectrophotometer/MS	Agilent	7700 series G3281A	JP09480189	1/1/2010	EPA 200.8 DW
Inductively Coupled Plasma Spectrophotometer/MS	Agilent	7700 series G3281A	JP12091608	1/1/2012	EPA 200.8 / 6020 / 6020_LL
Injector	Hewlett Packard	7673	NA	1/1/2011	Diesel
Injector for GC	Agilent	7673 series (18593B)	3120A27934	1/1/2008	
Injector Tower	Hewlett Packard	18593B	3120A27153	1/1/2006	
Injector Tower	Agilent	G2913A	CN55130059	1/1/2007	
Injector Tower	Agilent	7683	CN54859595/US91907180	1/18/2013	8015B-DRO
Integrated Sample Introduction System (ISIS)	Agilent	G4911A	JP09300004	1/1/2010	EPA 200.8 DW
Ion Chromatograph	Dionex	ICS-1000	03110585	1/1/2002	EPA 300.0/9056
Ion Chromatograph	Dionex	LC25	02050420	1/1/2005	EPA 300.1
Ion Chromatograph	Dionex	LC 30	97040546	1/1/2002	EPA 300.0/9056
Ion Chromatograph	Dionex	LC20	94010215	9/1/2006	EPA 300.0/9056
Ion Chromatograph	Dionex	LC25	03080195	1/1/2007	EPA 300.0/9056
Ion Chromatograph	Metrohm	861/838	1861004003159/1838001009124	3/29/2010	EPA 300.0/9056
Ion Chromatograph	Metrohm	881	1881000007119	3/29/2010	EPA 7199/218.6
Ion Chromatograph	Metrohm	881	1881000123101	11/5/2012	EPA 7199/218.6
Ion Chromatograph	Metrohm	861	1861002008105	10/3/2013	EPA 300.0
Ion Chromatograph	Dionex	ICS-2000-TC	08010736	10/3/2013	EPA 7199 / 218.6
Ion	Dionex	ICS-2000	04100753	10/28/2013	314.0

Equipment/ Instrument	Manufacturer	Model Number	Serial Number	Year put into Service	Methods Performed
Chromatograph					
Ion Chromatograph	Dionex	ICS-2100	11021089	1/24/2014	314.0
Ion Chromatograph	Dionex	ICS-2100	13071408	1/1/2015	314.0
Ion Chromatograph (with UV/VIS detector)	Metrohm	881/887	15105/03140	5/2/2011	EPA 218.7
Ion Chromatograph/ Mass Spectrometer	Metrohm (IC) / Agilent (MS)	LC30-1/LC110/IC800	1820023004102/US34800214	1/1/2005	EPA 332, 6860
Ion Chromatograph/ Mass Spectrometer	Metrohm/Agilent	G1956B	US34800214	1/1/2004	Perchlorate EPA 332.0, EPA 6860
Ion Chromatograph/ Mass Spectrometer	Metrohm (IC) / Agilent (MS)	761-SL / G1956B	1830002008183 / US42500764	1/1/2012	EPA 332, 6860
ISCO Sampler	GLS Teledyne	60-2954-00		1/1/2006	Field Sampling
ISCO Sampler	GLS Teledyne	60-2954-00		1/1/2006	Field Sampling
ISCO Sampler	GLS Teledyne	60-2954-00		1/1/2006	Field Sampling
ISCO Sampler	GLS Teledyne	60-2954-00		1/1/2006	Field Sampling
ISCO Sampler	GLS Teledyne	60-2954-00		1/1/2006	Field Sampling
ISCO Sampler	GLS Teledyne	60-2954-00		1/1/2006	Field Sampling
ISCO Sampler	603714001	3710		1/1/2006	Field Sampling
ISCO Sampler	603714001	3710		1/1/2006	Field Sampling
Kiln	Cress Electric Klin	E2418	0503DD	1/1/2005	
Kone Lab	Lab Medics	Aquakem 250	E2319629	1/1/2004	
Lachat auto-analyzer	Lachat	QuickChem 8500 series 2	140100001626	1/28/2014	Ammonia, Cyanide, Phenol, Nitrate-Nitrite
Lachat auto-dilutor	Lachat	PDS-200	14010000704	1/28/2014	Ammonia, Cyanide, Phenol, Nitrate-Nitrite
Lachat auto-sampler	Lachat	ASX-520 Series	14100002230	1/28/2014	Ammonia, Cyanide, Phenol, Nitrate-Nitrite
Lachat in-line sample prep (ammonia)	Lachat	A30113	140100002217	1/28/2014	Ammonia, Cyanide, Phenol, Nitrate-Nitrite
Lachat in-line sample prep (cyanide)	Lachat	A303113	140100002218	1/28/2014	Ammonia, Cyanide, Phenol, Nitrate-Nitrite
Mercury Analyzer	Leeman	Hydra AF Gold+	AFG+ 3010	1/1/2010	EPA 245.7
Microwave	CEM	MARS5	MD3165	1/1/2010	EPA 3546
Microwave	CEM	MARS XPRESS	MD8441	1/1/2010	EPA 3546

Equipment/ Instrument	Manufacturer	Model Number	Serial Number	Year put into Service	Methods Performed
Muffle Furnace	Fisher	Isotemp 630G	801N0001	1/1/2006	
mV Meter	Denver Instrument	Basic	13036	1/1/2006	pH for BOD
mV Meter	Accumet	Model 25	C0021582	1/1/2006	BOD
Orbital Shaker	Heathrow Scientific	EF9796	ADA00973	12/22/2014	
Oven	Fisher Scientific	Isotemp Oven		1/1/2012	
pH Meter	Mettler Toledo	SevenEasy	1227116127	1/1/2006	Redox
pH Meter	Fisher Scientific	Accumet AB15 Plus	AB92334024	1/1/2010	Microbiology
pH Meter	Thermo Scientific	Orion 3Star 1219000	A11235	7/1/2010	Field Sampling
pH Meter	Hach	Sens10N™+pH1	321113	7/15/2013	Field Sampling
pH Meter	Beckman	Φ 255	2227	1/1/2006	Field Sampling
pH Meter	Denver Instruments	UB-10	UB10107126	1/2/2008	pH for alkalinity
pH Meter	Accumet	AB15	AB92338994	1/1/2006	Fluoride
pH Meter	Thermo	OrionStarA111	J00943	1/1/2006	pH for TCLP
pH Meter	Mettler Toledo	SevenEasy	1231105377	1/1/2006	pH
pH Meter	Thermo Scientific	Orion Star AIII	J0791	4/7/2014	pH
pH Meter	Sartorius	Basic Meter PB-11	31350114	10/14/2014	pH
pH probe	Thermo	9107BNMD	PV1-30483	7/1/2011	Field Sampling
pH probe	Hach	50.50TpHelectrode	LZW5050T.97.002	7/15/2013	Field Sampling
Pipet-Aid Pipettor	Drummond	Pipet-Aid XP	68640	1/1/2009	
Plastic Shredder	Prodeva	315-S	11090	1/1/2001	None
Post-Column Derivatizer	Pickering	1102202	PCX5200	1/1/2009	EPA 547
Post-Column Derivatizer	Pickering	Pinnacle PCX	1007302	1/1/2009	EPA 531.1, EPA 547
Pump	Metrohm	818	1818011014106	11/5/2012	EPA 7199/218.6
Pump	Dionex	IC25	01030292	1/1/2007	EPA 300.0/9056
Pump	Dionex	IS20	98060397	6/1/2015	EPA 300.0/9056
Pump	Dionex	ICS-2000-DP	09080225	10/3/2013	EPA 7199/218.6
Purge & Trap Concentrator	O.I. Analytical	4460A	12584-1027	1/1/1992	
Purge & Trap Concentrator	O.I. Analytical	4460A	123811014	1/1/1993	
Purge & Trap Concentrator	O.I. Analytical	4460A	108061863	1/1/1997	
Purge & Trap Concentrator	O.I. Analytical	4560	N111460835	1/1/1993	
Purge & Trap Concentrator	O.I. Analytical	4560	A229100	1/1/1992	
Purge & Trap Concentrator	O.I. Analytical	4460A	M214048	1/1/1993	
Purge & Trap Concentrator	O.I. Analytical	4560	N222460463	1/1/1998	
Purge & Trap Concentrator	O.I. Analytical	4560	K728460713	1/1/1999	
Purge & Trap Concentrator	O.I. Analytical	4560	J513460474	1/1/1997	

Equipment/ Instrument	Manufacturer	Model Number	Serial Number	Year put into Service	Methods Performed
Purge & Trap Concentrator	O.I. Analytical	4560	K841460440	1/1/2001	
Purge & Trap Concentrator	O.I. Analytical	4560	M946460833	1/1/2001	
Purge & Trap Concentrator	O.I. Analytical	4560	K82946045	1/1/2002	
Purge & Trap Concentrator	O.I. Analytical	4560	J431460443	1/1/2002	
Purge & Trap Concentrator	O.I. Analytical	4560	N228460103	1/1/2003	
Purge & Trap Concentrator	O.I. Analytical	4560	K907460143	1/1/2004	
Purge & Trap Concentrator	O.I. Analytical	4560	J624460525	1/1/2004	
Purge & Trap Concentrator	O.I. Analytical	4560	J513460468	1/1/2004	
Purge & Trap Concentrator	O.I. Analytical	4560	A229108	1/1/2006	
Purge & Trap Concentrator	O.I. Analytical	4560	L924460239	1/1/2005	
Purge & Trap Concentrator	O.I. Analytical	4560	C301264	1/1/1997	
Purge & Trap Concentrator	O.I. Analytical	4560	K810460876	1/1/1999	
Purge & Trap Concentrator	O.I. Analytical	4560	H351460339	1/1/2006	
Purge & Trap Concentrator	O.I. Analytical	4560	E324406	1/1/2006	
Purge & Trap Concentrator	O.I. Analytical	4560	L930460194	1/1/2000	
Purge & Trap Concentrator	O.I. Analytical	4560	E324406	1/1/2001	
Quanti Tray Sealer	Idexx	89-10894-04	6345	1/1/2009	
Quebec Colony Counter	Reichert	3325	02561-1009	1/1/2009	
Rapid Vap	Labconco	Rapidvap	705319	1/1/1999	
Rapid Vap	Labconco	Rapidvap	21098412F	1/1/2002	
Rapid Vap	Labconco	Rapidvap	010194458E	1/1/2002	
Rapid Vap	Labconco	Rapidvap	040824527F	1/1/2006	
Rapid Vap	Labconco	Rapidvap	100931761	1/1/2010	
Rapid Vap	Labconco	Rapidvap	266894	1/1/2010	Drinking Water
Rapid Vap	Labconco	Rapidvap	990391288C	1/1/2010	Drinking Water
Reciprocal Shaker	Lab-Line	3506	0590-1753	1/1/2012	
Rotator, 10-place	Environmental Express	5K939C	V00212AY10	1/1/2006	
Rotator, 12-place	Environmental Express		GFMG060J1	1/1/2002	
Rotator, 20-place	Ed W. Smith Machine Works	NA	NA	1/1/1999	
Rotator, 8-place	Environmental Express	F057	E512-TMP	1/1/2002	
Rotator/ Shaker	Thermolyne "Big Bill"	M49235	…49…	1/1/2012	

Equipment/ Instrument	Manufacturer	Model Number	Serial Number	Year put into Service	Methods Performed
SPE	Horizon	SPE-3000XL PLUS	1006	1/1/2008	EPA 1664A HEM & SGT-HEM
SPE-Controller	Horizon Technology	SPE-DEX	020357	1/1/2003	EPA 1664A
SpeedVapII	Horizon	SpeedVap 9000	00-248	1/1/2005	EPA 1664 and EPA 413.1
SpeedVapII	Horizon	SpeedVap 9000	99-216	1/1/2007	EPA 1664 and EPA 413.1
SpeedVapIII	Horizon	SpeedVap III	04-2019	1/1/2007	EPA 1664 and EPA 413.1
SpeedVapIII	Horizon	SpeedVap 9000	04-2032	1/1/2007	EPA 1664 and EPA 413.1
Stereo Microscope with Fluorescence source	VWR	HF-745	V167693	1/1/2009	
Thermolyne 48000 Furnace	Thermolyne	F48015	1205001206827	1/1/2015	TVS
TOC Analyzer	Shimadzu	5000A	33N01036A	1/1/1998	EPA 415.1, SW9060, SM5310B
TOC Analyzer	Tekmar-Dohrmann	Phoenix 8000	US02106006	1/1/2002	SM5310C
TOC Analyzer	O.I. Analytical	Solids	C905776109	1/1/2009	EPA 415.1, SW9060 (Soil Only)
TOC Analyzer	Shimadzu	VCSH	HS1104535257CS	1/1/2011	SW9060, SM5310B
TOC Analyzer	Shimadzu	ASI-V	H52104502349SA	1/1/2011	SW9060, SM5310B
TOC Analyzer	O.I. Analytical	Solids	C532776280	1/6/2015	SW9060 (Soil Only)
TOC Autosampler	Shimadzu	ASI-500A-H-P	33212579	1/1/1998	TOC
TOC Autosampler	Tekmar-Dohrmann	223	CAN 001 768 396	1/1/2002	SM5310C
Tower	Agilent	G2613A	CN22425747	1/1/2009	EPA 525.2
Tower	Hewlett Packard	18593B	3239A32438	1/1/2009	
Turbidity Meter	Orbeco-Hellige	965-10A	4389	1/1/2007	Turbidity
Turbidity Meter	Orbeco-Hellige	965-10A	5187	1/1/2009	EPA 180.1Turbidity
Turbo Vap II	Zymark	TurboVap II	TV0239N11193	1/1/2002	
TurboVap II	Zymark	TurboVap II	04427	1/1/2008	1664, 418.1/413.2, 3510C
TurboVap II	Zymark	TurboVap II	04429	1/1/2008	1664, 418.1/413.2, 3510C
TurboVap II	Zymark	TurboVap II	TV0635N13234	6/1/2015	1664, 418.1/413.2, 3510C, CALuft
TurboVap II	Zymark	TurboVap II	TV0634N13224	6/1/2015	1664, 418.1/413.2, 3510C, CALuft
TurboVap II	Zymark	TurboVap II	TV0635N13233	6/1/2015	1664, 418.1/413.2, 3510C, CALuft

Equipment/ Instrument	Manufacturer	Model Number	Serial Number	Year put into Service	Methods Performed
TurboVap II	Zymark	46368/A	TV9424N4100	12/8/2014	1664, 3510C
UV Lamp (big)	UVP	C-65	95025701	1/1/2009	
UV Lamp (small)	UVP	CC-10	95007201	1/1/2009	
UV Viewing Cabinet (big)	UVP	UVLMS	95025201	1/1/2009	
UV Viewing Cabinet (small)	UVP	UVGL58	9500705	1/1/2009	
UV/VIS Detector	Dionex	ICS-VWD	08040042	10/3/2013	EPA 7199/218.6
UV/VS Spectrometer	Thermo Spectronic	Genesys20	3SGG06B0117	1/1/2002	SM4500-CN
UV/VS Spectrometer	Thermo Spectronic	Genesys20	3SGQ068003	1/1/2012	SM4500-CN
UV/VS Spectrometer	Thermo Spectronic	Genesys20	3SGS260009	10/6/2014	SM4500CN, SM5520, SM5220
Water Bath	Precision	185	N/A	1/1/2010	Odor
Water Bath	Fisher	IsoTemp 228	1608090911951	1/1/2009	Odor
Water Bath, circulating (44.5C)	Precision	2866	205648-295	1/1/2010	For MTFs
Water Bath, circulating (44.5C)	Precision	2862	200035	1/1/2009	For P/As

Table 20-2. Example: Schedule of Routine Maintenance

Instrument	Procedure	Frequency
Graphite Furnace (GFAA)	Inspect graphite tube Inspect contact rings Clean windows Align lamp	Daily Daily Daily Daily
Mercury Analyzer	Check tubing for wear Fill rinse tank with 10% HCl Fill reductant bottle with 10% Stannous Chloride	Daily Daily Daily
ICP	Check/replace pump tubing Check liquid argon supply Check fluid level in waste container Check/clean/replace filters Check torch Clean torch and nebulizer	Daily/as needed Daily Daily Daily/as needed Daily As needed
ICP/ MS	Check/replace pump tubing Inspect torch and injector cones Clean/replace ion lens Replace torch o-rings Check/replace gas filters Change rough pump oil Check chiller water level	Daily/as needed Daily As needed As needed As needed As needed Weekly
UV-Vis Spectrophotometer	Clean sample holder Precision check/alignment of flow cell Wavelength verification check	As required As required Semi-annually
Gas Chromatograph/Mass Spectrometer (GCMS)	Bake trap (VOC only) Clean source Check/change vacuum pump oil Clean injectors; replace liners (SVOC only) Replace column Clean cooling fan grills	Daily As needed Annually, as needed Daily As needed Semiannually
Gas Chromatograph (GC)	Change septum Check gases Replace or clip column Clean injectors; replace liners Clean cooling fan grills	As needed Daily As needed As needed Semiannually
Electron Capture Detector (ECD)	Detector wipe test (Ni-63) Detector cleaning	Semi-annually Sent out, as needed
Flame Ionization Detector (FID)	Detector cleaning	As required
Flame Photoionization Detector (FPD)	Clean and/or Replace Lamp	As required
Photoionization Detector (PID)	Change O-rings Clean lamp window	As required As required

Instrument	Procedure	Frequency
Ion Chromatograph (IC)	Replace column disks Change guard columns Check pump seals Replace tubing Replace suppressor Check fluid level in waste container Clean cooling fan grills	As required As required As required As required As required Daily Semiannually
Balances	Class “S” traceable weight check Clean pan and check if level Outside calibration service	Daily, when used Daily At least Annually
Conductivity Meter	0.01M KCl calibration Conductivity cell cleaning	Daily As required
Turbidimeter	Check light bulb Clean sample holder	Daily, when used Daily, when used
Deionized/Distilled Water	Daily conductivity check Check deionizer light Monitor for VOA’s System cleaning Replace cartridge & large mixed bed resins	Daily Daily As required As required As required
Drying Ovens	Temperature monitoring Temperature adjustments	When used As required
Refrigerators/ Freezers	Temperature monitoring Temperature adjustment Defrosting/cleaning	Daily As required As required
pH/Specific Ion Meter	Calibration/check slope Clean electrode	Daily As required
BOD Incubator	Temperature monitoring Incubator cleaning	Daily As required
Centrifuge	Check brushes and bearings	As needed
Water baths	Temperature monitoring Water replaced	Daily Monthly or as needed
Automated Solvent Extraction units (ASE)	Check solvent reservoirs Check tubing	Daily Daily
TurboVaps	Check gas lines Check water level Calibrate temperature	Daily Daily Annually
Total Organic Carbon Analyzer	Check gas flow Check reagent reservoir levels Replace o-rings Check autosampler needle Replace scrubbers Replace catalyst	Daily Daily As needed Daily Annually As needed
Automated Analyzer	Clean sampler Check all tubing Clean detector Clean optics and cells	Daily Daily Daily Daily

Instrument	Procedure	Frequency
Infrared Spectrophotometer (IR)	Clean lens/optimize	As needed
Flashpoint Apparatus	Check gas line for leaks Check stirrer speed	Daily Annually
Rotators	Verify rotation speed	Annually

SECTION 21

MEASUREMENT TRACEABILITY

21.1 OVERVIEW

Traceability of measurements shall be assured using a system of documentation, calibration, and analysis of reference standards. Laboratory equipment that are peripheral to analysis and whose calibration is not necessarily documented in a test method analysis or by analysis of a reference standard shall be subject to ongoing certifications of accuracy. At a minimum, these must include procedures for checking specifications of ancillary equipment: balances, thermometers, and Deionized and Reverse Osmosis water systems, automatic pipettes and other volumetric measuring devices. (Refer to Section 20.3.) With the exception of Class A Glassware and Glass microliter syringes, monthly accuracy checks are performed for all mechanical volumetric devices. Microsyringes are verified at least semi-annually or disposed after 6 months of use. Wherever possible, subsidiary or peripheral equipment is checked against standard equipment or standards that are traceable to national or international standards. Class A Glassware and Glass microliter syringes should be routinely inspected for chips, acid etching, or deformity (e.g., bent needle). If the Class A glassware or syringe is suspect, the accuracy of the glassware will be assessed prior to use.

21.2 NIST-TRACEABLE WEIGHTS AND THERMOMETERS

Reference standards of measurement shall be used for calibration only and for no other purpose, unless it can be shown that their performance as reference standards would not be invalidated.

For NIST-traceable weights and thermometers, the laboratory requires that all calibrations be conducted by a calibration laboratory accredited by A2LA, NVLAP, or another accreditation organization that is a signatory to an MRA of one or more of the following cooperations: ILAC or APLAC. A calibration certificate and scope of accreditation is kept on file at the laboratory. Refer to Section 20 for calibration of weights and thermometers.

21.3 REFERENCE STANDARDS / MATERIALS

Reference standards/materials, where commercially available, are traceable to certified reference materials. Commercially prepared reference standards, to the extent available, are purchased from vendors that are accredited to ISO Guide 34 and ISO/IEC Guide 17025. All reference standards from commercial vendors shall be accompanied with a certificate that includes at least the following information:

- Manufacturer
- Analytes or parameters calibrated
- Identification or lot number
- Calibration method

- Concentration with associated uncertainties
- Purity

If a standard cannot be purchased from a vendor that supplies a Certificate of Analysis, the purity of the standard is documented by analysis. The receipt of all reference standards must be documented. Reference standards are labeled with a unique Standard Identification Number and expiration date. All documentation received with the reference standard is retained as a QC record and references the Standard Identification Number.

All reference, primary, and working standards/materials, whether commercially purchased or laboratory-prepared, must be checked regularly to ensure that the variability of the standard or material from the 'true' value does not exceed method requirements. The accuracy of calibration standards is checked by comparison with a standard from a second source. In cases where a second standard manufacturer is not available, a vendor-certified different lot is acceptable for use as a second source. The appropriate QC criteria for specific standards are defined in laboratory SOPs. In most cases, the analysis of an ICV or LCS, where there is no sample preparation, is used as the second source confirmation. These checks are generally performed as an integral part of the analysis method (e.g., calibration checks, LCS).

All standards and reference materials must be stored and handled according to manufacturer's recommendations in order to prevent contamination or deterioration. Refer to Corporate EHS Document No. CW-E-M-001 or laboratory SOPs. For safety requirements, refer to method SOPs and the laboratory EHS Manual.

Standards and reference materials shall not be used after their expiration dates.

21.4 DOCUMENTATION AND LABELING OF STANDARDS, REAGENTS, AND REFERENCE MATERIALS

Reagents must be at a minimum the purity required in the test method. The date of reagent receipt and the expiration date are documented. The lots for most of the common solvents and acids are tested for acceptability prior to company-wide purchase. Refer to Corporate Quality Document No. CA-Q-S-001.

All manufacturer- or vendor-supplied Certificate of Analysis or Purity must be retained, stored appropriately, and readily available for use and inspection. These records are maintained in the LIMS or in binders or other organized files stored within each department. Records must be kept of the date of receipt and date of expiration of standards, reagents, and reference materials. In addition, records of preparation of laboratory standards, reagents, and reference materials must be retained, stored appropriately, and be readily available for use and inspection. For detailed information on documentation and labeling, please refer to laboratory SOP No. IR-QA-STDCNTRL.

Commercial materials purchased for preparation of calibration solutions, spike solutions, etc., are usually accompanied with an assay certificate or the purity is noted on the label. If the assay purity is 96% or better, the weight provided by the vendor may be used without correction. If the assay purity is less than 96%, a correction will be made to

concentrations applied to solutions prepared from the stock commercial material. Blended gas standard cylinders use a nominal concentration if the certified value is within +/- 15%, otherwise the certified value is used for the canister concentration.

21.4.1 All standards, reagents, and reference materials must be labeled in an unambiguous manner. Standards are logged into the LIMS and are assigned a unique identification number. The following information is typically recorded in the electronic database within the LIMS:

- Standard ID
- Description of standard
- Department
- Preparer's name
- Final volume and number of vials prepared
- Solvent type and lot number
- Preparation date
- Expiration date
- Standard source type (stock or daughter)
- Standard type (spike, surrogate, other)
- Parent standard ID (if applicable)
- Parent standard analyte concentration (if applicable)
- Parent standard amount used (if applicable)
- Component analytes
- Final concentration of each analyte
- Comments (e.g., recommended storage conditions)

Records are maintained electronically for standard and reference material preparation. These records show the traceability to purchased stocks or neat compounds. These records also include method of preparation, date of preparation, expiration date, and preparer's name or initials. Preparation procedures are provided in the method SOPs.

21.4.2 All standards, reagents, and reference materials must be labeled with a minimum of the following information:

- Expiration date (include prep date for reagents)
- Standard ID (specified from LIMS)
- Special Health/Safety warnings, if applicable

Records must also be maintained of the date of receipt for commercially purchased items or date of preparation for laboratory prepared items.

Special Health/Safety warnings must also be available to the analyst. This information is maintained in the LIMS.

21.4.3 In addition, the following information may be helpful:

- Date opened (for multi-use containers, if applicable)
- Description of standard (if prepared at the laboratory)
- Recommended storage conditions
- Expiration date (include prep date for reagents)
- Concentration (if applicable)
- Initials of analyst preparing standard or opening container

All containers of prepared reagents must include an expiration date and an ID number to trace back to preparation.

Procedures for preparation of reagents can be found in the method SOPs.

Standard ID numbers must be traceable through associated logbooks, worksheets, and preparation/analytical batch records.

All reagents and standards must be stored in accordance to the following priority: 1) with the manufacturer's recommendations; 2) with requirements in the specific analytical methods as specified in the laboratory SOP.

SECTION 22

SAMPLING

22.1 OVERVIEW

The laboratory provides sampling services. Sampling procedures are described in laboratory SOP No. IR-SC-FIELD. The laboratory also supplies samplers with the necessary coolers, sample containers, sample labels, custody seals, COC forms, and packing materials required to properly pack and ship samples to the laboratory.

22.2 SAMPLING CONTAINERS

The laboratory offers clean sampling containers for use by clients. These containers are either obtained from reputable container manufacturers and meet EPA specifications as required. Certificates of cleanliness for bottles and preservatives are provided by the supplier and are maintained at the laboratory. Alternatively, the certificates may be maintained by the supplier and available to the laboratory on-line.

22.2.1 Preservatives

Upon request, preservatives are provided to the client in pre-cleaned sampling containers. In some cases, containers may be purchased pre-preserved from the container supplier. Whether prepared by the laboratory or bought pre-preserved, the grades of the preservatives are, at a minimum:

- Hydrochloric Acid – Reagent ACS (Certified VOA Free) or equivalent
- Methanol – Purge and Trap grade
- Nitric Acid – Instra-Analyzed or equivalent
- Sodium Bisulfate – ACS Grade or equivalent
- Sodium Hydroxide – Instra-Analyzed or equivalent
- Sulfuric Acid – Instra-Analyzed or equivalent
- Sodium Thiosulfate – ACS Grade or equivalent

22.3 DEFINITION OF HOLDING TIME

The date and time of sampling documented on the COC form establishes the day and time zero. As a general rule, when the maximum allowable holding time is expressed in “days” (e.g., 14 days, 28 days), the holding time is based on calendar day measured. Holding time expressed in “hours” (e.g., 6 hours, 24 hours, etc.) is measured from date and time zero. Holding times for analysis include any necessary re-analysis.

22.4 SAMPLING CONTAINERS, PRESERVATION REQUIREMENTS, HOLDING TIMES

The preservation and holding time criteria specified in the laboratory SOPs are derived from the source documents for the methods. If method-required holding time or preservation requirements are not met, the results will be qualified using a flag, footnote, or case narrative. As soon as possible or “ASAP” is an EPA designation for tests for

which rapid analysis is advised, but for which neither EPA nor the laboratory have a basis for a holding time.

22.5 SAMPLE ALIQUOTS / SUB-SAMPLING

Taking a representative sub-sample from a container is necessary to ensure that the analytical results are representative of the sample collected in the field. The size of the sample container, the quantity of sample fitted within the container, and the homogeneity of the sample need consideration when sub-sampling for sample preparation. It is the laboratory's responsibility to take a representative sub-sample or aliquot of the sample provided for analysis.

Analysts should handle each sample as if it is potentially dangerous. At a minimum, safety glasses, gloves, and lab coats must be worn when preparing aliquots for analysis.

Guidelines on taking sample aliquots and sub-sampling are defined in laboratory SOP No. IR-QA-SUBSAMP.

SECTION 23

HANDLING OF SAMPLES

23.1 CHAIN OF CUSTODY

Sample management procedures at the laboratory ensure that sample integrity and custody are maintained and documented from sampling/receipt through disposal. The COC form is the written documented history of any sample and is initiated when bottles are sent to the field, or at the time of sampling. This form is completed by the sampling personnel and accompanies the samples to the laboratory, where it is received and stored under the laboratory's custody. The purpose of the COC form is to provide a legal written record of the handling of samples from the time of collection until they are received at the laboratory. It also serves as the primary written request for analyses from the client to the laboratory. The COC form acts as a purchase order for analytical services when no other contractual agreement is in effect. An example of a COC form may be found in Figure 23-1.

23.1.1 Field Documentation

The information the sampler needs to provide, at the time of sampling, on the container label are:

- Sample identification
- Date and time of sampling
- Preservative

During the sampling process, the COC form is completed and must be legible. This form includes information such as:

- Client name, address, phone number, and fax number (if available)
- Project name and/or number
- Sample identification
- Date, time, and location of sampling
- Sample collector name
- Matrix description
- Container description
- Total number of each type of container
- Preservatives used
- Analysis requested
- Requested TAT
- Any special instructions
- Purchase Order number or billing information (e.g., quote number), if

available

- Date and time that each person received or relinquished the sample(s), including their signed name.

When the sampling personnel delivers the samples directly to TestAmerica personnel, the samples are stored in a cooler with ice, as applicable, and remain solely in the possession of the client's field technician (or sampler) until the samples are delivered to the laboratory personnel. The sample collector must assure that each container is in his/her physical possession or in his/her view at all times, or stored in such a place and manner to preclude tampering. The field technician relinquishes the samples in writing on the COC form to the Sample Control personnel at the laboratory or to a TestAmerica courier.

When the sampling personnel delivers the samples through a common carrier (e.g., FedEx and UPS), the COC relinquished date/time is completed by the field personnel and samples are released to the carrier. Samples are only considered to be received by the laboratory when personnel at the fixed laboratory facility have physical contact with the samples.

Note: Independent couriers like FedEX and UPS are not required to sign the COC form. The COC is usually kept in the sealed sample cooler. The receipt from the courier is stored in login by date; it lists all receipts each date.

23.1.2 Legal / Evidentiary COC

If samples are identified for legal/evidentiary purposes on the COC, Sample Control personnel, at login, will complete the custody seal, retain the shipping record with the COC, and initiate an internal COC for laboratory use by analysts and a sample disposal record.

23.2 SAMPLE RECEIPT

Samples are received at the laboratory by designated sample receiving personnel and a unique laboratory project identification number is assigned. Each sample container shall be assigned a unique sample identification number that is cross-referenced to the client identification number such that traceability of test samples is unambiguous and documented. Each sample container is affixed with a durable sample identification label. Sample acceptance, receipt, tracking, and storage procedures are summarized in the following sections and are discussed in detail in laboratory SOP No. IR-SC-LOGIN.

23.2.1 Laboratory Receipt

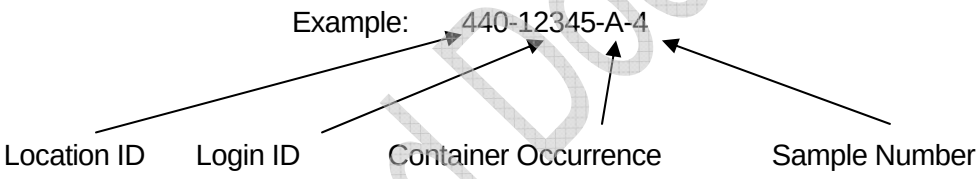
When samples arrive at the laboratory, sample receiving personnel inspect the coolers and samples. The integrity of each sample must be determined by comparing sample labels or tags with the COC and by visual checks of the container for possible damage. Any nonconformance, irregularity, or compromised sample receipt must be documented in the NCM program in

the LIMS and brought to the immediate attention of the client. The COC, shipping documents, documentation of any nonconformance, irregularity, or compromised sample receipt, record of client contact, and resulting instructions become part of the project record.

23.2.1.1 Unique Sample Identification

All samples that are processed through the laboratory receive a unique sample identification to ensure that there can be no confusion regarding the identity of such samples at any time. This system includes identification for all samples, subsamples, and subsequent extracts and/or digestates.

The laboratory assigns a unique identification (i.e.,, Sample ID) code to each sample container received at the laboratory. This primary ID is made up of the following information (consisting of four components):



The above example is a login at TestAmerica Irvine Laboratory (Location 440). Login ID is 12345 (unique to a particular client/job occurrence). The container code indicates it is the first container ("A") of Sample #4.

If the primary container goes through a prep step that creates a "new" container, then the new container is considered secondary and gets another ID. An example of this being a client sample in a 1-Liter amber bottle is sent through a Liquid/Liquid Extraction and an extraction vial is created from this step. The vial would be a SECONDARY container. The secondary ID has 5 components.

Example: 440-12345-A-4-A ← **Secondary Container Occurrence**

Example 440-12345-A-4-A would indicate the PRIMARY container listed above that went through a step that created the 1st occurrence of a Secondary container.

With this system, a client sample can be tracked throughout the laboratory in every step from receipt to disposal.

23.3 SAMPLE ACCEPTANCE POLICY

The laboratory has a written Sample Acceptance Policy (Figure 23-2) that clearly outlines the circumstances under which samples shall be accepted or rejected. These include:

- COC filled out completely
- Samples properly labeled
- Proper sample containers with adequate volume for the analysis and necessary QC
- Samples preserved according to the requirements of the requested analytical method
- Sample holding time adhered to

The PM will be notified if any sample is received in damaged condition.

Data from samples that do not meet these criteria are flagged and the nature of the variation from policy is defined. Sample Control personnel shall include this copy with the sample container shipment to the client or the PM may e-mail the client a copy during project setup (prior to shipment of samples to the laboratory).

23.3.1 After inspecting the samples, the sample receiving personnel sign and date the COC form, make any necessary notes of the samples' conditions and store them in appropriate refrigerators or storage locations.

23.3.2 Any deviations from these checks that question the suitability of the sample for analysis, or incomplete documentation as to the tests required will be resolved by consultation with the client. If the sample acceptance policy criteria are not met, the laboratory shall either:

- Retain all correspondence and/or records of communications with the client regarding the disposition of rejected samples, or
- Fully document any decision to proceed with sample analysis that does not meet sample acceptance criteria.

Once sample acceptance is verified, the samples are logged into the LIMS according to laboratory SOP No. IR-SC-LOGIN.

23.4 SAMPLE STORAGE

In order to avoid deterioration, contamination, or damage to a sample during storage and handling, from the time of receipt until all analyses are complete, samples are stored in refrigerators or freezers suitable for the sample matrix (for analyses requiring thermal preservation) or in protected locations like secured shelvings for acid-preserved water containers requiring only metals analysis. In addition, samples to be analyzed for volatile organic parameters are stored in separate refrigerators designated for volatile organic parameters only. Samples are never to be stored with reagents, standards, or materials that may create contamination.

To ensure the integrity of the samples during storage, refrigerator blanks are maintained in the volatile sample refrigerators and analyzed every two weeks.

Analysts and technicians retrieve the sample container allocated to their analysis from the designated refrigerator, analyze the sample, and return the remaining sample or empty container to the refrigerator from which it originally came. All unused portions of samples, including empty sample containers, are returned to the Sample Control area. All samples are kept in the refrigerators for two to four weeks after analysis, which meets or exceeds most sample holding times. After two to four weeks, the samples are moved to dry room temperature Sample Archive area, where they are stored for an additional two to four weeks before they are disposed. This four to eight week holding period allows samples to be checked if a discrepancy or question arises. Special arrangements may be made to store samples for longer periods of time. This extended holding period allows additional metal analyses to be performed on the archived sample and assists clients in dealing with legal matters or regulatory issues.

Access to the laboratory is controlled such that sample storage need not be locked at all times, unless a project specifically demands it. Samples are accessible to laboratory personnel only. Visitors to the laboratory are prohibited from entering the refrigerator and laboratory areas, unless accompanied by an employee of TestAmerica.

23.5 HAZARDOUS SAMPLES AND FOREIGN SOILS

To minimize exposure to personnel and to avoid potential accidents, hazardous and foreign soil samples are stored in an isolated area designated for hazardous waste only. For any sample that is known to be hazardous at the time of receipt, the Sample Control personnel handling wastes clearly marks the sample with a red stamp, stamped on the sample label reading “HAZARDOUS” or “FOREIGN SOIL,” and places it in a colored and/or marked bag for easy identification. The Sample Control personnel handling wastes must completely fill out the Hazardous & Quarantine/Foreign Soil – Drum for Incineration Sample Notice (see Figure 23-3) and include a copy with the original COC and other sample receipt records that will be submitted to the PM. The original is retained by the Sample Control personnel handling wastes.

If after completion of analysis the analyst has determined a sample to be hazardous (based on action limits that are exceeded, as set up in the LIMS), the analyst will notify the Sample Control personnel handling wastes and submit to that personnel the original of the completed notification form (Figure 23-3) and a copy to the PM for archiving with the job records.

All hazardous samples are either returned to the client or disposed appropriately through a hazardous waste disposal firm that lab-packs all hazardous samples and removes them from the laboratory. Foreign soil samples are sent out for incineration by a USDA-approved waste disposal facility.

23.6 SAMPLE SHIPPING

In the event that the laboratory needs to ship samples, the samples are placed in coolers with enough ice to ensure the samples remain just above freezing and at or below 6.0°C

during transit. The samples are carefully surrounded by packing material to avoid breakage (yet maintain appropriate temperature). A trip blank is enclosed for those samples requiring water/solid volatile organic analyses (see Note). The COC form is signed by Sample Control and is attached to the shipping paperwork. Samples are generally shipped overnight express or hand-delivered by a TestAmerica courier to maintain sample integrity. All personnel involved with shipping and receiving samples must be trained to maintain the proper COC documentation and to keep the samples intact and on ice, if needed. Corporate EHS Document No. CW-E-M-001 contains additional shipping requirements.

Note: If a client does not request trip blank analysis on the COC or other paperwork, the laboratory will not analyze the trip blanks that were supplied. However, in the interest of good client service, the laboratory will advise the client at the time of sample receipt that it was noted that they did not request analysis of the trip blank, and that the laboratory is providing the notification to verify that they are not inadvertently omitting a key part of regulatory compliance testing.

23.7 SAMPLE DISPOSAL

Samples should be retained for a minimum of 30 days after the project report is sent, however, provisions may be made for earlier disposal of samples once the holding time is exceeded. Some samples are required to be held for longer periods based on regulatory or client requirements (e.g., 60 days after project report is sent). The laboratory must follow the longer sample retention requirements, where required by regulation or client agreement. Several possibilities for sample disposal exist: the sample may be used up completely during analysis, the sample may be returned to the customer or location of sampling for disposal, or the sample may be disposed of in accordance with laboratory SOP No. IR-EHS-WASTE. All procedures in the laboratory EHS Manual are followed during disposal. Samples are normally maintained in the laboratory no longer than two months from receipt, unless otherwise requested. Unused portions of samples found or suspected to be hazardous according to state or federal guidelines may be returned to the client upon completion of the analytical work.

If a sample is part of a known litigation, the affected legal authority, sample data user, and/or submitter of the sample must participate in the decision about the sample's disposal. All documentation and correspondence concerning the disposal decision process must be kept on file. Pertinent information includes the date of disposal, nature of disposal (such as sample depletion, hazardous waste facility disposal, and return to client), and names of individuals who conducted the arrangements and physically completed the task. The laboratory will remove or deface sample labels prior to disposal, unless this is accomplished through the disposal method (e.g., samples are incinerated). A waste disposal record should be completed.

Figure 23-1.

Example - Chain of Custody

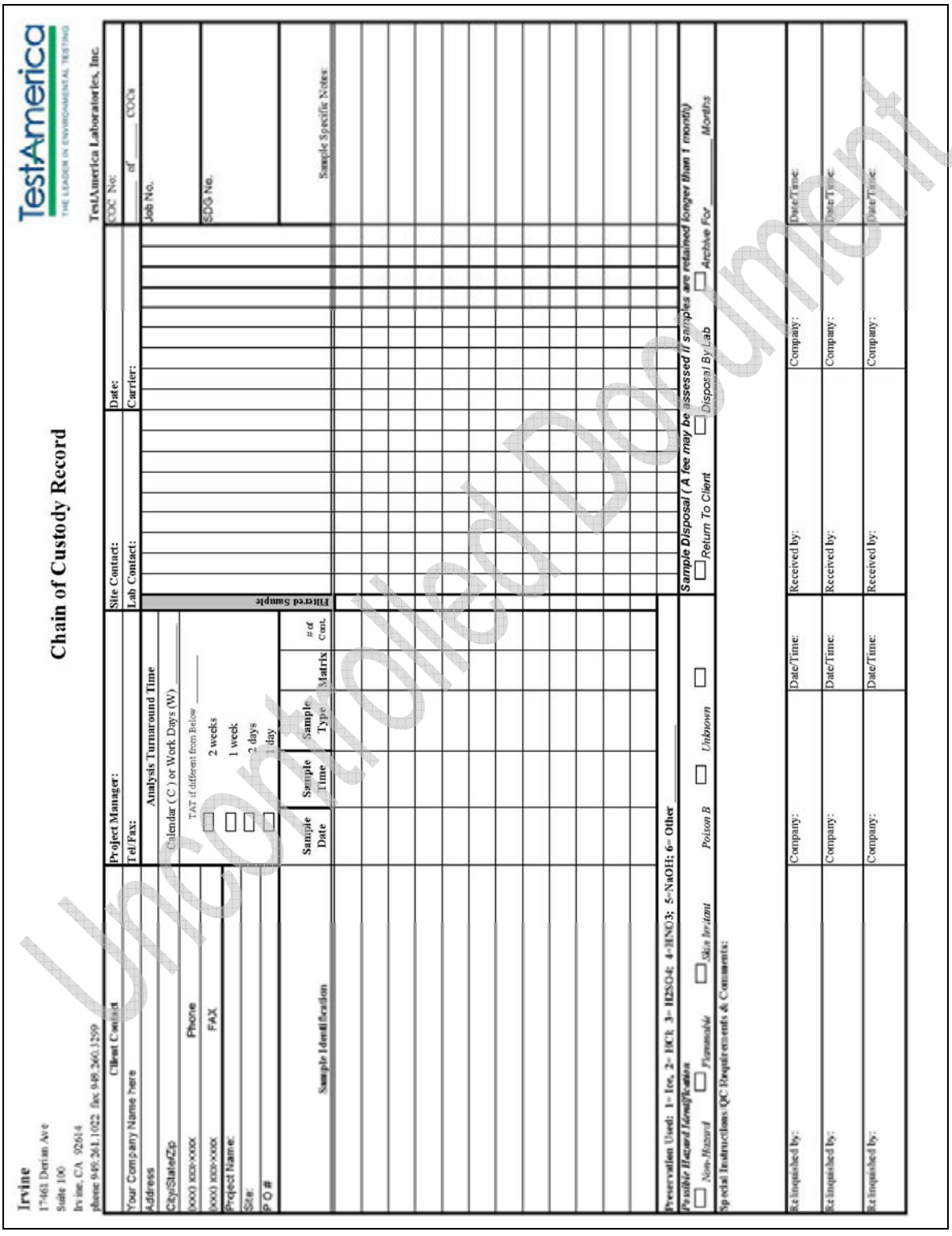


Figure 23-2.

Example - Sample Acceptance Policy

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Sample Acceptance Policy

All incoming work will be evaluated against the criteria listed below. Where applicable, data from any samples that do not meet the criteria listed below will be noted on the laboratory report defining the nature and substance of the variation. In addition the client will be notified either by telephone, fax or e-mail ASAP after the receipt of the samples.

Per State and/or Federal Regulation, the client is responsible to ensure that samples are shipped in accordance with DOT/IATA requirements, and that radioactive materials may only be delivered to licensed facilities. Any samples containing (or suspected to contain) Source, Byproduct, or Special Nuclear Material as defined by 10 CFR should be delivered directly to facilities licensed to handle such radioactive material. Natural material or ores containing naturally occurring radionuclides may be delivered to any TestAmerica facility or courier as long as the activity concentration of the material does not exceed 270 pCi/g alpha or 2700 pCi/g beta (49 CFR Part 173).

1) Samples must arrive with labels intact with a Chain of Custody filled out completely. The following information must be recorded.
   - Client name, address, phone number and fax number (if available)
   - Project name and/or number
   - The sample identification
   - Date, time and location of sampling
   - The collectors name
   - The matrix description
   - The container description
   - The total number of each type of container
   - Preservatives used
   - Analysis requested
   - Requested turnaround time (TAT)
   - Any special instructions
   - Purchase Order number or billing information (e.g. quote number) if available
   - The date and time each person received or relinquished the sample(s), including their signed name.
   - The date and time of receipt must be recorded between the last person to relinquish the samples and the person who receives the samples in the lab, and they must be exactly the same.
   - **Information must be legible**

2) Samples must be properly labeled.
   - Use durable labels (labels provided by TestAmerica are preferred)
   - Include a unique identification number
   - Include sampling date and time & sampler ID
   - Include preservative used.
   - Use indelible ink
   - **Information must be legible**

3) Proper sample containers with adequate volume for the analysis and necessary QC are required for each analysis requested. See TA Sample Container Guide.

4) Samples must be preserved according to the requirements of the requested analytical method (See TA Sample Container Guide). Most analytical methods require chilling samples

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to 4°C (other than water samples for metals analysis and samples for air analysis). For these methods, the criteria are met if the samples are chilled to below 6°C and above freezing (0°C). For methods with other temperature criteria (e.g. some bacteriological methods require ≤ 10°C), the samples must arrive within ± 2° C of the required temperature or within the method specified range. **Note:** Samples that are hand-delivered to the laboratory immediately after collection may not have had time to cool sufficiently. In this case the samples will be considered acceptable as long as there is evidence that the chilling process has begun (arrival on ice).

- Chemical preservation (pH) will be verified at the time of analysis and the project manager will be notified immediately if there is a discrepancy. If analyses will still be reported, all affected results will be flagged to indicate improper preservation.

5) Sample Holding Times
   - TestAmerica will make every effort to analyze samples within the regulatory holding time. Samples must be received in the laboratory with enough time to perform the sample analysis. Except for short holding time samples (< 72hr HT) sample must be received with at least 48 hrs (working days) remaining on the holding time for us to ensure analysis.

   - Analyses that are designated as "field" analyses (pH, Dissolved Oxygen, Residual Chlorine, and Redox Potential) should be analyzed within 15 minutes. Dissolved Metals samples should be filtered in the field within 15 minutes. Dissolved Sulfide samples should be flocculated in the field within 15 minutes. The actual times of all "field" sample analyses are noted on the "Short Hold Time Detail Report" in the final report. If the analysis is performed at the laboratory, the data will be flagged on the final report with an 'HF' to indicate holding time is 15 minutes.

6) All samples submitted for Volatile Organic analyses should have a Trip Blank submitted at the same time. TestAmerica will supply a blank with the bottle order.

7) The project manager will be notified if any sample is received in damaged condition TestAmerica will request that a sample be resubmitted for analysis.

8) Recommendations for packing samples for shipment.
   - Pack samples in "wet" Ice rather than "Blue" ice packs.

   - Soil samples should be placed in plastic zip-lock bags. The containers often have dirt around the top and do not seal very well and are prone to intrusion from the water from melted ice.

   - Water samples would be best if wrapped with bubble-wrap or paper (newspaper, or paper towels work) and then placed in plastic zip-lock bags.

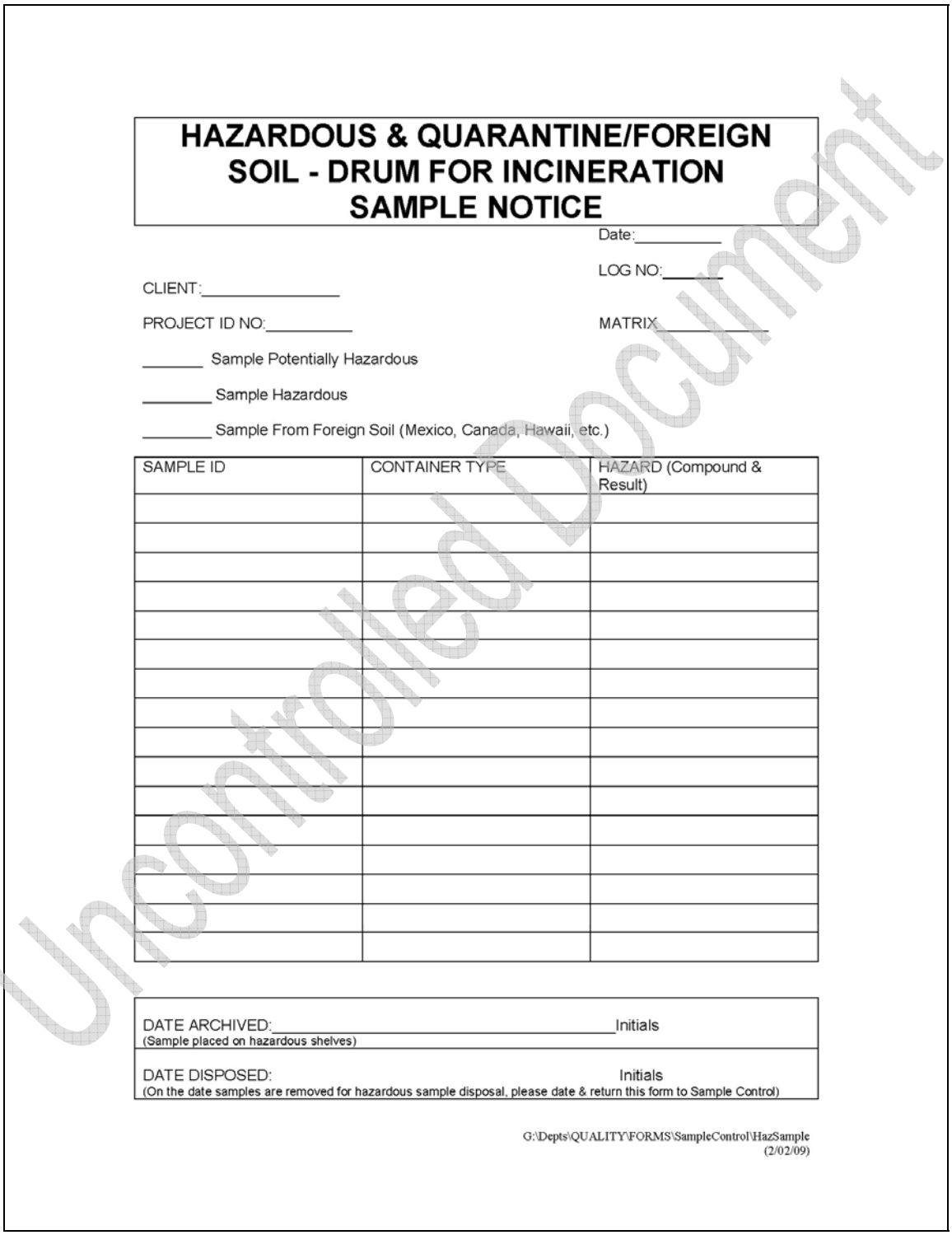
   - Fill extra cooler space with bubble wrap.

G:\FORMS\SampleControl\Sample Acceptance Policy 6-20-2014.doc

Updated June 20, 2014

Figure 23-3.

Example - Hazardous & Quarantine/Foreign Soil - Drum for Incineration Sample Notice



HAZARDOUS & QUARANTINE/FOREIGN SOIL - DRUM FOR INCINERATION SAMPLE NOTICE

Date:_____

LOG NO:_____

CLIENT:_____

PROJECT ID NO:_____ MATRIX:_____

_____ Sample Potentially Hazardous

_____ Sample Hazardous

_____ Sample From Foreign Soil (Mexico, Canada, Hawaii, etc.)

SAMPLE ID	CONTAINER TYPE	HAZARD (Compound & Result)

DATE ARCHIVED:_____Initials
(Sample placed on hazardous shelves)

DATE DISPOSED: Initials
(On the date samples are removed for hazardous sample disposal, please date & return this form to Sample Control)

G:\Depts\QUALITY\FORMS\SampleControl\HazSample
(2/02/09)

SECTION 24

ASSURING THE QUALITY OF TEST RESULTS

24.1 OVERVIEW

In order to assure our clients of the validity of their data, the laboratory continuously evaluates the quality of the analytical process. The analytical process is controlled not only by instrument calibration as discussed in Section 20, but also by routine process QC measurements (e.g., blanks, LCS, MS, sample duplicates, surrogates, and internal standards). These QC checks are performed as required by the method or regulations to assess precision and accuracy. QC samples are to be treated in the exact same manner as the associated field samples being tested. In addition to the routine process QC samples, PT samples (concentrations unknown to laboratory) are analyzed to help ensure laboratory performance.

24.2 CONTROLS

Sample preparation or pre-treatment is commonly required before analysis. Typical preparation steps include homogenization, grinding, solvent extraction, sonication, acid digestion, distillation, reflux, evaporation, drying, and ashing. During these pre-treatment steps, samples are arranged into discreet manageable groups referred to as preparation (prep) batches. Prep batches provide a means to control variability in sample treatment. Control samples are added to each prep batch to monitor method performance and are processed through the entire analytical procedure with investigative/field samples.

24.3 NEGATIVE CONTROLS

Table 24-1. Example – Negative Controls

Control Type	Details
Method Blank	are used to assess preparation and analysis for possible contamination during the preparation and processing steps.
	The specific frequency of use for method blanks during the analytical sequence is defined in the specific SOP for each analysis. Generally, it is one for each batch of samples; not to exceed 20 environmental samples.
	The method blank is prepared from a clean matrix similar to that of the associated samples that is free from target analytes (e.g., reagent water, Ottawa sand, glass beads, etc.) and is processed along with and under the same conditions as the associated samples. The method blank goes through all of the steps of the process (including as necessary: filtration, clean-ups, etc.).
	Re-analyze or qualify associated sample results when the concentration of a targeted analyte in the method blank is at or above the RL (or at or above 1/2, as established by the method or by regulation, AND is greater than 1/10 of the amount measured in the sample.
Calibration Blanks	are prepared and analyzed along with calibration standards, where applicable. They are prepared using the same reagents that are used to prepare the standards. In some analyses, the calibration blank may be included in the calibration curve.

Control Type	Details
Instrument Blanks	are blank reagents or reagent water that may be processed during an analytical sequence in order to assess contamination in the analytical system. In general, instrument blanks are used to differentiate between contamination caused by the analytical system and that caused by the sample handling or sample preparation process. Instrument blanks may also be inserted throughout the analytical sequence to minimize the effect of carryover from samples with high analyte content.
Trip Blanks [1]	are required to be submitted by the client with each shipment of samples requiring aqueous and solid volatiles analyses (or as specified in the client's project plan). Additionally, trip blanks may be prepared and analyzed for volatile analysis of air samples, when required by the client. A trip blank may be purchased (certified-clean) or is prepared by the laboratory by filling a clean container with pure deionized water that has been purged to remove any volatile compounds. Appropriate preservatives are also added to the container. The trip blank is sent with the bottle order and is intended to reflect the environment that the containers are subjected to throughout shipping and handling and help identify possible sources if contamination is found. The field sampler returns the trip blank in the cooler with the field samples.
Field Blanks [1]	are sometimes used for specific projects by the field samplers. A field blank is prepared in the field by filling a clean container with pure reagent water and appropriate preservative, if any, for the specific sampling activity being undertaken. (EPA OSWER)
Equipment Blanks [1]	are also sometimes created in the field for specific projects. An equipment blank is a sample of analyte-free media which has been used to rinse common sampling equipment to check effectiveness of decontamination procedures. (TNI)
Holding Blanks	are also referred to as refrigerator blanks or storage blanks and are used to monitor the sample storage units for volatile organic compounds during the storage of VOA samples in the laboratory.

[1] When known, these field QC samples should not be selected for matrix QC as it does not provide information on the behavior of the target compounds in the field samples. Usually, the client sample ID will provide information to identify the field blanks, equipment blanks, or trip blanks with labels such as "FB", "EB", or "TB."

Evaluation criteria and corrective action for these controls are defined in the specific SOP for each analysis.

24.3.1 Negative Controls for Microbiological Methods

Microbiological methods utilize a variety of negative controls throughout the process to ensure that false positive results are not obtained. These controls are critical to the validity of the microbiological analyses. Some of these negative controls are:

Table 24-2. Negative Controls for Microbiology

Control Type	Details
Sterility Checks (Media)	are analyzed for each lot of pre-prepared media, ready-to-use media, and for each batch of medium prepared by the laboratory.
Filtration Blanks	are run at the beginning and end for each sterilized filtration unit used in a filtration series. For pre-sterilized single use funnels, a sterility check is performed on at least one funnel per lot.
Sterility checks (Sample Containers)	are performed on at least one container per lot of purchased, pre-sterilized containers. If containers are prepared and sterilized by the laboratory, one container per sterilization batch is checked. Container sterility checks are performed using non-selective growth media.
Sterility Checks (Dilution Water)	are performed on each batch of dilution water prepared by the laboratory and on each batch of pre-prepared dilution water. All checks are performed using non-selective growth media.

Negative culture controls demonstrate that a media does not support the growth of non-target organisms and ensures that there is not an atypical positive reaction from the target organisms. Prior to the first use of the media, each lot of pre-prepared selective media or batch of laboratory prepared selective media is analyzed with at least one known negative culture control. as appropriate to the method.

24.4 POSITIVE CONTROLS

Control samples (e.g., QC indicators) are analyzed with each batch of samples to evaluate data based upon (1) Method Performance (LCS or Blank Spike), which entails both the preparation and measurement steps; and (2) Matrix Effects (MS or sample duplicates), which evaluates field sampling accuracy, precision, representativeness, interferences, and the effect of the matrix on the method performed. Each regulatory program and each method within those programs specify the control samples that are prepared and/or analyzed with a specific batch.

Note that frequency of control samples vary with specific regulatory, methodology, and project-specific criteria. Complete details on method control samples are as listed in the laboratory SOPs.

24.4.1 Method Performance Control – LCS

The LCS measures the accuracy of the method in a blank matrix and assesses method performance independent of potential field sample matrix effects in a laboratory batch.

The LCS is prepared from a clean matrix similar to that of the associated samples that is free from target analytes (e.g., reagent water, Ottawa sand, glass beads, etc.) and is processed along with and under the same conditions as the associated samples. The LCS is spiked with verified known amounts of analytes or is made of a material containing known and verified amounts of analytes, taken through all preparation and analysis steps along with the field samples. Where there is no preparation taken for an analysis (such as in aqueous volatiles), or when all samples and standards undergo the same preparation and analysis process (such as Phosphorus), a calibration verification standard is reported as the LCS. In some instances where there is no practical clean solid matrix available, aqueous LCSs may be processed for solid matrices; final results may be calculated as mg/kg or ug/kg, assuming 100% solids and a weight equivalent to the aliquot used for the corresponding field samples, to facilitate comparison with the field samples.

Certified pre-made reference material purchased from a NIST/A2LA-accredited vendor may also be used for the LCS when the material represents the sample matrix or the analyte is not easily spiked (e.g. solid matrix LCS for metals, TDS, etc.).

The specific frequency of use for LCS during the analytical sequence is defined in the specific SOP for each analysis. It is generally one for each batch of samples, not to exceed 20 environmental samples.

If the mandated or requested test method or project requirements do not specify the spiking components, the laboratory shall spike all reportable components to be reported in the LCS (and MS), where applicable (e.g. no spike of pH). However, in cases where the components interfere with accurate assessment (such as simultaneously spiking chlordane, toxaphene and PCBs in Method 608), the test method has an extremely long list of components or components are incompatible, at a minimum, a representative number of the listed components (see below) shall be used to control the test method. The selected components of each spiking mix shall represent all chemistries, elution patterns and masses, permit specified analytes, and other client-requested components. However, the laboratory shall ensure that all reported components are used in the spike mixture within a two-year time period.

- For methods that have 1-10 target analytes, spike all components.
- For methods that include 11- 20 target analytes, spike at least 10 or 80%, whichever is greater.
- For methods with more than 20 target analytes, spike at least 16 components.
- Exception: Due to analyte incompatibility in pesticides, Toxaphene and Chlordane are only spiked at client request based on specific project needs.
- Exception: Due to analyte incompatibility between the various PCB aroclors, aroclors 1016 and 1260 are used for spiking as they cover the range of all of the aroclors. Specific aroclors may be used by request on a project specific basis.

24.4.2 Positive Controls for Microbiological Methods

- Each lot of pre-prepared media (including chromofluorogenic reagent) and each batch of laboratory prepared media is tested with a pure culture of known positive reaction.
- In addition, every analytical batch also contains a pure culture of known positive reaction.
- A pure culture of known negative reaction is also tested with each analytical batch to ensure specificity of the procedure.

24.5 SAMPLE MATRIX CONTROLS

Table 24-3. Sample Matrix Control

Control Type	Details	
MS	Use	used to assess the effect that the sample matrix of the spiked sample has on the precision and accuracy of the results generated by the method used.
	Typical Frequency[1]	At a minimum, with each matrix-specific batch of samples processed, an MS is carried through the complete analytical procedure. Unless specified by the client, samples used for spiking are randomly selected and rotated between different client projects. If the mandated or requested test method does not specify the spiking components, the laboratory shall spike all reportable components to be reported in the LCS and MS. Refer to the laboratory SOP for complete details.
	Description	essentially, a sample fortified with a known amount of the test analyte(s).
Surrogate	Use	Measures method performance to sample matrix (organics only).
	Typical Frequency[1]	are added to all samples, standards, and blanks, for all organic chromatography methods except when the matrix precludes its use or when a surrogate is not available. The recovery of the surrogates is compared to the acceptance limits for the specific method. Poor surrogate recovery may indicate a problem with sample composition and shall be reported, with data qualifiers, to the client whose sample produced poor recovery.
	Description	are similar to MS except the analytes are compounds with properties that mimic the analyte of interest and are unlikely to be found in environmental samples.
Duplicates[2]	Use	For a measure of analytical precision, with each matrix-specific batch of samples processed, a sample duplicate or LCSD is carried through the complete analytical procedure.
	Typical Frequency[1]	Duplicate samples are usually analyzed with methods that do not require MS analysis.
	Description	Performed by analyzing two aliquots of the same field sample independently or an additional LCS.
Internal Standard	Use	are spiked into all environmental and QC samples (including the ICAL standards) to monitor the qualitative aspect of organic and some inorganic analytical measurements.
	Typical Frequency[1]	All organic and ICP methods, as required by the analytical method.
	Description	Used to correct for matrix effects and to help troubleshoot variability in analytical response and are assessed after data acquisition. Possible sources of poor internal standard response are sample matrix, poor analytical technique or instrument performance.

[1] See the specific laboratory SOP for type and frequency of sample matrix control samples.
[2] The recoveries for the spiked duplicate samples must meet the same laboratory-established recovery limits as the accuracy QC samples. If an LCSD is analyzed, both the LCS and LCSD must meet the same recovery criteria and be included in the final report. The precision measurement is reported as RPD. Poor precision between duplicates (except LCS/LCSD) may indicate non-homogeneous matrix or sampling.

24.6 ACCEPTANCE CRITERIA (CONTROL LIMITS)

As mandated by the test method and regulation, the individual analyte in the LCS, MS, or Surrogate Spike is evaluated against the control limits published in the test method. Where there are no established acceptance criteria, the laboratory calculates in-house control limits with the use of control charts or, in some cases, utilizes client project-specific control limits. When this occurs, the regulatory or project limits will supersede the laboratory's in-house limits.

Note: For methods, analytes, and matrices with very limited data (e.g., unusual matrices not analyzed often), interim limits are established using available data or by analogy to similar methods or matrices.

Once control limits have been established, they are verified, reviewed, and updated if necessary, on an annual basis unless the method requires more frequent updating. Control limits are established per method, (as opposed to per instrument) regardless of the number of instruments utilized.

Laboratory-generated percent recovery acceptance (control) limits are generally established by taking ±3 standard deviations (99% confidence level) from the average recovery of a minimum of 20-30 data points (more points are preferred).

- Regardless of the calculated limit, the control limit should be no tighter than those used in the Calibration Verification (ICV/CCV), unless the analytical method specifies a tighter limit.
- In-house limits cannot be any wider than those mandated in a regulated analytical method. Client- or contract-required control limits are evaluated against the laboratory's statistically derived control limits to determine if the DQOs can be achieved. If laboratory control limits are not consistent with DQOs, then alternatives must be considered, such as method improvements or use of an alternate analytical method.
- The lowest acceptable recovery limit will be 10% (the analyte must be detectable and identifiable). Exception: The lowest acceptable recovery limit for Benzidine will be 5% and the analyte must be detectable and identifiable.
- The maximum acceptable recovery limit will be 150%. The QA Manager may grant exceptions, as warranted.
- The maximum acceptable RPD limit will be 35% for waters and 40% for soils. The minimum RPD limit will be 10%.
- If either the high or low end of the control limit changes by ≤5% from previous, the control chart is visually inspected and, using professional judgment, the control limits may be left unchanged if there is no effect on the laboratory's ability to meet the existing limits.

24.6.1 The laboratory must be able to generate a current listing of their control limits and track when the updates are performed. In addition, the laboratory must be able to recreate historical control limits. Refer to laboratory SOP No. IR-QA-CNTRLLIM.

- The QA Department e-mails the appropriate laboratory staff a table that contains the accuracy and precision limits for the spiked analytes for each method performed at the laboratory. Unless otherwise noted, the control limits within these tables are laboratory-generated. The table includes an effective date. The control limits are stored in the LIMS.
- When control limits are updated, the LIMS maintains in its database the previous control limits, so that historical control limits in effect for a specific time period may be retrieved for reference.

24.6.2 An LCS that is within the acceptance criteria establishes that the analytical system is in control and is used to validate the process. Samples that are analyzed with an LCS with recoveries outside of the acceptance limits may be determined to be out of control and should be re-analyzed, if possible. If re-analysis is not possible, then the results for all affected analytes for samples within the same batch must be qualified when reported. The internal corrective action process (see Section 12) is also initiated if an LCS exceeds

the acceptance limits. Sample results may be qualified and reported without re-analysis if:

- The analyte results are below the RL and the LCS is above the upper control limit.
- The analytical results are above the relevant regulatory limit, if known, and the LCS is below the lower control limit.

Or, for TNI work, there are an allowable number of Marginal Exceedences:

<11 analytes	0 marginal exceedences are allowed.
11 – 30 Analytes	1 marginal exceedence is allowed
31-50 Analytes	2 marginal exceedences are allowed
51-70 Analytes	3 marginal exceedences are allowed
71-90 Analytes	4 marginal exceedences are allowed
> 90 Analytes	5 marginal exceedences are allowed

- Marginal exceedences are recovery exceedences between 3 SD and 4 SD from the mean recovery limit (TNI).
- Marginal exceedences must be random. If the same analyte exceeds the LCS control limit repeatedly, it is an indication of a systematic problem. The source of the error must be located and corrective action taken. The laboratory has a system to monitor marginal exceedences to ensure that they are random.

Though marginal exceedences may be allowed, the data must still be qualified to indicate it is outside of the normal limits.

24.6.3 If the MS/MSDs do not meet acceptance limits, the MS/MSD and the associated spiked sample is reported with a qualifier for those analytes that do not meet acceptance limits. If obvious preparation errors are suspected, or if requested by the client, unacceptable MS/MSDs are reprocessed and re-analyzed to prove matrix interference. A more detailed discussion of acceptance criteria and corrective action can be found in the laboratory SOPs and in Section 12.

24.6.4 If a surrogate standard falls outside the acceptance limits, if there is not obvious chromatographic matrix interference, re-analyze the sample to confirm a possible matrix effect. If the recoveries confirm or there was obvious chromatographic interference, results are reported from the original analysis and a qualifier is added. If the re-analysis meets surrogate recovery criteria, the second run is reported (or both are reported if requested by the client). Under certain circumstances, where all of the samples are from the same location and share similar chromatography, the re-analysis may be performed on a single sample rather than all of the samples, and if the surrogate meets the recovery criteria in the re-analysis, all of the affected samples would require re-analysis.

24.7 ADDITIONAL PROCEDURES TO ASSURE QUALITY CONTROL

The laboratory has written and approved SOPs to assure the accuracy of the test method, including calibration (see Section 20), use of certified reference materials (see Section 21), and use of PT samples (see Section 15).

A discussion regarding MDL, LOD, and LOQ can be found in Section 19.

Use of formulae to reduce data is discussed in the laboratory SOPs and in Section 20.

Selection of appropriate reagents and standards is included in Sections 9 and 21.

A discussion on selectivity of the test is included in Section 5.

Constant and consistent test conditions are discussed in Section 18.

The laboratory's sample acceptance policy is included in Section 23.

SECTION 25

REPORTING RESULTS

25.1 OVERVIEW

The results of each test are reported accurately, clearly, unambiguously, and objectively in accordance with State and Federal regulations as well as client requirements. Analytical results are issued in a format that is intended to satisfy customer and laboratory accreditation requirements as well as provide the end user with the information needed to properly evaluate the results. Where there is conflict between client requests and laboratory ethics or regulatory requirements, the laboratory's ethical and legal requirements are paramount, and the laboratory will work with the client during project setup to develop an acceptable solution. Refer to Section 7.

A variety of report formats are available to meet specific needs.

In cases where a client asks for simplified reports, there must be a written request from the client. There still must be enough information that would show any analyses that were out of conformance (e.g., QC out of limits) and there should be a reference to a full report that is made available to the client. Review of reported data is included in Section 19.

25.2 TEST REPORTS

Analytical results are reported in a format that is satisfactory to the client and meets all requirements of applicable accrediting authorities and agencies. A variety of report formats are available to meet specific needs. The report is printed on laboratory letterhead, reviewed, and signed by the appropriate PM. At a minimum, the standard laboratory report shall contain the following information:

25.2.1 A report title (e.g., Analytical Report) with headers for the different information associated with a sample result (e.g., analyte name, data qualifiers, units, MDL, RL, dilution, date analyzed, instrument, analyst, and QC batch).

25.2.2 Each report cover page printed on company letterhead, which includes the laboratory name, address, and telephone number.

25.2.3 A unique identification of the report (e.g., job number) and on each page an identification to ensure the page is recognized as part of the report and a clear identification of the end.

Note: Page numbers of report are represented as Page # of ##, where the first number is the page number and the second is the total number of pages.

25.2.4 A copy of the COC

- Any COCs involved with subcontracting are included.

25.2.5 The name and address of client and a project name/number, if applicable.

25.2.6 Client PM or other contact

25.2.7 Description and unambiguous identification of the tested sample(s) including the client identification code

25.2.8 Date of receipt of sample, date and time of collection, and date(s) of test preparation and performance, and time of preparation or analysis if the required holding time for either activity is less than or equal to 72 hours.

25.2.9 Date reported or date of revision, if applicable.

25.2.10 Method of analysis including method code (EPA, Standard Methods, etc.)

25.2.11 RLs

25.2.12 MDLs, if requested

25.2.13 Definition of data qualifiers and reporting acronyms, e.g., ND

25.2.14 Sample results

25.2.15 QC data consisting of method blank, surrogate (if applicable), LCS, and MS/MSD recoveries and control limits

25.2.16 Condition of samples at receipt, including temperature (if applicable).

25.2.17 A statement expressing the validity of the results, that the source methodology was followed, and that all results were reviewed for error.

25.2.18 A statement to the effect that the results relate only to the items tested and the sample, as received by the laboratory.

25.2.19 A statement that the report shall not be reproduced except in full, without prior express written approval by the laboratory.

25.2.20 A signature and title of the person(s) accepting responsibility for the content of the report and date of issue. Signatories are appointed by the Laboratory Director.

25.2.21 When TNI accreditation is required, the laboratory shall certify that the test results meet all requirements of TNI or provide reasons and/or justification if they do not.

25.2.22 The laboratory includes a cover letter.

25.2.23 Where applicable, a narrative to the report that explains the issue(s) and corrective action(s) taken in the event that a specific accreditation or certification requirement was not met.

25.2.24 When soil samples are analyzed, a specific identification as to whether soils are reported on a "wet weight" or "dry weight" basis.

25.2.25 Appropriate laboratory certification number for the state of origin of the sample, if applicable

25.2.26 If only part of the report is provided to the client (client requests some results before all of it is complete), it must be clearly indicated on the report (e.g., partial report). A complete report must be sent once all of the work has been completed.

25.2.27 Any non-TestAmerica subcontracted analysis results are provided as a separate report on the official letterhead of the subcontractor. All TestAmerica subcontracting is clearly identified on the report as to which laboratory performed a specific analysis.

25.2.28 A Certification Summary Report, where required, will document that, unless otherwise noted, all analytes tested and reported by the laboratory were covered by the noted certifications.

Note: Refer to Corporate Information Technology SOP No. CA-I-P-002 for details on internally applying electronic signatures of approval.

25.3 REPORTING LEVEL OR REPORT TYPE

The laboratory offers four levels of report packages. Each level, in addition to its own specific requirements, contains all the information provided in the preceding level. The packages provide the following information in addition to the information described above. Note that raw data presented in Level III and Level IV reports are in CLP-like format:

- Level I is a report with the features described in Section 25.2 above.
- Level II is a Level I report plus summary information, including results for the method blank reported to the laboratory MDL (if required or applicable), percent recovery for LCS and MS samples, and the RPD values for all LCS/LCSD, MS/MSD, and sample duplicate analyses.
- Level III contains all the information supplied in Level II, but presented on the CLP-like summary forms, and relevant calibration information. A Level II report is not included, unless specifically requested. No raw data are provided.
- Level IV is the same as Level III with the addition of all raw supporting data.

In addition to hardcopy reports, the laboratory also provides reports in CD deliverable form when requested. Initial reports may be provided to clients by facsimile or e-mail or upload to TestAmerica's Total Access database. All faxed or other electronic reports are

followed by hardcopy, when requested. Procedures used to ensure client confidentiality are outlined in Section 25.6.

25.3.1 Electronic Data Deliverables

EDDs are routinely offered as part of TestAmerica's services in addition to the test report as described in Section 25.2. When NELAP accreditation is required and both a test report and EDD are provided to the client, the official version of the test report will be the combined information of the report and the EDD. TestAmerica Irvine offers a variety of EDD formats including, but not limited to, NAS, ADR, COELT EDF, EQuIS, GISKEY, Microsoft Excel, Locus EIM, Standard TestAmerica Format, FoxPro, and Terrabase.

EDD specifications are submitted to the IT department by the PM for review and undergo the contract review process. Once the laboratory has committed to providing data in a specific electronic format, the coding of the format may need to be performed. This coding is documented and validated. The validation of the code is retained by the Corporate IT staff coding the EDD.

EDDs shall be subject to a review to ensure their accuracy and completeness. If EDD generation is automated, review may be reduced to periodic screening if the laboratory can demonstrate that it can routinely generate that EDD without errors. Any revisions to the EDD format must be reviewed until it is demonstrated that it can routinely be generated without errors. If the EDD can be reproduced accurately and if all subsequent EDDs can be produced error-free, each EDD does not necessarily require a review.

25.4 SUPPLEMENTAL INFORMATION FOR TEST

The laboratory identifies any unacceptable QC analyses or any other unusual circumstances or observations such as environmental conditions and any non-standard conditions that may have affected the quality of a result. This is typically in the form of a footnote or a qualifier and/or a narrative explaining the discrepancy in the front of the report.

Numeric results with values outside of the calibration range, either high or low are qualified as 'estimated'.

Where quality system requirements are not met, a statement of compliance/non-compliance with requirements and/or specifications is required, including identification of test results derived from any sample that did not meet TNI sample acceptance requirements such as improper container, holding time, or temperature.

Where applicable, a statement on the estimated uncertainty of measurements; information on uncertainty is needed when a client's instructions so require.

Opinions and Interpretations – In general, the test report contains objective

information and does not contain subjective information such as opinions and interpretations. If such information is required by the client, the Laboratory Director will determine if a response can be prepared. If so, the Laboratory Director will designate the appropriate member of the management team to prepare a response. The response will be fully documented, and reviewed by the Laboratory Director, before release to the client. There may be additional fees charged to the client at this time, as this is a non-routine function of the laboratory.

When opinions or interpretations are included in the report, the laboratory provides an explanation as to the basis upon which the opinions and interpretations have been made. Opinions and interpretations are clearly noted as such and where applicable, a comment should be added suggesting that the client verify the opinion or interpretation with their regulator.

25.5 ENVIRONMENTAL TESTING OBTAINED FROM SUBCONTRACTORS

If the laboratory is unable to provide the client the requested analysis, the samples would be subcontracted following the procedures outlined in Corporate Legal Document No. CA-L-S-002.

Data reported from analyses performed by a subcontract laboratory are clearly identified as such on the analytical report provided to the client. Results from a subcontract laboratory outside of TestAmerica are reported to the client on the subcontract laboratory's original report stationery and the report includes any accompanying documentation.

25.6 CLIENT CONFIDENTIALITY

In situations involving the transmission of environmental test results by telephone, facsimile, or other electronic means, client confidentiality must be maintained.

TestAmerica will not intentionally divulge to any person (other than the client or any other person designated by the client in writing) any information regarding the services provided by TestAmerica or any information disclosed to TestAmerica by the client. Furthermore, information known to be potentially endangering to national security or an entity's proprietary rights will not be released.

Note: This shall not apply to the extent that the information is required to be disclosed by TestAmerica under the compulsion of legal process. TestAmerica will, to the extent feasible, provide reasonable notice to the client before disclosing the information.

Note: Authorized representatives of an accreditation body are permitted to make copies of any analyses or records relevant to the accreditation process, and copies may be removed from the laboratory for purposes of assessment.

25.6.1 Report deliverable formats are discussed with each new client. If a client requests that reports be faxed or e-mailed, the reports are faxed with a cover

sheet or e-mailed with the following note that includes a confidentiality statement similar to the following:

"CONFIDENTIALITY NOTICE: This e-mail communication, including any attachments, may contain privileged or confidential information for specific individuals and is protected by law. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited and you should delete this message and its attachments from your computer without retaining any copies. If you have received this communication in error, please reply to the sender immediately. We appreciate your cooperation."

25.7 FORMAT OF REPORTS

The format of reports is designed to accommodate each type of environmental test carried out and to minimize the possibility of misunderstanding or misuse.

25.8 AMENDMENTS TO TEST REPORTS

Corrections, additions, or deletions to reports are only made when justification arises through supplemental documentation. Justification is documented using the laboratory's corrective action system (refer to Section 12).

The revised report is retained in LIMS, as is the original report. The revised report is stored in LIMS under the job number along with a sequential revision number.

When the report is re-issued, a notation of 'amended report' is placed on the cover/signature page of the report *or at the top of the narrative page* with a brief explanation of reason for the amendment and a reference back to the last final report generated. *For example*: *This final report, identified as Revision 1, was revised on 11/3/2014 to include toluene in sample NQA1504 per client's request. This final report replaces the final report identified as Revision 0.*

25.9 POLICIES ON CLIENT REQUESTS FOR AMENDMENTS

25.9.1 Policy on Data Omissions or RL Increases

Fundamentally, our policy is simply to not omit previously reported results (including data qualifiers) or to not raise RLs and report sample results as ND. This policy has few exceptions. They are as follows:

- Laboratory error
- Sample identification is indeterminate (confusion between COC and sample labels).
- An incorrect analysis (not analyte) was requested (e.g., COC lists 8315 but client wanted 8310). A written request for the change is required.
- Incorrect limits reported based on regulatory requirements

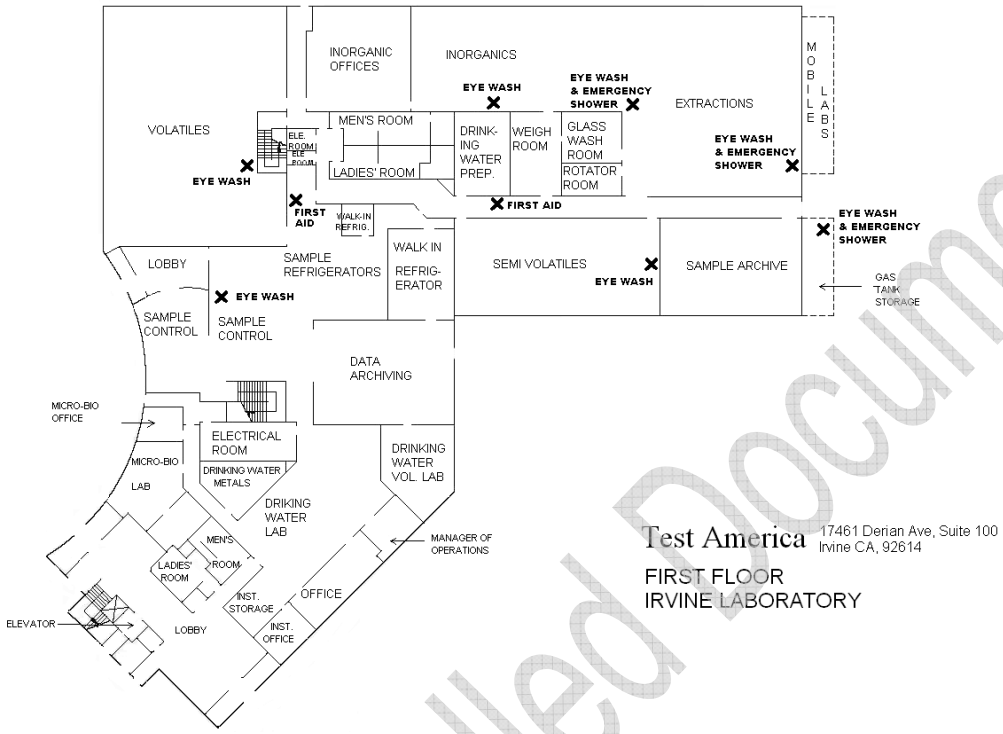
- The requested change has absolutely *no possible* impact on the interpretation of the analytical results and there is *no possibility* of the change being interpreted as misrepresentation by anyone inside or outside of our company.

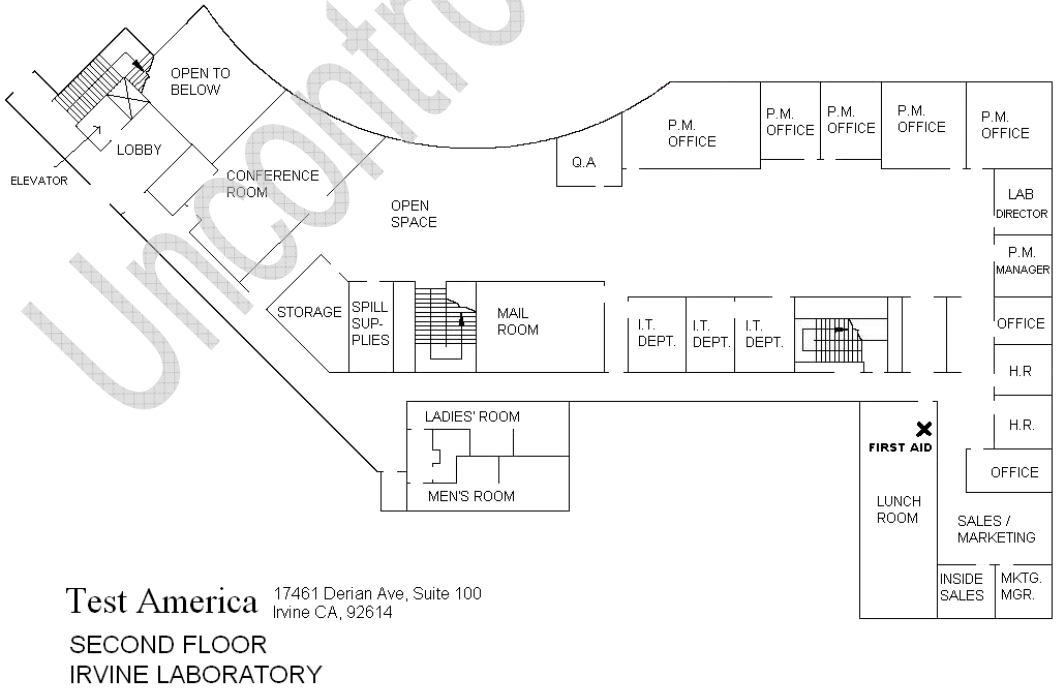
25.9.2 Multiple Reports

TestAmerica does not issue multiple reports for the same job where there is different information on each report (this does not refer to copies of the same report) unless required to meet regulatory needs and approved by the QA Manager.

Appendix 1.

Laboratory Floor Plan





Appendix 2. Glossary / Acronyms (EL-V1M2 Sec. 3.1)

Glossary:

Acceptance Criteria:
Specified limits placed on characteristics of an item, process, or service defined in requirement documents. (ASQ)

Accreditation:
The process by which an agency or organization evaluates and recognizes a laboratory as meeting certain predetermined qualifications or standards, thereby accrediting the laboratory.

Accuracy:
The degree of agreement between an observed value and an accepted reference value. Accuracy includes a combination of random error (precision) and systematic error (bias) components which are due to sampling and analytical operations; a data quality indicator.

Analyst:
The designated individual who performs the "hands-on" analytical methods and associated techniques and who is the one responsible for applying required laboratory practices and other pertinent QC to meet the required level of quality.

Analytical Uncertainty:
A subset of Measurement Uncertainty that includes all laboratory activities performed as part of the analysis. (TNI)

Anomaly
A condition or event, other than a deficiency, that may affect the quality of the data, whether in the laboratory's control or not.

Assessment:
The evaluation process used to measure or establish the performance, effectiveness, and conformance of an organization and/or its systems to defined criteria (to the standards and requirements of laboratory accreditation). (TNI)

Audit:
A systematic and independent examination of facilities, equipment, personnel, training, procedures, record-keeping, data validation, data management, and reporting aspects of a system to determine whether QA/QC and technical activities are being conducted as planned and whether these activities will effectively achieve quality objectives. (TNI)

Batch:
A set of environmental samples that are prepared and/or analyzed together with the same process and personnel, using the same lot(s) of reagents and within a defined period of time.

A preparation batch is composed of one to 20 environmental samples of the same quality systems matrix, meeting the above mentioned criteria and with a maximum time between the start of processing of the first and last sample in the batch to be 24 hours.

An analytical batch is composed of prepared environmental samples (extracts, digestates, or concentrates) which are analyzed sequentially (no time gaps greater than 8 hours) as a group using the same calibration curve or factor, and meeting the method calibration check criteria (tune time or bracketing CCVs). An analytical batch can include prepared samples originating from various quality system matrices and can exceed 20 samples. (TNI)

NOTE: For methods that do not require a preparative step, the analytical batch must meet the same criteria as the preparation batch. Rerun of the same environmental sample is counted as part of the 20 in a batch. Field QC samples are included in the batch count.

A set of up to 20 environmental samples (reportable or not) of the same matrix processed using the same procedures and the same lot(s) of reagents within the same time period. A preparation batch is composed of one to 20 environmental samples of the same quality systems matrix, meeting the above mentioned criteria and with a maximum time between the start of processing of the first and last sample in the batch to be 24 hours. An analytical batch is composed of prepared environmental samples (extracts, digestates, or concentrates) and/or those samples not requiring preparation, which are analyzed together as a group using the same calibration curve or calibration factor. The batch must be analyzed sequentially using the same instrument and instrument configuration within the same calibration event (i.e., the same calibration curve, calibration factors, or RFs must be in effect throughout the analysis). QC samples do not count towards the 20 samples in a batch. Rerun of the same environmental sample is counted as part of the 20 in a batch. Field QC samples are included in the batch count.

Bias**:**
The systematic or persistent distortion of a measurement process, which causes errors in one direction (i.e., the expected sample measurement is different from the sample's true value). (TNI)

Blank:
A sample that has not been exposed to the analyzed sample stream in order to monitor contamination during sampling, transport, storage, or analysis. The blank is subjected to the usual analytical and measurement process to establish a zero baseline or background value and is sometimes used to adjust or correct routine analytical results. (ASQ)

Calibration:
A set of operations that establish, under specified conditions, the relationship between values of quantities indicated by a measuring instrument or measuring system, or values represented by a material measure or a reference material, and the corresponding values realized by standards. (TNI)

1) In calibration of support equipment, the values realized by standards are established through the use of reference standards that are traceable to the International System of Units.
2) In calibration according to methods, the values realized by standards are typically established through the use of Reference Materials that are either purchased by the laboratory with a certificate of analysis or purity, or prepared by the laboratory using support equipment that has been calibrated or verified to meet specifications.

Calibration Curve:
The mathematical relationship between the known values, such as concentrations, of a series of calibration standards and their instrument response. (TNI)

Calibration Standard:
A substance or reference material used to calibrate an instrument.

Certified Reference Material:
A reference material accompanied by a certificate having a value, measurement uncertainty, and stated metrological traceability chain to a national metrology institute. (TNI)

Chain of Custody:
Record that documents the possession of the samples from the time of collection to receipt at the laboratory. This record generally includes the number and types of containers, the mode of collection, the collector, time of collection, preservation, and requested analyses. (TNI)

Compromised Samples:

Those samples, which are improperly sampled, insufficiently documented (COC and other sample records and/or labels), improperly preserved, collected in improper containers, or exceeding holding times when delivered to a laboratory. Under normal conditions, compromised samples are not analyzed. If emergency situation requires analysis, the results must be appropriately qualified.

Confidential Business Information:
Information that an organization designates as having the potential of providing a competitor with inappropriate insight into its management, operation, or products. TNI and its representatives agree to safeguard identified CBI and to maintain all information identified as such in full confidentiality.

Confirmation:
Verification of the identity of a component through the use of an approach with a different scientific principle from the original method. These may include, but are not limited to, second-column confirmation, alternate wavelength, derivatization, mass spectral interpretation, alternative detectors, or additional clean-up procedures. (TNI)

Conformance:
An affirmative indication or judgment that a product or service has met the requirements of the relevant specifications, contract, or regulation; also the state of meeting the requirements. (ANSI/ASQ E1994)

Correction:
Action necessary to correct or repair analysis-specific nonconformances. The acceptance criteria for method-specific QC and protocols as well as the associated corrective actions. The analyst will most frequently be the one to identify the need for this action as a result of calibration checks and QC sample analysis. No significant action is taken to change behavior, process, or procedure.

Corrective Action:
The action taken to eliminate the causes of an existing nonconformity, defect, or other undesirable situation in order to prevent recurrence. (ISO 8402)

Data Audit:
A qualitative and quantitative evaluation of the documentation and procedures associated with environmental measurements to verify that the resulting data are of acceptable quality (i.e., they meet specified acceptance criteria).

Data Reduction:
The process of transforming the number of data by arithmetic or statistical calculations, standard curves, and concentration factors, and collation into a more useable form. (TNI)

Deficiency:
An unauthorized deviation from acceptable procedures or practices, or a defect in an item (ASQC), whether in the laboratory's control or not.

Demonstration of Capability:
A procedure to establish the ability of the analyst to generate analytical results of acceptable accuracy and precision. (TNI)

Document Control:
The act of ensuring that documents (and revisions thereto) are proposed, reviewed for accuracy, approved for release by authorized personnel, distributed properly, and controlled to ensure use of the correct version at the location where the prescribed activity is performed. (ASQ)

Duplicate Analyses:
The analyses or measurements of the variable of interest performed identically on two sub-samples of the same sample. The results from duplicate analyses are used to evaluate analytical or measurement

precision but not the precision of sampling, preservation, or storage internal to the laboratory. (EPA-QAD)

Equipment Blank:
Sample of analyte-free media which has been used to rinse common sampling equipment to check effectiveness of decontamination procedures.

External Standard Calibration:
Calibrations for methods that do not utilize internal standards to compensate for changes in instrument conditions.

Field Blank:
Blank prepared in the field by filling a clean container with pure deionized water and appropriate preservative, if any, for the specific sampling activity being undertaken. (EPA OSWER)

Field of Accreditation:
Those matrix, technology/method, and analyte combinations for which the accreditation body offers accreditation.

Holding Times:
The maximum times that samples may be held prior to analyses and still be considered valid or not compromised. (40 CFR Part 136)

Internal Standard:
A known amount of standard added to a test portion of a sample as a reference for evaluating and controlling the precision and bias of the applied analytical test method. (TNI)

Internal Standard Calibration:
Calibrations for methods that utilize internal standards to compensate for changes in instrument conditions.

Instrument Blank:
A clean sample (e.g., distilled water) processed through the instrumental steps of the measurement process; used to determine instrument contamination. (EPA-QAD)

Instrument Detection Limit:
The minimum amount of a substance that can be measured with a specified degree of confidence that the amount is greater than zero using a specific instrument. The IDL is associated with the instrumental portion of a specific method only, and sample preparation steps are not considered in its derivation. The IDL is a statistical estimation at a specified confidence interval of the concentration at which the relative uncertainty is ± 100%. The IDL represents a range where qualitative detection occurs on a specific instrument. Quantitative results are not produced in this range.

Laboratory Control Sample (or however named, such as laboratory fortified blank, spiked blank, or QC check sample):
A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes, taken through all preparation and analysis steps of the procedure, unless otherwise noted in a reference method. It is generally used to establish intra-laboratory or analyst-specific precision and bias or to assess the performance of all or a portion of the measurement system.

An LCS shall be prepared at a minimum of 1 per batch of 20 or less samples per matrix type per sample extraction or preparation method except for analytes for which spiking solutions are not available such as total suspended solids, total dissolved solids, total volatile solids, total solids, pH, color, odor, temperature, dissolved oxygen, or turbidity. The results of these samples shall be used to determine batch acceptance.

Least Squares Regression (1st Order Curve):
The least squares regression is a mathematical calculation of a straight line over two axes. The y-axis represents the instrument response (or Response ratio) of a standard or sample and the x-axis represents the concentration. The regression calculation will generate a correlation coefficient (r) that is a measure of the "goodness of fit" of the regression line to the data. A value of 1.00 indicates a perfect fit. In order to be used for quantitative purposes, r must be greater than or equal to 0.99 for analysis of organic compounds and 0.995 for analysis of inorganic compounds.

Limit(s) of Detection (LOD) [a.k.a., Method Detection Limit (MDL)]:
A laboratory's estimate of the minimum amount of an analyte in a given matrix that an analytical process can reliably detect in their facility. (TNI)

LOD Verification [a.k.a., MDL Verification]:
A processed QC sample in the matrix of interest, spiked with the analyte at no more than 3X the calculated MDL for single analyte tests and 4X the calculated MDL for multiple analyte tests and processed through the entire analytical procedure.

Limit(s) of Quantitation (LOQ) [a.k.a., Reporting Limit]:
The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. (TNI)

Matrix Spike (spiked sample or fortified sample):
A sample prepared, taken through all sample preparation and analytical steps of the procedure unless otherwise noted in a referenced method, by adding a known amount of target analyte to a specified amount of sample for which an independent test result of target analyte concentration is available. MS is used, for example, to determine the effect of the matrix on a method's recovery efficiency.

Matrix Spike Duplicate (spiked sample or fortified sample duplicate):
MS prepared in the laboratory and analyzed to obtain a measure of the precision of the recovery for each analyte.

Method Blank:
A sample of a matrix similar to the batch of associated samples (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences are present at concentrations that impact the analytical results for sample analyses.

Method Detection Limit:
The minimum concentration of a substance (an analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. (40 CFR Part 136, Appendix B)

Negative Control:
Measures taken to ensure that a test, its components, or the environment do not cause undesired effects, or produce incorrect test results.

Non-conformance:
An indication, judgment, or state of not having met the requirements of the relevant specifications, contract, or regulation.

Observation
A record of phenomena that (1) may assist in evaluation of the sample data; (2) may be of importance to the project manager and/or the client, and yet not at the time of the observation have any known effect on quality.

Performance Audit:
The routine comparison of independently obtained qualitative and quantitative measurement system data with routinely obtained data in order to evaluate the proficiency of an analyst or laboratory.

Positive Control:
Measures taken to ensure that a test and/or its components are working properly and producing correct or expected results from positive test subjects.

Precision:
The degree to which a set of observations or measurements of the same property, obtained under similar conditions, conform to themselves; a data quality indicator. Precision is usually expressed as standard deviation, variance, or range, in either absolute or relative terms. (TNI)

Preservation:
Any condition under which a sample must be kept, in order to maintain chemical and/or biological integrity prior to analysis. (TNI)

Proficiency Testing:
A means of evaluating a laboratory's performance under controlled conditions relative to a given set of criteria through analysis of unknown samples provided by an external source. (TNI)

Proficiency Testing Program:
The aggregate of providing rigorously controlled and standardized environmental samples to a laboratory for analysis, reporting of results, statistical evaluation of the results, and the collective demographics and results summary of all participating laboratories. (TNI)

Proficiency Testing Sample:
A sample, the composition of which is unknown to the laboratory and is provided to test whether the analyst/laboratory can produce analytical results within specified acceptance criteria. (TNI)

Quality Assurance:
An integrated system of management activities involving planning, implementation, assessment, reporting, and quality improvement to ensure that a process, item, or service is of the type of quality needed and expected by the client. (TNI)

Quality Assurance [Project] Plan:
A formal document describing the detailed QC procedures by which the quality requirements defined for the data and decisions pertaining to a specific project are to be achieved. (EAP-QAD)

Quality Control:
The overall system of technical activities that measures the attributes and performance of a process, item, or service against defined standards to verify that they meet the stated requirements established by the customer; operational techniques and activities that are used to fulfill requirements for quality; also the system of activities and checks used to ensure that measurement systems are maintained within prescribed limits, providing protection against "out of control" conditions, and ensuring that the results are of acceptable quality. (TNI)

Quality Control Sample:
A sample used to assess the performance of all or a portion of the measurement system. One of any number of samples, such as Certified Reference Materials, a quality system matrix fortified by spiking, or actual samples fortified by spiking, intended to demonstrate that a measurement system or activity is in control. (TNI)

Quality Manual:

A document stating the management policies, objectives, principles, organizational structure, authority, responsibilities, accountability, and implementation of an agency, organization, or laboratory, to ensure the quality of its product and the utility of its product to its users. (TNI)

Quality System:
A structured and documented management system describing the policies, objectives, principles, organizational authority, responsibilities, accountability, and implementation plan of an organization for ensuring quality in its work processes, products (items), and services. The quality system provides the framework for planning, implementing, and assessing work performed by the organization and for carrying out required QA and QC activities. (TNI)

Quality System Matrix:
The component or substrate that contains the analyte of interest. For purposes of batch and QC requirement determinations, the following matrix distinctions shall be used:

Aqueous: Any aqueous sample excluded from the definition of Drinking Water or Saline/Estuarine. Includes surface water, groundwater, effluents, and TCLP or other extracts.

Drinking Water: Any aqueous sample that has been designated as a potable or potential potable water source.

Saline/Estuarine: Any aqueous sample from an ocean or estuary, or other salt water source such as the Great Salt Lake.

Non-aqueous Liquid: Any organic liquid with <15% settleable solids.

Biological Tissue: Any sample of a biological origin such as fish tissue, shellfish, or plant material. Such samples shall be grouped according to origin.

Solids: Includes soils, sediments, sludges, and other matrices with >15% settleable solids.

Chemical Waste: A product or by-product of an industrial process that results in a matrix not previously defined.

Air & Emissions: Whole gas or vapor samples including those contained in flexible or rigid wall containers and the extracted concentrated analytes of interest from a gas or vapor that are collected with a sorbant tube, impinger solution, filter, or other device. (TNI)

Range:
The difference between the minimum and the maximum of a set of values. (EPA-QAD)

Raw Data:
The documentation generated during sampling and analysis. This documentation includes, but is not limited to, field notes, electronic data, magnetic tapes, untabulated sample results, QC sample results, printouts of chromatograms, instrument outputs, and handwritten records. (TNI)

Record Retention:
The systematic collection, indexing, and storing of documented information under secure conditions.

Reference Material:

Material or substance, one or more properties of which are, sufficiently homogeneous and well established to be used for the calibration of an apparatus, the assessment of a measurement method, or for assigning values to materials. (TNI)

Reference Standard:
Standard used for the calibration of working measurement standards in a given organization or a given location. (TNI)

Sampling:
Activity related to obtaining a representative sample of the object of conformity assessment, according to a procedure.

Second-Order Polynomial Curve (Quadratic):
The second-order order curves are a mathematical calculation of a slightly curved line over two axes. The y-axis represents the instrument response (or Response ratio) of a standard or sample and the x-axis represents the concentration. The second-order regression will generate a coefficient of determination (r^2) that is a measure of the "goodness of fit" of the quadratic curvature of the data. A value of 1.00 indicates a perfect fit. In order to be used for quantitative purposes, r^2 must be greater than or equal to 0.99.

Selectivity:
The ability to analyze, distinguish, and determine a specific analyte or parameter from another component that may be a potential interferent or that may behave similarly to the target analyte or parameter within the measurement system. (TNI)

Sensitivity:
The capability of a method or instrument to discriminate between measurement responses representing different levels (e.g., concentrations) of a variable of interest. (TNI)

Spike:
A known mass of target analyte added to a blank, sample, or sub-sample; used to determine recovery efficiency or for other QC purposes.

Standard:
The document describing the elements of laboratory accreditation that has been developed and established within the consensus principles of standard setting and meets the approval requirements of standard adoption organizations procedures and policies. (TNI)

Standard Operating Procedures:
A written document which details the method for an operation, analysis, or action with thoroughly prescribed techniques and steps. SOPs are officially approved as the methods for performing certain routine or repetitive tasks. (TNI)

Storage Blank:
A blank matrix stored with field samples of a similar matrix (volatiles only) that measures storage contribution to any source of contamination.

Surrogate:
A substance with properties that mimic the analyte of interest. It is unlikely to be found in environmental samples and is added to them for QC purposes.

Surrogate compounds must be added to all samples, standards, and blanks, for all organic chromatography methods except when the matrix precludes its use or when a surrogate is not available. Poor surrogate recovery may indicate a problem with sample composition and shall be reported to the client whose sample produced poor recovery.

Systems Audit (also Technical Systems Audit):
A thorough, systematic, qualitative on-site assessment of the facilities, equipment, personnel, training, procedures, record keeping, data validation, data management, and reporting aspects of a total measurement system. (EPA-QAD)

Technical Manager (or Technical Director):
A member of the staff of an environmental laboratory who exercises actual day-to-day supervision of laboratory operations for the appropriate fields of accreditation and reporting of results.

Technology:
A specific arrangement of analytical instruments, detection systems, and/or preparation techniques.

Traceability:
The ability to trace the history, application, or location of an entity by means of recorded identifications. In a calibration sense, traceability relates measuring equipment to national or international standards, primary standards, basic physical constants or properties, or reference materials. In a data collection sense, it relates calculations and data generated throughout the project back to the requirements for the quality of the project. (TNI)

Trip Blank:
A blank matrix placed in a sealed container at the laboratory that is shipped, held unopened in the field, and returned to the laboratory in the shipping container with the field samples.

Uncertainty:
A parameter associated with the result of a measurement that characterizes the dispersion of the value that could reasonably be attributed to the measured value.

Acronyms:

A2LA – American Association for Laboratory Accreditation
AE – Account Executive
ANSI – American National Standards Institute
APLAC – Asia-Pacific Laboratory Accreditation Cooperation
ASQ – American Society for Quality
ASTM – American Society for Testing and Materials
CBI – Confidential Business Information
CCV – Continuing Calibration Verification
CEO – Chief Executive Officer
CF – Calibration Factor
CFR – Code of Federal Regulations
CHP – Chemical Hygiene Plan
CIO – Chief Information Officer
COC – Chain of Custody
CQMP – Corporate Quality Management Plan
CRM – Client Relations Manager
CSO – Client Service Organization
DOC – Demonstration of Capability
DOT – Department of Transportation
DQO – Data Quality Objectives
DW – Drinking Water
ECO – Ethics and Compliance Officer
EDD – Electronic Data Deliverable
EHS – Environmental Health and Safety
EPA-OSWER – Environmental Protection Agency–Office of Solid Waste and Emergency Response
EPA-QAD – Environmental Protection Agency–Quality Assurance Division

FID – Flame Ionization Detector
GC – Gas Chromatography
GC/MS – Gas Chromatography/Mass Spectrometry
GFAA – Graphite Furnace Atomic Absorption
HPLC – High Performance Liquid Chromatography
HVAC – Heating, Ventilation, and Air Conditioning
ICAL – Initial Calibration
iCAT – Incident/Complaint Activity Tracker
ICP – Inductively Coupled Plasma Atomic Emission Spectroscopy
ICP/MS – Inductively Coupled Plasma Mass Spectrometry
ICV – Initial Calibration Verification
IDL – Instrument Detection Limit
IDOC – Initial Demonstration of Capability
IEC – International Electrotechnical Commission
ILAC – International Laboratory Accreditation Cooperation
IR – Infrared
ISO – International Standards Organization
IT – Information Technology
LCS – Laboratory Control Sample
LCSD – Laboratory Control Sample Duplicate
LIMS – Laboratory Information Management System
LOD – Limit of Detection
LOQ – Limit of Quantitation
MDL – Method Detection Limit
MDLV – Method Detection Limit Verification
MRA – Mutual Recognition Arrangement
MS – Matrix Spike
MSD – Matrix Spike Duplicate
NCM – Nonconformance Memo
ND – Not Detected
NELAC – National Environmental Laboratory Accreditation Conference
NELAP – National Environmental Laboratory Accreditation Program
NIST – National Institute of Standards and Technology
NVLAP – National Voluntary Laboratory Accreditation
OSHA – Occupational Safety and Health Administration
PDF – Portable Document Format
PID – Photo Ionization Detector
PM – Project Manager
PMA – Project Manager Assistant
PT – Proficiency or Performance Testing
QA/QC – Quality Assurance/Quality Control
QAM – Quality Assurance Manual
QAS – Quality Assurance Summaries
QAPP – Quality Assurance Project Plan
QIM – Quality Information Manager
QL – Quantitation Limit
QS – Quality System
R&U – Read and Understand
RF – Response Factor
RFP – Request for Proposal
RL – Reporting Limit
RPD – Relative Percent Difference
RT – Retention Time
SAP – Sampling and Analysis Plan
SDS – Safety Data Sheet
SOP – Standard Operating Procedure

TAT – Turnaround Time
TCLP - Toxicity Characteristic Leaching Procedure
TDS – Total Dissolved Solids
TIC – Tentatively Identified Compound
TNI – The NELAC Institute
USDA – U.S. Department of Agriculture
VOA – Volatile Organic Analytes
VOC – Volatile Organic Compound
VP – Vice-President
VPO – Vice-President of Operations

Appendix 3.

Laboratory Certifications, Accreditations, Validations

TestAmerica Irvine maintains certifications, accreditations, and approvals with numerous state and national entities. Programs vary but may include on-site audits, reciprocal agreements with another entity, performance testing evaluations, review of the QAM, SOPs, MDLs, training records, etc. At the time of this QAM revision, the laboratory has accreditation/certification/licensing with the following organizations:

CERTIFICATION / ACCREDITATION STATUS
IRVINE LABORATORY (EPA ID CA01531)

State	Agency	Program	License Number	Expiration Date
CA	ELAP	DW, WW, HW	2706	06/30/16
AK	DEC	DW	CA01531	06/30/16
AZ	DHS	DW, WW, HW	AZ0671	10/31/15
NV	DEP	DW, WW, HW	CA01531	07/31/16
HI	DOH	DW	--	01/29/16
Northern Mariana Islands	DEQ	DW	MP0002	01/29/16
Guam	EPA	DW	15-001r	01/23/16
NM	DWB	DW	CA01531	01/29/16
OR	ORELAP	DW, WW, HW	4028	01/29/16
KS	KDHE	WW, HW	E-10420	07/31/16
WA	Dept Of Ecology	DW, WW, HW	C900	09/03/16
CA	County Sanitation District Los Angeles County	WW	10256	n/a
--	USDA	Foreign Soil	P330-15-00184	07/08/18

The certificates and accredited parameter lists are available for each State/Program at www.testamericainc.com under Analytical Services Search – Certifications.

Quality Assurance Summary (QAS)

Client / Project:	Boeing
QAPP or SOW:	Waste Discharge Requirements for the Boeing Company, Santa Susana Field Laboratory, Order R4-2015-0033, NPDES CA0001309, Los Angeles Regional Water Quality Control Board, April 1, 2015

Project Organization

Project Managers	Urvashi Patel
Special Notification Requirements	Management Changes TestAmerica must notify all parties (Consultant, Mec^{X}) within 30 days of any changes in senior management (Lab Director, QA Manager, Operations Manager, Manager of Project Management) or Project Manager at the laboratory. Certification Changes In addition to providing an annual update on current laboratory methods, certifications, reporting limits and MDLs, any changes in the laboratory's ability to perform requested analyses must be communicated to all parties immediately. Changes will generally be provided no later than October, prior to the start of the rainy season.
Sampling Event Information	The SSFL site is monitored for discharge under NPDES permit CA0001309. This discharge permit encompasses 16 outfalls that are monitored on routine, monthly, quarterly, and annual frequencies as specified in the permit. The outfalls are grouped by their monitoring parameter lists: **Monitoring List*** / **Outfall ID** E-2a: 001, 002, 011, 018 E-2b: 003, 004, 005, 006, 007, 008, 009, 010 E-2c: 019,020 *From Permit table

Sampling Event Information, continued	Monitoring Frequency Tables E-2a, b, and c in the Permit specify the analytical parameters, units, sample type (grab or composite) and sampling frequency. Sampling frequencies may change based on detects, non-detects, and recommendations by the consultants and/or the SSFL expert panel.
Special Bottle Order/Bottle Preps (containers, preservation, etc.)	1) Bottle orders are coordinated between the TestAmerica project manager and the consultant. . The laboratory will be instructed as to what Outfall and events are planned to be sampled so correct bottle sets can be sent. 2) ISRA, BMP and GETs bottle orders are sent in bulk shipments when requested by Consultant 3) Preserved bottles must be individually bagged and an absorbent pad must also be placed each cooler in case of a spill. 4) Laboratory pre-printed labels on NPDES outfall bottle orders when requested by consultant. 5) Laboratory-supplied water for trip blanks must be lot-traceable. 6) When requested by consultant, low level 1631 mercury kits will be utilized for sample collection for method 245.1. Consultant will inform the lab as to whether these unpreserved VOA vials should have nitric acid added to them prior to or after sample collection. **Interim Source Removal Action (ISRA)** Performance Monitoring Samples are collected in accordance with the Los Angeles Regional Water Quality Control Board (LARWQB). Consultant indicates on the COC which samples are to be run through the Dekaport Cone Splitter. These split samples are analyzed by both TestAmerica Irvine and American Scientific Laboratories (ASL).

Sample Pickup	1) All couriers must be on pre-approved courier list to be granted access to SSFL. If an outside courier service is used, the courier must have been audited by TestAmerica. 2) TestAmerica will submit a list of couriers to Consultant with the appropriate documentation so that the courier will be granted access to the site. 3) If a new courier is hired and it is anticipated that he/she will be servicing SSFL, then TestAmerica will pro-actively submit the documentation to Consultant for SSFL approval. 4) At a minimum, appropriate courier documentation consists of the full name of the courier. 5) Custody seals must be placed on the cooler whenever samples are not counted in the field. 6) Check for short-hold analyses on COCs and notify the TestAmerica project manager. a) Bioassay-36 hour holding time may need to be delivered immediately to Aquatic Bioassay Laboratories. b) Hydrazine has a 72 hour holding time so may need to be sent via Fed-ex direct from site to the appropriate subcontract lab: TestAmerica Denver for SSFL NPDES work. c) Notify the TestAmerica project manager of all other analyses with short holding times (48 hours or less) such as Micro, bioassays, Chromium VI, nitrate, pH, and turbidity. d) 525.2 Diazinon and Chloropyrifos has a 24-hour extraction holding time.

Subsampling or Compositing?	Cone Splitting Procedure (see IR-WI-CONE_SPLIT, current revision) 1) The Cone Splitter must be correctly assembled, cleaned, leveled and pre-rinsed prior to use. A Performance Check must be run prior to the first sampling event of the season. 2) There are two levels of cleaning for the cone splitter. Each has a checklist: a) **Level 1** is performed each time before use for samples collected from different sites on the same day. b) **Level 2** cleaning is performed if the splitter has dried before cleaning or was used for splitting sample with known or suspected high level target analytes. 3) Only laboratory staff with documented training on the Cone Splitter Work Instruction (can be involved in the cone splitting procedure. Clarification on Cone Splitter Protocol 1) Performance tests are performed at the request of the Consultant, typically on an annual basis. 2) Sample Volumes: the client submits approximately 4 liters of sample. The final volumes after splitting are approximately 800mL in each 1 Liter container and approximately 400mL in each 500mL container. For dioxin analysis, the dioxin testing laboratory is provided with instructions on the COC to use the contents of both a 1 liter amber and a 500mL amber for testing and to perform a solvent rinse on both containers. For equipment blanks, volume from all 3-500mL ambers are used and solvent rinsed. 3) Holding time: Lab performs cone splitting within 24 hours of receipt. SOP has a recommended holding time of 5 hours if splitting is performed in field or "best professional judgment." Analyses being performed have holding times of 7 days or greater.

Subcontract Labs	Radiological Sample Preparation 1) Radiological samples subcontracted to an outside laboratory require documentation of sample preparation procedure performed at TestAmerica Irvine. a) Either the Sample Control department manager or the Metals dept manager oversees the processing of these samples. b) Every batch of samples (each 2.5 gallon container) requires a trip blank with the exception of samples for tritium analyses. c) Prepare the trip blank by filling a 2.5 gallon container with Laboratory Reagent-Grade Water (RGW). d) Add 25mL of nitric acid to each sample and trip blank. e) Check pH with pH paper by taking an aliquot of sample using a disposable transfer pipette and squeezing a few drops on the pH strip. (Do not dip pH strip directly into sample container). f) If pH<2, record on log sheet. g) If pH>2, add another 5mL and recheck pH. h) Record sample ID, acid vendor, lot#, date and time on log sheet-see Attachment 2. Note any comments if needed. i) Notify Sample Control that samples have been prepared/are ready to be shipped. j) Sample Control logs in the trip blank (use prep date/time as sample date) on the same work order and logs in the applicable test methods, prints subcontract COC and sends to a pre-approved radiological testing laboratory with original pH adjustment log. Sample Control attaches a copy of pH adjustment log to work order. k) Samples must not be filtered. l) A site specific sample duplicate must be run with each batch of samples. Dioxin Analysis 1) Report in µg/L. 2) Report down to the EDL for non-detects and below the EDL for isomers meeting required signal-to-noise ratios. 3) Narrate any detection below EDL. 4) Confirm all 2,3,7,8-TCDF J-flag hits and report both results. 5) EMPCs are reported as positive results with the appropriate qualifiers. 6) Flag total results as the summation of all flags within the homolog group.

Sample Receiving/Login Instructions

Special forms?	1) Receipt Acknowledgements should be sent within 24 hours of receipt. The format and the delivery instructions are specified in LIMS under the Deliverables section for the project.

Other Comments	1) Log in the sample with dioxin, TSS, metals analysis as indicated on COC and add the following containers with TestAmerica labels for the analyst: 2-1 gal ambers (as received from client) 1-500mL poly for TSS 1-500mL poly w/Nitric acid 1-1000mL amber 1-500mL amber 2) Log in an equipment blank per sample and an equipment blank after the last sample that will be placed on hold. Equipment Blank and Analyses to be provided by the Client to the TestAmerica project manager. Provide empty containers with TestAmerica labels with each equipment blank in sequential order (equipment blank #1, #2, etc.) for: 1-1000mL poly for TSS 1-1000mL poly w/Nitric acid 3-500mL ambers 3) After the cone splitting is completed, the TestAmerica project manager will update the equipment blank sample descriptions and add any analyses requested per the Equipment Blank COC provided. 4) Note any comments on the COC in LIMS (for example “high concentrations”). 5) Field blanks do not go through cone splitter and will be logged in for analyses or placed on a “hold” status as indicated on COC. 6) The split samples: For each sample, the following containers will have labels with client descriptions and will be sent directly to ASL labs (info below). These will NOT be logged into TestAmerica’s LIMS. Consultant will provide the COC that will accompany the samples to ASL. 1-500mL poly for TSS 1-500mL poly w/Nitric acid 1-1000mL amber 1-500mL amber 7) Once split samples are ready, a courier will send splits and the COC to ASL labs at the address listed below. A copy of COC will also be emailed to Consultant. Molky Brar American Scientific Laboratories, LLC 2520 North San Fernando Road Los Angeles, CA 90065 Phone: 323 223 9700 Fax: 323 223 9500

Deliverable Requirements

Report on Dry-Weight Basis?	N/A
Special Flagging/Reporting	**Level 2** 1) Analyses performed at TestAmerica Irvine and dioxin work are due in 10 business days unless otherwise noted on the COC. GETS program is typically requested on a 48 hour rush as indicated on the chain of custody. 2) Complete level 2 report (with all subcontract data), equis EDD, and Access 7 EDD is due 28 calendar days from sample receipt. 3) Upon receipt of the dioxin and radiological data they will each be merged into the report and EDD. 4) Bioassay and particle size data is merged into the PDF report but not included in the EDD. 5) No partial EDDs are needed unless specifically requested by Consultant or MEC[x] . 6) J-flag all results to MDL (to the EDL for dioxins). 7) Report must be in NPDES format. 8) Geotracker EDF needed when requested on COC. 9) Grab and composite samples from the same sampling event must be merged into a single report and SDG. 10) NPDES SSFL-significant figures and units must match permit. 11) Deliverable instructions are specified in TALS. **Level 4** 1) Data package due 28 days after sample collection date unless otherwise noted on the COC. 2) Post to Total Access and mail CD and hard copy to Kim Schultz at MEC[x] for NPDES reports or when specifically requested by the Consultant project manager for other programs. 3) Data packages from sublabs are saved into the subcontract folder in the level IV deliverable so that one complete data package is completed. 4) Unless otherwise requested by Consultant, Level 4 data packages are not generated for ISRA, BMP, and GETs sampling events.
Special Narrative	NPDES format (includes perjury statement)
EDD	StdAccess 7 (UDS) and Equ_HaleyAldrich_HdrY (UDS)
Special Invoice	None
Other	None

Technical Requirements for All Lab Areas

	Yes	No	Notes
Full Analyte Spike List?		X	
Reporting Multiple Dilutions?		X	

	Yes	No	Notes
Special reanalysis requirements?	X		See Technical Requirements for Specific Areas
Project-specified action limits?	X		1) An Action Limit Group is set up in LIMS for each outfall group. 2) The appropriate action limit is applied to analysis during the login process. 3) Automated exceedence notifications are emailed to the TestAmerica project manager for review and distribution to Consultant and MEC[x]. 4) Action limits do not apply to ISRA, BMP, and GETs sampling events.
Project-specified QC limits?		X	
Project-specified RLs?	X		For select parameters from each outfall, daily maximum and monthly average discharge levels are specified in the permit.
Special MDL Requirements?		X	
Special QC Samples or Frequency?	X		See Technical Requirements for Specific Areas
Special Blank Control Requirements		X	
Reagents and Standards		X	

Technical Requirements for Specific Areas

Method	Special Requirements
1613-Dioxin	1) Report down to the EDL for ND and below the EDL for isomers meeting required signal-to-noise ratios. 2) Narrate any detection below EDL. 3) Confirm all 2,3,7,8-TCDF J-flag hits and report both results. 4) EMPCs are reported as positive results with the appropriate qualifiers. 5) Flag total results as the summation of all flags within the homolog group.
Perchlorate 314.0	1) A low level MS is required on any samples with elevated baseline (baseline above the height of the 4ppb standard) 2) All samples with detected (>MDL) results for perchlorate must be post-spiked with perchlorate at a concentration 2-5x the native sample concentration to verify that the peak identified in the samples is perchlorate.

Method	Special Requirements
DI Leach	On an as-needed basis, the laboratory will be requested to perform a 1:10 DI leaching procedure for solid materials that are being used at the site in order to determine if they could introduce target analytes into the monitored outfalls. For specifics of the leaching process, see, IR-WI-BOEING_LEACH
Microbiology (SM9221B & Enterolert)	Samples must be prepared at 1X, 10X and 100X dilutions. The dilutions are indicated on the COC. Laboratory must report the geometric mean of these results.
Mercury 245.1	1631 low level mercury kits will be utilized upon client request. Consultant will inform the lab if nitric acid should be added to the unpreserved vials prior to or after sample collection. Vials will remain bagged through log in and sample storage. The vials will only be opened by metals staff trained in special sample handling: hands and forearms must be washed prior to preparation, wear clean gloves when handling these samples, analyst will not wear a watch or use cell phone or IR temperature probe.
Volatile Organics	Method Blanks must be < 1/2 RL or 1/10 associated sample concentrations

Sample Archive/Disposal Instructions

Long-term sample storage required?	After analysis is complete, samples from this site are to be refrigerated for 30 days and maintained at room temperature storage at the laboratory for six months.
Disposal requirements:	Approval for disposal is communicated to Sample Control staff by the laboratory project manager for all Boeing work.

Attachments

1) pH adjustment Log for Radiological Samples

Revision History

This section has been added beginning with Revision 0. Only details of the last two revisions are incorporated into this SOP. Prior revisions are documented in the QA files.

Revision 2, dated 03/13/2015

- This revision supersedes IR-QAS-BOEING_NPDES, revision 1, 11/21/2014
- Addition of microbiology requirements for multiple dilutions and geometric mean.

Revision 3, dated 03/18/2016

- This revision supersedes IR-QAS-BOEING_NPDES, revision 2, 03/13/2015
- Added special mercury sample bottle and handling
- Updated references to new permit (dates, revision, tables, action limits)
- Updated Project Manager and subcontract lab for hydrazine and bioassays
- Removed Outfall Discharge Limit tables
- Removed attachments for work instructions IR-WI-CONE_SPLIT and IR-WI-BOEING_LEACH

Laboratory Review/Approval

Title	Name	Signature	Date
Project Manager	Urvashi Patel		
Manager of Project Management	Urvashi Patel		
Interim Quality Assurance Manager	Dave Dawes		03/17/16
Operations Manager	Debby Wilson		03/17/16
Laboratory Director	Linda Scharpenberg		3/17/16

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Project Manager	Urvashi Patel	Urvashi Patel	3/17/16
Manager of Project Management	Urvashi Patel	Urvashi Patel	3/17/16
Interim Quality Assurance Manager	Dave Dawes		
Operations Manager	Debby Wilson		
Laboratory Director	Linda Scharpenberg		

Attachment 1
pH adjustment Log for Radiological Samples

pH Adustment Log

Laboratory: **TestAmerica Irvine** Method:

Analyst: Nitric Acid Lot #:

DATE: TIME:

Lab Sample Number	Sample Volume (gal)	Nitric Acid Volume added (ml)	Check pH < 2	Comments

pH Adustment Log.xls
Revision 0, 03/26/2010

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

TestAmerica Irvine

Irvine

17461 Derian Avenue, Suite 100

Irvine, CA 92614-5817

Scope of the certificate is limited to the
"Fields of Testing"
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **2706**

Expiration Date: **6/30/2018**

Effective Date: **7/1/2016**

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program

CALIFORNIA
Water Boards

Edmund G. Brown Jr.
GOVERNOR

Matthew Rodriquez
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

June 30, 2016

Linda Scharpenberg
TestAmerica Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

Dear Linda Scharpenberg:

Certificate No. 2706

This notice advises that the laboratory named above has been certified as an environmental testing laboratory pursuant to the provisions of the Health and Safety Code (HSC), Division 101, Part 1, Chapter 4, Section 100825, *et seq.*

The Fields of Testing for which this laboratory has been certified are indicated on the enclosed "Fields of Testing" list. The certificate shall remain in effect until **June 30, 2018** unless it is revoked. This certificate is subject to an annual fee as determined by HSC 100860.1(a).

The application for renewal of this certificate must be received 90 days prior to the expiration date to remain in force according to HSC 100845(a). You must submit annual Proficiency Testing results before the due date of your annual fee to remain in compliance.

Any change in laboratory location or alteration to laboratory structure that could adversely affect quality of analysis in certified methods require notification prior to the change. Notification is also required for a transfer in ownership or appointment of new laboratory director within 30 days of the change (HSC, Section 100845(b) and (d)).

Your continued cooperation with the above requirements is essential for maintaining the high quality of the data produced by environmental laboratories certified by the State of California.

For general inquiries, please contact our office at the phone number or email address listed below. For specific concerns regarding your application, please call (916) 341-5175 or email Christine.Sotelo@waterboards.ca.gov.

Sincerely,

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program

Enclosure

CALIFORNIA STATE
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM
Accredited Fields of Testing

TestAmerica Irvine
Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817
Phone: (949) 261-1022

Certificate No. 2706
Expiration Date 6/30/2018

Field of Testing: 101 - Microbiology of Drinking Water

101.010	001	Heterotrophic Bacteria	SM9215B
101.010	002	Heterotrophic Bacteria	SimPlate
101.020	001	Total Coliform P/A	SM9221B
101.020	002	Fecal Coliform P/A	SM 9221 B,E
101.020	003	E. coli P/A	SM 9221 B,F
101.050	005	Total Coliform P/A	SM9223B (Colilert 18)
101.050	006	E. coli P/A	SM9223B (Colilert 18)
101.050	007	Total Coliform (Enumeration)	SM9223B (Colilert 18 Quantity Tray)
101.050	008	E. coli (Enumeration)	SM9223B (Colilert 18 Quantity Tray)
101.050	009	Total Coliform P/A	SM9223B (Colisure)
101.050	010	E. coli P/A	SM9223B (Colisure)
101.050	011	Total Coliform (Enumeration)	SM9223B (Colisure)
101.050	012	E. coli (Enumeration)	SM9223B (Colisure)

Field of Testing: 102 - Inorganic Chemistry of Drinking Water

102.015	001	Hydrogen Ion (pH)	EPA 150.1
102.020	001	Turbidity	EPA 180.1
102.026	001	Calcium	EPA 200.7
102.026	002	Magnesium	EPA 200.7
102.026	003	Potassium	EPA 200.7
102.026	004	Silica	EPA 200.7
102.026	005	Sodium	EPA 200.7
102.026	006	Hardness (calculation)	EPA 200.7
102.030	003	Chloride	EPA 300.0
102.030	005	Fluoride	EPA 300.0
102.030	006	Nitrate (as N)	EPA 300.0
102.030	007	Nitrite (as N)	EPA 300.0
102.030	008	Phosphate, Ortho (as P)	EPA 300.0
102.030	009	Sulfate	EPA 300.0
102.040	001	Bromide	EPA 300.1
102.040	002	Chlorite	EPA 300.1
102.040	003	Chlorate	EPA 300.1
102.040	004	Bromate	EPA 300.1
102.045	001	Perchlorate	EPA 314.0
102.048	001	Perchlorate	EPA 332.0
102.095	001	Turbidity	SM2130B-2001
102.100	001	Alkalinity	SM2320B-1997
102.120	001	Hardness (calculation)	SM2340B-1997
102.121	001	Hardness	SM2340C-1997

As of 6/30/2016 , this list supersedes all previous lists for this certificate number.
Customers: Please verify the current accreditation standing with the State.

102.130	001	Conductivity	SM2510B-1997
102.140	001	Residue, Filterable TDS	SM2540C-1997
102.175	001	Chlorine, Free	SM4500-Cl G-2000
102.175	002	Chlorine, Total Residual	SM4500-Cl G-2000
102.190	001	Cyanide, Total	SM4500-CN E
102.200	001	Fluoride	SM4500-F C
102.203	001	Hydrogen Ion (pH)	SM4500-H+ B-2000
102.262	001	Total Organic Carbon TOC	SM5310C
102.263	001	Dissolved Organic Carbon (DOC)	SM5310C
102.270	001	Surfactants	SM5540C
102.564	001	Cyanide	Kelada-01

Field of Testing: 103 - Toxic Chemical Elements of Drinking Water

103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	004	Beryllium	EPA 200.7
103.130	005	Cadmium	EPA 200.7
103.130	007	Chromium	EPA 200.7
103.130	008	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.130	012	Nickel	EPA 200.7
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	008	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.160	001	Mercury	EPA 245.1
103.310	001	Chromium (VI)	EPA 218.6
103.311	001	Chromium (VI)	EPA 218.7

Field of Testing: 104 - Volatile Organic Chemistry of Drinking Water

104.030	001	1,2-Dibromoethane	EPA 504.1
104.030	002	1,2-Dibromo-3-chloropropane	EPA 504.1

104.035	001	1,2,3-Trichloropropane	SRL 524M-TCP
104.040	000	Volatile Organic Compounds	EPA 524.2
104.040	001	Benzene	EPA 524.2
104.040	007	n-Butylbenzene	EPA 524.2
104.040	008	sec-Butylbenzene	EPA 524.2
104.040	009	tert-Butylbenzene	EPA 524.2
104.040	010	Carbon Tetrachloride	EPA 524.2
104.040	011	Chlorobenzene	EPA 524.2
104.040	015	2-Chlorotoluene	EPA 524.2
104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane	EPA 524.2
104.040	025	1,1-Dichloroethene	EPA 524.2
104.040	026	cis-1,2-Dichloroethene	EPA 524.2
104.040	027	trans-1,2-Dichloroethene	EPA 524.2
104.040	028	Dichloromethane	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropene	EPA 524.2
104.040	034	trans-1,3-Dichloropropene	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2
104.040	037	Isopropylbenzene	EPA 524.2
104.040	039	Naphthalene	EPA 524.2
104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	043	1,1,1,2-Tetrachloroethane	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethene	EPA 524.2
104.040	046	Toluene	EPA 524.2
104.040	047	1,2,3-Trichlorobenzene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2
104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethene	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2
104.040	057	Xylenes, Total	EPA 524.2
104.040	061	Carbon Disulfide	EPA 524.2
104.040	062	Methyl Isobutyl Ketone	EPA 524.2
104.045	000	Trihalomethanes, Total	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2
104.045	002	Bromoform	EPA 524.2

104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane	EPA 524.2
104.050	000	Gasoline Additives	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	003	tert-Amyl Methyl Ether (TAME)	EPA 524.2
104.050	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.2
104.050	005	Trichlorotrifluoroethane	EPA 524.2
104.050	006	tert-Butyl Alcohol (TBA)	EPA 524.2

Field of Testing: 105 - Semi-volatile Organic Chemistry of Drinking Water

105.010	002	Alachlor	EPA 505
105.010	004	Chlordane	EPA 505
105.010	006	Endrin	EPA 505
105.010	007	Heptachlor	EPA 505
105.010	008	Heptachlor Epoxide	EPA 505
105.010	009	Hexachlorobenzene	EPA 505
105.010	010	Hexachlorocyclopentadiene	EPA 505
105.010	011	Lindane	EPA 505
105.010	012	Methoxychlor	EPA 505
105.010	014	Toxaphene	EPA 505
105.010	015	PCBs as Aroclors (screen)	EPA 505
105.083	000	Chlorinated Acids	EPA 515.4
105.083	001	2,4-D	EPA 515.4
105.083	002	Dinoseb	EPA 515.4
105.083	003	Pentachlorophenol	EPA 515.4
105.083	004	Picloram	EPA 515.4
105.083	005	2,4,5-TP	EPA 515.4
105.083	006	Dalapon	EPA 515.4
105.083	007	Bentazon	EPA 515.4
105.083	008	Dicamba	EPA 515.4
105.090	000	Semi-volatile Organic Compounds	EPA 525.2
105.090	001	Alachlor	EPA 525.2
105.090	002	Aldrin	EPA 525.2
105.090	003	Atrazine	EPA 525.2
105.090	004	Benzo(a)pyrene	EPA 525.2
105.090	005	Butachlor	EPA 525.2
105.090	007	Dieldrin	EPA 525.2
105.090	008	Adipates	EPA 525.2
105.090	009	Phthalates	EPA 525.2
105.090	016	Hexachlorobenzene	EPA 525.2
105.090	017	Hexachlorocyclopentadiene	EPA 525.2
105.090	018	Lindane	EPA 525.2
105.090	019	Methoxychlor	EPA 525.2
105.090	022	Molinate	EPA 525.2
105.090	025	Simazine	EPA 525.2
105.100	000	Carbamates	EPA 531.1
105.100	001	Aldicarb	EPA 531.1
105.100	002	Aldicarb Sulfone	EPA 531.1

105.100	003	Aldicarb Sulfoxide	EPA 531.1
105.100	004	Carbaryl	EPA 531.1
105.100	005	Carbofuran	EPA 531.1
105.100	006	3-Hydroxycarbofuran	EPA 531.1
105.100	007	Methomyl	EPA 531.1
105.100	008	Oxamyl	EPA 531.1
105.120	001	Glyphosate	EPA 547
105.140	001	Endothall	EPA 548.1
105.150	001	Diquat	EPA 549.2
105.200	001	Bromoacetic Acid	EPA 552.2
105.200	003	Chloroacetic Acid	EPA 552.2
105.200	005	Dibromoacetic Acid	EPA 552.2
105.200	006	Dichloroacetic Acid	EPA 552.2
105.200	007	Trichloroacetic Acid	EPA 552.2
105.200	008	Haloacetic Acids (HAA5)	EPA 552.2
Field of Testing: 106 - Radiochemistry of Drinking Water			
106.092	001	Uranium	EPA 200.8
Field of Testing: 107 - Microbiology of Wastewater			
107.010	001	Heterotrophic Bacteria	SM9215B
107.020	002	Total Coliform (Enumeration)	SM9221B,E-2006
107.030	002	Total Coliform with Chlorine Present	SM9221B,C-2006
107.040	002	Fecal Coliform (Enumeration)	SM9221C,E-2006
107.050	002	Fecal Coliform with Chlorine Present	SM9221C,E-2006
107.242	001	Enterococci	Enterolert
107.245	002	E. coli (Enumeration)	SM9223B (Colilert)
107.245	003	E. coli (Enumeration)	SM9223B (Colisure)
107.247	001	E. coli (Enumeration)	SM9221B,F-2006
Field of Testing: 108 - Inorganic Chemistry of Wastewater			
108.020	001	Conductivity	EPA 120.1
108.090	001	Residue, Volatile	EPA 160.4
108.110	001	Turbidity	EPA 180.1
108.112	001	Boron	EPA 200.7
108.112	002	Calcium	EPA 200.7
108.112	003	Hardness (calculation)	EPA 200.7
108.112	004	Magnesium	EPA 200.7
108.112	005	Potassium	EPA 200.7
108.112	006	Silica, Dissolved	EPA 200.7
108.112	007	Sodium	EPA 200.7
108.112	008	Phosphorus, Total	EPA 200.7
108.120	001	Bromide	EPA 300.0
108.120	002	Chloride	EPA 300.0
108.120	003	Fluoride	EPA 300.0
108.120	008	Sulfate	EPA 300.0
108.120	012	Nitrate (as N)	EPA 300.0
108.120	013	Nitrate-Nitrite (as N)	EPA 300.0
108.120	014	Nitrite (as N)	EPA 300.0

108.120	015	Phosphate, Ortho (as P)	EPA 300.0
108.209	001	Ammonia (as N)	EPA 350.1
108.211	002	Kjeldahl Nitrogen, Total (as N)	EPA 351.2
108.264	001	Phosphate, Ortho	EPA 365.3
108.265	001	Phosphorus, Total	EPA 365.3
108.323	001	Chemical Oxygen Demand	EPA 410.4
108.381	001	Oil and Grease	EPA 1664A
108.385	001	Color	SM2120B-2001
108.390	001	Turbidity	SM2130B-2001
108.400	001	Acidity	SM2310B-1997
108.410	001	Alkalinity	SM2320B-1997
108.420	001	Hardness (calculation)	SM2340B-1997
108.421	001	Hardness	SM2340C-1997
108.430	001	Conductivity	SM2510B-1997
108.439	001	Residue, Volatile	SM2540E-1997
108.440	001	Residue, Total	SM2540B-1997
108.441	001	Residue, Filterable TDS	SM2540C-1997
108.442	001	Residue, Non-filterable TSS	SM2540D-1997
108.443	001	Residue, Settleable	SM2540F-1997
108.465	001	Chlorine, Total Residual	SM4500-Cl G-2000
108.465	002	Chlorine, Free	SM4500-Cl G-2000
108.470	001	Cyanide, Total	SM4500-CN B or C-1999
108.472	001	Cyanide, Total	SM4500-CN E-1999
108.490	001	Hydrogen Ion (pH)	SM4500-H+ B-2000
108.502	002	Ammonia (as N)	SM4500-NH3 B,E-1997
108.506	002	Ammonia (as N)	SM4500-NH3 G-1997
108.536	001	Oxygen, dissolved	SM4500-O G-2001
108.584	001	Sulfide (as S)	SM4500-S= D-2000
108.592	001	Biochemical Oxygen Demand	SM5210B-2001
108.592	002	Carbonaceous BOD	SM5210B-2001
108.595	001	Chemical Oxygen Demand	SM5220D-1997
108.596	001	Organic Carbon-Total (TOC)	SM5310B-2000
108.605	001	Surfactants	SM5540C-2000

Field of Testing: 109 - Toxic Chemical Elements of Wastewater

109.010	001	Aluminum	EPA 200.7
109.010	002	Antimony	EPA 200.7
109.010	003	Arsenic	EPA 200.7
109.010	004	Barium	EPA 200.7
109.010	005	Beryllium	EPA 200.7
109.010	006	Boron	EPA 200.7
109.010	007	Cadmium	EPA 200.7
109.010	009	Chromium	EPA 200.7
109.010	010	Cobalt	EPA 200.7
109.010	011	Copper	EPA 200.7
109.010	012	Iron	EPA 200.7
109.010	013	Lead	EPA 200.7
109.010	015	Manganese	EPA 200.7

109.010	016	Molybdenum	EPA 200.7	
109.010	017	Nickel	EPA 200.7	
109.010	019	Selenium	EPA 200.7	
109.010	021	Silver	EPA 200.7	
109.010	023	Thallium	EPA 200.7	
109.010	024	Tin	EPA 200.7	
109.010	025	Titanium	EPA 200.7	
109.010	026	Vanadium	EPA 200.7	
109.010	027	Zinc	EPA 200.7	
109.020	001	Aluminum	EPA 200.8	
109.020	002	Antimony	EPA 200.8	
109.020	003	Arsenic	EPA 200.8	
109.020	004	Barium	EPA 200.8	
109.020	005	Beryllium	EPA 200.8	
109.020	006	Cadmium	EPA 200.8	
109.020	007	Chromium	EPA 200.8	
109.020	008	Cobalt	EPA 200.8	
109.020	009	Copper	EPA 200.8	
109.020	010	Lead	EPA 200.8	
109.020	011	Manganese	EPA 200.8	
109.020	012	Molybdenum	EPA 200.8	
109.020	013	Nickel	EPA 200.8	
109.020	014	Selenium	EPA 200.8	
109.020	015	Silver	EPA 200.8	
109.020	016	Thallium	EPA 200.8	
109.020	017	Vanadium	EPA 200.8	
109.020	018	Zinc	EPA 200.8	
109.020	021	Iron	EPA 200.8	
109.020	022	Tin	EPA 200.8	
109.104	001	Chromium (VI)	EPA 218.6	
109.190	001	Mercury	EPA 245.1	
109.445	001	Chromium	SM3500-Cr B-2009	
109.449	001	Iron	SM3500-Fe B-1997	
Field of Testing: 110 - Volatile Organic Chemistry of Wastewater				
110.040	000	Purgeable Organic Compounds	EPA 624	
Field of Testing: 111 - Semi-volatile Organic Chemistry of Wastewater				
111.100	000	Base/Neutral & Acid Organics	EPA 625	
111.103	000	Nitrosamines	EPA 625	
111.120	000	Semi-volatile Organic Compounds	EPA 1625B	Interim
111.170	000	Organochlorine Pesticides and PCBs	EPA 608	
Field of Testing: 114 - Inorganic Chemistry of Hazardous Waste				
114.010	001	Antimony	EPA 6010B	
114.010	002	Arsenic	EPA 6010B	
114.010	003	Barium	EPA 6010B	
114.010	004	Beryllium	EPA 6010B	
114.010	005	Cadmium	EPA 6010B	

114.010	006	Chromium	EPA 6010B
114.010	007	Cobalt	EPA 6010B
114.010	008	Copper	EPA 6010B
114.010	009	Lead	EPA 6010B
114.010	010	Molybdenum	EPA 6010B
114.010	011	Nickel	EPA 6010B
114.010	012	Selenium	EPA 6010B
114.010	013	Silver	EPA 6010B
114.010	014	Thallium	EPA 6010B
114.010	015	Vanadium	EPA 6010B
114.010	016	Zinc	EPA 6010B
114.020	001	Antimony	EPA 6020
114.020	002	Arsenic	EPA 6020
114.020	003	Barium	EPA 6020
114.020	004	Beryllium	EPA 6020
114.020	005	Cadmium	EPA 6020
114.020	006	Chromium	EPA 6020
114.020	007	Cobalt	EPA 6020
114.020	008	Copper	EPA 6020
114.020	009	Lead	EPA 6020
114.020	010	Molybdenum	EPA 6020
114.020	011	Nickel	EPA 6020
114.020	012	Selenium	EPA 6020
114.020	013	Silver	EPA 6020
114.020	014	Thallium	EPA 6020
114.020	015	Vanadium	EPA 6020
114.020	016	Zinc	EPA 6020
114.103	001	Chromium (VI)	EPA 7196A
114.106	001	Chromium (VI)	EPA 7199
114.140	001	Mercury	EPA 7470A
114.141	001	Mercury	EPA 7471A
114.222	001	Cyanide	EPA 9014
114.230	001	Sulfides, Total	EPA 9034
114.240	001	Corrosivity - pH Determination	EPA 9040B
114.241	001	Corrosivity - pH Determination	EPA 9045C
114.250	001	Fluoride	EPA 9056
114.270	001	Fluoride	EPA 9214

Field of Testing: 115 - Extraction Test of Hazardous Waste

115.020	001	Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311
115.021	001	TCLP Inorganics	EPA 1311
115.022	001	TCLP Extractables	EPA 1311
115.023	001	TCLP Volatiles	EPA 1311
115.030	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II
115.040	001	Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312

Field of Testing: 116 - Volatile Organic Chemistry of Hazardous Waste

116.020	031	Ethanol and Methanol	EPA 8015B

116.030	001	Gasoline-range Organics	EPA 8015B
116.080	000	Volatile Organic Compounds	EPA 8260B
116.080	120	Oxygenates	EPA 8260B
116.100	001	Total Petroleum Hydrocarbons - Gasoline	LUFT GC/MS
116.110	001	Total Petroleum Hydrocarbons - Gasoline	LUFT
Field of Testing: 117 - Semi-volatile Organic Chemistry of Hazardous Waste			
117.010	001	Diesel-range Total Petroleum Hydrocarbons	EPA 8015B
117.016	001	Diesel-range Total Petroleum Hydrocarbons	LUFT
117.110	000	Extractable Organics	EPA 8270C
117.150	000	Carbonyl Compounds	EPA 8315A
117.210	000	Organochlorine Pesticides	EPA 8081A
117.220	000	PCBs	EPA 8082
Field of Testing: 120 - Physical Properties of Hazardous Waste			
120.010	001	Ignitability	EPA 1010
120.020	001	Ignitability	EPA 1020A
120.070	001	Corrosivity - pH Determination	EPA 9040B
120.080	001	Corrosivity - pH Determination	EPA 9045C
Field of Testing: 126 - Microbiology of Recreational Water			
126.010	001	Total Coliform (Enumeration)	SM9221B,C-2006
126.030	001	Fecal Coliform (Enumeration)	SM9221B,E-2006
126.050	001	Total Coliform (Enumeration)	SM9223B (Colilert/Quanti-Tray)
126.050	002	E. coli (Enumeration)	SM9223B (Colilert/Quanti-Tray)
126.080	001	Enterococci	Enterolert

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Scope of the certificate is limited to the
"Fields of Testing"
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **2513**

Expiration Date: **1/8/2018**

Effective Date: **9/1/2016**

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM
Accredited Fields of Testing

TestAmerica Denver

4955 Yarrow Street
Arvada, CO 80002
Phone: (303) 736-0100

Certificate No. 2513
Expiration Date 1/8/2018

Field of Testing: 108 - Inorganic Chemistry of Wastewater

108.090	001	Residue, Volatile	EPA 160.4
108.110	001	Turbidity	EPA 180.1
108.112	001	Boron	EPA 200.7
108.112	002	Calcium	EPA 200.7
108.112	003	Hardness (calculation)	EPA 200.7
108.112	004	Magnesium	EPA 200.7
108.112	005	Potassium	EPA 200.7
108.112	006	Silica	EPA 200.7
108.112	007	Sodium	EPA 200.7
108.120	001	Bromide	EPA 300.0
108.120	002	Chloride	EPA 300.0
108.120	003	Fluoride	EPA 300.0
108.120	004	Nitrate	EPA 300.0
108.120	005	Nitrite	EPA 300.0
108.120	006	Nitrate-nitrite	EPA 300.0
108.120	007	Phosphate, Ortho	EPA 300.0
108.120	008	Sulfate	EPA 300.0
108.183	001	Cyanide, Total	EPA 335.4
108.200	001	Ammonia	EPA 350.1
108.211	001	Kjeldahl Nitrogen	EPA 351.2
108.232	001	Nitrate-nitrite	EPA 353.2
108.232	002	Nitrite	EPA 353.2
108.260	001	Phosphate, Ortho	EPA 365.1
108.261	001	Phosphorus, Total	EPA 365.1
108.360	001	Phenols, Total	EPA 420.1
108.362	001	Phenols, Total	EPA 420.4
108.381	001	Oil and Grease	EPA 1664A
108.400	001	Acidity	SM2310B
108.410	001	Alkalinity	SM2320B
108.420	001	Hardness (calculation)	SM2340B
108.430	001	Conductivity	SM2510B
108.440	001	Residue, Total	SM2540B
108.441	001	Residue, Filterable TDS	SM2540C
108.442	001	Residue, Non-filterable TSS	SM2540D
108.443	001	Residue, Settleable	SM2540F
108.470	001	Cyanide, Manual Distillation	SM4500-CN C
108.472	001	Cyanide, Total	SM4500-CN E
108.473	001	Cyanide, amenable	SM4500-CN G

As of 3/15/2017 , this list supersedes all previous lists for this certificate number.
Customers: Please verify the current accreditation standing with the State.

108.490	001	Hydrogen Ion (pH)	SM4500-H+ B
108.510	001	Nitrite	SM4500-NO2 B
108.560	001	Sulfite	SM4500-SO3 B
108.580	001	Sulfide	SM4500-S= D
108.582	001	Sulfide	SM4500-S= F (19th/20th)
108.590	001	Biochemical Oxygen Demand	SM5210B
108.591	001	Carbonaceous BOD	SM5210B
108.610	001	Total Organic Carbon TOC	SM5310B

Field of Testing: 109 - Toxic Chemical Elements of Wastewater

109.010	001	Aluminum	EPA 200.7
109.010	002	Antimony	EPA 200.7
109.010	003	Arsenic	EPA 200.7
109.010	004	Barium	EPA 200.7
109.010	005	Beryllium	EPA 200.7
109.010	007	Cadmium	EPA 200.7
109.010	009	Chromium	EPA 200.7
109.010	010	Cobalt	EPA 200.7
109.010	011	Copper	EPA 200.7
109.010	012	Iron	EPA 200.7
109.010	013	Lead	EPA 200.7
109.010	015	Manganese	EPA 200.7
109.010	016	Molybdenum	EPA 200.7
109.010	017	Nickel	EPA 200.7
109.010	019	Selenium	EPA 200.7
109.010	021	Silver	EPA 200.7
109.010	023	Thallium	EPA 200.7
109.010	024	Tin	EPA 200.7
109.010	026	Vanadium	EPA 200.7
109.010	027	Zinc	EPA 200.7
109.020	002	Antimony	EPA 200.8
109.020	003	Arsenic	EPA 200.8
109.020	004	Barium	EPA 200.8
109.020	005	Beryllium	EPA 200.8
109.020	006	Cadmium	EPA 200.8
109.020	007	Chromium	EPA 200.8
109.020	008	Cobalt	EPA 200.8
109.020	009	Copper	EPA 200.8
109.020	010	Lead	EPA 200.8
109.020	011	Manganese	EPA 200.8
109.020	012	Molybdenum	EPA 200.8
109.020	013	Nickel	EPA 200.8
109.020	014	Selenium	EPA 200.8
109.020	015	Silver	EPA 200.8
109.020	016	Thallium	EPA 200.8
109.020	017	Vanadium	EPA 200.8
109.020	018	Zinc	EPA 200.8
109.190	001	Mercury	EPA 245.1

Field of Testing: 110 - Volatile Organic Chemistry of Wastewater			
110.020	000	Aromatic Volatiles	EPA 602
110.040	040	Halogenated Hydrocarbons	EPA 624
110.040	041	Aromatic Compounds	EPA 624
110.040	042	Oxygenates	EPA 624
110.040	043	Other Volatile Organics	EPA 624
Field of Testing: 111 - Semi-volatile Organic Chemistry of Wastewater			
111.060	000	Polynuclear Aromatics	EPA 610
111.101	032	Polynuclear Aromatic Hydrocarbons	EPA 625
111.101	033	Adipates	EPA 625
111.101	034	Phthalates	EPA 625
111.101	036	Other Extractables	EPA 625
111.103	001	N-nitrosodimethylamine	EPA 625
111.120	000	Semi-volatile Organic Compounds	EPA 1625B
111.120	999	N-nitrosodimethylamine	EPA 1625
111.170	030	Organochlorine Pesticides	EPA 608
111.170	030	Pesticides & PCBs	EPA 608
111.170	031	PCBs	EPA 608
Field of Testing: 114 - Inorganic Chemistry of Hazardous Waste			
114.010	001	Antimony	EPA 6010B
114.010	002	Arsenic	EPA 6010B
114.010	003	Barium	EPA 6010B
114.010	004	Beryllium	EPA 6010B
114.010	005	Cadmium	EPA 6010B
114.010	006	Chromium	EPA 6010B
114.010	007	Cobalt	EPA 6010B
114.010	008	Copper	EPA 6010B
114.010	009	Lead	EPA 6010B
114.010	010	Molybdenum	EPA 6010B
114.010	011	Nickel	EPA 6010B
114.010	012	Selenium	EPA 6010B
114.010	013	Silver	EPA 6010B
114.010	014	Thallium	EPA 6010B
114.010	015	Vanadium	EPA 6010B
114.010	016	Zinc	EPA 6010B
114.020	001	Antimony	EPA 6020
114.020	002	Arsenic	EPA 6020
114.020	003	Barium	EPA 6020
114.020	004	Beryllium	EPA 6020
114.020	005	Cadmium	EPA 6020
114.020	006	Chromium	EPA 6020
114.020	007	Cobalt	EPA 6020
114.020	008	Copper	EPA 6020
114.020	009	Lead	EPA 6020
114.020	010	Molybdenum	EPA 6020
114.020	011	Nickel	EPA 6020

114.020	012	Selenium	EPA 6020
114.020	013	Silver	EPA 6020
114.020	014	Thallium	EPA 6020
114.020	015	Vanadium	EPA 6020
114.020	016	Zinc	EPA 6020
114.103	001	Chromium (VI)	EPA 7196A
114.140	001	Mercury	EPA 7470A
114.141	001	Mercury	EPA 7471A
114.221	001	Cyanide, Total	EPA 9012B
114.222	001	Cyanide	EPA 9014
114.230	001	Sulfides, Total	EPA 9034
114.240	001	Corrosivity - pH Determination	EPA 9040B
114.241	001	Corrosivity - pH Determination	EPA 9045C
114.250	001	Fluoride	EPA 9056
114.280	001	Organic Lead	HML 939-M
Field of Testing: 115 - Extraction Test of Hazardous Waste			
115.020	001	Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311
115.021	001	TCLP Inorganics	EPA 1311
115.022	001	TCLP Extractables	EPA 1311
115.023	001	TCLP Volatiles	EPA 1311
115.030	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II
115.040	001	Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312
Field of Testing: 116 - Volatile Organic Chemistry of Hazardous Waste			
116.010	000	EDB and DBCP	EPA 8011
116.020	030	Nonhalogenated Volatiles	EPA 8015B
116.020	031	Ethanol and Methanol	EPA 8015B
116.030	001	Gasoline-range Organics	EPA 8015B
116.030	001	Gasoline-range Organics	EPA 8015B
116.040	041	Methyl tert-butyl Ether (MTBE)	EPA 8021B
116.040	061	Aromatic Volatiles	EPA 8021B
116.040	062	BTEX	EPA 8021B
116.080	000	Volatile Organic Compounds	EPA 8260B
116.080	120	Oxygenates	EPA 8260B
Field of Testing: 117 - Semi-volatile Organic Chemistry of Hazardous Waste			
117.010	001	Diesel-range Total Petroleum Hydrocarbons	EPA 8015B
117.110	000	Extractable Organics	EPA 8270C
117.140	000	Polynuclear Aromatic Hydrocarbons	EPA 8310
117.170	000	Nitroaromatics and Nitramines	EPA 8330
117.210	000	Organochlorine Pesticides	EPA 8081A
117.210	000	Pesticides & PCBs	EPA 8081A
117.220	000	PCBs	EPA 8082
117.240	000	Organophosphorus Pesticides	EPA 8141A
117.250	000	Chlorinated Herbicides	EPA 8151A
117.280	000	Carbamates	EPA 8321A
Field of Testing: 120 - Physical Properties of Hazardous Waste			
120.010	001	Ignitability	EPA 1010

120.070	001	Corrosivity - pH Determination	EPA 9040B
120.080	001	Corrosivity - pH Determination	EPA 9045C

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Scope of the certificate is limited to the
"Fields of Testing"
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **2513**

Expiration Date: **1/8/2018**

Effective Date: **9/1/2016**

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

March 15, 2017

William S. Cicero
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

Dear William S. Cicero: Certificate No. 2513

This notice advises that the laboratory named above has been certified as an environmental testing laboratory pursuant to the provisions of the Health and Safety Code (HSC), Division 101, Part 1, Chapter 4, Section 100825, *et seq.*

The Fields of Testing for which this laboratory has been certified are indicated on the enclosed "Fields of Testing" list. The certificate shall remain in effect until **January 08, 2018** unless it is revoked. This certificate is subject to an annual fee as determined by HSC 100860.1(a).

The application for renewal of this certificate must be received 90 days prior to the expiration date to remain in force according to HSC 100845(a). You must submit annual Proficiency Testing results before the due date of your annual fee to remain in compliance.

Any change in laboratory location or alteration to laboratory structure that could adversely affect quality of analysis in certified methods require notification prior to the change. Notification is also required for a transfer in ownership or appointment of new laboratory director within 30 days of the change (HSC, Section 100845(b) and (d)).

Your continued cooperation with the above requirements is essential for maintaining the high quality of the data produced by environmental laboratories certified by the State of California.

Please contact our office at (916) 323-3431 or elapca@waterboards.ca.gov with questions.

Sincerely,

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program

Enclosure

OREGON

Environmental Laboratory Accreditation Program

TestAmerica Irvine

4028

17461 Derian Ave, Suite 100

Irvine, CA 92614

NELAP Recognized

IS GRANTED APPROVAL BY ORELAP UNDER THE 2009 TNI STANDARDS, TO PERFORM ANALYSES ON ENVIRONMENTAL SAMPLES IN MATRICES AS LISTED BELOW :

Air	*Drinking Water*	*Non Potable Water*	*Solids and Chem. Waste*	*Tissue*
	Chemistry	Chemistry	Chemistry	

AND AS RECORDED IN THE LIST OF APPROVED ANALYTES, METHODS, ANALYTICAL TECHNIQUES, AND FIELDS OF TESTING ISSUED CONCURRENTLY WITH THIS CERTIFICATE AND REVISED AS NECESSARY.

ACCREDITED STATUS DEPENDS ON SUCCESSFUL ONGOING PARTICIPATION IN THE PROGRAM AND CONTINUED COMPLIANCE WITH THE STANDARDS.

CUSTOMERS ARE URGED TO VERIFY THE LABORATORY'S CURRENT ACCREDITATION STATUS IN OREGON.

Scott Hoatson
Oregon State Public Health Laboratory
Interm ORELAP Program Manager
3150 NW. 229th Ave, Suite 100
Hillsboro, OR 97124

EFFECTIVE DATE : 01/30/2017

EXPIRATION DATE : 01/29/2018

Certificate No : 4028 - 004

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4028

TestAmerica Irvine

EPA CODE: CA01531

17461 Derian Ave, Suite 100

Certificate: 4028 - 004

Irvine, CA 92614

Issue Date: 1/30/2017 Expiration Date: 1/29/2018

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MATRIX	Reference	Code	Analyte	Code	Description
Drinking Water					
	EPA 120.1			10006209	Conductance - Specific @ 25 C
		1610	Conductivity		
	EPA 150.1			10008205	pH - Electrometric Measurement
		1900	pH		
	EPA 160.1			10009004	Total Dissolved Solids, dried @ 180 C.
		1705	Total dissolved solids		
	EPA 160.4			10010409	Total Volatile Solids, ignition @ 550 C.
		1970	Residue-volatile		
	EPA 180.1			10011402	Turbidity - Nephelometric
		2055	Turbidity		
	EPA 200.7 4.4			10013806	ICP - metals
		1000	Aluminum		
		1015	Barium		
		1020	Beryllium		
		1025	Boron		
		1030	Cadmium		
		1035	Calcium		
		1040	Chromium		
		1055	Copper		
		1760	Hardness (calc.)		
		1070	Iron		
		1085	Magnesium		
		1090	Manganese		
		1105	Nickel		
		1125	Potassium		
		1990	Silica as SiO2		
		1150	Silver		
		1155	Sodium		
		1185	Vanadium		
		1190	Zinc		
	EPA 200.8 5.4			10014605	Metals by ICP-MS
		1000	Aluminum		
		1005	Antimony		
		1010	Arsenic		
		1015	Barium		
		1020	Beryllium		
		1030	Cadmium		

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EPA 200.8 5.4	1040	Chromium		
	1050	Cobalt		
	1055	Copper		
	1070	Iron		
	1075	Lead		
	1090	Manganese		
	1100	Molybdenum		
	1105	Nickel		
	1140	Selenium		
	1150	Silver		
	1165	Thallium		
	3035	Uranium		
	1185	Vanadium		
	1190	Zinc		
EPA 200.8			10014401	ICP/MS - metals
	3035	Uranium		
EPA 218.6 3.3			10028009	Dissolved Hexavalent Chromium by Ion Chromatography
	1045	Chromium VI		
EPA 218.7 1			10268414	Determination of Hexavalent Chromium in Drinking Water by Ion Chromatography with Post-column Derivatization and UV-VIS Spectroscopic Determination
	1045	Chromium VI		
EPA 245.1 3			10036609	Mercury by Cold Vapor Atomic Absorption
	1095	Mercury		
EPA 300.0 2.1			10053200	Methods for the Determination of Inorganic Substances in Environmental Samples
	1575	Chloride		
	1730	Fluoride		
	1810	Nitrate as N		
	1820	Nitrate-nitrite		
	1840	Nitrite as N		
	1870	Orthophosphate as P		
	2000	Sulfate		
EPA 300.0			10053006	Ion chromatography - anions.
	1835	Nitrite		
EPA 300.1			10053608	Ion chromatography - anions.
	1535	Bromate		
	1540	Bromide		
	1570	Chlorate		
	1595	Chlorite		

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EPA 314.0			10277006	Perchlorate in Drinking Water by Ion Chromatography
	1895	Perchlorate		
EPA 332.0 1.0			10059742	Determination of Perchlorate in Drinking Water by Ion Chromatography and Electrospray Mass Spectrometery
	1895	Perchlorate		
EPA 350.1 2			10063602	Ammonia Nitrogen - Colorimetric, Auto Phenate
	1515	Ammonia as N		
EPA 351.2 2			10065404	Total Kjeldahl Nitrogen - Block Digest, Phenate
	1790	Kjeldahl nitrogen		
EPA 504.1 1.1			10082801	EDB/DBCP/TCP micro-extraction, GC/ECD
	4570	1,2-Dibromo-3-chloropropane (DBCP)		
	4585	1,2-Dibromoethane (EDB, Ethylene dibromide)		
EPA 505 2.1			10083406	Organohalide pesticides/PCBs (Drinking Water)
	7005	Alachlor		
	8880	Aroclor-1016 (PCB-1016)		
	8885	Aroclor-1221 (PCB-1221)		
	8890	Aroclor-1232 (PCB-1232)		
	8895	Aroclor-1242 (PCB-1242)		
	8900	Aroclor-1248 (PCB-1248)		
	8905	Aroclor-1254 (PCB-1254)		
	8910	Aroclor-1260 (PCB-1260)		
	7250	Chlordane (tech.)		
	7470	Dieldrin		
	7540	Endrin		
	7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)		
	7685	Heptachlor		
	7690	Heptachlor epoxide		
	6275	Hexachlorobenzene		
	6285	Hexachlorocyclopentadiene		
	7810	Methoxychlor		
	8870	PCBs		
	8250	Toxaphene (Chlorinated camphene)		
EPA 515.4 1			10088503	Chlorinated acids Liquid/Solid and GC/ECD
	8655	2,4,5-T		
	8545	2,4-D		
	8560	2,4-DB		
	8600	3,5-Dichlorobenzoic acid		

Drinking Water	EPA 515.4 1	8505	Acifluorfen	
		8530	Bentazon	
		8540	Chloramben	
		8550	Dacthal (DCPA)	
		8555	Dalapon	
		8595	Dicamba	
		8605	Dichloroprop (Dichlorprop)	
		8620	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	
		6605	Pentachlorophenol	
		8645	Picloram	
		8650	Silvex (2,4,5-TP)	
	EPA 524.2 4.1			10088809 Volatile Organic Compounds GC/MS Capillary Column
		5105	1,1,1,2-Tetrachloroethane	
		5160	1,1,1-Trichloroethane	
		5110	1,1,2,2-Tetrachloroethane	
		5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	
		5165	1,1,2-Trichloroethane	
		7450	1,1-Dichloro-2-propanone	
		4630	1,1-Dichloroethane	
		4640	1,1-Dichloroethylene	
		4670	1,1-Dichloropropene	
		5150	1,2,3-Trichlorobenzene	
		5180	1,2,3-Trichloropropane	
		5155	1,2,4-Trichlorobenzene	
		5210	1,2,4-Trimethylbenzene	
		4570	1,2-Dibromo-3-chloropropane (DBCP)	
		4585	1,2-Dibromoethane (EDB, Ethylene dibromide)	
		4610	1,2-Dichlorobenzene	
		4635	1,2-Dichloroethane (Ethylene dichloride)	
		4655	1,2-Dichloropropane	
		5215	1,3,5-Trimethylbenzene	
		4615	1,3-Dichlorobenzene	
		4660	1,3-Dichloropropane	
		4620	1,4-Dichlorobenzene	
		4480	1-Chlorobutane	
		4665	2,2-Dichloropropane	
		4410	2-Butanone (Methyl ethyl ketone, MEK)	
		4500	2-Chloroethyl vinyl ether	
		4535	2-Chlorotoluene	
		4860	2-Hexanone (MBK)	
		4540	4-Chlorotoluene	

Drinking Water	EPA 524.2 4.1	4910	4-Isopropyltoluene (p-Cymene)
		4995	4-Methyl-2-pentanone (MIBK)
		4315	Acetone
		4340	Acrylonitrile
		4355	Allyl chloride (3-Chloropropene)
		4375	Benzene
		4385	Bromobenzene
		4390	Bromochloromethane
		4395	Bromodichloromethane
		4400	Bromoform
		4450	Carbon disulfide
		4455	Carbon tetrachloride
		4475	Chlorobenzene
		4575	Chlorodibromomethane
		4485	Chloroethane (Ethyl chloride)
		4505	Chloroform
		4645	cis-1,2-Dichloroethylene
		4680	cis-1,3-Dichloropropene
		4595	Dibromomethane (Methylene bromide)
		4625	Dichlorodifluoromethane (Freon-12)
		4725	Diethyl ether
		9375	Di-isopropylether (DIPE)
		4810	Ethyl methacrylate
		4765	Ethylbenzene
		4770	Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)
		4835	Hexachlorobutadiene
		4840	Hexachloroethane
		4870	Iodomethane (Methyl iodide)
		4900	Isopropylbenzene (Cumene)
		5240	m+p-xylene
		4925	Methacrylonitrile
		4945	Methyl acrylate
		4950	Methyl bromide (Bromomethane)
		4960	Methyl chloride (Chloromethane)
		4990	Methyl methacrylate
		5000	Methyl tert-butyl ether (MTBE)
		4975	Methylene chloride (Dichloromethane)
		5005	Naphthalene
		4435	n-Butylbenzene
		5015	Nitrobenzene
		5090	n-Propylbenzene
		5250	o-Xylene
		4440	sec-Butylbenzene

Drinking Water	EPA 524.2 4.1	5100	Styrene	
		4370	T-amylmethylether (TAME)	
		4420	tert-Butyl alcohol	
		4445	tert-Butylbenzene	
		5115	Tetrachloroethylene (Perchloroethylene)	
		5120	Tetrahydrofuran (THF)	
		5140	Toluene	
		5205	Total trihalomethanes	
		4700	trans-1,2-Dichloroethylene	
		4685	trans-1,3-Dichloropropylene	
		4605	trans-1,4-Dichloro-2-butene	
		5170	Trichloroethene (Trichloroethylene)	
		5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	
		5235	Vinyl chloride	
		5260	Xylene (total)	
	EPA 525.2 2			10090003 Semi-Volatile by SPE extraction and GC/MS
		9106	2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ-171)	
		9112	2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ-201)	
		9159	2,2',3,4',6'-Pentachlorobiphenyl (BZ-98)	
		9174	2,2',4,4',5,6'-Hexachlorobiphenyl (BZ-154)	
		8920	2,3-Dichlorobiphenyl (BZ-5)	
		6185	2,4-Dinitrotoluene (2,4-DNT)	
		6190	2,6-Dinitrotoluene (2,6-DNT)	
		8915	2-Chlorobiphenyl (BZ-1)	
		7355	4,4'-DDD	
		7360	4,4'-DDE	
		7365	4,4'-DDT	
		5505	Acenaphthylene	
		7005	Alachlor	
		7025	Aldrin	
		7110	alpha-BHC (alpha-Hexachlorocyclohexane)	
		7035	Ametryn	
		5555	Anthracene	
		7060	Atraton	
		7065	Atrazine	
		5575	Benzo(a)anthracene	
		5580	Benzo(a)pyrene	
		5590	Benzo(g,h,i)perylene	
		5600	Benzo(k)fluoranthene	

Drinking Water	EPA 525.2 2	5585	Benzo[b]fluoranthene
		7115	beta-BHC (beta-Hexachlorocyclohexane)
		6062	bis(2-Ethylhexyl)adipate
		7130	Bromacil
		7160	Butachlor
		5670	Butyl benzyl phthalate
		7175	Butylate
		7260	Chlorobenzilate
		7265	Chloroneb
		7275	Chloropropham
		7300	Chlorpyrifos
		5855	Chrysene
		4550	Cycloate
		7105	delta-BHC
		6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
		7410	Diazinon
		5895	Dibenz(a,h) anthracene
		8610	Dichlorovos (DDVP, Dichlorvos)
		7470	Dieldrin
		6070	Diethyl phthalate
		6135	Dimethyl phthalate
		5925	Di-n-butyl phthalate
		7500	Diphenamid
		7570	Ethoprop
		7590	Fenarimol
		6265	Fluoranthene
		6270	Fluorene
		7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)
		6275	Hexachlorobenzene
		6285	Hexachlorocyclopentadiene
		6315	Indeno(1,2,3-cd) pyrene
		6320	Isophorone
		7810	Methoxychlor
		7835	Metolachlor
		7845	Metribuzin
		7850	Mevinphos
		7875	Molinate
		6440	Napropamide
		9537	Pebulate
		7975	Permethrin (total)
		6615	Phenanthrene

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Matrix	Method	Analyte Code	Analyte	Method Code	Method Description
Drinking Water	EPA 525.2 2	8040	Prometryn		
		6650	Pronamide (Kerb)		
		8045	Propachlor (Ramrod)		
		8060	Propazine		
		6665	Pyrene		
		8125	Simazine		
		8130	Simetryn		
		8180	Terbacil		
		8195	Terbutryn (Igran)		
		8220	Thiobencarb		
		8255	Triademefon		
		8295	Trifluralin (Treflan)		
		8320	Vernolate		
	EPA 531.1 3.1			10091006	Carbamates HPLC with post column derivatization
		7710	3-Hydroxycarbofuran		
		7010	Aldicarb (Temik)		
		7015	Aldicarb sulfone		
		7020	Aldicarb sulfoxide		
		7195	Carbaryl (Sevin)		
		7205	Carbofuran (Furaden)		
		7800	Methiocarb (Mesurol)		
		7805	Methomyl (Lannate)		
		7940	Oxamyl		
		8080	Propoxur (Baygon)		
	EPA 547			10092009	Glyphosate by Direct Aqueous Injection by Post-column Derivitization and HPLC/Fluorescence
		9411	Glyphosate		
	EPA 548.1 1			10092805	Endothall by Ion Exchange, Methylation and GC/MS
		7525	Endothall		
	EPA 549.2 1			10093400	Diquat/Paraquat by Liquid/Liquid Extraction and HPLC/UV-VIS
		9390	Diquat		
		9528	Paraquat		
	EPA 552.2 1			10095804	Haloacetic Acid/Dalapon, Liquid/Liquid Extraction, Derivitization and GC/ECD
		9312	Bromoacetic acid		
		9315	Bromochloroacetic acid		
		9336	Chloroacetic acid		
		9357	Dibromoacetic acid		
		9360	Dichloroacetic acid		
		9414	Total haloacetic acids		
		9642	Trichloroacetic acid		

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Kelada-01 1.2			60005303	Kelada Automated Test Methods for Total Cyanide, Acid Dissociable Cyanide, and Thiocyanate
	1645	Total cyanide		
SM 2120 B 20th ED			20224004	Color by Visual Comparison
	102	Apparent Color		
	1605	Color		
	101	True Color		
SM 2130 B 20th ED			20042404	Turbidity by Nephelometric Determination
	2055	Turbidity		
SM 2150 B 20th ED			20043407	Odor by Threshold Odor Test
	1855	Odor		
SM 2310 B 20th ED			20044206	Acidity by Titration
	1500	Acidity, as CaCO3		
SM 2320 B 20th ED			20045209	Alkalinity by Titration
	1505	Alkalinity as CaCO3		
SM 2330 B 20th Ed			20003309	Calcium Carbonate Indices
	1615	Corrosivity		
SM 2340 B 20th ED			20046202	Hardness by calculation
	1550	Calcium hardness as CaCO3		
	1750	Hardness		
	1755	Total hardness as CaCO3		
SM 2340 C 20th ED			20047205	Hardness by EDTA Titration
	1750	Hardness		
SM 2510 B 20th ED			20048208	Conductivity by Probe
	1610	Conductivity		
SM 2540 B 20th ED			20049007	Total Solids
	1950	Residue-total		
SM 2540 C 20th ED			20050004	Total Dissolved Solids
	1955	Residue-filterable (TDS)		
SM 3500-Cr B 20th ED			20065809	Chromium by Colorimetric Method
	1045	Chromium VI		
SM 3500-Fe B 20th ED			20068604	Iron by Colorimetric Method
	1070	Iron		
SM 4500-Cl G 20th ED			20081203	Residual Chlorine by DPD Colorimetric Determination
	1580	Chlorine		
	1945	Residual free chlorine		
	1940	Total residual chlorine		

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Drinking Water	SM 4500-CN B 20th ED			20091207	Preliminary Treatment of Samples
		1635	Cyanide		
	SM 4500-CN E 20th ED			20092404	Cyanide by Colorimetric Determination
		1645	Total cyanide		
	SM 4500-F⁻ C 20th ED			20102005	Fluoride by Ion Selective Electrode
		1730	Fluoride		
	SM 4500-H+ B 20th ED			20104807	pH by Probe
		1900	pH		
	SM 4500-NH3 D 20th ED			20109006	Ammonia by Selective Ion Probe
		1515	Ammonia as N		
	SM 4500-NH3 G 20th ED			20111006	Ammonia by Automated Phenate
		1515	Ammonia as N		
	SM 5310 C 20th ED			20138403	Total Organic Carbon by Persulfate-Ultraviolet Oxidation Method
		1710	Dissolved organic carbon (DOC)		
		2040	Total organic carbon		
	SM 5540 C 20th ED			20144609	Surfactants as MBAS
		2025	Surfactants - MBAS		
Non-Potable Water	EPA 1010			10116606	Pensky-Martens Closed-Cup Method for Determining Ignitability
		1780	Ignitability		
	EPA 1020A			10117007	Ignitability Setaflash Closed-cup Method
		1780	Ignitability		
	EPA 120.1			10006209	Conductance - Specific @ 25 C
		1610	Conductivity		
	EPA 1311			10118806	Toxicity Characteristic Leaching Procedure
		8031	Extraction/Preparation		
	EPA 1312			10119003	Synthetic Precipitation Leaching Procedure
		8031	Extraction/Preparation		
	EPA 150.1			10008205	pH - Electrometric Measurement
		1900	pH		
	EPA 160.1			10009004	Total Dissolved Solids, dried @ 180 C.
		1705	Total dissolved solids		
	EPA 160.4			10256801	Total Volatile Solids, ignition @ 550 C.
		1970	Residue-volatile		

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Non-Potable Water

EPA 1625B			10237000	Semivolatile Organic Compounds by Isotope Dilution GC/MS
	6525	n-Nitrosodiethylamine		
	6530	n-Nitrosodimethylamine		
	6545	n-Nitrosodi-n-propylamine		
	6565	n-Nitrosopyrrolidine		
EPA 1625C			10259208	Semivolatile Organic Compounds by Isotope Dilution GC/MS
	6530	n-Nitrosodimethylamine		
	6545	n-Nitrosodi-n-propylamine		
EPA 1664A			10127603	Silica Gen Treated N-Hexane Extractable Material (Oil and Grease)
	1860	Oil & Grease		
EPA 1664A (HEM)			10127807	N-Hexane Extractable Material (Oil and Grease) by Extraction and Gravimetry
	1803	n-Hexane Extractable Material (O&G)		
EPA 1664A (SGT-HEM)			10261606	Silica Gen Treated N-Hexane Extractable Material (Oil and Grease)
	1803	n-Hexane Extractable Material (O&G)		
EPA 180.1			10011402	Turbidity - Nephelometric
	2055	Turbidity		
EPA 200.7 4.4			10013806	ICP - metals
	1000	Aluminum		
	1005	Antimony		
	1010	Arsenic		
	1015	Barium		
	1020	Beryllium		
	1025	Boron		
	1030	Cadmium		
	1035	Calcium		
	1040	Chromium		
	1050	Cobalt		
	1055	Copper		
	1760	Hardness (calc.)		
	1070	Iron		
	1075	Lead		
	1080	Lithium		
	1085	Magnesium		
	1090	Manganese		
	1100	Molybdenum		
	1105	Nickel		
	1910	Phosphorus, total		
	1125	Potassium		
	1140	Selenium		

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EPA 200.7 4.4			10014605	Metals by ICP
	1990	Silica as SiO2		
	1150	Silver		
	1155	Sodium		
	1160	Strontium		
	1165	Thallium		
	1175	Tin		
	1180	Titanium		
	1183	Tungsten		
	1185	Vanadium		
	1190	Zinc		
	1192	Zirconium		
EPA 200.8 5.4			10014605	Metals by ICP-MS
	1000	Aluminum		
	1005	Antimony		
	1010	Arsenic		
	1015	Barium		
	1020	Beryllium		
	1030	Cadmium		
	1040	Chromium		
	1050	Cobalt		
	1055	Copper		
	1070	Iron		
	1075	Lead		
	1090	Manganese		
	1100	Molybdenum		
	1105	Nickel		
	1140	Selenium		
	1150	Silver		
	1165	Thallium		
	1185	Vanadium		
	1190	Zinc		
EPA 200.8			10014401	ICP/MS - metals
	3035	Uranium		
EPA 218.6 3.3			10028009	Dissolved Hexavalent Chromium by Ion Chromatography
	1045	Chromium VI		
EPA 245.1 3			10036609	Mercury by Cold Vapor Atomic Absorption
	1095	Mercury		
EPA 300.0 2.1			10053200	Methods for the Determination of Inorganic Substances in Environmental Samples
	1540	Bromide		
	1575	Chloride		

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4028

TestAmerica Irvine

EPA CODE: CA01531

17461 Derian Ave, Suite 100

Certificate: 4028 - 004

Irvine, CA 92614

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Non-Potable Water

EPA 300.0 2.1	1730	Fluoride		
	1810	Nitrate as N		
	1820	Nitrate-nitrite		
	1840	Nitrite as N		
	1870	Orthophosphate as P		
	2000	Sulfate		
EPA 300.1			10053608	Ion chromatography - anions.
	1535	Bromate		
	1540	Bromide		
	1570	Chlorate		
	1595	Chlorite		
EPA 314.0			10277006	Perchlorate in Drinking Water by Ion Chromatography
	1895	Perchlorate		
EPA 350.1 2			10063602	Ammonia Nitrogen - Colorimetric, Auto Phenate
	1515	Ammonia as N		
EPA 351.2 2			10065404	Total Kjeldahl Nitrogen - Block Digest, Phenate
	1790	Kjeldahl nitrogen		
EPA 365.3			10070607	Phosphorous - Colorimetric, two reagent.
	1870	Orthophosphate as P		
	1908	Total Phosphate		
EPA 410.4			10077006	Chemical Oxygen Demand - Colorimetric, Automated.
	1565	Chemical oxygen demand		
EPA 6010B			10155609	ICP - AES
	1000	Aluminum		
	1005	Antimony		
	1010	Arsenic		
	1015	Barium		
	1020	Beryllium		
	1025	Boron		
	1030	Cadmium		
	1035	Calcium		
	1040	Chromium		
	1050	Cobalt		
	1055	Copper		
	1070	Iron		
	1075	Lead		
	1080	Lithium		
	1085	Magnesium		
	1100	Molybdenum		

Non-Potable Water	EPA 6010B	1105	Nickel		
		1910	Phosphorus, total		
		1125	Potassium		
		1140	Selenium		
		1990	Silica as SiO2		
		1150	Silver		
		1155	Sodium		
		1160	Strontium		
		1165	Thallium		
		1175	Tin		
		1180	Titanium		
		1185	Vanadium		
		1190	Zinc		
	EPA 6020			10156000	Inductively Coupled Plasma-Mass Spectrometry
		1000	Aluminum		
		1005	Antimony		
		1010	Arsenic		
		1015	Barium		
		1020	Beryllium		
		1030	Cadmium		
		1040	Chromium		
		1050	Cobalt		
		1055	Copper		
		1070	Iron		
		1075	Lead		
		1090	Manganese		
		1100	Molybdenum		
		1105	Nickel		
		1140	Selenium		
		1150	Silver		
		1165	Thallium		
		3035	Uranium		
		1185	Vanadium		
		1190	Zinc		
	EPA 608			10103603	Organochlorine Pesticides & PCBs by GC/ECD
		7355	4,4'-DDD		
		7360	4,4'-DDE		
		7365	4,4'-DDT		
		7025	Aldrin		
		7110	alpha-BHC (alpha-Hexachlorocyclohexane)		
		8880	Aroclor-1016 (PCB-1016)		

Non-Potable Water	EPA 608	8885	Aroclor-1221 (PCB-1221)		
		8890	Aroclor-1232 (PCB-1232)		
		8895	Aroclor-1242 (PCB-1242)		
		8900	Aroclor-1248 (PCB-1248)		
		8905	Aroclor-1254 (PCB-1254)		
		8910	Aroclor-1260 (PCB-1260)		
		7115	beta-BHC (beta-Hexachlorocyclohexane)		
		7250	Chlordane (tech.)		
		7105	delta-BHC		
		7470	Dieldrin		
		7510	Endosulfan I		
		7515	Endosulfan II		
		7520	Endosulfan sulfate		
		7540	Endrin		
		7530	Endrin aldehyde		
		7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)		
		7685	Heptachlor		
		7690	Heptachlor epoxide		
		8250	Toxaphene (Chlorinated camphene)		
	EPA 624			10107207	Volatile Organic Compounds by purge and trap GC/MS
		5105	1,1,1,2-Tetrachloroethane		
		5160	1,1,1-Trichloroethane		
		5110	1,1,2,2-Tetrachloroethane		
		5165	1,1,2-Trichloroethane		
		4630	1,1-Dichloroethane		
		4640	1,1-Dichloroethylene		
		5180	1,2,3-Trichloropropane		
		5155	1,2,4-Trichlorobenzene		
		5210	1,2,4-Trimethylbenzene		
		4570	1,2-Dibromo-3-chloropropane (DBCP)		
		4585	1,2-Dibromoethane (EDB, Ethylene dibromide)		
		4610	1,2-Dichlorobenzene		
		4635	1,2-Dichloroethane (Ethylene dichloride)		
		4655	1,2-Dichloropropane		
		5215	1,3,5-Trimethylbenzene		
		4615	1,3-Dichlorobenzene		
		4620	1,4-Dichlorobenzene		
		4410	2-Butanone (Methyl ethyl ketone, MEK)		
		4500	2-Chloroethyl vinyl ether		
		4860	2-Hexanone (MBK)		
		4995	4-Methyl-2-pentanone (MIBK)		

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Non-Potable Water	EPA 624	4315	Acetone
		4320	Acetonitrile
		4325	Acrolein (Propenal)
		4340	Acrylonitrile
		4375	Benzene
		4395	Bromodichloromethane
		4400	Bromoform
		4450	Carbon disulfide
		4455	Carbon tetrachloride
		4475	Chlorobenzene
		4575	Chlorodibromomethane
		4485	Chloroethane (Ethyl chloride)
		4505	Chloroform
		4645	cis-1,2-Dichloroethylene
		4680	cis-1,3-Dichloropropene
		4595	Dibromomethane (Methylene bromide)
		4625	Dichlorodifluoromethane (Freon-12)
		9375	Di-isopropylether (DIPE)
		4750	Ethanol
		4765	Ethylbenzene
		4770	Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)
		4835	Hexachlorobutadiene
		5240	m+p-xylene
		4950	Methyl bromide (Bromomethane)
		4960	Methyl chloride (Chloromethane)
		5000	Methyl tert-butyl ether (MTBE)
		4975	Methylene chloride (Dichloromethane)
		5005	Naphthalene
		5090	n-Propylbenzene
		5250	o-Xylene
		5100	Styrene
		4370	T-amylmethylether (TAME)
		4420	tert-Butyl alcohol
		5115	Tetrachloroethylene (Perchloroethylene)
		5140	Toluene
		4700	trans-1,2-Dichloroethylene
		4685	trans-1,3-Dichloropropylene
		5170	Trichloroethene (Trichloroethylene)
		5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)
		5225	Vinyl acetate
		5235	Vinyl chloride
		5260	Xylene (total)

Non-Potable Water	EPA 625		10300002	Base/Neutrals and Acids by GC/MS

5155	1,2,4-Trichlorobenzene
6155	1,2-Dinitrobenzene
6221	1,2-Diphenylhydrazine
4615	1,3-Dichlorobenzene
4620	1,4-Dichlorobenzene
6380	1-Methylnaphthalene
6835	2,4,5-Trichlorophenol
6840	2,4,6-Trichlorophenol
6000	2,4-Dichlorophenol
6130	2,4-Dimethylphenol
6175	2,4-Dinitrophenol
6185	2,4-Dinitrotoluene (2,4-DNT)
6190	2,6-Dinitrotoluene (2,6-DNT)
5795	2-Chloronaphthalene
5800	2-Chlorophenol
6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)
6385	2-Methylnaphthalene
6400	2-Methylphenol (o-Cresol)
6460	2-Nitroaniline
6490	2-Nitrophenol
5945	3,3'-Dichlorobenzidine
6465	3-Nitroaniline
5660	4-Bromophenyl phenyl ether (BDE-3)
5700	4-Chloro-3-methylphenol
5745	4-Chloroaniline
5825	4-Chlorophenyl phenylether
6410	4-Methylphenol (p-Cresol)
6470	4-Nitroaniline
6500	4-Nitrophenol
5500	Acenaphthene
5505	Acenaphthylene
5555	Anthracene
5595	Benzidine
5575	Benzo(a)anthracene
5580	Benzo(a)pyrene
5590	Benzo(g,h,i)perylene
5600	Benzo(k)fluoranthene
5585	Benzo[b]fluoranthene
5610	Benzoic acid
5630	Benzyl alcohol
5760	bis(2-Chloroethoxy)methane

Non-Potable Water

EPA 625	5765	bis(2-Chloroethyl) ether		
	5780	bis(2-Chloroisopropyl) ether		
	5670	Butyl benzyl phthalate		
	5680	Carbazole		
	5855	Chrysene		
	6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)		
	5895	Dibenz(a,h) anthracene		
	5905	Dibenzofuran		
	6070	Diethyl phthalate		
	6135	Dimethyl phthalate		
	5925	Di-n-butyl phthalate		
	6200	Di-n-octyl phthalate		
	6265	Fluoranthene		
	6270	Fluorene		
	6275	Hexachlorobenzene		
	4835	Hexachlorobutadiene		
	6285	Hexachlorocyclopentadiene		
	4840	Hexachloroethane		
	6315	Indeno(1,2,3-cd) pyrene		
	6320	Isophorone		
	5005	Naphthalene		
	5015	Nitrobenzene		
	6530	n-Nitrosodimethylamine		
	6545	n-Nitrosodi-n-propylamine		
	6535	n-Nitrosodiphenylamine		
	6605	Pentachlorophenol		
	6615	Phenanthrene		
	6625	Phenol		
	6665	Pyrene		
	5095	Pyridine		
EPA 6860			10304800	Perchlorate in Water, Soils and Solid Wastes Using Ion Chromatography/Electrospray Ionization/Mass Spectrometry
	1895	Perchlorate		
EPA 7196A			10162400	Chromium Hexavalent colorimetric
	1045	Chromium VI		
EPA 7199			10163005	Determination of Hexavalent Chromium in Drinking Water, Groundwater and Industrial Wastewater Effluents by Ion Chromatography
	1045	Chromium VI		

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EPA 7470A			10165807	Mercury in Liquid Waste by Cold Vapor Atomic Absorption
	1095	Mercury		
EPA 8015B			10173601	Non-halogenated organics using GC/FID
	9369	Diesel range organics (DRO)		
	4750	Ethanol		
	9408	Gasoline range organics (GRO)		
	4930	Methanol		
	9506	Residual Range Organics (RRO)		
EPA 8081A			10178606	Organochlorine Pesticides by GC/ECD
	8580	2,4'-DDD		
	8585	2,4'-DDE		
	8590	2,4'-DDT		
	7355	4,4'-DDD		
	7360	4,4'-DDE		
	7365	4,4'-DDT		
	7025	Aldrin		
	7110	alpha-BHC (alpha-Hexachlorocyclohexane)		
	7240	alpha-Chlordane		
	7115	beta-BHC (beta-Hexachlorocyclohexane)		
	7250	Chlordane (tech.)		
	7105	delta-BHC		
	7470	Dieldrin		
	7510	Endosulfan I		
	7515	Endosulfan II		
	7520	Endosulfan sulfate		
	7540	Endrin		
	7530	Endrin aldehyde		
	7535	Endrin ketone		
	7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)		
	7245	gamma-Chlordane		
	7685	Heptachlor		
	7690	Heptachlor epoxide		
	7810	Methoxychlor		
	8250	Toxaphene (Chlorinated camphene)		
EPA 8082			10179007	Polychlorinated Biphenyls (PCBs) by GC/ECD
	8880	Aroclor-1016 (PCB-1016)		
	8885	Aroclor-1221 (PCB-1221)		
	8890	Aroclor-1232 (PCB-1232)		
	8895	Aroclor-1242 (PCB-1242)		

Non-Potable Water	EPA 8082	8900	Aroclor-1248 (PCB-1248)		
		8905	Aroclor-1254 (PCB-1254)		
		8910	Aroclor-1260 (PCB-1260)		
	EPA 8260B			10184802	Volatile Organic Compounds by purge and trap GC/MS
		5105	1,1,1,2-Tetrachloroethane		
		5160	1,1,1-Trichloroethane		
		5110	1,1,2,2-Tetrachloroethane		
		5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		
		5165	1,1,2-Trichloroethane		
		4630	1,1-Dichloroethane		
		4640	1,1-Dichloroethylene		
		4670	1,1-Dichloropropene		
		5150	1,2,3-Trichlorobenzene		
		5180	1,2,3-Trichloropropane		
		5155	1,2,4-Trichlorobenzene		
		5210	1,2,4-Trimethylbenzene		
		4570	1,2-Dibromo-3-chloropropane (DBCP)		
		4585	1,2-Dibromoethane (EDB, Ethylene dibromide)		
		4610	1,2-Dichlorobenzene		
		4635	1,2-Dichloroethane (Ethylene dichloride)		
		4655	1,2-Dichloropropane		
		5215	1,3,5-Trimethylbenzene		
		4615	1,3-Dichlorobenzene		
		4660	1,3-Dichloropropane		
		4620	1,4-Dichlorobenzene		
		4735	1,4-Dioxane (1,4- Diethyleneoxide)		
		4665	2,2-Dichloropropane		
		4410	2-Butanone (Methyl ethyl ketone, MEK)		
		4500	2-Chloroethyl vinyl ether		
		4535	2-Chlorotoluene		
		4860	2-Hexanone (MBK)		
		4540	4-Chlorotoluene		
		4910	4-Isopropyltoluene (p-Cymene)		
		4995	4-Methyl-2-pentanone (MIBK)		
		4315	Acetone		
		4320	Acetonitrile		
		4325	Acrolein (Propenal)		
		4340	Acrylonitrile		
		4355	Allyl chloride (3-Chloropropene)		
		4375	Benzene		
		5635	Benzyl chloride		

Non-Potable Water	EPA 8260B	4385	Bromobenzene
		4390	Bromochloromethane
		4395	Bromodichloromethane
		4400	Bromoform
		4450	Carbon disulfide
		4455	Carbon tetrachloride
		4475	Chlorobenzene
		4575	Chlorodibromomethane
		4485	Chloroethane (Ethyl chloride)
		4505	Chloroform
		4525	Chloroprene (2-Chloro-1,3-butadiene)
		4645	cis-1,2-Dichloroethylene
		4680	cis-1,3-Dichloropropene
		4595	Dibromomethane (Methylene bromide)
		4625	Dichlorodifluoromethane (Freon-12)
		4725	Diethyl ether
		9375	Di-isopropylether (DIPE)
		4729	Dimethyl disulfide
		4750	Ethanol
		4810	Ethyl methacrylate
		4765	Ethylbenzene
		4770	Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)
		4835	Hexachlorobutadiene
		4840	Hexachloroethane
		4870	Iodomethane (Methyl iodide)
		4875	Isobutyl alcohol (2-Methyl-1-propanol)
		4895	Isopropyl alcohol (2-Propanol, Isopropanol)
		4900	Isopropylbenzene (Cumene)
		5240	m+p-xylene
		4925	Methacrylonitrile
		4945	Methyl acrylate
		4950	Methyl bromide (Bromomethane)
		4960	Methyl chloride (Chloromethane)
		4990	Methyl methacrylate
		5000	Methyl tert-butyl ether (MTBE)
		4975	Methylene chloride (Dichloromethane)
		5005	Naphthalene
		4435	n-Butylbenzene
		5090	n-Propylbenzene
		5250	o-Xylene
		5080	Propionitrile (Ethyl cyanide)
		4440	sec-Butylbenzene

Non-Potable Water

EPA 8260B				
	5100	Styrene		
	4370	T-amylmethylether (TAME)		
	4420	tert-Butyl alcohol		
	4445	tert-Butylbenzene		
	5115	Tetrachloroethylene (Perchloroethylene)		
	5120	Tetrahydrofuran (THF)		
	5140	Toluene		
	4700	trans-1,2-Dichloroethylene		
	4685	trans-1,3-Dichloropropylene		
	4605	trans-1,4-Dichloro-2-butene		
	5170	Trichloroethene (Trichloroethylene)		
	5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)		
	5225	Vinyl acetate		
	5235	Vinyl chloride		
	5260	Xylene (total)		
EPA 8260B SIM			10184904	Volatile Organic Compounds by purge and trap GC/MS-SIM
	5180	1,2,3-Trichloropropane		
	4735	1,4-Dioxane (1,4- Diethyleneoxide)		
EPA 8270C			10185805	Semivolatile Organic compounds by GC/MS
	6715	1,2,4,5-Tetrachlorobenzene		
	5155	1,2,4-Trichlorobenzene		
	4610	1,2-Dichlorobenzene		
	6155	1,2-Dinitrobenzene		
	6221	1,2-Diphenylhydrazine		
	6885	1,3,5-Trinitrobenzene (1,3,5-TNB)		
	4615	1,3-Dichlorobenzene		
	6160	1,3-Dinitrobenzene (1,3-DNB)		
	4620	1,4-Dichlorobenzene		
	6420	1,4-Naphthoquinone		
	6630	1,4-Phenylenediamine		
	6380	1-Methylnaphthalene		
	6425	1-Naphthylamine		
	6735	2,3,4,6-Tetrachlorophenol		
	6835	2,4,5-Trichlorophenol		
	6840	2,4,6-Trichlorophenol		
	6000	2,4-Dichlorophenol		
	6130	2,4-Dimethylphenol		
	6175	2,4-Dinitrophenol		
	6185	2,4-Dinitrotoluene (2,4-DNT)		
	6005	2,6-Dichlorophenol		
	6190	2,6-Dinitrotoluene (2,6-DNT)		

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Non-Potable Water	EPA 8270C	5515	2-Acetylaminofluorene
		5795	2-Chloronaphthalene
		5800	2-Chlorophenol
		6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)
		5145	2-Methylaniline (o-Toluidine)
		6385	2-Methylnaphthalene
		6400	2-Methylphenol (o-Cresol)
		6430	2-Naphthylamine
		6460	2-Nitroaniline
		6490	2-Nitrophenol
		5050	2-Picoline (2-Methylpyridine)
		6412	3 & 4 Methylphenol
		5945	3,3'-Dichlorobenzidine
		6120	3,3'-Dimethylbenzidine
		6355	3-Methylcholanthrene
		6405	3-Methylphenol (m-Cresol)
		6465	3-Nitroaniline
		5540	4-Aminobiphenyl
		5660	4-Bromophenyl phenyl ether (BDE-3)
		5700	4-Chloro-3-methylphenol
		5745	4-Chloroaniline
		5825	4-Chlorophenyl phenylether
		6410	4-Methylphenol (p-Cresol)
		6470	4-Nitroaniline
		6500	4-Nitrophenol
		6570	5-Nitro-o-toluidine
		6115	7,12-Dimethylbenz(a) anthracene
		5500	Acenaphthene
		5505	Acenaphthylene
		5510	Acetophenone
		5545	Aniline
		5555	Anthracene
		5560	Aramite
		5595	Benzidine
		5575	Benzo(a)anthracene
		5580	Benzo(a)pyrene
		5590	Benzo(g,h,i)perylene
		5600	Benzo(k)fluoranthene
		5585	Benzo[b]fluoranthene
		5610	Benzoic acid
		5630	Benzyl alcohol
		5760	bis(2-Chloroethoxy)methane
		5765	bis(2-Chloroethyl) ether

Non-Potable Water	EPA 8270C	5780	bis(2-Chloroisopropyl) ether
		5670	Butyl benzyl phthalate
		5680	Carbazole
		5855	Chrysene
		6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
		5895	Dibenz(a,h) anthracene
		5905	Dibenzofuran
		6070	Diethyl phthalate
		6135	Dimethyl phthalate
		5925	Di-n-butyl phthalate
		6200	Di-n-octyl phthalate
		6205	Diphenylamine
		6260	Ethyl methanesulfonate
		6265	Fluoranthene
		6270	Fluorene
		6275	Hexachlorobenzene
		4835	Hexachlorobutadiene
		6285	Hexachlorocyclopentadiene
		4840	Hexachloroethane
		6290	Hexachlorophene
		6295	Hexachloropropene
		6315	Indeno(1,2,3-cd) pyrene
		6320	Isophorone
		6325	Isosafrole
		5005	Naphthalene
		5015	Nitrobenzene
		6525	n-Nitrosodiethylamine
		6530	n-Nitrosodimethylamine
		5025	n-Nitroso-di-n-butylamine
		6545	n-Nitrosodi-n-propylamine
		6535	n-Nitrosodiphenylamine
		6550	n-Nitrosomethylethalamine
		6560	n-Nitrosopiperidine
		6565	n-Nitrosopyrrolidine
		5553	Octachlorostyrene
		6590	Pentachlorobenzene
		5035	Pentachloroethane
		6600	Pentachloronitrobenzene
		6605	Pentachlorophenol
		6610	Phenacetin
		6615	Phenanthrene
		6625	Phenol
		6650	Pronamide (Kerb)

Non-Potable Water

EPA 8270C	6665	Pyrene		
	5095	Pyridine		
	6685	Safrole		
EPA 8270C SIM			10242407	Semivolatile Organic compounds by GC/MS Selective Ion Monitoring
	4735	1,4-Dioxane (1,4- Diethyleneoxide)		
	6380	1-Methylnaphthalene		
	6385	2-Methylnaphthalene		
	5500	Acenaphthene		
	5505	Acenaphthylene		
	5555	Anthracene		
	5575	Benzo(a)anthracene		
	5580	Benzo(a)pyrene		
	5590	Benzo(g,h,i)perylene		
	5600	Benzo(k)fluoranthene		
	5585	Benzo[b]fluoranthene		
	5855	Chrysene		
	5895	Dibenz(a,h) anthracene		
	6265	Fluoranthene		
	6270	Fluorene		
	6315	Indeno(1,2,3-cd) pyrene		
	5005	Naphthalene		
	6615	Phenanthrene		
	6665	Pyrene		
EPA 8315A			10188008	Determination of Carbonyl Compounds by HPLC/UV-VIS
	4815	Formaldehyde		
EPA 9014			10193803	Titrimetric and Manual Spectrophotometric Determinative Methods for Cyanide
	1645	Total cyanide		
EPA 9034			10196006	Titrimetric Procedure for Acid-Soluble and Acid-Insoluble Sulfides
	2005	Sulfide		
EPA 9040B			10197203	pH Electrometric Measurement
	1900	pH		
EPA 9056			10199005	Determination of Inorganic Anions by Ion Chromatography
	1540	Bromide		
	1575	Chloride		
	1730	Fluoride		
	1805	Nitrate		
	1835	Nitrite		
	1870	Orthophosphate as P		
	2000	Sulfate		

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4028

TestAmerica Irvine

EPA CODE: CA01531

17461 Derian Ave, Suite 100

Certificate: 4028 - 004

Irvine, CA 92614 Issue Date: 1/30/2017 Expiration Date: 1/29/2018

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Non-Potable Water

EPA 9056A			10199607	Determination of Inorganic Anions by Ion Chromatography
	1540	Bromide		
	1575	Chloride		
	1730	Fluoride		
	1805	Nitrate		
	1810	Nitrate as N		
	1820	Nitrate-nitrite		
	1835	Nitrite		
	1840	Nitrite as N		
	1870	Orthophosphate as P		
	2000	Sulfate		
EPA 9060A			10244801	Total Organic Carbon
	2040	Total organic carbon		
EPA 9081			10203404	Cation-Exchange Capacity of Soils (Sodium Acetate)
	1560	Cation exchange capacity		
EPA 9095A			10204203	Paint Filter Liquids Test
	8031	Extraction/Preparation		
EPA 9095B			10245600	Paint Filter Liquids Test
	8031	Extraction/Preparation		
EPA RSK-175 (GC-FID)			10212905	Methane, Ethane, and Ethene in water by Headspace GC/FID
	4747	Ethane		
	4752	Ethene		
	4926	Methane		
EPA RSK-175 (GC-TCD)			10212858	Fixed Gases in water by Headspace GC/TCD
	3755	Carbon dioxide		
	4926	Methane		
Kelada-01 1.2			60005303	Kelada Automated Test Methods for Total Cyanide, Acid Dissociable Cyanide, and Thiocyanate
	1645	Total cyanide		
SM 2120 B 20th ED			20224004	Color by Visual Comparison
	102	Apparent Color		
	1605	Color		
	101	True Color		
SM 2130 B 20th ED			20042404	Turbidity by Nephelometric Determination
	2055	Turbidity		
SM 2150 B 20th ED			20043407	Odor by Threshold Odor Test
	1855	Odor		

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Non-Potable Water

SM 2310 B 20th ED			20044206	Acidity by Titration
	1500	Acidity, as CaCO3		
SM 2320 B 20th ED			20045209	Alkalinity by Titration
	1505	Alkalinity as CaCO3		
SM 2340 B 20th ED			20046202	Hardness by calculation
	1550	Calcium hardness as CaCO3		
	1750	Hardness		
	1755	Total hardness as CaCO3		
SM 2340 C 20th ED			20047205	Hardness by EDTA Titration
	1750	Hardness		
SM 2510 B 20th ED			20048208	Conductivity by Probe
	1610	Conductivity		
SM 2540 B 20th ED			20049007	Total Solids
	1950	Residue-total		
SM 2540 C 20th ED			20050004	Total Dissolved Solids
	1955	Residue-filterable (TDS)		
SM 2540 D 20th ED			20050800	Total Suspended Solids
	1960	Residue-nonfilterable (TSS)		
SM 2540 F 20th ED			20051803	Settleable Solids
	1965	Residue-settleable		
SM 2580 B 20th ED			20054051	Oxidation-Reduction Potential Measurement in Clean Water
	1871	O-R Potential		
SM 3500-Cr B 20th ED			20065809	Chromium by Colorimetric Method
	1045	Chromium VI		
SM 3500-Fe B 20th ED			20068604	Iron by Colorimetric Method
	1070	Iron		
SM 4500-Cl G 20th ED			20081203	Residual Chlorine by DPD Colorimetric Determination
	1580	Chlorine		
	1945	Residual free chlorine		
	1940	Total residual chlorine		
SM 4500-CN B 20th ED			20091207	Preliminary Treatment of Samples
	1635	Cyanide		
SM 4500-CN E 20th ED			20092404	Cyanide by Colorimetric Determination
	1645	Total cyanide		
SM 4500-H+ B 20th ED			20104807	pH by Probe
	1900	pH		

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Non-Potable Water

SM 4500-NH3 B 20th ED			20105606	Ammonia Nitrogen Distillation
	1515	Ammonia as N		
SM 4500-NH3 D 20th ED			20109006	Ammonia by Selective Ion Probe
	1515	Ammonia as N		
SM 4500-NH3 G 20th ED			20111006	Ammonia by Automated Phenate
	1515	Ammonia as N		
SM 4500-O G 20th ED			20121204	Dissolved Oxygen by Membrane Electrode Method
	1880	Oxygen, dissolved		
SM 4500-$S2^{-}$ D 20th ED			20125400	Sulfide by Methylene Blue Method
	2005	Sulfide		
SM 5210 B 20th ED			20134809	Biochemical Oxygen Demand, 5-Day (BOD5)
	1530	Biochemical oxygen demand		
	1555	Carbonaceous BOD, CBOD		
SM 5220 D 20th ED			20136407	Chemical Oxygen Demand by Closed Reflux and Colorimetric Determination
	1565	Chemical oxygen demand		
SM 5310 B 18th ED			20137002	Total Organic Carbon by Combustion Infra-red Method
	1710	Dissolved organic carbon (DOC)		
SM 5310 B 20th ED			20137400	Total Organic Carbon by Combustion Infra-red Method
	2040	Total organic carbon		
SM 5540 C 20th ED			20144609	Surfactants as MBAS
	2025	Surfactants - MBAS		

Solids

EPA 1010			10116606	Pensky-Martens Closed-Cup Method for Determining Ignitability
	1780	Ignitability		
EPA 1020A			10117007	Ignitability Setaflash Closed-cup Method
	1780	Ignitability		
EPA 1311			10118806	Toxicity Characteristic Leaching Procedure
	8031	Extraction/Preparation		
EPA 1312			10119003	Synthetic Precipitation Leaching Procedure
	8031	Extraction/Preparation		
EPA 314.0			10277006	Perchlorate in Drinking Water by Ion Chromatography
	1895	Perchlorate		
EPA 6010B			10155609	ICP - AES
	1000	Aluminum		

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Solids	EPA 6010B	1005	Antimony	
		1010	Arsenic	
		1015	Barium	
		1020	Beryllium	
		1025	Boron	
		1030	Cadmium	
		1035	Calcium	
		1040	Chromium	
		1050	Cobalt	
		1055	Copper	
		1070	Iron	
		1075	Lead	
		1080	Lithium	
		1085	Magnesium	
		1100	Molybdenum	
		1105	Nickel	
		1910	Phosphorus, total	
		1125	Potassium	
		1140	Selenium	
		1990	Silica as SiO2	
		1150	Silver	
		1155	Sodium	
		1160	Strontium	
		1165	Thallium	
		1175	Tin	
		1180	Titanium	
		1183	Tungsten	
		1185	Vanadium	
		1190	Zinc	
		1192	Zirconium	
	EPA 6020			10156000 Inductively Coupled Plasma-Mass Spectrometry
		1000	Aluminum	
		1005	Antimony	
		1010	Arsenic	
		1015	Barium	
		1020	Beryllium	
		1030	Cadmium	
		1040	Chromium	
		1050	Cobalt	
		1055	Copper	
		1070	Iron	
		1075	Lead	
		1090	Manganese	

Solids

EPA 6020	1100	Molybdenum	
	1105	Nickel	
	1140	Selenium	
	1150	Silver	
	1165	Thallium	
	3035	Uranium	
	1185	Vanadium	
	1190	Zinc	
EPA 6860			10304800 Perchlorate in Water, Soils and Solid Wastes Using Ion Chromatography/Electrospray Ionization/Mass Spectrometry
	1895	Perchlorate	
EPA 7196A			10162400 Chromium Hexavalent colorimetric
	1045	Chromium VI	
EPA 7199			10163005 Determination of Hexavalent Chromium in Drinking Water, Groundwater and Industrial Wastewater Effluents by Ion Chromatography
	1045	Chromium VI	
EPA 7470A			10165807 Mercury in Liquid Waste by Cold Vapor Atomic Absorption
	1095	Mercury	
EPA 7471A			10166208 Mercury in Solid Waste by Cold Vapor Atomic Absorption
	1095	Mercury	
EPA 8015B			10173601 Non-halogenated organics using GC/FID
	9369	Diesel range organics (DRO)	
	4750	Ethanol	
	9408	Gasoline range organics (GRO)	
	4930	Methanol	
	9506	Residual Range Organics (RRO)	
EPA 8081A			10178606 Organochlorine Pesticides by GC/ECD
	8580	2,4'-DDD	
	8585	2,4'-DDE	
	8590	2,4'-DDT	
	7355	4,4'-DDD	
	7360	4,4'-DDE	
	7365	4,4'-DDT	
	7025	Aldrin	
	7110	alpha-BHC (alpha-Hexachlorocyclohexane)	
	7240	alpha-Chlordane	
	7115	beta-BHC (beta-Hexachlorocyclohexane)	

Solids	EPA 8081A	7250	Chlordane (tech.)		
		7105	delta-BHC		
		7470	Dieldrin		
		7510	Endosulfan I		
		7515	Endosulfan II		
		7520	Endosulfan sulfate		
		7540	Endrin		
		7530	Endrin aldehyde		
		7535	Endrin ketone		
		7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)		
		7245	gamma-Chlordane		
		7685	Heptachlor		
		7690	Heptachlor epoxide		
		7810	Methoxychlor		
		8250	Toxaphene (Chlorinated camphene)		
	EPA 8082			10179007	Polychlorinated Biphenyls (PCBs) by GC/ECD
		8880	Aroclor-1016 (PCB-1016)		
		8885	Aroclor-1221 (PCB-1221)		
		8890	Aroclor-1232 (PCB-1232)		
		8895	Aroclor-1242 (PCB-1242)		
		8900	Aroclor-1248 (PCB-1248)		
		8905	Aroclor-1254 (PCB-1254)		
		8910	Aroclor-1260 (PCB-1260)		
	EPA 8260B			10184802	Volatile Organic Compounds by purge and trap GC/MS
		5105	1,1,1,2-Tetrachloroethane		
		5160	1,1,1-Trichloroethane		
		5110	1,1,2,2-Tetrachloroethane		
		5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		
		5165	1,1,2-Trichloroethane		
		4630	1,1-Dichloroethane		
		4640	1,1-Dichloroethylene		
		4670	1,1-Dichloropropene		
		5150	1,2,3-Trichlorobenzene		
		5180	1,2,3-Trichloropropane		
		5155	1,2,4-Trichlorobenzene		
		5210	1,2,4-Trimethylbenzene		
		4570	1,2-Dibromo-3-chloropropane (DBCP)		
		4585	1,2-Dibromoethane (EDB, Ethylene dibromide)		
		4610	1,2-Dichlorobenzene		
		4635	1,2-Dichloroethane (Ethylene dichloride)		

Solids	EPA 8260B	4655	1,2-Dichloropropane
		5215	1,3,5-Trimethylbenzene
		4615	1,3-Dichlorobenzene
		4660	1,3-Dichloropropane
		4620	1,4-Dichlorobenzene
		4735	1,4-Dioxane (1,4- Diethyleneoxide)
		4665	2,2-Dichloropropane
		4410	2-Butanone (Methyl ethyl ketone, MEK)
		4500	2-Chloroethyl vinyl ether
		4535	2-Chlorotoluene
		4860	2-Hexanone (MBK)
		4540	4-Chlorotoluene
		4910	4-Isopropyltoluene (p-Cymene)
		4995	4-Methyl-2-pentanone (MIBK)
		4315	Acetone
		4320	Acetonitrile
		4325	Acrolein (Propenal)
		4340	Acrylonitrile
		4355	Allyl chloride (3-Chloropropene)
		4375	Benzene
		5635	Benzyl chloride
		4385	Bromobenzene
		4390	Bromochloromethane
		4395	Bromodichloromethane
		4400	Bromoform
		4450	Carbon disulfide
		4455	Carbon tetrachloride
		4475	Chlorobenzene
		4575	Chlorodibromomethane
		4485	Chloroethane (Ethyl chloride)
		4505	Chloroform
		4525	Chloroprene (2-Chloro-1,3-butadiene)
		4645	cis-1,2-Dichloroethylene
		4680	cis-1,3-Dichloropropene
		4595	Dibromomethane (Methylene bromide)
		4625	Dichlorodifluoromethane (Freon-12)
		4725	Diethyl ether
		9375	Di-isopropylether (DIPE)
		4729	Dimethyl disulfide
		4750	Ethanol
		4810	Ethyl methacrylate
		4765	Ethylbenzene
		4770	Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)

Solids	EPA 8260B	4835	Hexachlorobutadiene		
		4840	Hexachloroethane		
		4870	Iodomethane (Methyl iodide)		
		4875	Isobutyl alcohol (2-Methyl-1-propanol)		
		4895	Isopropyl alcohol (2-Propanol, Isopropanol)		
		4900	Isopropylbenzene (Cumene)		
		5240	m+p-xylene		
		4925	Methacrylonitrile		
		4945	Methyl acrylate		
		4950	Methyl bromide (Bromomethane)		
		4960	Methyl chloride (Chloromethane)		
		4990	Methyl methacrylate		
		5000	Methyl tert-butyl ether (MTBE)		
		4975	Methylene chloride (Dichloromethane)		
		5005	Naphthalene		
		4435	n-Butylbenzene		
		5090	n-Propylbenzene		
		5250	o-Xylene		
		5080	Propionitrile (Ethyl cyanide)		
		4440	sec-Butylbenzene		
		5100	Styrene		
		4370	T-amylmethylether (TAME)		
		4420	tert-Butyl alcohol		
		4445	tert-Butylbenzene		
		5115	Tetrachloroethylene (Perchloroethylene)		
		5120	Tetrahydrofuran (THF)		
		5140	Toluene		
		4700	trans-1,2-Dichloroethylene		
		4685	trans-1,3-Dichloropropylene		
		4605	trans-1,4-Dichloro-2-butene		
		5170	Trichloroethene (Trichloroethylene)		
		5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)		
		5225	Vinyl acetate		
		5235	Vinyl chloride		
		5260	Xylene (total)		
	EPA 8260B SIM			10184904	Volatile Organic Compounds by purge and trap GC/MS-SIM
		5180	1,2,3-Trichloropropane		
		4735	1,4-Dioxane (1,4- Diethyleneoxide)		
	EPA 8270C			10185805	Semivolatile Organic compounds by GC/MS
		6715	1,2,4,5-Tetrachlorobenzene		
		5155	1,2,4-Trichlorobenzene		

Solids	EPA 8270C	4610	1,2-Dichlorobenzene
		6155	1,2-Dinitrobenzene
		6221	1,2-Diphenylhydrazine
		6885	1,3,5-Trinitrobenzene (1,3,5-TNB)
		4615	1,3-Dichlorobenzene
		6160	1,3-Dinitrobenzene (1,3-DNB)
		4620	1,4-Dichlorobenzene
		6420	1,4-Naphthoquinone
		6630	1,4-Phenylenediamine
		6380	1-Methylnaphthalene
		6425	1-Naphthylamine
		6735	2,3,4,6-Tetrachlorophenol
		6835	2,4,5-Trichlorophenol
		6840	2,4,6-Trichlorophenol
		6000	2,4-Dichlorophenol
		6130	2,4-Dimethylphenol
		6175	2,4-Dinitrophenol
		6185	2,4-Dinitrotoluene (2,4-DNT)
		6005	2,6-Dichlorophenol
		6190	2,6-Dinitrotoluene (2,6-DNT)
		5515	2-Acetylaminofluorene
		5795	2-Chloronaphthalene
		5800	2-Chlorophenol
		6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2 -methylphenol)
		5145	2-Methylaniline (o-Toluidine)
		6385	2-Methylnaphthalene
		6400	2-Methylphenol (o-Cresol)
		6430	2-Naphthylamine
		6460	2-Nitroaniline
		6490	2-Nitrophenol
		5050	2-Picoline (2-Methylpyridine)
		6412	3 & 4 Methylphenol
		5945	3,3'-Dichlorobenzidine
		6120	3,3'-Dimethylbenzidine
		6355	3-Methylcholanthrene
		6405	3-Methylphenol (m-Cresol)
		6465	3-Nitroaniline
		5540	4-Aminobiphenyl
		5660	4-Bromophenyl phenyl ether (BDE-3)
		5700	4-Chloro-3-methylphenol
		5745	4-Chloroaniline
		5825	4-Chlorophenyl phenylether
		6410	4-Methylphenol (p-Cresol)

Solids	EPA 8270C	6470	4-Nitroaniline
		6500	4-Nitrophenol
		6570	5-Nitro-o-toluidine
		6115	7,12-Dimethylbenz(a) anthracene
		5500	Acenaphthene
		5505	Acenaphthylene
		5510	Acetophenone
		5545	Aniline
		5555	Anthracene
		5560	Aramite
		5595	Benzidine
		5575	Benzo(a)anthracene
		5580	Benzo(a)pyrene
		5590	Benzo(g,h,i)perylene
		5600	Benzo(k)fluoranthene
		5585	Benzo[b]fluoranthene
		5610	Benzoic acid
		5630	Benzyl alcohol
		5760	bis(2-Chloroethoxy)methane
		5765	bis(2-Chloroethyl) ether
		5780	bis(2-Chloroisopropyl) ether
		5670	Butyl benzyl phthalate
		5680	Carbazole
		5855	Chrysene
		6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
		5895	Dibenz(a,h) anthracene
		5905	Dibenzofuran
		6070	Diethyl phthalate
		6135	Dimethyl phthalate
		5925	Di-n-butyl phthalate
		6200	Di-n-octyl phthalate
		6205	Diphenylamine
		6260	Ethyl methanesulfonate
		6265	Fluoranthene
		6270	Fluorene
		6275	Hexachlorobenzene
		4835	Hexachlorobutadiene
		6285	Hexachlorocyclopentadiene
		4840	Hexachloroethane
		6290	Hexachlorophene
		6295	Hexachloropropene
		6315	Indeno(1,2,3-cd) pyrene
		6320	Isophorone

Solids	EPA 8270C	6325	Isosafrole	
		5005	Naphthalene	
		5015	Nitrobenzene	
		6525	n-Nitrosodiethylamine	
		6530	n-Nitrosodimethylamine	
		5025	n-Nitroso-di-n-butylamine	
		6545	n-Nitrosodi-n-propylamine	
		6535	n-Nitrosodiphenylamine	
		6550	n-Nitrosomethylethalamine	
		6560	n-Nitrosopiperidine	
		6565	n-Nitrosopyrrolidine	
		5553	Octachlorostyrene	
		6590	Pentachlorobenzene	
		5035	Pentachloroethane	
		6600	Pentachloronitrobenzene	
		6605	Pentachlorophenol	
		6610	Phenacetin	
		6615	Phenanthrene	
		6625	Phenol	
		6650	Pronamide (Kerb)	
		6665	Pyrene	
		5095	Pyridine	
		6685	Safrole	
	EPA 8270C SIM			10242407 Semivolatile Organic compounds by GC/MS Selective Ion Monitoring
		4735	1,4-Dioxane (1,4- Diethyleneoxide)	
		6380	1-Methylnaphthalene	
		6385	2-Methylnaphthalene	
		5500	Acenaphthene	
		5505	Acenaphthylene	
		5555	Anthracene	
		5575	Benzo(a)anthracene	
		5580	Benzo(a)pyrene	
		5590	Benzo(g,h,i)perylene	
		5600	Benzo(k)fluoranthene	
		5585	Benzo[b]fluoranthene	
		5855	Chrysene	
		5895	Dibenz(a,h) anthracene	
		6265	Fluoranthene	
		6270	Fluorene	
		6315	Indeno(1,2,3-cd) pyrene	
		5005	Naphthalene	
		6615	Phenanthrene	
		6665	Pyrene	

Solids

EPA 8315A			10188008	Determination of Carbonyl Compounds by HPLC/UV-VIS
	4815	Formaldehyde		
EPA 9014			10193803	Titrimetric and Manual Spectrophotometric Determinative Methods for Cyanide
	1645	Total cyanide		
EPA 9034			10196006	Titrimetric Procedure for Acid-Soluble and Acid-Insoluble Sulfides
	2005	Sulfide		
EPA 9045C			10198400	Soil and Waste pH
	1900	pH		
EPA 9056			10199005	Determination of Inorganic Anions by Ion Chromatography
	1540	Bromide		
	1575	Chloride		
	1730	Fluoride		
	1805	Nitrate		
	1835	Nitrite		
	1870	Orthophosphate as P		
	2000	Sulfate		
EPA 9056A			10199607	Determination of Inorganic Anions by Ion Chromatography
	1540	Bromide		
	1575	Chloride		
	1730	Fluoride		
	1805	Nitrate		
	1810	Nitrate as N		
	1820	Nitrate-nitrite		
	1835	Nitrite		
	1840	Nitrite as N		
	1870	Orthophosphate as P		
	2000	Sulfate		
EPA 9060A			10244801	Total Organic Carbon
	2040	Total organic carbon		
EPA 9081			10203404	Cation-Exchange Capacity of Soils (Sodium Acetate)
	1560	Cation exchange capacity		
EPA 9095A			10204203	Paint Filter Liquids Test
	8031	Extraction/Preparation		
EPA 9095B			10245600	Paint Filter Liquids Test
	8031	Extraction/Preparation		

Solids

EPA 9214			10206403	Potentiometric Determination of Fluoride in Aqueous Samples with Ion-Selective Electrode
	1730	Fluoride		
SM 2580 B 20th ED			20054051	Oxidation-Reduction Potential Measurement in Clean Water
	1871	O-R Potential		
SM 4500-NH3 B 20th ED			20105606	Ammonia Nitrogen Distillation
	1515	Ammonia as N		

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ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

Aquatic Bioassay & Consulting Laboratories, Inc.

29 North Olive Street

Ventura, CA 93001

Scope of the certificate is limited to the
"Fields of Testing"
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **1907**

Expiration Date: **7/31/2017**

Effective Date: **8/1/2015**

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program

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ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM
Accredited Fields of Testing

Aquatic Bioassay & Consulting Laboratories, Inc.

29 North Olive Street
Ventura, CA 93001
Phone: (805) 643-5621

Certificate No. 1907
Expiration Date 7/31/2017

Field of Testing: 108 - Inorganic Chemistry of Wastewater			
108.490	001	Hydrogen Ion (pH)	SM4500-H+ B-2000
108.536	001	Oxygen, dissolved	SM4500-O G-2001
Field of Testing: 113 - Whole Effluent Toxicity of Wastewater			
113.010	001A	Fathead Minnow (P. promelas)	EPA 600/4-90/027F, Static
113.010	001B	Fathead Minnow (P. promelas)	EPA 600/4-90/027F, Static Renewal
113.010	003A	Rainbow trout (O. mykiss)	EPA 600/4-90/027F, Static
113.010	003B	Rainbow trout (O. mykiss)	EPA 600/4-90/027F, Static Renewal
113.010	005A	Daphnid (C. dubia)	EPA 600/4-90/027F, Static
113.010	005B	Daphnid (C. dubia)	EPA 600/4-90/027F, Static Renewal
113.010	006A	Daphnia spp.	EPA 600/4-90/027F, Static
113.010	006B	Daphnia spp.	EPA 600/4-90/027F, Static Renewal
113.010	008A	Topsmelt (A. affinis)	EPA 600/4-90/027F, Static
113.010	008B	Topsmelt (A. affinis)	EPA 600/4-90/027F, Static Renewal
113.010	009A	Silverside (Menidia spp.)	EPA 600/4-90/027F, Static
113.010	009B	Silverside (Menidia spp.)	EPA 600/4-90/027F, Static Renewal
113.010	012A	Mysid (M. bahia)	EPA 600/4-90/027F, Static
113.010	012B	Mysid (M. bahia)	EPA 600/4-90/027F, Static Renewal
113.021	001A	Fathead Minnow (P. promelas)	EPA 2000 (EPA-821-R-02-012), Static
113.021	001B	Fathead Minnow (P. promelas)	EPA 2000 (EPA-821-R-02-012), Static Renewal
113.022	003A	Rainbow trout (O. mykiss)	EPA 2019 (EPA-821-R-02-012), Static
113.022	003B	Rainbow trout (O. mykiss)	EPA 2019 (EPA-821-R-02-012), Static Renewal
113.023	005A	Daphnid (C. dubia)	EPA 2002 (EPA-821-R-02-012), Static
113.023	005B	Daphnid (C. dubia)	EPA 2002 (EPA-821-R-02-012), Static Renewal
113.024	006A	Daphnia spp.	EPA 2021 (EPA-821-R-02-012), Static
113.024	006B	Daphnia spp.	EPA 2021 (EPA-821-R-02-012), Static Renewal
113.025	009A	Silverside (Menidia spp.)	EPA 2006 (EPA-821-R-02-012), Static
113.025	009B	Silverside (Menidia spp.)	EPA 2006 (EPA-821-R-02-012), Static Renewal
113.027	012A	Mysid (M. bahia)	EPA 2007 (EPA-821-R-02-012), Static
113.027	012B	Mysid (M. bahia)	EPA 2007 (EPA-821-R-02-012), Static Renewal
113.028	008A	Topsmelt (A. affinis)	EPA-821-R-02-012, Static
113.028	008B	Topsmelt (A. affinis)	EPA-821-R-02-012, Static Renewal
113.029	001A	Hyalella spp.	EPA-821-R-02-012, Static
113.029	001B	Hyalella spp.	EPA-821-R-02-012, Static Renewal
113.040	001	Fathead Minnow (P. promelas)	EPA 1000 (EPA/600/4-91/002)
113.041	001	Fathead Minnow (P. promelas)	EPA 1000 (EPA-821-R-02-013)
113.050	005	Daphnid (C. dubia)	EPA 1002 (EPA/600/4-91/002)
113.051	005	Daphnid (C. dubia)	EPA 1002 (EPA-821-R-02-013)
113.060	020	Green algae (S. capricornutum)	EPA 1003 (EPA/600/4-91/002)

As of 8/1/2016 , this list supersedes all previous lists for this certificate number.
Customers: Please verify the current accreditation standing with the State.

113.061	020	Green algae (S. capricornutum)	EPA 1003 (EPA-821-R-02-013)
113.080	009	Silverside (Menidia spp.)	EPA 1006 (EPA/600/4-91/003)
113.081	009	Silverside (Menidia spp.)	EPA 1006 (EPA-821-R-02-014)
113.090	012	Mysid (M. bahia)	EPA 1007 (EPA/600/4-91/003)
113.091	012	Mysid (M. bahia)	EPA 1007 (EPA-821-R-02-014)
113.120	008	Topsmelt (A. affinis)	EPA 600/R-95/136
113.120	014	Pacific oyster (C. gigas)	EPA 600/R-95/136
113.120	015D	Sand dollar (D. excentricus)	EPA 600/R-95/136, Fertilization Test
113.120	015E	Sand dollar (D. excentricus)	EPA 600/R-95/136, Development Test
113.120	017D	Purple sea urchin (S. purpuratus)	EPA 600/R-95/136, Fertilization Test
113.120	017E	Purple sea urchin (S. purpuratus)	EPA 600/R-95/136, Development Test
113.120	019	Mussels (Mytilus spp.)	EPA 600/R-95/136
113.120	022	Giant kelp (M. pyrifera)	EPA 600/R-95/136
113.120	023	Red abalone (H. rufescens)	EPA 600/R-95/136
113.160	026	Amphipod (H. azteca)	EPA 600/R-99/064, EPA 100.1
113.210	030	Amphipod (E. estuarius)	EPA 600/R-94/025, EPA 100.4
Field of Testing: 119 - Toxicity Bioassay of Hazardous Waste			
119.010	001	Fathead Minnow (P. promelas)	Polisini & Miller (CDFG 1988)
119.010	003	Rainbow trout (O. mykiss)	Polisini & Miller (CDFG 1988)
119.020	026	Amphipod (H. azteca)	EPA 100.1
119.050	030	Amphipod (E. estuarius)	EPA 100.4
Field of Testing: 126 - Microbiology of Recreational Water			
126.010	001	Total Coliform (Enumeration)	SM9221B,C-2006
126.030	001	Fecal Coliform (Enumeration)	SM9221B,E-2006
126.050	001	Total Coliform (Enumeration)	SM9223B (Colilert/Quanti-Tray)
126.050	002	E. coli (Enumeration)	SM9223B (Colilert/Quanti-Tray)
126.080	001	Enterococci	Enterolert

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ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

Eurofins Lancaster Laboratories Environmental, LLC

2425 New Holland Pike

Lancaster, PA 17601

Scope of the certificate is limited to the
"Fields of Testing"
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **2792**

Expiration Date: **1/31/2018**

Effective Date: **2/1/2016**

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program

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CALIFORNIA STATE
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM
Accredited Fields of Testing

Eurofins Lancaster Laboratories Environmental, LLC

2425 New Holland Pike
Lancaster, PA 17601
Phone: (717) 656-2300

Certificate No. 2792
Expiration Date 1/31/2018

Field of Testing: 102 - Inorganic Chemistry of Drinking Water			
102.565	001	Cyanide	OIA-1677, DW
Field of Testing: 103 - Toxic Chemical Elements of Drinking Water			
103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	004	Beryllium	EPA 200.7
103.130	005	Cadmium	EPA 200.7
103.130	007	Chromium	EPA 200.7
103.130	008	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.130	012	Nickel	EPA 200.7
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	008	Copper	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	018	Vanadium	EPA 200.8
Field of Testing: 104 - Volatile Organic Chemistry of Drinking Water			
104.040	000	Volatile Organic Compounds	EPA 524.2
104.040	001	Benzene	EPA 524.2
104.040	007	n-Butylbenzene	EPA 524.2
104.040	008	sec-Butylbenzene	EPA 524.2
104.040	009	tert-Butylbenzene	EPA 524.2
104.040	010	Carbon Tetrachloride	EPA 524.2
104.040	011	Chlorobenzene	EPA 524.2
104.040	015	2-Chlorotoluene	EPA 524.2

As of 2/8/2016 , this list supersedes all previous lists for this certificate number.
Customers: Please verify the current accreditation standing with the State.

104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane	EPA 524.2
104.040	025	1,1-Dichloroethene	EPA 524.2
104.040	026	cis-1,2-Dichloroethene	EPA 524.2
104.040	027	trans-1,2-Dichloroethene	EPA 524.2
104.040	028	Dichloromethane	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropene	EPA 524.2
104.040	034	trans-1,3-Dichloropropene	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2
104.040	037	Isopropylbenzene	EPA 524.2
104.040	039	Naphthalene	EPA 524.2
104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethene	EPA 524.2
104.040	046	Toluene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2
104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethene	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2
104.040	057	Xylenes, Total	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2
104.045	002	Bromoform	EPA 524.2
104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane	EPA 524.2
104.045	005	Trihalomethanes	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	003	tert-Amyl Methyl Ether (TAME)	EPA 524.2
104.050	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.2
104.050	007	tert-Butyl Alcohol (TBA)	EPA 524.2
104.050	008	Carbon Disulfide	EPA 524.2

Field of Testing: 105 - Semi-volatile Organic Chemistry of Drinking Water

105.030	001	Alachlor	EPA 507
105.030	002	Atrazine	EPA 507
105.030	009	Simazine	EPA 507
105.070	002	2,4-D	EPA 515.1
105.070	003	Dalapon	EPA 515.1

105.070	005	Dinoseb	EPA 515.1	
105.070	006	Pentachlorophenol	EPA 515.1	
105.070	007	Picloram	EPA 515.1	
105.070	008	2,4,5-TP	EPA 515.1	
105.070	009	Chlorinated Acids	EPA 515.1	
105.090	001	Alachlor	EPA 525.2	
105.090	003	Atrazine	EPA 525.2	
105.090	004	Benzo(a)pyrene	EPA 525.2	
105.090	006	Chlordane	EPA 525.2	Interim
105.090	008	Adipates	EPA 525.2	
105.090	009	Phthalates	EPA 525.2	
105.090	013	Endrin	EPA 525.2	
105.090	014	Heptachlor	EPA 525.2	
105.090	015	Heptachlor Epoxide	EPA 525.2	
105.090	016	Hexachlorobenzene	EPA 525.2	
105.090	017	Hexachlorocyclopentadiene	EPA 525.2	
105.090	018	Lindane	EPA 525.2	
105.090	019	Methoxychlor	EPA 525.2	
105.090	025	Simazine	EPA 525.2	
105.090	029	Polynuclear Aromatic Hydrocarbons	EPA 525.2	
105.090	030	Adipates	EPA 525.2	
105.090	031	Phthalates	EPA 525.2	
105.100	000	Carbamates	EPA 531.1	
105.100	005	Carbofuran	EPA 531.1	
105.100	008	Oxamyl	EPA 531.1	

Field of Testing: 108 - Inorganic Chemistry of Wastewater

108.020	001	Conductivity	EPA 120.1	
108.090	001	Residue, Volatile	EPA 160.4	
108.110	001	Turbidity	EPA 180.1	
108.112	001	Boron	EPA 200.7	
108.112	002	Calcium	EPA 200.7	
108.112	004	Magnesium	EPA 200.7	
108.112	005	Potassium	EPA 200.7	
108.112	007	Sodium	EPA 200.7	
108.113	002	Calcium	EPA 200.8	
108.113	003	Magnesium	EPA 200.8	
108.113	004	Potassium	EPA 200.8	
108.113	006	Sodium	EPA 200.8	
108.120	001	Bromide	EPA 300.0	
108.120	002	Chloride	EPA 300.0	
108.120	003	Fluoride	EPA 300.0	
108.120	008	Sulfate	EPA 300.0	
108.120	012	Nitrate (as N)	EPA 300.0	
108.120	014	Nitrite (as N)	EPA 300.0	
108.120	015	Phosphate, Ortho (as P)	EPA 300.0	Interim
108.121	001	Bromide	EPA 300.1	
108.121	002	Chloride	EPA 300.1	

108.121	003	Fluoride	EPA 300.1	
108.121	008	Sulfate	EPA 300.1	
108.121	009	Nitrate (as N)	EPA 300.1	
108.121	010	Nitrate-Nitrite (as N)	EPA 300.1	
108.121	011	Nitrite (as N)	EPA 300.1	
108.183	001	Cyanide, Total	EPA 335.4	
108.209	001	Ammonia (as N)	EPA 350.1	
108.211	002	Kjeldahl Nitrogen, Total (as N)	EPA 351.2	
108.232	003	Nitrate-Nitrite (as N)	EPA 353.2	
108.232	004	Nitrite (as N)	EPA 353.2	
108.261	001	Phosphorus, Total	EPA 365.1	
108.264	001	Phosphate, Ortho	EPA 365.3	
108.265	001	Phosphorus, Total	EPA 365.3	
108.323	001	Chemical Oxygen Demand	EPA 410.4	
108.362	001	Phenols, Total	EPA 420.4	
108.381	001	Oil and Grease	EPA 1664A	
108.400	001	Acidity	SM2310B-1997	
108.410	001	Alkalinity	SM2320B-1997	
108.420	001	Hardness (calculation)	SM2340B-1997	
108.430	001	Conductivity	SM2510B-1997	
108.440	001	Residue, Total	SM2540B-1997	
108.441	001	Residue, Filterable TDS	SM2540C-1997	
108.442	001	Residue, Non-filterable TSS	SM2540D-1997	
108.443	001	Residue, Settleable	SM2540F-1997	
108.451	001	Chloride	SM4500-Chloride C-1997	
108.464	001	Chlorine, Total Residual	SM4500-Cl F-2000	
108.480	001	Fluoride	SM4500-F B,C-1997	
108.490	001	Hydrogen Ion (pH)	SM4500-H+ B-2000	
108.500	002	Ammonia (as N)	SM4500-NH3 B,C-1997	
108.501	002	Kjeldahl Nitrogen, Total (as N)	SM4500-NH3 C-1997	Interim
108.502	002	Ammonia (as N)	SM4500-NH3 B,E-1997	
108.536	001	Oxygen, dissolved	SM4500-O G-2001	Interim
108.552	001	Silica, Dissolved	SM4500-SiO2 C-1997	
108.560	001	Sulfite	SM4500-SO3 B-2000	
108.584	001	Sulfide (as S)	SM4500-S= D-2000	
108.585	001	Sulfide (as S)	SM4500-S= F-2000	
108.592	001	Biochemical Oxygen Demand	SM5210B-2001	
108.592	002	Carbonaceous BOD	SM5210B-2001	
108.597	001	Organic Carbon-Total (TOC)	SM5310C-2000	
108.605	001	Surfactants	SM5540C-2000	

Field of Testing: 109 - Toxic Chemical Elements of Wastewater

109.010	001	Aluminum	EPA 200.7	
109.010	002	Antimony	EPA 200.7	
109.010	003	Arsenic	EPA 200.7	
109.010	004	Barium	EPA 200.7	
109.010	005	Beryllium	EPA 200.7	
109.010	006	Boron	EPA 200.7	

109.010	007	Cadmium	EPA 200.7
109.010	009	Chromium	EPA 200.7
109.010	010	Cobalt	EPA 200.7
109.010	011	Copper	EPA 200.7
109.010	012	Iron	EPA 200.7
109.010	013	Lead	EPA 200.7
109.010	015	Manganese	EPA 200.7
109.010	016	Molybdenum	EPA 200.7
109.010	017	Nickel	EPA 200.7
109.010	019	Selenium	EPA 200.7
109.010	021	Silver	EPA 200.7
109.010	023	Thallium	EPA 200.7
109.010	024	Tin	EPA 200.7
109.010	025	Titanium	EPA 200.7
109.010	026	Vanadium	EPA 200.7
109.010	027	Zinc	EPA 200.7
109.020	001	Aluminum	EPA 200.8
109.020	002	Antimony	EPA 200.8
109.020	003	Arsenic	EPA 200.8
109.020	004	Barium	EPA 200.8
109.020	005	Beryllium	EPA 200.8
109.020	006	Cadmium	EPA 200.8
109.020	007	Chromium	EPA 200.8
109.020	008	Cobalt	EPA 200.8
109.020	009	Copper	EPA 200.8
109.020	010	Lead	EPA 200.8
109.020	011	Manganese	EPA 200.8
109.020	012	Molybdenum	EPA 200.8
109.020	013	Nickel	EPA 200.8
109.020	014	Selenium	EPA 200.8
109.020	015	Silver	EPA 200.8
109.020	016	Thallium	EPA 200.8
109.020	017	Vanadium	EPA 200.8
109.020	018	Zinc	EPA 200.8
109.020	020	Gold	EPA 200.8
109.020	021	Iron	EPA 200.8
109.020	022	Tin	EPA 200.8
109.020	023	Titanium	EPA 200.8
109.104	001	Chromium (VI)	EPA 218.6
109.190	001	Mercury	EPA 245.1
109.361	001	Mercury	EPA 1631E
109.445	002	Chromium (VI)	SM3500-Cr B-2009

Field of Testing: 110 - Volatile Organic Chemistry of Wastewater

110.020	000	Purgeable Aromatics	EPA 602
110.020	001	Benzene	EPA 602
110.020	006	Ethylbenzene	EPA 602
110.020	007	Toluene	EPA 602

110.040	000	Purgeable Organic Compounds	EPA 624
110.040	001	Benzene	EPA 624
110.040	002	Bromodichloromethane	EPA 624
110.040	003	Bromoform	EPA 624
110.040	004	Bromomethane	EPA 624
110.040	005	Carbon Tetrachloride	EPA 624
110.040	006	Chlorobenzene	EPA 624
110.040	007	Chloroethane	EPA 624
110.040	008	2-Chloroethyl Vinyl Ether	EPA 624
110.040	009	Chloroform	EPA 624
110.040	010	Chloromethane	EPA 624
110.040	011	Dibromochloromethane	EPA 624
110.040	012	1,2-Dichlorobenzene	EPA 624
110.040	013	1,3-Dichlorobenzene	EPA 624
110.040	014	1,4-Dichlorobenzene	EPA 624
110.040	015	1,1-Dichloroethane	EPA 624
110.040	016	1,2-Dichloroethane	EPA 624
110.040	017	1,1-Dichloroethene	EPA 624
110.040	018	trans-1,2-Dichloroethene	EPA 624
110.040	019	1,2-Dichloropropane	EPA 624
110.040	020	cis-1,3-Dichloropropene	EPA 624
110.040	021	trans-1,3-Dichloropropene	EPA 624
110.040	022	Ethylbenzene	EPA 624
110.040	023	Methylene Chloride	EPA 624
110.040	024	1,1,2,2-Tetrachloroethane	EPA 624
110.040	025	Tetrachloroethene	EPA 624
110.040	026	Toluene	EPA 624
110.040	027	1,1,1-Trichloroethane	EPA 624
110.040	028	1,1,2-Trichloroethane	EPA 624
110.040	029	Trichloroethene	EPA 624
110.040	030	Trichlorofluoromethane	EPA 624
110.040	031	Vinyl Chloride	EPA 624
110.040	032	Acrolein	EPA 624
110.040	033	Acrylonitrile	EPA 624

Field of Testing: 111 - Semi-volatile Organic Chemistry of Wastewater

111.100	000	Base/Neutral & Acid Organics	EPA 625
111.100	001	Acenaphthene	EPA 625
111.100	002	Acenaphthylene	EPA 625
111.100	003	Anthracene	EPA 625
111.100	004	Benzidine	EPA 625
111.100	005	Benz(a)anthracene	EPA 625
111.100	006	Benzo(b)fluoranthene	EPA 625
111.100	007	Benzo(k)fluoranthene	EPA 625
111.100	008	Benzo(g,h,i)perylene	EPA 625
111.100	009	Benzo(a)pyrene	EPA 625
111.100	010	Benzyl Butyl Phthalate	EPA 625
111.100	011	bis(2-chloroethoxy)methane	EPA 625

111.100	012	bis(2-chloroethyl) Ether	EPA 625
111.100	013	Bis(2-chloroisopropyl) Ether	EPA 625
111.100	014	Di(2-ethylhexyl) Phthalate	EPA 625
111.100	015	4-Bromophenyl Phenyl Ether	EPA 625
111.100	016	4-Chloro-3-methylphenol	EPA 625
111.100	017	2-Chloronaphthalene	EPA 625
111.100	018	2-Chlorophenol	EPA 625
111.100	019	4-Chlorophenyl Phenyl Ether	EPA 625
111.100	020	Chrysene	EPA 625
111.100	021	Dibenz(a,h)anthracene	EPA 625
111.100	025	3,3'-Dichlorobenzidine	EPA 625
111.100	026	2,4-Dichlorophenol	EPA 625
111.100	027	Diethyl Phthalate	EPA 625
111.100	028	2,4-Dimethylphenol	EPA 625
111.100	029	Dimethyl Phthalate	EPA 625
111.100	030	Di-n-butyl phthalate	EPA 625
111.100	031	Di-n-octyl phthalate	EPA 625
111.100	032	2,4-Dinitrophenol	EPA 625
111.100	033	2,4-Dinitrotoluene	EPA 625
111.100	034	2,6-Dinitrotoluene	EPA 625
111.100	035	Fluoranthene	EPA 625
111.100	036	Fluorene	EPA 625
111.100	037	Hexachlorobenzene	EPA 625
111.100	038	Hexachlorobutadiene	EPA 625
111.100	039	Hexachlorocyclopentadiene	EPA 625
111.100	040	Hexachloroethane	EPA 625
111.100	041	Indeno(1,2,3-c,d)pyrene	EPA 625
111.100	042	Isophorone	EPA 625
111.100	043	2-Methyl-4,6-dinitrophenol	EPA 625
111.100	044	Naphthalene	EPA 625
111.100	045	Nitrobenzene	EPA 625
111.100	046	2-Nitrophenol	EPA 625
111.100	047	4-Nitrophenol	EPA 625
111.100	048	N-nitrosodimethylamine	EPA 625
111.100	049	N-nitroso-di-n-propylamine	EPA 625
111.100	050	N-nitrosodiphenylamine	EPA 625
111.100	051	Pentachlorophenol	EPA 625
111.100	052	Phenanthrene	EPA 625
111.100	053	Phenol	EPA 625
111.100	054	Pyrene	EPA 625
111.100	055	1,2,4-Trichlorobenzene	EPA 625
111.100	056	2,4,6-Trichlorophenol	EPA 625
111.103	000	Nitrosamines	EPA 625
111.103	001	N-nitrosodimethylamine	EPA 625
111.103	002	N-nitroso-di-n-propylamine	EPA 625
111.103	003	N-nitrosodiphenylamine	EPA 625
111.170	000	Organochlorine Pesticides and PCBs	EPA 608

111.170	001	Aldrin	EPA 608
111.170	002	a-BHC	EPA 608
111.170	003	b-BHC	EPA 608
111.170	004	d-BHC	EPA 608
111.170	005	g-BHC (Lindane)	EPA 608
111.170	006	Chlordane	EPA 608
111.170	007	4,4'-DDD	EPA 608
111.170	008	4,4'-DDE	EPA 608
111.170	009	4,4'-DDT	EPA 608
111.170	010	Dieldrin	EPA 608
111.170	011	Endosulfan I	EPA 608
111.170	012	Endosulfan II	EPA 608
111.170	013	Endosulfan Sulfate	EPA 608
111.170	014	Endrin	EPA 608
111.170	015	Endrin Aldehyde	EPA 608
111.170	016	Heptachlor	EPA 608
111.170	017	Heptachlor Epoxide	EPA 608
111.170	018	Toxaphene	EPA 608
111.170	019	PCB-1016	EPA 608
111.170	020	PCB-1221	EPA 608
111.170	021	PCB-1232	EPA 608
111.170	022	PCB-1242	EPA 608
111.170	023	PCB-1248	EPA 608
111.170	024	PCB-1254	EPA 608
111.170	025	PCB-1260	EPA 608

Field of Testing: 114 - Inorganic Chemistry of Hazardous Waste

114.010	001	Antimony	EPA 6010B
114.010	002	Arsenic	EPA 6010B
114.010	003	Barium	EPA 6010B
114.010	004	Beryllium	EPA 6010B
114.010	005	Cadmium	EPA 6010B
114.010	006	Chromium	EPA 6010B
114.010	007	Cobalt	EPA 6010B
114.010	008	Copper	EPA 6010B
114.010	009	Lead	EPA 6010B
114.010	010	Molybdenum	EPA 6010B
114.010	011	Nickel	EPA 6010B
114.010	012	Selenium	EPA 6010B
114.010	013	Silver	EPA 6010B
114.010	014	Thallium	EPA 6010B
114.010	015	Vanadium	EPA 6010B
114.010	016	Zinc	EPA 6010B
114.020	001	Antimony	EPA 6020
114.020	002	Arsenic	EPA 6020
114.020	003	Barium	EPA 6020
114.020	004	Beryllium	EPA 6020
114.020	005	Cadmium	EPA 6020

114.020	006	Chromium	EPA 6020	
114.020	007	Cobalt	EPA 6020	
114.020	008	Copper	EPA 6020	
114.020	009	Lead	EPA 6020	
114.020	010	Molybdenum	EPA 6020	
114.020	011	Nickel	EPA 6020	
114.020	012	Selenium	EPA 6020	
114.020	013	Silver	EPA 6020	
114.020	014	Thallium	EPA 6020	
114.020	015	Vanadium	EPA 6020	
114.020	016	Zinc	EPA 6020	
114.103	001	Chromium (VI)	EPA 7196A	
114.106	001	Chromium (VI)	EPA 7199	
114.140	001	Mercury	EPA 7470A	
114.141	001	Mercury	EPA 7471A	
114.221	001	Cyanide, Total	EPA 9012A	
114.240	001	Corrosivity - pH Determination	EPA 9040B	
114.241	001	Corrosivity - pH Determination	EPA 9045C	

Field of Testing: 115 - Extraction Test of Hazardous Waste

115.020	001	Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311	Interim
115.021	001	TCLP Inorganics	EPA 1311	Interim
115.022	001	TCLP Extractables	EPA 1311	Interim
115.023	001	TCLP Volatiles	EPA 1311	Interim
115.030	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II	Interim
115.040	001	Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312	Interim

Field of Testing: 116 - Volatile Organic Chemistry of Hazardous Waste

116.010	000	EDB and DBCP	EPA 8011	
116.020	030	Nonhalogenated Volatiles	EPA 8015B	
116.020	031	Ethanol and Methanol	EPA 8015B	
116.030	001	Gasoline-range Organics	EPA 8015B	
116.040	041	Methyl tert-butyl Ether (MTBE)	EPA 8021B	
116.040	060	Halogenated Volatile Organic Compounds	EPA 8021B	
116.040	061	Aromatic Volatiles	EPA 8021B	
116.040	062	BTEX	EPA 8021B	
116.080	000	Volatile Organic Compounds	EPA 8260B	
116.080	120	Oxygenates	EPA 8260B	
116.100	001	Total Petroleum Hydrocarbons - Gasoline	LUFT GC/MS	Interim
116.100	010	BTEX and MTBE	LUFT GC/MS	Interim
116.110	001	Total Petroleum Hydrocarbons - Gasoline	LUFT	Interim

Field of Testing: 117 - Semi-volatile Organic Chemistry of Hazardous Waste

117.010	001	Diesel-range Total Petroleum Hydrocarbons	EPA 8015B	
117.110	000	Extractable Organics	EPA 8270C	
117.150	000	Carbonyl Compounds	EPA 8315A	
117.170	000	Nitroaromatics and Nitramines	EPA 8330	
117.171	000	Nitroaromatics and Nitramines	EPA 8330A	
117.210	000	Organochlorine Pesticides	EPA 8081A	

117.220	000	PCBs	EPA 8082	
117.240	000	Organophosphorus Pesticides	EPA 8141A	
117.250	000	Chlorinated Herbicides	EPA 8151A	
117.270	000	Carbamates, N-methylcarbamates	EPA 8318	
Field of Testing: 120 - Physical Properties of Hazardous Waste				
120.010	001	Ignitability	EPA 1010	
120.040	001	Reactive Cyanide	Section 7.3 SW-846	Interim
120.050	001	Reactive Sulfide	Section 7.3 SW-846	
120.070	001	Corrosivity - pH Determination	EPA 9040B	
120.080	001	Corrosivity - pH Determination	EPA 9045C	

CALIFORNIA
Water Boards
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CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

LA Testing - South Pasadena Laboratory

520 Mission Street

South Pasadena, CA 91030

Scope of the certificate is limited to the
"Fields of Testing"
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **2283**

Expiration Date: **12/31/2017**

Effective Date: **1/1/2016**

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program

CALIFORNIA
Water Boards
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REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM
Accredited Fields of Testing

LA Testing - South Pasadena Laboratory

520 Mission Street
South Pasadena, CA 91030
Phone: (800) 303-0047

Certificate No. 2283
Expiration Date 12/31/2017

Field of Testing: 101 - Microbiology of Drinking Water			
101.010	001	Heterotrophic Bacteria	SM9215B
101.060	002	Total Coliform	SM9223B (Colilert)
101.060	003	E. coli	SM9223B (Colilert)
101.150	001	Fecal Coliform (Enumeration)	SM9222D
101.160	001	Total Coliform (Enumeration)	SM9223B (Colilert/Quanti-Tray)
Field of Testing: 103 - Toxic Chemical Elements of Drinking Water			
103.301	001	Asbestos	EPA 100.2
Field of Testing: 107 - Microbiology of Wastewater			
107.010	001	Heterotrophic Bacteria	SM9215B
107.080	002	Fecal Coliform	SM9222D-1997
Field of Testing: 114 - Inorganic Chemistry of Hazardous Waste			
114.130	001	Lead	EPA 7420
Field of Testing: 121 - Bulk Asbestos Analysis of Hazardous Waste			
121.010	001	Bulk Asbestos	EPA 600/M4-82-020
Field of Testing: 126 - Microbiology of Recreational Water			
126.040	001	Fecal Coliform (Enumeration)	SM9222D-1997
126.080	001	Enterococci	Enterolert

As of 1/8/2016 , this list supersedes all previous lists for this certificate number.
Customers: Please verify the current accreditation standing with the State.

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

TestAmerica Sacramento

880 Riverside Parkway

West Sacramento, CA 95605

Scope of the certificate is limited to the
"Fields of Testing"
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **2897**

Expiration Date: **1/31/2018**

Effective Date: **2/1/2016**

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program

CALIFORNIA STATE
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM
Accredited Fields of Testing

TestAmerica Sacramento

880 Riverside Parkway
West Sacramento, CA 95605
Phone: (916) 373-5600

Certificate No. 2897
Expiration Date 1/31/2018

Field of Testing: 102 - Inorganic Chemistry of Drinking Water				
102.045	001	Perchlorate	EPA 314.0	
102.047	001	Perchlorate	EPA 331.0	
Field of Testing: 105 - Semi-volatile Organic Chemistry of Drinking Water				
105.230	001	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	EPA 1613B	
Field of Testing: 108 - Inorganic Chemistry of Wastewater				
108.020	001	Conductivity	EPA 120.1	
108.112	001	Boron	EPA 200.7	
108.112	002	Calcium	EPA 200.7	
108.112	003	Hardness (calculation)	EPA 200.7	
108.112	004	Magnesium	EPA 200.7	
108.112	005	Potassium	EPA 200.7	
108.112	006	Silica, Dissolved	EPA 200.7	
108.112	007	Sodium	EPA 200.7	
108.112	008	Phosphorus, Total	EPA 200.7	
108.113	001	Boron	EPA 200.8	
108.113	002	Calcium	EPA 200.8	
108.113	003	Magnesium	EPA 200.8	
108.113	004	Potassium	EPA 200.8	
108.113	006	Sodium	EPA 200.8	
108.120	001	Bromide	EPA 300.0	
108.120	002	Chloride	EPA 300.0	
108.120	003	Fluoride	EPA 300.0	
108.120	008	Sulfate	EPA 300.0	
108.120	012	Nitrate (as N)	EPA 300.0	
108.120	013	Nitrate-Nitrite (as N)	EPA 300.0	
108.120	014	Nitrite (as N)	EPA 300.0	
108.120	015	Phosphate, Ortho (as P)	EPA 300.0	
108.232	003	Nitrate-Nitrite (as N)	EPA 353.2	
108.323	001	Chemical Oxygen Demand	EPA 410.4	
108.410	001	Alkalinity	SM2320B-1997	
108.420	001	Hardness (calculation)	SM2340B	
108.430	001	Conductivity	SM2510B	
108.440	001	Residue, Total	SM2540B	
108.441	001	Residue, Filterable TDS	SM2540C	
108.442	001	Residue, Non-filterable TSS	SM2540D	
108.490	001	Hydrogen Ion (pH)	SM4500-H+ B	
108.528	001	Nitrate-Nitrite (as N)	SM4500-NO3- E-2000	Interim

As of 2/2/2016 , this list supersedes all previous lists for this certificate number.
Customers: Please verify the current accreditation standing with the State.

108.528	002	Nitrite (as N)	SM4500-NO3- E-2000	Interim
108.528	003	Nitrate (as N)	SM4500-NO3- E-2000	Interim
Field of Testing: 109 - Toxic Chemical Elements of Wastewater				
109.010	001	Aluminum	EPA 200.7	
109.010	002	Antimony	EPA 200.7	
109.010	003	Arsenic	EPA 200.7	
109.010	004	Barium	EPA 200.7	
109.010	005	Beryllium	EPA 200.7	
109.010	006	Boron	EPA 200.7	
109.010	007	Cadmium	EPA 200.7	
109.010	009	Chromium	EPA 200.7	
109.010	010	Cobalt	EPA 200.7	
109.010	011	Copper	EPA 200.7	
109.010	012	Iron	EPA 200.7	
109.010	013	Lead	EPA 200.7	
109.010	015	Manganese	EPA 200.7	
109.010	016	Molybdenum	EPA 200.7	
109.010	017	Nickel	EPA 200.7	
109.010	019	Selenium	EPA 200.7	
109.010	021	Silver	EPA 200.7	
109.010	023	Thallium	EPA 200.7	
109.010	024	Tin	EPA 200.7	
109.010	025	Titanium	EPA 200.7	
109.010	026	Vanadium	EPA 200.7	
109.010	027	Zinc	EPA 200.7	
109.020	001	Aluminum	EPA 200.8	
109.020	002	Antimony	EPA 200.8	
109.020	003	Arsenic	EPA 200.8	
109.020	004	Barium	EPA 200.8	
109.020	005	Beryllium	EPA 200.8	
109.020	006	Cadmium	EPA 200.8	
109.020	007	Chromium	EPA 200.8	
109.020	008	Cobalt	EPA 200.8	
109.020	009	Copper	EPA 200.8	
109.020	010	Lead	EPA 200.8	
109.020	011	Manganese	EPA 200.8	
109.020	012	Molybdenum	EPA 200.8	
109.020	013	Nickel	EPA 200.8	
109.020	014	Selenium	EPA 200.8	
109.020	015	Silver	EPA 200.8	
109.020	016	Thallium	EPA 200.8	
109.020	017	Vanadium	EPA 200.8	
109.020	018	Zinc	EPA 200.8	
109.020	020	Gold	EPA 200.8	
109.020	021	Iron	EPA 200.8	
109.020	022	Tin	EPA 200.8	
109.020	023	Titanium	EPA 200.8	

Field of Testing: 110 - Volatile Organic Chemistry of Wastewater			
110.040	000	Purgeable Organic Compounds	EPA 624
Field of Testing: 111 - Semi-volatile Organic Chemistry of Wastewater			
111.100	000	Acid/base/neutral Organic Compounds	EPA 625
111.103	000	Nitrosamines	EPA 625
111.111	000	Dioxins and Dibenzofurans	EPA 1613B
Field of Testing: 114 - Inorganic Chemistry of Hazardous Waste			
114.010	001	Antimony	EPA 6010B
114.010	002	Arsenic	EPA 6010B
114.010	003	Barium	EPA 6010B
114.010	004	Beryllium	EPA 6010B
114.010	005	Cadmium	EPA 6010B
114.010	006	Chromium	EPA 6010B
114.010	007	Cobalt	EPA 6010B
114.010	008	Copper	EPA 6010B
114.010	009	Lead	EPA 6010B
114.010	010	Molybdenum	EPA 6010B
114.010	011	Nickel	EPA 6010B
114.010	012	Selenium	EPA 6010B
114.010	013	Silver	EPA 6010B
114.010	014	Thallium	EPA 6010B
114.010	015	Vanadium	EPA 6010B
114.010	016	Zinc	EPA 6010B
114.020	001	Antimony	EPA 6020
114.020	002	Arsenic	EPA 6020
114.020	003	Barium	EPA 6020
114.020	004	Beryllium	EPA 6020
114.020	005	Cadmium	EPA 6020
114.020	006	Chromium	EPA 6020
114.020	007	Cobalt	EPA 6020
114.020	008	Copper	EPA 6020
114.020	009	Lead	EPA 6020
114.020	010	Molybdenum	EPA 6020
114.020	011	Nickel	EPA 6020
114.020	012	Selenium	EPA 6020
114.020	013	Silver	EPA 6020
114.020	014	Thallium	EPA 6020
114.020	015	Vanadium	EPA 6020
114.020	016	Zinc	EPA 6020
114.103	001	Chromium (VI)	EPA 7196A
114.140	001	Mercury	EPA 7470A
114.141	001	Mercury	EPA 7471A
114.240	001	Corrosivity - pH Determination	EPA 9040B
114.241	001	Corrosivity - pH Determination	EPA 9045C
114.250	001	Fluoride	EPA 9056
Field of Testing: 115 - Extraction Test of Hazardous Waste			

115.021	001	TCLP Inorganics	EPA 1311	Interim
115.022	001	TCLP Extractables	EPA 1311	Interim
115.030	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II	
115.040	001	Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312	
115.040	001	Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312	
Field of Testing: 116 - Volatile Organic Chemistry of Hazardous Waste				
116.080	000	Volatile Organic Compounds	EPA 8260B	
116.080	000	Volatile Organic Compounds	EPA 8260B	
116.080	120	Oxygenates	EPA 8260B	
116.080	120	Oxygenates	EPA 8260B	
116.100	001	Total Petroleum Hydrocarbons - Gasoline	LUFT GC/MS	
116.100	001	Total Petroleum Hydrocarbons - Gasoline	LUFT GC/MS	
116.100	002	Benzene	LUFT GC/MS	
116.100	003	Toluene	LUFT GC/MS	
116.100	004	Xylenes	LUFT GC/MS	
116.100	005	Methyl tert-butyl Ether (MTBE)	LUFT GC/MS	
116.100	010	BTEX and MTBE	LUFT GC/MS	
116.100	010	BTEX and MTBE	LUFT GC/MS	
116.110	001	Total Petroleum Hydrocarbons - Gasoline	LUFT	Interim
Field of Testing: 117 - Semi-volatile Organic Chemistry of Hazardous Waste				
117.010	001	Diesel-range Total Petroleum Hydrocarbons	EPA 8015B	
117.010	001	Diesel-range Total Petroleum Hydrocarbons	EPA 8015B	
117.016	001	Diesel-range Total Petroleum Hydrocarbons	LUFT	
117.016	001	Diesel-range Total Petroleum Hydrocarbons	LUFT	
117.110	000	Extractable Organics	EPA 8270C	
117.110	000	Extractable Organics	EPA 8270C	
117.120	000	Dioxins and Dibenzofurans	EPA 8280A	
117.120	000	Dioxins and Dibenzofurans	EPA 8280A	
117.130	000	Dioxins and Dibenzofurans	EPA 8290	
117.130	000	Dioxins and Dibenzofurans	EPA 8290	
117.170	000	Nitroaromatics and Nitramines	EPA 8330	
117.170	000	Nitroaromatics and Nitramines	EPA 8330	Interim
117.171	000	Nitroaromatics and Nitramines	EPA 8330A	
117.210	000	Pesticides	EPA 8081A	
117.210	000	Pesticides	EPA 8081A	
117.220	000	PCBs	EPA 8082	
117.220	000	PCBs	EPA 8082	

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
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CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

TestAmerica St. Louis

13715 Rider Trail North

Earth City, MO 63045

Scope of the certificate is limited to the
"Fields of Testing"
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **2886**

Expiration Date: **3/31/2018**

Effective Date: **4/1/2016**

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM
Accredited Fields of Testing

TestAmerica St. Louis

13715 Rider Trail North
Earth City, MO 63045
Phone: (314) 298-8566

Certificate No. 2886
Expiration Date 3/31/2018

Field of Testing: 106 - Radiochemistry of Drinking Water

106.010	001	Gross Alpha and Beta Radiation	EPA 900.0
106.010	002	Gross Beta	EPA 900.0
106.030	003	Gamma Emitters	EPA 901.1
106.050	002	Radium-226 (estimate)	EPA 903.0
106.060	001	Radium-228	EPA 904.0
106.070	003	Strontium-90	EPA 905.0
106.080	001	Tritium	EPA 906.0
106.220	001	Strontium-89, 90	DOE Sr-02

Field of Testing: 108 - Inorganic Chemistry of Wastewater

108.020	001	Conductivity	EPA 120.1
108.112	001	Boron	EPA 200.7
108.112	002	Calcium	EPA 200.7
108.112	004	Magnesium	EPA 200.7
108.112	005	Potassium	EPA 200.7
108.112	007	Sodium	EPA 200.7
108.113	003	Magnesium	EPA 200.8
108.120	001	Bromide	EPA 300.0
108.120	002	Chloride	EPA 300.0
108.120	003	Fluoride	EPA 300.0
108.120	012	Nitrate (as N)	EPA 300.0
108.120	014	Nitrite (as N)	EPA 300.0
108.120	015	Phosphate, Ortho (as P)	EPA 300.0
108.183	001	Cyanide, Total	EPA 335.4
108.211	002	Kjeldahl Nitrogen, Total (as N)	EPA 351.2
108.323	001	Chemical Oxygen Demand	EPA 410.4
108.381	001	Oil and Grease	EPA 1664A
108.440	001	Residue, Total	SM2540B-1997
108.441	001	Residue, Filterable TDS	SM2540C-1997
108.442	001	Residue, Non-filterable TSS	SM2540D-1997
108.490	001	Hydrogen Ion (pH)	SM4500-H+ B-2000

Field of Testing: 109 - Toxic Chemical Elements of Wastewater

109.010	001	Aluminum	EPA 200.7
109.010	002	Antimony	EPA 200.7
109.010	003	Arsenic	EPA 200.7
109.010	004	Barium	EPA 200.7
109.010	005	Beryllium	EPA 200.7
109.010	006	Boron	EPA 200.7

As of 3/25/2016 , this list supersedes all previous lists for this certificate number.
Customers: Please verify the current accreditation standing with the State.

109.010	007	Cadmium	EPA 200.7
109.010	009	Chromium	EPA 200.7
109.010	010	Cobalt	EPA 200.7
109.010	011	Copper	EPA 200.7
109.010	012	Iron	EPA 200.7
109.010	013	Lead	EPA 200.7
109.010	015	Manganese	EPA 200.7
109.010	016	Molybdenum	EPA 200.7
109.010	017	Nickel	EPA 200.7
109.010	019	Selenium	EPA 200.7
109.010	021	Silver	EPA 200.7
109.010	023	Thallium	EPA 200.7
109.010	024	Tin	EPA 200.7
109.010	025	Titanium	EPA 200.7
109.010	026	Vanadium	EPA 200.7
109.010	027	Zinc	EPA 200.7
109.020	001	Aluminum	EPA 200.8
109.020	002	Antimony	EPA 200.8
109.020	003	Arsenic	EPA 200.8
109.020	004	Barium	EPA 200.8
109.020	005	Beryllium	EPA 200.8
109.020	006	Cadmium	EPA 200.8
109.020	007	Chromium	EPA 200.8
109.020	008	Cobalt	EPA 200.8
109.020	009	Copper	EPA 200.8
109.020	010	Lead	EPA 200.8
109.020	011	Manganese	EPA 200.8
109.020	012	Molybdenum	EPA 200.8
109.020	013	Nickel	EPA 200.8
109.020	014	Selenium	EPA 200.8
109.020	015	Silver	EPA 200.8
109.020	016	Thallium	EPA 200.8
109.020	017	Vanadium	EPA 200.8
109.020	018	Zinc	EPA 200.8
109.190	001	Mercury	EPA 245.1
Field of Testing: 110 - Volatile Organic Chemistry of Wastewater			
110.040	000	Purgeable Organic Compounds	EPA 624
Field of Testing: 111 - Semi-volatile Organic Chemistry of Wastewater			
111.100	000	Base/Neutral & Acid Organics	EPA 625
111.170	000	Organochlorine Pesticides and PCBs	EPA 608
Field of Testing: 112 - Radiochemistry of Wastewater			
112.010	001	Gross Alpha and Beta Radiation	EPA 900.0
112.010	002	Gross Beta	EPA 900.0
112.020	001	Total Alpha Radium	EPA 903.0
112.140	002	Gamma	EPA 901.1
112.160	001	Radium-228	EPA 904.0

112.170	001	Strontium	EPA 905.0
112.180	001	Tritium	EPA 906.0
112.510	001	Strontium	DOE Sr-02

Field of Testing: 114 - Inorganic Chemistry of Hazardous Waste

114.010	001	Antimony	EPA 6010B
114.010	002	Arsenic	EPA 6010B
114.010	003	Barium	EPA 6010B
114.010	004	Beryllium	EPA 6010B
114.010	005	Cadmium	EPA 6010B
114.010	006	Chromium	EPA 6010B
114.010	007	Cobalt	EPA 6010B
114.010	008	Copper	EPA 6010B
114.010	009	Lead	EPA 6010B
114.010	010	Molybdenum	EPA 6010B
114.010	011	Nickel	EPA 6010B
114.010	012	Selenium	EPA 6010B
114.010	013	Silver	EPA 6010B
114.010	014	Thallium	EPA 6010B
114.010	015	Vanadium	EPA 6010B
114.010	016	Zinc	EPA 6010B
114.020	001	Antimony	EPA 6020
114.020	002	Arsenic	EPA 6020
114.020	003	Barium	EPA 6020
114.020	004	Beryllium	EPA 6020
114.020	005	Cadmium	EPA 6020
114.020	006	Chromium	EPA 6020
114.020	007	Cobalt	EPA 6020
114.020	008	Copper	EPA 6020
114.020	009	Lead	EPA 6020
114.020	010	Molybdenum	EPA 6020
114.020	011	Nickel	EPA 6020
114.020	012	Selenium	EPA 6020
114.020	013	Silver	EPA 6020
114.020	014	Thallium	EPA 6020
114.020	015	Vanadium	EPA 6020
114.020	016	Zinc	EPA 6020
114.103	001	Chromium (VI)	EPA 7196A
114.141	001	Mercury	EPA 7471A
114.221	001	Cyanide, Total	EPA 9012A
114.241	001	Corrosivity - pH Determination	EPA 9045C
114.250	001	Fluoride	EPA 9056

Field of Testing: 115 - Extraction Test of Hazardous Waste

115.020	001	Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311
115.021	001	TCLP Inorganics	EPA 1311
115.022	001	TCLP Extractables	EPA 1311
115.023	001	TCLP Volatiles	EPA 1311

115.030	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II
115.040	001	Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312
Field of Testing: 116 - Volatile Organic Chemistry of Hazardous Waste			
116.030	001	Gasoline-range Organics	EPA 8015B
116.080	000	Volatile Organic Compounds	EPA 8260B
Field of Testing: 117 - Semi-volatile Organic Chemistry of Hazardous Waste			
117.010	001	Diesel-range Total Petroleum Hydrocarbons	EPA 8015B
117.110	000	Extractable Organics	EPA 8270C
117.170	000	Nitroaromatics and Nitramines	EPA 8330
117.210	000	Organochlorine Pesticides	EPA 8081A
117.220	000	PCBs	EPA 8082
117.250	000	Chlorinated Herbicides	EPA 8151A
Field of Testing: 118 - Radiochemistry of Hazardous Waste			
118.010	001	Gross Alpha and Beta In Hazardous Wastes	EPA 9310
118.010	002	Gross Beta	EPA 9310
118.020	001	Radium, Total	EPA 9315
118.030	001	Radium-228	EPA 9320
118.271	001	Strontium	DOE Sr-02
Field of Testing: 120 - Physical Properties of Hazardous Waste			
120.010	001	Ignitability	EPA 1010
120.040	001	Reactive Cyanide	Section 7.3 SW-846
120.050	001	Reactive Sulfide	Section 7.3 SW-846
120.070	001	Corrosivity - pH Determination	EPA 9040B
120.080	001	Corrosivity - pH Determination	EPA 9045C

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY
NELAP - RECOGNIZED
ENVIRONMENTAL LABORATORY ACCREDITATION

is hereby granted to

TESTAMERICA DENVER

4955 YARROW STREET

ARVADA, CO 80002

NELAP ACCREDITED

ACCREDITATION NUMBER #200017

According to the Illinois Administrative Code, Title 35, Subtitle A, Chapter II, Part 186, ACCREDITATION OF LABORATORIES FOR DRINKING WATER, WASTEWATER AND HAZARDOUS WASTES ANALYSIS, the State of Illinois formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed below.

The laboratory agrees to perform all analyses listed on this scope of accreditation according to the Part 186 requirements and acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part 186. Please contact the Illinois EPA Environmental Laboratory Accreditation Program (IL ELAP) to verify the laboratory's scope of accreditation and accreditation status. Accreditation by the State of Illinois is not an endorsement or a guarantee of validity of the data generated by the laboratory.

Primary Accrediting Authority: Oregon ELAP

Celeste M. Crowley
Acting Manager
Environmental Laboratory Accreditation Program

Kathy Marshall
Accreditation Officer
Environmental Laboratory Accreditation Program

Certificate No.: 004103
Expiration Date: 04/30/2018
Issued On: 03/21/2017

State of Illinois
Environmental Protection Agency

Certificate No.: 004103

Awards the Certificate of Approval to:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

According to the Illinois Administrative Code, Title 35, Subtitle A, Chapter II, Part 186, ACCREDITATION OF LABORATORIES FOR DRINKING WATER, WASTEWATER AND HAZARDOUS WASTES ANALYSIS, the State of Illinois formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed below.

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FOT Name: Non Potable Water, Inorganic

Method: SM2120B,2001

Matrix Type: NPW

Color

Method: SM2310B,1997

Matrix Type: NPW

Acidity

Method: SM2320B,1997

Matrix Type: NPW

Alkalinity

Method: SM2340B,1997

Matrix Type: NPW

Hardness

Method: SM2340C,1997

Matrix Type: NPW

Hardness

Method: SM2510B,1997

Matrix Type: NPW

Specific Conductance

Method: SM2540B,1997

Matrix Type: NPW

Residue (Total)

Method: SM2540C,1997

Matrix Type: NPW

Residue (TDS)

Method: SM2540D,1997

Matrix Type: NPW

Residue (TSS)

Method: SM2540F,1997

Matrix Type: NPW

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FOT Name: Non Potable Water, Inorganic

Matrix Type: NPW

Method: SM3500Cr-B,2009

Matrix Type: NPW

Chromium VI

Method: SM3500Fe-B,1997

Matrix Type: NPW

Iron

Method: SM4500CN-E,1999

Matrix Type: NPW

Cyanide

Method: SM4500CN-G,1999

Matrix Type: NPW

Cyanide, Available

Method: SM4500H-B,2000

Matrix Type: NPW

Hydrogen Ion (pH)

Method: SM4500NO2-B,2000

Matrix Type: NPW

Nitrite

Method: SM4500S2-D,2000

Matrix Type: NPW

Sulfide

Method: SM4500S2-F,2000

Matrix Type: NPW

Sulfide

Method: SM4500SO3-B,2000

Matrix Type: NPW

Sulfite

Method: SM5210B,2001

Matrix Type: NPW

Biochemical Oxygen Demand (BOD)

Method: SM5310B,2000

Matrix Type: NPW

Total Organic Carbon (TOC)

Method: SM2540F,1997

Residue (settleable)

Carbonaceous Biochemical Oxygen Demand (CBOI

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FOT Name: Non Potable Water, Inorganic

Method: USEPA160.4,1971

Matrix Type: NPW

Residue (Volatile)

Method: USEPA1664A

Matrix Type: NPW

Oil and Grease

Method: USEPA1664B

Matrix Type: NPW

Oil & Grease

Method: USEPA180.1R2.0,1993

Matrix Type: NPW

Turbidity

Method: USEPA200.7,1994

Matrix Type: NPW

Aluminum	Antimony
Arsenic	Barium
Beryllium	Boron
Cadmium	Calcium
Chromium	Cobalt
Copper	Hardness (calc)
Iron	Lead
Magnesium	Manganese
Molybdenum	Nickel
Phosphorus	Potassium
Selenium	Silica
Silver	Sodium
Thallium	Tin
Titanium	Vanadium
Zinc	

Method: USEPA200.8,1994

Matrix Type: NPW

Antimony	Arsenic
Barium	Beryllium
Cadmium	Chromium
Cobalt	Copper

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FOT Name: Non Potable Water, Inorganic

Method: USEPA200.8,1994

Matrix Type: NPW

Lead
Manganese
Molybdenum
Nickel
Selenium
Silver
Thallium
Tin
Vanadium
Zinc

Method: USEPA245.1R3.0,1994

Matrix Type: NPW

Mercury

Method: USEPA300.0R2.1,1993

Matrix Type: NPW

Bromide
Chloride
Fluoride
Nitrate
Nitrate-Nitrite (as N)
Nitrate-Nitrite (sum)
Nitrite
Orthophosphate (as P)
Sulfate

Method: USEPA335.4R1.0,1993

Matrix Type: NPW

Cyanide

Method: USEPA350.1R2.0,1993

Matrix Type: NPW/SCM

Ammonia

Method: USEPA351.2R2.0,1993

Matrix Type: NPW/SCM

Total Kjeldahl Nitrogen

Method: USEPA353.2R2.0,1993

Matrix Type: NPW

Nitrate
Nitrate-nitrite (as N)
Nitrite (as N)

Method: USEPA365.1R2.0,1993

Matrix Type: NPW/SCM

Orthophosphate (as P)
Phosphorus

Method: USEPA410.4R2.0,1993

Matrix Type: NPW

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FOT Name: Non Potable Water, Inorganic

Matrix Type: NPW

Method: USEPA420.1,1978

Matrix Type: NPW

Phenolics

Method: USEPA420.4R1.0,1993

Matrix Type: NPW

Phenolics

Method: USEPA410.4R2.0,1993

Chemical Oxygen Demand (COD)

FOT Name: Non Potable Water, Organic

Method: USEPA602

Matrix Type: NPW

1,2-Dichlorobenzene	1,3-Dichlorobenzene
1,4-Dichlorobenzene	Benzene
Chlorobenzene	Ethylbenzene
Toluene	

Method: USEPA608

Matrix Type: NPW

4,4'-DDD	4,4'-DDE
4,4'-DDT	Aldrin
alpha-BHC	beta-BHC
Chlordane	delta-BHC
Dieldrin	Endosulfan I
Endosulfan II	Endosulfan sulfate
Endrin	Endrin aldehyde
gamma-BHC (Lindane)	Heptachlor
Heptachlor epoxide	Methoxychlor
PCB-1016	PCB-1221
PCB-1232	PCB-1242
PCB-1248	PCB-1254
PCB-1260	Toxaphene

Method: USEPA610

Matrix Type: NPW

Acenaphthene	Acenaphthylene
Anthracene	Benzo(a)anthracene
Benzo(a)pyrene	Benzo(b)fluoranthene

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FOT Name: Non Potable Water, Organic

Method: USEPA610

Matrix Type: NPW

- Benzo(g,h,i)perylene
- Benzo(k)fluoranthene
- Chrysene
- Dibenz(a,h)anthracene
- Fluoranthene
- Fluorene
- Indeno(1,2,3-cd) pyrene
- Naphthalene
- Phenanthrene
- Pyrene

Method: USEPA614

Matrix Type: NPW

- Azinphos methyl
- Demeton-O
- Demeton-S
- Diazinon
- Disulfoton
- Malathion
- Parathion ethyl
- Parathion methyl

Method: USEPA624

Matrix Type: NPW

- 1,1,1-Trichloroethane
- 1,1,2,2-Tetrachloroethane
- 1,1,2-Trichloroethane
- 1,1-Dichloroethane
- 1,1-Dichloroethene
- 1,2-Dichlorobenzene
- 1,2-Dichloroethane
- 1,2-Dichloropropane
- 1,3-Dichlorobenzene
- 1,4-Dichlorobenzene
- 2-Chloroethylvinyl ether
- Acrolein (Propenal)
- Acrylonitrile
- Benzene
- Bromodichloromethane
- Bromoform
- Bromomethane
- Carbon tetrachloride
- Chlorobenzene
- Chloroethane
- Chloroform
- Chloromethane
- cis-1,3-Dichloropropene
- Dibromochloromethane
- Dichloromethane (Methylene chloride)
- Ethylbenzene
- Methyl tert-butyl ether (MTBE)
- Tetrachloroethene
- Toluene
- trans-1,2-Dichloroethene
- trans-1,3-Dichloropropene
- Trichloroethene
- Trichlorofluoromethane
- Vinyl chloride
- Xylenes (total)

Method: USEPA625

Matrix Type: NPW

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FOT Name: Non Potable Water, Organic

Method: USEPA625

Matrix Type: NPW

1,2-Dichlorobenzene	1,2,4-Trichlorobenzene
1,4-Dichlorobenzene	1,3-Dichlorobenzene
2,4,5-Trichlorophenol	2,2-Oxybis (1-chloropropane)
2,4-Dichlorophenol	2,4,6-Trichlorophenol
2,4-Dinitrophenol	2,4-Dimethylphenol
2,6-Dinitrotoluene (2,6-DNT)	2,4-Dinitrotoluene (2,4-DNT)
2-Chlorophenol	2-Chloronaphthalene
2-Nitrophenol	2-Methyl-4,6-dinitrophenol
4-Bromophenyl phenyl ether	3,3'-Dichlorobenzidine
4-Chlorophenyl phenyl ether	4-Chloro-3-methylphenol
Acenaphthene	4-Nitrophenol
Anthracene	Acenaphthylene
Benzo(a)anthracene	Benzidine
Benzo(b)fluoranthene	Benzo(a)pyrene
Benzo(k)fluoranthene	Benzo(g,h,i)perylene
Bis(2-chloroethoxy) methane	Benzyl butyl phthalate
Bis(2-ethylhexyl) phthalate	Bis(2-chloroethyl) ether
Dibenz(a,h)anthracene	Chrysene
Dimethyl phthalate	Diethyl phthalate
Di-n-octyl phthalate	Di-n-butyl phthalate
Fluorene	Fluoranthene
Hexachlorobutadiene	Hexachlorobenzene
Hexachloroethane	Hexachlorocyclopentadiene
Isophorone	Indeno(1,2,3-cd) pyrene
Nitrobenzene	Naphthalene
N-Nitrosodi-n-propylamine	N-Nitrosodimethylamine
Pentachlorophenol	N-Nitrosodiphenylamine
Phenol	Phenanthrene
	Pyrene

FOT Name: Solid and Chemical Materials, Inorganic

Method: 1010A

Matrix Type: NPW/SCM

Ignitability

Method: 1311

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FOT Name: Solid and Chemical Materials, Inorganic **Method: 1311**

Matrix Type: NPW/SCM

TCLP (Organic and Inorganic)

Method: 1312

Matrix Type: NPW/SCM

Synthetic Precipitation Leaching Procedure

Method: 6010B

Matrix Type: NPW/SCM

Aluminum	Antimony
Arsenic	Barium
Beryllium	Boron
Cadmium	Calcium
Chromium	Cobalt
Copper	Iron
Lead	Lithium
Magnesium	Manganese
Molybdenum	Nickel
Phosphorus	Potassium
Selenium	Silica
Silver	Sodium
Strontium	Thallium
Tin	Titanium
Vanadium	Zinc

Method: 6010C

Matrix Type: NPW/SCM

Aluminum	Antimony
Arsenic	Barium
Beryllium	Boron
Cadmium	Calcium
Chromium	Cobalt
Copper	Iron
Lead	Lithium
Magnesium	Manganese
Molybdenum	Nickel
Phosphorus	Potassium

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FOT Name: Solid and Chemical Materials, Inorganic

Method: 6010C

Matrix Type: NPW/SCM

Silica
Sodium
Thallium
Titanium
Zinc
Selenium
Silver
Strontium
Tin
Vanadium

Method: 6020A

Matrix Type: NPW/SCM

Antimony
Barium
Cadmium
Cobalt
Lead
Molybdenum
Selenium
Thallium
Zinc
Arsenic
Beryllium
Chromium
Copper
Manganese
Nickel
Silver
Vanadium

Method: 6860

Matrix Type: NPW/SCM

Perchlorate

Method: 7196A

Matrix Type: NPW

Chromium VI

Method: 7470A

Matrix Type: NPW

Mercury

Method: 7471B

Matrix Type: SCM

Mercury

Method: 9012A

Matrix Type: NPW/SCM

Cyanide

Method: 9012B

Matrix Type: NPW/SCM

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FOT Name: Solid and Chemical Materials, Inorganic

Matrix Type: NPW/SCM

Method: 9020B

Matrix Type: NPW

TOX (Total Organic Halides)

Method: 9034

Matrix Type: NPW/SCM

Sulfides

Method: 9040B

Matrix Type: NPW

Hydrogen Ion (pH)

Method: 9040C

Matrix Type: NPW

Hydrogen Ion (pH)

Method: 9045C

Matrix Type: SCM

Hydrogen Ion (pH)

Method: 9045D

Matrix Type: SCM

Hydrogen Ion (pH)

Method: 9050A

Matrix Type: NPW/SCM

Specific Conductance

Method: 9056A

Matrix Type: NPW/SCM

Bromide
Chloride
Fluoride
Nitrate
Nitrite
Phosphate
Sulfate

Method: 9060A

Matrix Type: NPW/SCM

Total Organic Carbon (TOC)

Method: 9066

Matrix Type: NPW

Phenolics

Method: 9012B

Cyanide

FOT Name: Solid and Chemical Materials, Inorganic **Method: 9071B**

Matrix Type: SCM

Oil and Grease Extractable

Method: 9095A

Matrix Type: SCM

Paint Filter

FOT Name: Solid and Chemical Materials, Organic

Method: 8011

Matrix Type: NPW/SCM

1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane (EDB)

Method: 8015B

Matrix Type: NPW/SCM

Diesel range organics (DRO)	Gasoline range organics (GRO)

Method: 8015C

Matrix Type: NPW/SCM

Diesel range organics (DRO)	Gasoline range organics (GRO)

Method: 8015D

Matrix Type: NPW/SCM

Diesel range organics (DRO)	Gasoline range organics (GRO)

Method: 8021B

Matrix Type: NPW/SCM

1,2-Dichlorobenzene	1,3-Dichlorobenzene
1,4-Dichlorobenzene	Benzene
Chlorobenzene	Ethylbenzene
MTBE (Methyl-t-butyl ether)	m-Xylene
Naphthalene	o-Xylene
p-Xylene	Toluene
Total Xylenes	

Method: 8081A

Matrix Type: NPW

Dicofol	Propachlor

Matrix Type: NPW/SCM

4,4'-DDD	4,4'-DDE
4,4'-DDT	Aldrin
alpha-BHC	alpha-Chlordane

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FOT Name: Solid and Chemical Materials, Organic

Method: 8081A

Matrix Type: NPW/SCM

- Chlordane - not otherwise specified
- beta-BHC
- delta-BHC
- Chlorobenzilate
- Dieldrin
- Diallate
- Endosulfan II
- Endosulfan I
- Endrin
- Endosulfan sulfate
- Endrin ketone
- Endrin aldehyde
- gamma-Chlordane
- gamma-BHC (Lindane)
- Heptachlor epoxide
- Heptachlor
- Isodrin
- Hexachlorobenzene
- Methoxychlor
- Kepone
- Toxaphene
- Mirex

Method: 8081B

Matrix Type: NPW

- Dicofol
- Propachlor

Matrix Type: NPW/SCM

- 4,4'-DDD
- 4,4'-DDE
- 4,4'-DDT
- Aldrin
- alpha-BHC
- alpha-Chlordane
- beta-BHC
- Chlordane - not otherwise specified
- Chlorobenzilate
- delta-BHC
- Diallate
- Dieldrin
- Endosulfan I
- Endosulfan II
- Endosulfan sulfate
- Endrin
- Endrin aldehyde
- Endrin ketone
- gamma-BHC (Lindane)
- gamma-Chlordane
- Heptachlor
- Heptachlor epoxide
- Hexachlorobenzene
- Isodrin
- Kepone
- Methoxychlor
- Mirex
- Toxaphene

Method: 8082

Matrix Type: NPW/SCM

- PCB-1016
- PCB-1221
- PCB-1232
- PCB-1242

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FOT Name: Solid and Chemical Materials, Organic

Method: 8082

Matrix Type: NPW/SCM

PCB-1254
PCB-1248
PCB-1260

Method: 8082A

Matrix Type: NPW/SCM

PCB-1016
PCB-1221
PCB-1232
PCB-1242
PCB-1248
PCB-1254
PCB-1260

Method: 8141B

Matrix Type: NPW/SCM

Atrazine
Azinphos-ethyl
Azinphos-methyl
Carbophenothion
Chloropyrifos
Coumaphos
Demeton
Diazinon
Dichlorovos
Dimethoate
Disulfoton
EPN
Ethoprop
Famphur
Fensulfothion
Fenthion
Malathion
Merphos
Mevinphos
Naled
Parathion ethyl
Parathion methyl
Phorate
Phosmet
Ronnel
Simazine
Sulfotepp
Sulprofos (Bolstar)
Tetrachlorvinphos (Stirophos)
Thionazine (Zinophos)
Tokuthion (Protothiofos)
Trichloronate

Method: 8151A

Matrix Type: NPW

Dinoseb

Matrix Type: NPW/SCM

2,4,5-T
2,4,5-TP (Silvex)
2,4-D
2,4-DB
Dalapon
Dicamba
Dichloroprop
MCPA

TestAmerica Denver
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Arvada, CO 80002

FOT Name: Solid and Chemical Materials, Organic

Method: 8151A

Matrix Type: NPW/SCM

Picloram	MCPP

Method: 8260B

Matrix Type: NPW/SCM

1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
1,1-Dichloroethane	1,1-Dichloroethene
1,1-Dichloropropene	1,2,3-Trichlorobenzene
1,2,3-Trichloropropane	1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane (DBCP)
1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene
1,2-Dichloroethane	1,2-Dichloropropane
1,3,5-TCB	1,3,5-Trimethylbenzene
1,3-Dichlorobenzene	1,3-Dichloropropane
1,4-Dichlorobenzene	1,4-Dioxane
1-Chlorohexane	2,2-Dichloropropane
2-Butanone (Methyl ethyl ketone, MEK)	2-Chloro-1,3-butadiene (Chloroprene)
2-Chloroethyl vinyl ether	2-Chlorotoluene
2-Hexanone	2-Methyl-1-propanol (Isobutyl alcohol)
2-Nitropropane	2-Pentanone
2-Propanol (Isopropyl alcohol)	4-Chlorotoluene
4-Methyl-2-pentanone (Methyl isobutyl ketone, MIBK	Acetone
Acetonitrile	Acrolein (Propenal)
Acrylonitrile	Allyl chloride
Benzene	Bromobenzene
Bromochloromethane	Bromodichloromethane
Bromoform	Bromomethane
Carbon disulfide	Carbon tetrachloride
Chlorobenzene	Chlorodibromomethane (Dibromochloromethane)
Chloroethane	Chloroform
Chloromethane	Chloroprene
cis-1,2-Dichloroethene	cis-1,3-Dichloropropene
cis-1,4-Dichloro-2-butene	Dibromomethane
Dichlorodifluoromethane	Dichloromethane (Methylene chloride)
Diethyl ether	Ethanol

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FOT Name: Solid and Chemical Materials, Organic

Method: 8260B

Matrix Type: NPW/SCM

- Ethyl ether
- Ethylbenzene
- Hexachlorobutadiene
- Isopropylbenzene
- Methacrylonitrile
- Methyl iodide (Iodmethane)
- Methyl methacrylate
- m-Xylene
- n-Butanol
- n-Propylbenzene
- Pentachloroethane
- Propionitrile (Ethyl cyanide)
- sec-Butylbenzene
- t-Butyl alcohol
- Tetrachloroethene
- Toluene
- trans-1,3-Dichloropropene
- Trichloroethene
- Trichlorotrifluoroethane
- Vinyl chloride
- Ethyl acetate
- Ethyl methacrylate
- Ethylene oxide
- Isopropyl ether
- m&p-xylene
- Methyl ethyl ketone
- Methyl isobutyl ketone
- Methyl-t-butyl ether
- Naphthalene
- n-Butylbenzene
- o-Xylene
- p-Isopropyltoluene
- p-Xylene
- Styrene
- tert-Butylbenzene
- Tetrahydrofuran
- trans-1,2-Dichloroethene
- trans-1,4-Dichloro-2-butene
- Trichlorofluoromethane
- Vinyl acetate
- Xylenes (Total)

Method: 8270C

Matrix Type: NPW/SCM

- 1,2,4,5-Tetrachlorobenzene
- 1,2-Dichlorobenzene
- 1,3,5-Trinitrobenzene (1,3,5-TNB)
- 1,3-Dinitrobenzene (1,3-DNB)
- 1,4-Dinitrobenzene
- 1,4-Naphthoquinone
- 1-Chloronaphthalene
- 1-Naphthylamine
- 2,3,4,6-Tetrachlorophenol
- 2,4,6-Trichlorophenol
- 2,4-Dimethylphenol
- 2,4-Dinitrotoluene (2,4-DNT)
- 1,2,4-Trichlorobenzene
- 1,2-Diphenylhydrazine
- 1,3-Dichlorobenzene
- 1,4-Dichlorobenzene
- 1,4-Dioxane
- 1,4-Phenylenediamine
- 1-Methylnaphthalene
- 2,2-Oxybis (1-chloropropane)
- 2,4,5-Trichlorophenol
- 2,4-Dichlorophenol
- 2,4-Dinitrophenol
- 2,6-Dichlorophenol

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FOT Name: Solid and Chemical Materials, Organic **Method: 8270C**

Matrix Type: NPW/SCM

2-Acetylaminofluorene
2-Chloronaphthalene
2-Chlorophenol
2-Methylnaphthalene
2-Methylphenol
2-Methylphenol (o-Cresol)
2-Methylpyridine (2-Picoline)
2-Naphthylamine
2-Nitroaniline
2-Nitrophenol
3,3'-Dichlorobenzidine
3,3'-Dimethylbenzidine
3-Methylcholanthrene
3-Methylphenol (m-Cresol)
3-Nitroaniline
4,4'-Methylenebis(2-Chloroanaline)
4,6-Dinitro-2-methylphenol
4-Aminobiphenyl
4-Bromophenyl phenyl ether
4-Chloro-3-methylphenol
4-Chloroaniline
4-Chlorophenyl phenyl ether
4-Methylphenol
4-Methylphenol (p-Cresol)
4-Nitroaniline
4-Nitrophenol
4-Nitroquinoline-1-oxide
5-Nitro-o-toluidine
7,12-Dimethylbenz(a)anthracene
Acenaphthene
Acenaphthylene
Acetophenone
alpha,alpha-Dimethylphenethylamine
Aniline
Anthracene
Aramite
Benzidine
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perlyene
Benzo(k)fluoranthene
Benzoic acid
Benzyl alcohol
Bis(2-chloroethoxy) methane
Bis(2-chloroethyl) ether
Bis(2-ethylhexyl) phthalate
Butyl benzyl phthalate
Carbazole
Chlorobenzilate
Chrysene
Diallate
Dibenz(a,h)anthracene
Dibenz(a,j)acridine
Dibenzo(a,e)pyrene
Dibenzofuran
Diethyl phthalate
Dimethoate
Dimethyl phthalate
Di-n-butyl phthalate
Di-n-octyl phthalate
Dinoseb
Diphenylamine
Disulfoton
Ethyl methanesulfonate
Famphur
Fluoranthene
Fluorene
2,6-Dinitrotoluene (2,6-DNT)

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FOT Name: Solid and Chemical Materials, Organic

Method: 8270C

Matrix Type: NPW/SCM

- Hexachlorobenzene
- Hexachlorobutadiene
- Hexachlorocyclopentadiene
- Hexachloroethane
- Hexachloropropene
- Indeno(1,2,3-cd) pyrene
- Isodrin
- Isophorone
- Isosafrole
- m-Cresol (3-Methylphenol)
- Methapyrilene
- Methyl methanesulfonate
- Methyl parathion
- Naphthalene
- Nitrobenzene
- Nitroquinoline-1-oxide
- N-Nitrosodiethylamine
- N-Nitrosodimethylamine
- N-Nitrosodi-n-butylamine (N-Nitrosodibutylamine)
- N-Nitrosodi-n-propylamine
- N-Nitrosodiphenylamine
- N-Nitrosomethylethylamine
- N-Nitrosomorpholine
- N-Nitrosopiperidine
- N-Nitrosopyrrolidine
- O,O,O-Triethyl phosphorothioate
- o-Anisidine
- o-Toluidine
- Parathion
- p-Cresol (4-Methylphenol)
- p-Dimethylaminoazobenzene
- Pentachlorobenzene
- Pentachloronitrobenzene
- Pentachlorophenol
- Phenacetin
- Phenanthrene
- Phenol
- Phorate
- Phthalic anhydride
- p-Phenylenediame
- Pronamide
- Pyrene
- Pyridine
- Safrole
- Thionazine (Zinophos)
- Tris(2,3-dibrompropyl) phosphate

Method: 8270D

Matrix Type: NPW

- p-Dimethylaminoazobenzene

Matrix Type: NPW/SCM

- 1,2,4,5-Tetrachlorobenzene
- 1,2,4-Trichlorobenzene
- 1,2-Dichlorobenzene
- 1,2-Diphenylhydrazine
- 1,3,5-Trinitrobenzene (1,3,5-TNB)
- 1,3-Dichlorobenzene
- 1,3-Dinitrobenzene (1,3-DNB)
- 1,4-Dichlorobenzene
- 1,4-Dinitrobenzene
- 1,4-Dioxane
- 1,4-Naphthoquinone
- 1,4-Phenylenediamine
- 1-Chloronaphthalene
- 1-Methylnaphthalene

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FOT Name: Solid and Chemical Materials, Organic **Method: 8270D**

Matrix Type: NPW/SCM

2,2-Oxybis (1-chloropropane)	1-Naphthylamine
2,4,5-Trichlorophenol	2,3,4,6-Tetrachlorophenol
2,4-Dichlorophenol	2,4,6-Trichlorophenol
2,4-Dinitrophenol	2,4-Dimethylphenol
2,6-Dichlorophenol	2,4-Dinitrotoluene (2,4-DNT)
2-Acetylaminofluorene	2,6-Dinitrotoluene (2,6-DNT)
2-Chlorophenol	2-Chloronaphthalene
2-Methylphenol (o-Cresol)	2-Methylnaphthalene
2-Naphthylamine	2-Methylpyridine (2-Picoline)
2-Nitrophenol	2-Nitroaniline
3,3'-Dimethylbenzidine	3,3'-Dichlorobenzidine
3-Methylphenol (m-Cresol)	3-Methylcholanthrene
4,4'-Methylenebis(2-Chloroanaline)	3-Nitroaniline
4-Aminobiphenyl	4,6-Dinitro-2-methylphenol
4-Chloro-3-methylphenol	4-Bromophenyl phenyl ether
4-Chlorophenyl phenyl ether	4-Chloroaniline
4-Nitroaniline	4-Methylphenol (p-Cresol)
4-Nitroquinoline-1-oxide	4-Nitrophenol
7,12-Dimethylbenz(a)anthracene	5-Nitro-o-toluidine
Acenaphthylene	Acenaphthene
alpha,alpha-Dimethylphenethylamine	Acetophenone
Anthracene	Aniline
Benzidine	Aramite
Benzo(a)pyrene	Benzo(a)anthracene
Benzo(g,h,i)perlyene	Benzo(b)fluoranthene
Benzoic acid	Benzo(k)fluoranthene
Bis(2-chloroethoxy) methane	Benzyl alcohol
Bis(2-ethylhexyl) phthalate	Bis(2-chloroethyl) ether
Carbazole	Butyl benzyl phthalate
Chrysene	Chlorobenzilate
Dibenz(a,h)anthracene	Diallate
Dibenzofuran	Dibenz(a,j)acridine
Dimethoate	Diethyl phthalate
Di-n-butyl phthalate	Dimethyl phthalate
	Di-n-octyl phthalate

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FOT Name: Solid and Chemical Materials, Organic

Method: 8270D

Matrix Type: NPW/SCM

Diphenylamine	Dinoseb
Ethyl methanesulfonate	Disulfoton
Fluoranthene	Famphur
Hexachlorobenzene	Fluorene
Hexachlorocyclopentadiene	Hexachlorobutadiene
Hexachloropropene	Hexachloroethane
Isodrin	Indeno(1,2,3-cd) pyrene
Isosafrole	Isophorone
Methapyrilene	m-Cresol (3-Methylphenol)
Methyl parathion	Methyl methanesulfonate
Nitrobenzene	Naphthalene
N-Nitrosodiethylamine	Nitroquinoline-1-oxide
N-Nitrosodi-n-butylamine (N-Nitrosodibutylamine)	N-Nitrosodimethylamine
N-Nitrosodiphenylamine	N-Nitrosodi-n-propylamine
N-Nitrosomorpholine	N-Nitrosomethylethylamine
N-Nitrosopyrrolidine	N-Nitrosopiperidine
o-Toluidine	O,O,O-Triethyl phosphorothioate
p-Cresol (4-Methylphenol)	Parathion
Pentachloronitrobenzene	Pentachlorobenzene
Phenacetin	Pentachlorophenol
Phenol	Phenanthrene
p-Phenylenediame	Phorate
Pyrene	Pronamide
Safrole	Pyridine
	Thionazine (Zinophos)

Method: 8310

Matrix Type: NPW/SCM

Acenaphthene	Acenaphthylene
Anthracene	Benzo(a)anthracene
Benzo(a)pyrene	Benzo(b)fluoranthene
Benzo(g,h,i)perylene	Benzo(k)fluoranthene
Chrysene	Dibenz(a,h)anthracene
Fluoranthene	Fluorene
Indeno(1,2,3-cd) pyrene	Naphthalene
Phenanthrene	Pyrene

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FOT Name: Solid and Chemical Materials, Organic

Method: 8321B

Matrix Type: NPW/SCM

2,4,5-T	2,4,5-TP (Silvex)
2,4-D	2,4-DB
Aldicarb (Temik)	Aminocarb
Carbaryl (Sevin)	Carbofuran (Furaden)
Chloropropham	Dalapon
Dicamba	Dichlorprop
Dinoseb	Diuron
Fenuron	Fluometuron
Linuron (Lorox)	MCPA
MCPP	Methiocarb (Mesurol)
Methomyl (Lannate)	Mexacarbate
Monuron	Neburon
Propham	Propoxur (Baygon)
Siduron	

Method: 8330A

Matrix Type: NPW/SCM

1,3,5-Trinitrobenzene (1,3,5-TNB)	1,3-Dinitrobenzene (1,3-DNB)
2,4,6-Trinitrotoluene	2,4-Dinitrotoluene (2,4-DNT)
2,6-Dinitrotoluene (2,6-DNT)	2-Amino-4,6-dinitrotoluene (2-Am-DNT)
2-Nitrotoluene (2-NT)	3-Nitrotoluene (3-NT)
4-Amino-2,6-dinitrotoluene (4-Am-DNT)	4-Nitrotoluene (4-NT)
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	Methyl-2,4,6-trinitrophenylnitramine (Tetryl)
Nitrobenzene	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine(HM

Method: 8330B

Matrix Type: NPW/SCM

1,3,5-Trinitrobenzene (1,3,5-TNB)	1,3-Dinitrobenzene (1,3-DNB)
2,4,6-Trinitrotoluene (2,4,6-TNT)	2,4-Dinitrotoluene (2,4-DNT)
2,6-Dinitrotoluene (2,6-DNT)	2-Amino-4,6-dinitrotoluene (2-Am-DNT)
2-Nitrotoluene (2-NT)	3,5-Dinitroaniline (3,5-DNA)
3-Nitrotoluene (3-NT)	4-Amino-2,6-dinitrotoluene (4-Am-DNT)
4-Nitrotoluene (4-NT)	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)
Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	Nitrobenzene (NB)
Nitroglycerin (NG)	Octahydro-13,5,7-tetranitro-1,3,5,7-tetrazocine (HM

State of Illinois
Environmental Protection Agency

Certificate No.: 004103

Awards the Certificate of Approval

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FOT Name: Solid and Chemical Materials, Organic

Method: 8330B

Matrix Type: NPW/SCM

Pentaerythritol tetranitrate (PETN)

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY
NELAP - RECOGNIZED
ENVIRONMENTAL LABORATORY ACCREDITATION

is hereby granted to

TESTAMERICA SACRAMENTO

880 RIVERSIDE PARKWAY

WEST SACRAMENTO, CA 95605

NELAP ACCREDITED

ACCREDITATION NUMBER #200060

According to the Illinois Administrative Code, Title 35, Subtitle A, Chapter II, Part 186, ACCREDITATION OF LABORATORIES FOR DRINKING WATER, WASTEWATER AND HAZARDOUS WASTES ANALYSIS, the State of Illinois formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed below.

The laboratory agrees to perform all analyses listed on this scope of accreditation according to the Part 186 requirements and acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part 186. Please contact the Illinois EPA Environmental Laboratory Accreditation Program (IL ELAP) to verify the laboratory's scope of accreditation and accreditation status. Accreditation by the State of Illinois is not an endorsement or a guarantee of validity of the data generated by the laboratory.

Primary Accrediting Authority: Oregon ELAP

Celeste M. Crowley
Acting Manager
Environmental Laboratory Accreditation Program

Rebecca Hambelton
Accreditation Officer
Environmental Laboratory Accreditation Program

Certificate No.: 004075
Expiration Date: 03/17/2018
Issued On: 0□□□9/2017

State of Illinois
Environmental Protection Agency

Certificate No.: 004075

Awards the Certificate of Approval to:

TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605

According to the Illinois Administrative Code, Title 35, Subtitle A, Chapter II, Part 186, ACCREDITATION OF LABORATORIES FOR DRINKING WATER, WASTEWATER AND HAZARDOUS WASTES ANALYSIS, the State of Illinois formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed below.

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FOT Name: Drinking Water, Organic

Method: USEPA1613RB

Matrix Type: Potable Water

Dioxin (2,3,7,8 TCDD)

FOT Name: Non Potable Water, Organic

Method: USEPA1613B

Matrix Type: NPW/SCM

1,2,3,4,6,7,8-Heptachlorodibenzofuran
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin
1,2,3,4,7,8,9-Heptachlorodibenzofuran
1,2,3,4,7,8-Hexachlorodibenzofuran
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin
1,2,3,6,7,8-Hexachlorodibenzofuran
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin
1,2,3,7,8,9-Hexachlorodibenzofuran
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin
1,2,3,7,8-Pentachlorodibenzofuran
1,2,3,7,8-Pentachlorodibenzo-p-dioxin
2,3,4,6,7,8-Hexachlorodibenzofuran
2,3,4,7,8-Pentachlorodibenzofuran
2,3,7,8-Tetrachlorodibenzofuran
2,3,7,8-Tetrachlorodibenzo-p-dioxin
Octachlorodibenzofuran
Octachlorodibenzo-p-dioxin
Total Heptachlorodibenzofuran
Total Heptachlorodibenzo-p-dioxin
Total Hexachlorodibenzofuran
Total Hexachlorodibenzo-p-dioxin
Total Pentachlorodibenzofuran
Total Pentachlorodibenzo-p-dioxin
Total Tetrachlorodibenzofuran
Total Tetrachlorodibenzo-p-dioxin

FOT Name: Solid and Chemical Materials, Organic

Method: 8280A

Matrix Type: NPW/SCM

1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)

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FOT Name: Solid and Chemical Materials, Organic

Method: 8280A

Matrix Type: NPW/SCM

- 2,3,7,8-Tetrachlorodibenzofuran (TCDF)
- Total Heptachlorodibenzofuran (HpCDF)
- Total Hexachlorodibenzofuran (HxCDF)
- Total Pentachlorodibenzofuran (PeCDF)
- Total Tetrachlorodibenzofuran (TCDF)
- 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)
- 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
- Total Heptachlorodibenzo-p-dioxin (HpCDD)
- Total Hexachlorodibenzo-p-dioxin (HxCDD)
- Total Pentachlorodibenzo-p-dioxin (PeCDD)
- Total Tetrachlorodibenzo-p-dioxin (TCDD)

Method: 8280B

Matrix Type: NPW/SCM

- 1,2,3,4,5,6,7,8,9-Octachlorodibenzofuran (OCDF)
- 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)
- 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)
- 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)
- 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)
- 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)
- 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)
- 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)
- 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
- Total Heptachlorodibenzo-p-dioxin (HpCDD)
- Total Hexachlorodibenzo-p-dioxin (HxCDD)
- Total Pentachlorodibenzo-p-dioxin (PeCDD)
- Total Tetrachlorodibenzo-p-dioxin (TCDD)
- 1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin (OCDD)
- 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)
- 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)
- 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)
- 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)
- 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)
- 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)
- 2,3,7,8-Tetrachlorodibenzofuran (TCDF)
- Total Heptachlorodibenzofuran (HpCDF)
- Total Hexachlorodibenzofuran (HxCDF)
- Total Pentachlorodibenzofuran (PeCDF)
- Total Tetrachlorodibenzofuran (TCDF)

Method: 8290A

Matrix Type: NPW/SCM

- 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)
- 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)
- 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)
- 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)
- 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)
- 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)
- 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)
- 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)
- 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
- Total Heptachlorodibenzo-p-dioxin (HpCDD)
- Total Hexachlorodibenzo-p-dioxin (HxCDD)
- 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)
- 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)
- 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)
- 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)
- 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)
- 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)
- 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)
- 2,3,7,8-Tetrachlorodibenzofuran (TCDF)
- Total Heptachlorodibenzofuran (HpCDF)
- Total Hexachlorodibenzofuran (HxCDF)
- Total Pentachlorodibenzofuran (PeCDF)

State of Illinois
Environmental Protection Agency

Certificate No.: 004075

Awards the Certificate of Approval

TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605

FOT Name: Solid and Chemical Materials, Organic

Matrix Type: NPW/SCM

Method: 8290A

Total Tetrachlorodibenzofuran (TCDF)

Total Pentachlorodibenzo-p-dioxin (PeCDD)

Total Tetrachlorodibenzo-p-dioxin (TCDD)

OREGON

Environmental Laboratory Accreditation Program

TestAmerica Denver

4025

4955 Yarrow St.

Arvada, CO 80002

NELAP Recognized

IS GRANTED APPROVAL BY ORELAP UNDER THE 2009 TNI STANDARDS, TO PERFORM ANALYSES ON ENVIRONMENTAL SAMPLES IN MATRICES AS LISTED BELOW :

Air	*Drinking Water*	*Non Potable Water*	*Solids and Chem. Waste*	*Tissue*
	Chemistry	Chemistry	Chemistry	

AND AS RECORDED IN THE LIST OF APPROVED ANALYTES, METHODS, ANALYTICAL TECHNIQUES, AND FIELDS OF TESTING ISSUED CONCURRENTLY WITH THIS CERTIFICATE AND REVISED AS NECESSARY.

ACCREDITED STATUS DEPENDS ON SUCCESSFUL ONGOING PARTICIPATION IN THE PROGRAM AND CONTINUED COMPLIANCE WITH THE STANDARDS.

CUSTOMERS ARE URGED TO VERIFY THE LABORATORY'S CURRENT ACCREDITATION STATUS IN OREGON.

Lizbeth Garcia for

Gary K. Ward, MS
Oregon State Public Health Laboratory
ORELAP Administrator
3150 NW. 229th Ave, Suite 100
Hillsboro, OR 97124

EFFECTIVE DATE : 01/9/2017

EXPIRATION DATE : 01/8/2018

Certificate No : 4025 - 006

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4025

TestAmerica Denver

EPA CODE: CO00026

4955 Yarrow St.

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Arvada, CO 80002 Issue Date: 1/9/2017 Expiration Date: 1/8/2018

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MATRIX	Reference	Code	Analyte	Code	Description
Drinking Water	DV-LC-0012			60036035	TestAmerica Denver - PFOA in NPW and SCM by HPLC-MS-MS
		7044	Ammonium Perfluorooctanoate (APFO)		
		6911	Perfluorobutane Sulfonate (PFBS)		
		6915	Perfluorobutyric acid (PFBA)		
		9562	Perfluorodecane Sulfonate (PFDS)		
		6905	Perfluorodecanoic acid (PFDA)		
		6903	Perfluorododecanoic (PFDDA)		
		6908	Perfluoroheptanoic acid (PFHA)		
		6910	Perfluorohexane Sulfonate (PFHS)		
		6913	Perfluorohexanoic acid (PFHXA)		
		6906	Perfluorononanoic acid (PFNA)		
		6917	Perfluorooctane Sulfonamide (PFOSA)		
		6912	Perfluorooctanoic acid		
		6909	Perfluorooctanoic Sulfonate (PFOS)		
		6914	Perfluoropentanoic acid (PFPEA)		
		6902	Perfluorotetradecanoic acid (PFTDA)		
		9563	Perfluorotridecanoic (PFTRIA)		
		6904	Perfluoroundecanoic acid (PFUDA)		
Non-Potable Water	ASTM D5057-10			30032134	Screening Apparent Specific Gravity and Bulk Density of Waste
		8042	Specific Gravity (Relative Density)		
	ASTM D7065-06			30032918	Nonylphenol by GC/MS
		6513	4-Nonylphenol		
		9466	4-Nonylphenol diethoxylate		
		6512	4-tert-Octylphenol		
		9301	Bisphenol A		
		9592	Nonyl phenol monoethoxylate		
	CA HML 939-M			90016765	Determination of Organic Lead Compounds by Graphite Furnace Absorption Spectrometry
		1208	Organic Lead		
	D1429-08			30023439	Standard Test Methods for Specific Gravity of Water and Brine
		8042	Specific Gravity (Relative Density)		
	DV-LC-0012			60036035	TestAmerica Denver - PFOA in NPW and SCM by HPLC-MS-MS
		7044	Ammonium Perfluorooctanoate (APFO)		
		6911	Perfluorobutane Sulfonate (PFBS)		
		6915	Perfluorobutyric acid (PFBA)		

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Non-Potable Water

DV-LC-0012				
	9562	Perfluorodecane Sulfonate (PFDS)		
	6905	Perfluorodecanoic acid (PFDA)		
	6903	Perfluorododecanoic (PFDDA)		
	6908	Perfluoroheptanoic acid (PFHA)		
	6910	Perfluorohexane Sulfonate (PFHS)		
	6913	Perfluorohexanoic acid (PFHXA)		
	6906	Perfluorononanoic acid (PFNA)		
	6917	Perfluorooctane Sulfonamide (PFOSA)		
	6912	Perfluorooctanoic acid		
	6909	Perfluorooctanoic Sulfonate (PFOS)		
	6914	Perfluoropentanoic acid (PFPEA)		
	6902	Perfluorotetradecanoic acid (PFTDA)		
	9563	Perfluorotridecanoic (PFTRIA)		
	6904	Perfluoroundecanoic acid (PFUDA)		
DV-LC-0020 3			60036013	TestAmerica Denver - Disodium Iminodiacetate (IDA) by LC/MS/MS (modified EPA 8321A)
	6119	Disodium Inimodiacetate		
DV-WC-0077			60036046	TestAmerica Denver - Determination of Hydrazine, Monomethyl Hydrazine, and Unsymmetrical Dimethylhydrazine by IC
	9378	1,1-Dimethyl hydrazine		
	9486	Hydrazine		
	9495	Methyl hydrazine (MMH)		
EPA 1010			10116606	Pensky-Martens Closed-Cup Method for Determining Ignitability
	1780	Ignitability		
EPA 1010A			10234807	Pensky-Martens Closed-Cup Method for Determining Ignitability
	1780	Ignitability		
EPA 1311			10118806	Toxicity Characteristic Leaching Procedure
	8031	Extraction/Preparation		
EPA 1312			10119003	Synthetic Precipitation Leaching Procedure
	8031	Extraction/Preparation		
EPA 160.4			10010409	Total Volatile Solids, ignition @ 550 C.
	1947	Residue - Fixed		
	1948	Residue - Fixed, Nonfilterable (FSS)		
	2070	Volatile suspended solids		
EPA 160.4			10010409	Total Volatile Solids, ignition @ 550 C.
	1970	Residue-volatile		
EPA 1664A (HEM)			10127807	N-Hexane Extractable Material (Oil and Grease) by Extraction and Gravimetry
	1803	n-Hexane Extractable Material (O&G)		

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Non-Potable Water

EPA 1664A (HEM)	1860	Oil & Grease		
EPA 1664A (SGT-HEM)			10261606	Silica Gen Treated N-Hexane Extractable Material (Oil and Grease)
	2050	Total Petroleum Hydrocarbons (TPH)		
EPA 1664B			10261617	N-Hexane Extractable Material (Oil and Grease) by Extraction and Gravimetry
	1803	n-Hexane Extractable Material (O&G)		
	1860	Oil & Grease		
EPA 1664B (SGT-HEM)			10260628	Silica Gel Treated n-Hexane Extractable Material (Oil & Grease)
	2050	Total Petroleum Hydrocarbons (TPH)		
EPA 180.1 2			10011800	Turbidity - Nephelometric
	2055	Turbidity		
EPA 200.7 4.4			10013806	ICP - metals
	1000	Aluminum		
	1005	Antimony		
	1010	Arsenic		
	1015	Barium		
	1020	Beryllium		
	1025	Boron		
	1030	Cadmium		
	1035	Calcium		
	1040	Chromium		
	1050	Cobalt		
	1055	Copper		
	1760	Hardness (calc.)		
	1070	Iron		
	1075	Lead		
	1080	Lithium		
	1085	Magnesium		
	1090	Manganese		
	1100	Molybdenum		
	1105	Nickel		
	1910	Phosphorus, total		
	1125	Potassium		
	1140	Selenium		
	1990	Silica as SiO2		
	1145	Silicon		
	1150	Silver		
	1155	Sodium		
	1160	Strontium		
	2017	Sulfur		

Non-Potable Water

EPA 200.7 4.4				
	1165	Thallium		
	1175	Tin		
	1180	Titanium		
	1185	Vanadium		
	1190	Zinc		
EPA 200.8 5.4			10014605	Metals by ICP-MS
	1005	Antimony		
	1010	Arsenic		
	1015	Barium		
	1020	Beryllium		
	1030	Cadmium		
	1040	Chromium		
	1050	Cobalt		
	1055	Copper		
	1075	Lead		
	1090	Manganese		
	1100	Molybdenum		
	1105	Nickel		
	1140	Selenium		
	1150	Silver		
	1165	Thallium		
	1170	Thorium		
	1175	Tin		
	3035	Uranium		
	1185	Vanadium		
	1190	Zinc		
EPA 245.1 3			10036609	Mercury by Cold Vapor Atomic Absorption
	1095	Mercury		
EPA 300.0			10053006	Ion chromatography - anions.
	1540	Bromide		
	1575	Chloride		
	1730	Fluoride		
	1810	Nitrate as N		
	1820	Nitrate-nitrite		
	1840	Nitrite as N		
	1870	Orthophosphate as P		
	2000	Sulfate		
EPA 3005A			10133207	Acid Digestion of waters for Total Recoverable or Dissolved Metals
	9822	Extraction/Preparation		
EPA 3010A			10133605	Acid Digestion of Aqueous samples and Extracts for Total Metals
	9822	Extraction/Preparation		

Non-Potable Water

EPA 3020A			10134404	Acid Digestion of Aqueous samples and Extracts for Total Metals for Analysis by GFAA
	9822	Extraction/Preparation		
EPA 335.1			10060001	Cyanides, amenable to chlorination
	1510	Amenable cyanide		
EPA 335.4			10061402	Methods for the Determination of Inorganic Substances in Environmental Samples
	1645	Total cyanide		
EPA 350.1 2			10063602	Ammonia Nitrogen - Colorimetric, Auto Phenate
	1515	Ammonia as N		
EPA 351.2 2			10065404	Total Kjeldahl Nitrogen - Block Digest, Phenate
	1795	Kjeldahl nitrogen - total		
EPA 351.2 minus EPA 350.1			10238207	Organic Nitrogen by Automated Phenate (Calculated)
	1865	Organic nitrogen		
EPA 3510C			10138202	Separatory Funnel Liquid-liquid extraction
	9822	Extraction/Preparation		
EPA 3520C			10139001	Continuous Liquid-liquid extraction
	9822	Extraction/Preparation		
EPA 353.2 2			10067604	Nitrate/Nitrite Nitrogen - Automated, Cadmium
	1810	Nitrate as N		
	1820	Nitrate-nitrite		
	1825	Total nitrate+nitrite		
EPA 3535A			10139409	Solid-Phase Extraction (SPE)
	9822	Extraction/Preparation		
EPA 3580A			10143007	Waste Dilution
	8031	Extraction/Preparation		
EPA 3620B			10145809	Florisil Cleanup
	9822	Extraction/Preparation		
EPA 365.1 2			10070005	Phosphorous - Colorimetric, Automated persulfate
	1870	Orthophosphate as P		
	1910	Phosphorus, total		
EPA 3660B			10148400	Sulfur cleanup
	8031	Extraction/Preparation		
EPA 3665A			10148808	Sulfuric Acid / permanganate Cleanup
	9822	Extraction/Preparation		

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Non-Potable Water

EPA 410.4 2			10077404	Chemical Oxygen Demand - Colorimetric, Automated.
	1565	Chemical oxygen demand		
EPA 420.1			10079400	Phenolics - Spectrophotometric, manual.
	1905	Total phenolics		
EPA 420.4			10080203	Phenolics, Total Recoverable by Semi-Automated Colorimetry
	1905	Total phenolics		
EPA 5030B			10153409	Purge and trap for aqueous samples
	9822	Extraction/Preparation		
EPA 5030C			10284603	Purge-and-Trap for Aqueous Samples
	8031	Extraction/Preparation		
EPA 6010B			10155609	ICP - AES
	1000	Aluminum		
	1005	Antimony		
	1010	Arsenic		
	1015	Barium		
	1020	Beryllium		
	1025	Boron		
	1030	Cadmium		
	1035	Calcium		
	1040	Chromium		
	1050	Cobalt		
	1055	Copper		
	1070	Iron		
	1075	Lead		
	1080	Lithium		
	1085	Magnesium		
	1090	Manganese		
	1100	Molybdenum		
	1105	Nickel		
	1910	Phosphorus, total		
	1125	Potassium		
	1140	Selenium		
	1990	Silica as SiO2		
	1145	Silicon		
	1150	Silver		
	1155	Sodium		
	1160	Strontium		
	2017	Sulfur		
	1165	Thallium		
	1175	Tin		

Non-Potable Water	EPA 6010B	1180	Titanium		
		1185	Vanadium		
		1190	Zinc		
	EPA 6010C			10155803	ICP - AES
		1000	Aluminum		
		1005	Antimony		
		1010	Arsenic		
		1015	Barium		
		1020	Beryllium		
		1025	Boron		
		1030	Cadmium		
		1035	Calcium		
		1040	Chromium		
		1050	Cobalt		
		1055	Copper		
		1070	Iron		
		1075	Lead		
		1080	Lithium		
		1085	Magnesium		
		1090	Manganese		
		1100	Molybdenum		
		1105	Nickel		
		1910	Phosphorus, total		
		1125	Potassium		
		1140	Selenium		
		1990	Silica as SiO2		
		1145	Silicon		
		1150	Silver		
		1155	Sodium		
		1160	Strontium		
		2017	Sulfur		
		1165	Thallium		
		1175	Tin		
		1180	Titanium		
		1185	Vanadium		
		1190	Zinc		
	EPA 6010D			10155916	Metals by ICP - AES
		1000	Aluminum		
		1005	Antimony		
		1010	Arsenic		
		1015	Barium		
		1020	Beryllium		
		1025	Boron		

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Non-Potable Water

EPA 6010D				
	1030	Cadmium		
	1035	Calcium		
	1040	Chromium		
	1050	Cobalt		
	1055	Copper		
	1070	Iron		
	1075	Lead		
	1080	Lithium		
	1085	Magnesium		
	1090	Manganese		
	1100	Molybdenum		
	1105	Nickel		
	1910	Phosphorus, total		
	1125	Potassium		
	1140	Selenium		
	1990	Silica as SiO2		
	1145	Silicon		
	1150	Silver		
	1155	Sodium		
	1160	Strontium		
	2017	Sulfur		
	1165	Thallium		
	1175	Tin		
	1180	Titanium		
	1185	Vanadium		
	1190	Zinc		
EPA 602			10102202	Purgeable Aromatics by GC/PID Purge & Trap
	4610	1,2-Dichlorobenzene		
	4615	1,3-Dichlorobenzene		
	4620	1,4-Dichlorobenzene		
	4375	Benzene		
	4475	Chlorobenzene		
	4765	Ethylbenzene		
	5240	m+p-xylene		
	5000	Methyl tert-butyl ether (MTBE)		
	5250	o-Xylene		
	5140	Toluene		
	5260	Xylene (total)		
EPA 6020			10156000	Inductively Coupled Plasma-Mass Spectrometry
	1005	Antimony		
	1010	Arsenic		
	1015	Barium		

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Non-Potable Water

EPA 6020	1020	Beryllium			
	1030	Cadmium			
	1040	Chromium			
	1050	Cobalt			
	1055	Copper			
	1075	Lead			
	1090	Manganese			
	1100	Molybdenum			
	1105	Nickel			
	1140	Selenium			
	1150	Silver			
	1165	Thallium			
	1170	Thorium			
	1175	Tin			
	3035	Uranium			
	1185	Vanadium			
	1190	Zinc			
EPA 6020A				10156408	Inductively Coupled Plasma-Mass Spectrometry
	1005	Antimony			
	1010	Arsenic			
	1015	Barium			
	1020	Beryllium			
	1030	Cadmium			
	1040	Chromium			
	1050	Cobalt			
	1055	Copper			
	1075	Lead			
	1090	Manganese			
	1100	Molybdenum			
	1105	Nickel			
	1140	Selenium			
	1150	Silver			
	1165	Thallium			
	1170	Thorium			
	1175	Tin			
	3035	Uranium			
	1185	Vanadium			
	1190	Zinc			
EPA 6020B 2014				10156420	Inductively Coupled Plasma-Mass Spectrometry
	1005	Antimony			
	1010	Arsenic			
	1015	Barium			

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Non-Potable Water	EPA 6020B 2014	1020	Beryllium		
		1030	Cadmium		
		1040	Chromium		
		1050	Cobalt		
		1055	Copper		
		1075	Lead		
		1090	Manganese		
		1100	Molybdenum		
		1105	Nickel		
		1140	Selenium		
		1150	Silver		
		1165	Thallium		
		1170	Thorium		
		1175	Tin		
		3035	Uranium		
		1185	Vanadium		
		1190	Zinc		
	EPA 608			10103603	Organochlorine Pesticides & PCBs by GC/ECD
		7355	4,4'-DDD		
		7360	4,4'-DDE		
		7365	4,4'-DDT		
		7025	Aldrin		
		7110	alpha-BHC (alpha-Hexachlorocyclohexane)		
		7240	alpha-Chlordane		
		8880	Aroclor-1016 (PCB-1016)		
		8885	Aroclor-1221 (PCB-1221)		
		8890	Aroclor-1232 (PCB-1232)		
		8895	Aroclor-1242 (PCB-1242)		
		8900	Aroclor-1248 (PCB-1248)		
		8905	Aroclor-1254 (PCB-1254)		
		8910	Aroclor-1260 (PCB-1260)		
		7115	beta-BHC (beta-Hexachlorocyclohexane)		
		7250	Chlordane (tech.)		
		7105	delta-BHC		
		7470	Dieldrin		
		7510	Endosulfan I		
		7515	Endosulfan II		
		7520	Endosulfan sulfate		
		7540	Endrin		
		7530	Endrin aldehyde		
		7535	Endrin ketone		

Non-Potable Water

EPA 608	7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)		
	7245	gamma-Chlordane		
	7685	Heptachlor		
	7690	Heptachlor epoxide		
	7810	Methoxychlor		
	8250	Toxaphene (Chlorinated camphene)		
EPA 610 (HPLC)			10297004	Polynuclear Hydrocarbons by HPLC/UV-VIS
	6380	1-Methylnaphthalene		
	6385	2-Methylnaphthalene		
	5500	Acenaphthene		
	5505	Acenaphthylene		
	5555	Anthracene		
	5575	Benzo(a)anthracene		
	5580	Benzo(a)pyrene		
	5590	Benzo(g,h,i)perylene		
	5600	Benzo(k)fluoranthene		
	5585	Benzo[b]fluoranthene		
	5855	Chrysene		
	5895	Dibenz(a,h) anthracene		
	6265	Fluoranthene		
	6270	Fluorene		
	6315	Indeno(1,2,3-cd) pyrene		
	5005	Naphthalene		
	6615	Phenanthrene		
	6665	Pyrene		
EPA 614			10105201	Organophosphorous Pesticides by Liquid/Liquid Extraction and GC/NPD
	7075	Azinphos-methyl (Guthion)		
	7410	Diazinon		
	8625	Disulfoton		
	7770	Malathion		
	7825	Methyl parathion (Parathion, methyl)		
	7955	Parathion, ethyl		
EPA 614			10105201	Organophosphorous Pesticides by Liquid/Liquid Extraction and GC/NPD
	7390	Demeton		
	7395	Demeton-o		
	7385	Demeton-s		
EPA 624			10107207	Volatile Organic Compounds by purge and trap GC/MS
	5105	1,1,1,2-Tetrachloroethane		
	5160	1,1,1-Trichloroethane		
	5110	1,1,2,2-Tetrachloroethane		

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Non-Potable Water	EPA 624	5165	1,1,2-Trichloroethane
		4630	1,1-Dichloroethane
		4640	1,1-Dichloroethylene
		5180	1,2,3-Trichloropropane
		4570	1,2-Dibromo-3-chloropropane (DBCP)
		4585	1,2-Dibromoethane (EDB, Ethylene dibromide)
		4610	1,2-Dichlorobenzene
		4635	1,2-Dichloroethane (Ethylene dichloride)
		4655	1,2-Dichloropropane
		4615	1,3-Dichlorobenzene
		4620	1,4-Dichlorobenzene
		4735	1,4-Dioxane (1,4- Diethyleneoxide)
		4410	2-Butanone (Methyl ethyl ketone, MEK)
		4500	2-Chloroethyl vinyl ether
		4860	2-Hexanone (MBK)
		4995	4-Methyl-2-pentanone (MIBK)
		4315	Acetone
		4325	Acrolein (Propenal)
		4340	Acrylonitrile
		4375	Benzene
		4395	Bromodichloromethane
		4400	Bromoform
		4450	Carbon disulfide
		4455	Carbon tetrachloride
		4475	Chlorobenzene
		4575	Chlorodibromomethane
		4485	Chloroethane (Ethyl chloride)
		4505	Chloroform
		4645	cis-1,2-Dichloroethylene
		4680	cis-1,3-Dichloropropene
		4595	Dibromomethane (Methylene bromide)
		4625	Dichlorodifluoromethane (Freon-12)
		4765	Ethylbenzene
		5240	m+p-xylene
		4950	Methyl bromide (Bromomethane)
		4960	Methyl chloride (Chloromethane)
		5000	Methyl tert-butyl ether (MTBE)
		4975	Methylene chloride (Dichloromethane)
		5005	Naphthalene
		4855	n-Hexane
		5250	o-Xylene
		5100	Styrene
		5115	Tetrachloroethylene (Perchloroethylene)

Non-Potable Water

EPA 624	5140	Toluene	
	5205	Total trihalomethanes	
	4700	trans-1,2-Dichloroethylene	
	4685	trans-1,3-Dichloropropylene	
	5170	Trichloroethene (Trichloroethylene)	
	5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	
	5225	Vinyl acetate	
	5235	Vinyl chloride	
	5260	Xylene (total)	
EPA 625			10300002 Base/Neutrals and Acids by GC/MS
	6715	1,2,4,5-Tetrachlorobenzene	
	5155	1,2,4-Trichlorobenzene	
	4610	1,2-Dichlorobenzene	
	6221	1,2-Diphenylhydrazine	
	4615	1,3-Dichlorobenzene	
	4620	1,4-Dichlorobenzene	
	4735	1,4-Dioxane (1,4- Diethyleneoxide)	
	4659	2,2-Oxybis(1-chloropropane)	
	6835	2,4,5-Trichlorophenol	
	6840	2,4,6-Trichlorophenol	
	5880	2,4-Diaminotoluene	
	6000	2,4-Dichlorophenol	
	6130	2,4-Dimethylphenol	
	6175	2,4-Dinitrophenol	
	6185	2,4-Dinitrotoluene (2,4-DNT)	
	6183	2,6-Diaminotoluene	
	6005	2,6-Dichlorophenol	
	6190	2,6-Dinitrotoluene (2,6-DNT)	
	5795	2-Chloronaphthalene	
	5800	2-Chlorophenol	
	6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	
	6400	2-Methylphenol (o-Cresol)	
	6490	2-Nitrophenol	
	6412	3 & 4 Methylphenol	
	5945	3,3'-Dichlorobenzidine	
	5660	4-Bromophenyl phenyl ether (BDE-3)	
	5700	4-Chloro-3-methylphenol	
	5825	4-Chlorophenyl phenylether	
	6410	4-Methylphenol (p-Cresol)	
	6500	4-Nitrophenol	
	5500	Acenaphthene	
	5505	Acenaphthylene	

Non-Potable Water

EPA 625

5510	Acetophenone
4330	Acrylamide
6700	alpha-Terpineol
5545	Aniline
5555	Anthracene
5562	Azobenzene
5565	Benzal chloride
5595	Benzidine
5575	Benzo(a)anthracene
5580	Benzo(a)pyrene
5590	Benzo(g,h,i)perylene
5600	Benzo(k)fluoranthene
5585	Benzo[b]fluoranthene
5610	Benzoic acid
5760	bis(2-Chloroethoxy)methane
5765	bis(2-Chloroethyl) ether
5780	bis(2-Chloroisopropyl) ether
5670	Butyl benzyl phthalate
5680	Carbazole
7210	Carbofuran phenol
5855	Chrysene
6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
5895	Dibenz(a,h) anthracene
6070	Diethyl phthalate
6135	Dimethyl phthalate
5925	Di-n-butyl phthalate
6200	Di-n-octyl phthalate
6265	Fluoranthene
6270	Fluorene
6275	Hexachlorobenzene
4835	Hexachlorobutadiene
6285	Hexachlorocyclopentadiene
4840	Hexachloroethane
6315	Indeno(1,2,3-cd) pyrene
6320	Isophorone
5005	Naphthalene
5875	n-Decane
5015	Nitrobenzene
6530	n-Nitrosodimethylamine
6545	n-Nitrosodi-n-propylamine
6535	n-Nitrosodiphenylamine
6580	n-Octadecane
6590	Pentachlorobenzene

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4025

TestAmerica Denver

EPA CODE: CO00026

4955 Yarrow St.

Certificate: 4025 - 006

Arvada, CO 80002 Issue Date: 1/9/2017 Expiration Date: 1/8/2018

As of 1/9/2017 this list supercedes all previous lists for this certificate number.

Non-Potable Water

EPA 625	6605	Pentachlorophenol		
	6615	Phenanthrene		
	6625	Phenol		
	6640	Phthalic anhydride		
	6665	Pyrene		
	5095	Pyridine		
	5200	Triethylamine		
EPA 6860			10304800	Perchlorate in Water, Soils and Solid Wastes Using Ion Chromatography/Electrospray Ionization/Mass Spectrometry
	1895	Perchlorate		
EPA 7196A			10162400	Chromium Hexavalent colorimetric
	1045	Chromium VI		
EPA 7470A			10165807	Mercury in Liquid Waste by Cold Vapor Atomic Absorption
	1095	Mercury		
EPA 8011			10173009	1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and GC/ECD
	5180	1,2,3-Trichloropropane		
	4585	1,2-Dibromoethane (EDB, Ethylene dibromide)		
	4580	Dibromochloropropane		
EPA 8015B			10173601	Non-halogenated organics using GC/FID
	9369	Diesel range organics (DRO)		
	4750	Ethanol		
	9408	Gasoline range organics (GRO)		
	4875	Isobutyl alcohol (2-Methyl-1-propanol)		
	4895	Isopropyl alcohol (2-Propanol, Isopropanol)		
	9488	Jet Fuel		
	4930	Methanol		
	9499	Motor Oil		
	4425	n-Butyl alcohol (1-Butanol, n-Butanol)		
	5055	n-Propanol		
EPA 8015C			10173805	Non-halogenated organics using GC/FID
	9369	Diesel range organics (DRO)		
	4720	Diethylene glycol (2,2-Oxybisethanol)		
	4750	Ethanol		
	4785	Ethylene glycol		
	9408	Gasoline range organics (GRO)		
	4875	Isobutyl alcohol (2-Methyl-1-propanol)		

OREGON

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Non-Potable Water

EPA 8015C				
	4895	Isopropyl alcohol (2-Propanol, Isopropanol)		
	9488	Jet Fuel		
	4930	Methanol		
	9499	Motor Oil		
	4425	n-Butyl alcohol (1-Butanol, n-Butanol)		
	5055	n-Propanol		
	6657	Propylene Glycol		
	9646	Triethylene Glycol		
EPA 8015D			10305609	Nonhalogenated Organics Using GC/FID
	9369	Diesel range organics (DRO)		
	4750	Ethanol		
	9408	Gasoline range organics (GRO)		
	4875	Isobutyl alcohol (2-Methyl-1-propanol)		
	4895	Isopropyl alcohol (2-Propanol, Isopropanol)		
	9488	Jet Fuel		
	4930	Methanol		
	9499	Motor Oil		
	4425	n-Butyl alcohol (1-Butanol, n-Butanol)		
	5055	n-Propanol		
EPA 8021B			10174808	Aromatic and Halogenated Volatiles by GC with PID and/or ECD Purge & Trap
	4610	1,2-Dichlorobenzene		
	4615	1,3-Dichlorobenzene		
	4620	1,4-Dichlorobenzene		
	4375	Benzene		
	4475	Chlorobenzene		
	4765	Ethylbenzene		
	5240	m+p-xylene		
	5000	Methyl tert-butyl ether (MTBE)		
	5005	Naphthalene		
	5250	o-Xylene		
	5140	Toluene		
	5260	Xylene (total)		
EPA 8081A			10178606	Organochlorine Pesticides by GC/ECD
	8580	2,4'-DDD		
	8585	2,4'-DDE		
	8590	2,4'-DDT		
	7355	4,4'-DDD		
	7360	4,4'-DDE		
	7365	4,4'-DDT		
	7025	Aldrin		

Non-Potable Water

EPA 8081A	7110	alpha-BHC (alpha-Hexachlorocyclohexane)		
	7240	alpha-Chlordane		
	7115	beta-BHC (beta-Hexachlorocyclohexane)		
	7250	Chlordane (tech.)		
	7260	Chlorobenzilate		
	7300	Chlorpyrifos		
	7105	delta-BHC		
	7405	Diallate		
	7460	Dicofol		
	7470	Dieldrin		
	7510	Endosulfan I		
	7515	Endosulfan II		
	7520	Endosulfan sulfate		
	7540	Endrin		
	7530	Endrin aldehyde		
	7535	Endrin ketone		
	7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)		
	7245	gamma-Chlordane		
	7685	Heptachlor		
	7690	Heptachlor epoxide		
	6275	Hexachlorobenzene		
	6280	Hexachlorocyclohexanes		
	7725	Isodrin		
	7740	Kepone		
	7810	Methoxychlor		
	7870	Mirex		
	8045	Propachlor (Ramrod)		
	8250	Toxaphene (Chlorinated camphene)		
EPA 8081B			10178800	Organochlorine Pesticides by GC/ECD
	8580	2,4'-DDD		
	8585	2,4'-DDE		
	8590	2,4'-DDT		
	7355	4,4'-DDD		
	7360	4,4'-DDE		
	7365	4,4'-DDT		
	7025	Aldrin		
	7110	alpha-BHC (alpha-Hexachlorocyclohexane)		
	7240	alpha-Chlordane		
	7115	beta-BHC (beta-Hexachlorocyclohexane)		
	7250	Chlordane (tech.)		

Non-Potable Water

EPA 8081B	7260	Chlorobenzilate		
	7300	Chlorpyrifos		
	7105	delta-BHC		
	7405	Diallate		
	7460	Dicofol		
	7470	Dieldrin		
	7510	Endosulfan I		
	7515	Endosulfan II		
	7520	Endosulfan sulfate		
	7540	Endrin		
	7530	Endrin aldehyde		
	7535	Endrin ketone		
	7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)		
	7245	gamma-Chlordane		
	7685	Heptachlor		
	7690	Heptachlor epoxide		
	6275	Hexachlorobenzene		
	6280	Hexachlorocyclohexanes		
	7725	Isodrin		
	7740	Kepone		
	7810	Methoxychlor		
	7870	Mirex		
	8045	Propachlor (Ramrod)		
	8250	Toxaphene (Chlorinated camphene)		
EPA 8082			10179007	Polychlorinated Biphenyls (PCBs) by GC/ECD
	8880	Aroclor-1016 (PCB-1016)		
	8885	Aroclor-1221 (PCB-1221)		
	8890	Aroclor-1232 (PCB-1232)		
	8895	Aroclor-1242 (PCB-1242)		
	8900	Aroclor-1248 (PCB-1248)		
	8905	Aroclor-1254 (PCB-1254)		
	8910	Aroclor-1260 (PCB-1260)		
	8912	Aroclor-1262 (PCB-1262)		
	8913	Aroclor-1268 (PCB-1268)		
EPA 8082A			10179201	Polychlorinated Biphenyls (PCBs) by GC/ECD
	8880	Aroclor-1016 (PCB-1016)		
	8885	Aroclor-1221 (PCB-1221)		
	8890	Aroclor-1232 (PCB-1232)		
	8895	Aroclor-1242 (PCB-1242)		
	8900	Aroclor-1248 (PCB-1248)		
	8905	Aroclor-1254 (PCB-1254)		

Non-Potable Water

EPA 8082A	8910	Aroclor-1260 (PCB-1260)		
	8912	Aroclor-1262 (PCB-1262)		
	8913	Aroclor-1268 (PCB-1268)		
EPA 8141A			10182000	Organophosphorous Pesticides by GC/NPD
	7045	Anilazine		
	7065	Atrazine		
	7070	Azinphos-ethyl (Ethyl guthion)		
	7075	Azinphos-methyl (Guthion)		
	7125	Bolstar (Sulprofos)		
	7220	Carbophenothion		
	7300	Chlorpyrifos		
	7315	Coumaphos		
	7390	Demeton		
	7395	Demeton-o		
	7385	Demeton-s		
	7410	Diazinon		
	8610	Dichlorovos (DDVP, Dichlorvos)		
	7475	Dimethoate		
	8625	Disulfoton		
	7550	EPN		
	7570	Ethoprop		
	7580	Famphur		
	7600	Fensulfothion		
	7605	Fenthion		
	7770	Malathion		
	7785	Merphos		
	7825	Methyl parathion (Parathion, methyl)		
	7850	Mevinphos		
	7905	Naled		
	8290	o,o,o-Triethyl phosphorothioate		
	7955	Parathion, ethyl		
	7985	Phorate		
	8000	Phosmet (Imidan)		
	8060	Propazine		
	8110	Ronnel		
	8125	Simazine		
	8155	Sulfotepp		
	8200	Tetrachlorvinphos (Stirophos, Gardona) Z-isomer		
	8235	Thionazin (Zinophos)		
	8245	Tokuthion (Prothiophos)		
	8275	Trichloronate		

Non-Potable Water

EPA 8141B			10182204	Organophosphorous Pesticides by GC/NPD
	7045	Anilazine		
	7065	Atrazine		
	7070	Azinphos-ethyl (Ethyl guthion)		
	7075	Azinphos-methyl (Guthion)		
	7125	Bolstar (Sulprofos)		
	7220	Carbophenothion		
	7300	Chlorpyrifos		
	7315	Coumaphos		
	7390	Demeton		
	7395	Demeton-o		
	7385	Demeton-s		
	7410	Diazinon		
	8610	Dichlorovos (DDVP, Dichlorvos)		
	7475	Dimethoate		
	8625	Disulfoton		
	7550	EPN		
	7570	Ethoprop		
	7580	Famphur		
	7600	Fensulfothion		
	7605	Fenthion		
	7770	Malathion		
	7785	Merphos		
	7825	Methyl parathion (Parathion, methyl)		
	7850	Mevinphos		
	7905	Naled		
	7955	Parathion, ethyl		
	7985	Phorate		
	8000	Phosmet (Imidan)		
	8110	Ronnel		
	8125	Simazine		
	8155	Sulfotepp		
	8200	Tetrachlorvinphos (Stirophos, Gardona) Z-isomer		
	8235	Thionazin (Zinophos)		
	8245	Tokuthion (Prothiophos)		
	8275	Trichloronate		
EPA 8151A			10183207	Chlorinated Herbicides by GC/ECD
	8655	2,4,5-T		
	8545	2,4-D		
	8560	2,4-DB		
	8555	Dalapon		
	8595	Dicamba		

Non-Potable Water

EPA 8151A	8605	Dichloroprop (Dichlorprop)	
	8620	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	
	7775	MCPA	
	7780	MCPP	
	8645	Picloram	
	8650	Silvex (2,4,5-TP)	
EPA 8260B			10184802 Volatile Organic Compounds by purge and trap GC/MS
	5105	1,1,1,2-Tetrachloroethane	
	5185	1,1,1-Trichloro-2,2,2-trifluoroethane	
	5160	1,1,1-Trichloroethane	
	5110	1,1,2,2-Tetrachloroethane	
	5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	
	5165	1,1,2-Trichloroethane	
	5167	1,1,2-Trichlorofluoroethane	
	5172	1,1,2-Trifluoroethane	
	5171	1,1-Dichloro-1-fluoroethane	
	4630	1,1-Dichloroethane	
	4640	1,1-Dichloroethylene	
	4670	1,1-Dichloropropene	
	5150	1,2,3-Trichlorobenzene	
	5180	1,2,3-Trichloropropane	
	5182	1,2,3-Trimethylbenzene	
	5155	1,2,4-Trichlorobenzene	
	5210	1,2,4-Trimethylbenzene	
	4570	1,2-Dibromo-3-chloropropane (DBCP)	
	4585	1,2-Dibromoethane (EDB, Ethylene dibromide)	
	4695	1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon-114)	
	4697	1,2-Dichloro-1,1,2-trifluoroethane	
	4610	1,2-Dichlorobenzene	
	4635	1,2-Dichloroethane (Ethylene dichloride)	
	4655	1,2-Dichloropropane	
	6800	1,3,5-Trichlorobenzene	
	5215	1,3,5-Trimethylbenzene	
	4615	1,3-Dichlorobenzene	
	4660	1,3-Dichloropropane	
	4675	1,3-Dichloropropene	
	4620	1,4-Dichlorobenzene	
	4735	1,4-Dioxane (1,4- Diethyleneoxide)	
	4919	1-Chloro-1,1-difluoroethane	
	4510	1-Chlorohexane	

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4025

TestAmerica Denver

EPA CODE: CO00026

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Non-Potable Water	EPA 8260B	5222	2,2-Dichloro-1,1,1-trifluoroethane (Freon 123)
		4665	2,2-Dichloropropane
		4410	2-Butanone (Methyl ethyl ketone, MEK)
		4411	2-Chloro-1,1,1-trifluoroethane
		4500	2-Chloroethyl vinyl ether
		4535	2-Chlorotoluene
		4860	2-Hexanone (MBK)
		5020	2-Nitropropane
		5045	2-Pentanone
		4540	4-Chlorotoluene
		4910	4-Isopropyltoluene (p-Cymene)
		4995	4-Methyl-2-pentanone (MIBK)
		4315	Acetone
		4320	Acetonitrile
		4325	Acrolein (Propenal)
		4340	Acrylonitrile
		4355	Allyl chloride (3-Chloropropene)
		4375	Benzene
		4385	Bromobenzene
		4390	Bromochloromethane
		4395	Bromodichloromethane
		4400	Bromoform
		4450	Carbon disulfide
		4455	Carbon tetrachloride
		4475	Chlorobenzene
		4575	Chlorodibromomethane
		4577	Chlorodifluoromethane (Freon-22)
		4485	Chloroethane (Ethyl chloride)
		4486	Chlorofluoromethane
		4505	Chloroform
		4522	Chloropentafluoroethane
		4525	Chloroprene (2-Chloro-1,3-butadiene)
		4526	Chlorotrifluoroethene
		4705	cis & trans-1,2-Dichloroethene
		4645	cis-1,2-Dichloroethylene
		4680	cis-1,3-Dichloropropene
		4600	cis-1,4-Dichloro-2-butene
		4555	Cyclohexane
		4560	Cyclohexanone
		4595	Dibromomethane (Methylene bromide)
		4625	Dichlorodifluoromethane (Freon-12)
		4627	Dichlorofluoromethane (Freon 21)
		4725	Diethyl ether

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Non-Potable Water	EPA 8260B	9375	Di-isopropylether (DIPE)
		4750	Ethanol
		4755	Ethyl acetate
		4810	Ethyl methacrylate
		4765	Ethylbenzene
		4795	Ethylene oxide
		4770	Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)
		4772	Fluoromethane (Freon 41)
		4835	Hexachlorobutadiene
		4870	Iodomethane (Methyl iodide)
		4875	Isobutyl alcohol (2-Methyl-1-propanol)
		4895	Isopropyl alcohol (2-Propanol, Isopropanol)
		4900	Isopropylbenzene (Cumene)
		5240	m+p-xylene
		4925	Methacrylonitrile
		4940	Methyl acetate
		4950	Methyl bromide (Bromomethane)
		4960	Methyl chloride (Chloromethane)
		4990	Methyl methacrylate
		5000	Methyl tert-butyl ether (MTBE)
		4965	Methylcyclohexane
		4975	Methylene chloride (Dichloromethane)
		5245	m-Xylene
		5005	Naphthalene
		4425	n-Butyl alcohol (1-Butanol, n-Butanol)
		4435	n-Butylbenzene
		4855	n-Hexane
		5090	n-Propylbenzene
		5250	o-Xylene
		5035	Pentachloroethane
		5080	Propionitrile (Ethyl cyanide)
		9579	Propylene oxide
		5255	p-Xylene
		9607	sec-Butyl Alcohol (2-Butanol)
		4440	sec-Butylbenzene
		5100	Styrene
		4370	T-amylmethylether (TAME)
		4420	tert-Butyl alcohol
		4445	tert-Butylbenzene
		5115	Tetrachloroethylene (Perchloroethylene)
		5120	Tetrahydrofuran (THF)
		9574	Tetrahydrothiophene

Non-Potable Water

EPA 8260B	5140	Toluene		
	4027	Total BTEX		
	5205	Total trihalomethanes		
	4700	trans-1,2-Dichloroethylene		
	4685	trans-1,3-Dichloropropylene		
	4605	trans-1,4-Dichloro-2-butene		
	5170	Trichloroethene (Trichloroethylene)		
	5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)		
	5225	Vinyl acetate		
	5235	Vinyl chloride		
	5237	Vinyl Fluoride		
	5260	Xylene (total)		
EPA 8260B SIM			10184904	Volatile Organic Compounds by purge and trap GC/MS-SIM
	5180	1,2,3-Trichloropropane		
	4570	1,2-Dibromo-3-chloropropane (DBCP)		
	4585	1,2-Dibromoethane (EDB, Ethylene dibromide)		
	4735	1,4-Dioxane (1,4- Diethyleneoxide)		
	4325	Acrolein (Propenal)		
	4340	Acrylonitrile		
	4375	Benzene		
	4925	Methacrylonitrile		
	4420	tert-Butyl alcohol		
	5235	Vinyl chloride		
EPA 8270C			10185805	Semivolatile Organic compounds by GC/MS
	6703	1,1'-Biphenyl (BZ-0)		
	6715	1,2,4,5-Tetrachlorobenzene		
	5155	1,2,4-Trichlorobenzene		
	4610	1,2-Dichlorobenzene		
	6221	1,2-Diphenylhydrazine		
	6885	1,3,5-Trinitrobenzene (1,3,5-TNB)		
	4615	1,3-Dichlorobenzene		
	6160	1,3-Dinitrobenzene (1,3-DNB)		
	4679	1,3-phenylenediamine		
	4620	1,4-Dichlorobenzene		
	6165	1,4-Dinitrobenzene		
	4735	1,4-Dioxane (1,4- Diethyleneoxide)		
	6420	1,4-Naphthoquinone		
	6630	1,4-Phenylenediamine		
	5790	1-Chloronaphthalene		
	6380	1-Methylnaphthalene		
	6425	1-Naphthylamine		

Non-Potable Water	EPA 8270C	4659	2,2-Oxybis(1-chloropropane)
		6735	2,3,4,6-Tetrachlorophenol
		6835	2,4,5-Trichlorophenol
		6840	2,4,6-Trichlorophenol
		6000	2,4-Dichlorophenol
		6130	2,4-Dimethylphenol
		6175	2,4-Dinitrophenol
		6185	2,4-Dinitrotoluene (2,4-DNT)
		6005	2,6-Dichlorophenol
		6190	2,6-Dinitrotoluene (2,6-DNT)
		5515	2-Acetylaminofluorene
		9322	2-Butoxyethanol
		5795	2-Chloronaphthalene
		5800	2-Chlorophenol
		5866	2-Ethoxyethanol (cellosolve)
		6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2 -methylphenol)
		5145	2-Methylaniline (o-Toluidine)
		6385	2-Methylnaphthalene
		6400	2-Methylphenol (o-Cresol)
		6430	2-Naphthylamine
		6460	2-Nitroaniline
		6490	2-Nitrophenol
		5050	2-Picoline (2-Methylpyridine)
		6412	3 & 4 Methylphenol
		5945	3,3'-Dichlorobenzidine
		6120	3,3'-Dimethylbenzidine
		6355	3-Methylcholanthrene
		6405	3-Methylphenol (m-Cresol)
		6465	3-Nitroaniline
		6365	4,4-Methylenebis(2-chloroaniline)
		5540	4-Aminobiphenyl
		5660	4-Bromophenyl phenyl ether (BDE-3)
		5700	4-Chloro-3-methylphenol
		5745	4-Chloroaniline
		5825	4-Chlorophenyl phenylether
		6105	4-Dimethyl aminoazobenzene
		6410	4-Methylphenol (p-Cresol)
		6470	4-Nitroaniline
		6500	4-Nitrophenol
		6510	4-Nitroquinoline 1-oxide
		6570	5-Nitro-o-toluidine
		6112	6-Methylchrysene
		6115	7,12-Dimethylbenz(a) anthracene

Non-Potable Water	EPA 8270C	6125	a-a-Dimethylphenethylamine
		5500	Acenaphthene
		5505	Acenaphthylene
		5510	Acetophenone
		4330	Acrylamide
		7005	Alachlor
		4357	alpha-Methylstyrene
		5545	Aniline
		5555	Anthracene
		5560	Aramite
		7065	Atrazine
		5562	Azobenzene
		5570	Benzaldehyde
		5567	Benzenethiol (Phenylmercaptan)
		5595	Benzidine
		5575	Benzo(a)anthracene
		5580	Benzo(a)pyrene
		5605	Benzo(e)pyrene
		5590	Benzo(g,h,i)perylene
		5600	Benzo(k)fluoranthene
		5585	Benzo[b]fluoranthene
		5610	Benzoic acid
		5630	Benzyl alcohol
		5760	bis(2-Chloroethoxy)methane
		5765	bis(2-Chloroethyl) ether
		5780	bis(2-Chloroisopropyl) ether
		5670	Butyl benzyl phthalate
		7180	Caprolactam
		5680	Carbazole
		7210	Carbofuran phenol
		7260	Chlorobenzilate
		5855	Chrysene
		5862	Cresols, Total
		6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
		7405	Diallate
		9354	Dibenz(a, h) acridine
		5900	Dibenz(a, j) acridine
		5895	Dibenz(a,h) anthracene
		5890	Dibenzo(a,e) pyrene
		5905	Dibenzofuran
		6070	Diethyl phthalate
		7475	Dimethoate
		6135	Dimethyl phthalate

Non-Potable Water	EPA 8270C	5925	Di-n-butyl phthalate
		6200	Di-n-octyl phthalate
		8620	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)
		6205	Diphenylamine
		8625	Disulfoton
		6260	Ethyl methanesulfonate
		7580	Famphur
		6265	Fluoranthene
		6270	Fluorene
		6275	Hexachlorobenzene
		4835	Hexachlorobutadiene
		6285	Hexachlorocyclopentadiene
		4840	Hexachloroethane
		6295	Hexachloropropene
		6312	Indene
		6315	Indeno(1,2,3-cd) pyrene
		7725	Isodrin
		6320	Isophorone
		6325	Isosafrole
		6345	Methapyrilene
		6375	Methyl methanesulfonate
		7825	Methyl parathion (Parathion, methyl)
		5010	n, n-Dimethyl formamide
		5005	Naphthalene
		5875	n-Decane
		6300	n-Hexadecane
		5015	Nitrobenzene
		6525	n-Nitrosodiethylamine
		6530	n-Nitrosodimethylamine
		5025	n-Nitroso-di-n-butylamine
		6545	n-Nitrosodi-n-propylamine
		6535	n-Nitrosodiphenylamine
		6550	n-Nitrosomethylethalamine
		6555	n-Nitrosomorpholine
		6560	n-Nitrosopiperidine
		6565	n-Nitrosopyrrolidine
		8290	o,o,o-Triethyl phosphorothioate
		5550	o-Anisidine
		5553	Octachlorostyrene
		7955	Parathion, ethyl
		6590	Pentachlorobenzene
		5035	Pentachloroethane
		6600	Pentachloronitrobenzene

Non-Potable Water

EPA 8270C	6605	Pentachlorophenol		
	6608	Perylene		
	6610	Phenacetin		
	6615	Phenanthrene		
	6625	Phenol		
	7985	Phorate		
	6635	Phthalic acid		
	6640	Phthalic anhydride		
	9663	p-Phenylenediamine		
	6650	Pronamide (Kerb)		
	6665	Pyrene		
	5095	Pyridine		
	6670	Quinoline		
	6685	Safrole		
	8155	Sulfotepp		
	8235	Thionazin (Zinophos)		
	8262	Tributyl phosphate		
	5200	Triethylamine		
	8310	tris-(2,3-Dibromopropyl) phosphate (tris-BP)		
EPA 8270C SIM			10242407	Semivolatile Organic compounds by GC/MS Selective Ion Monitoring
	4735	1,4-Dioxane (1,4- Diethyleneoxide)		
	6380	1-Methylnaphthalene		
	6385	2-Methylnaphthalene		
	5500	Acenaphthene		
	5505	Acenaphthylene		
	5555	Anthracene		
	5575	Benzo(a)anthracene		
	5580	Benzo(a)pyrene		
	5605	Benzo(e)pyrene		
	5590	Benzo(g,h,i)perylene		
	5600	Benzo(k)fluoranthene		
	5585	Benzo[b]fluoranthene		
	5670	Butyl benzyl phthalate		
	5855	Chrysene		
	6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)		
	5895	Dibenz(a,h) anthracene		
	5905	Dibenzofuran		
	6070	Diethyl phthalate		
	6135	Dimethyl phthalate		
	5925	Di-n-butyl phthalate		
	6200	Di-n-octyl phthalate		

Non-Potable Water	EPA 8270C SIM	6265	Fluoranthene		
		6270	Fluorene		
		6315	Indeno(1,2,3-cd) pyrene		
		5005	Naphthalene		
		6525	n-Nitrosodiethylamine		
		6530	n-Nitrosodimethylamine		
		6545	n-Nitrosodi-n-propylamine		
		6535	n-Nitrosodiphenylamine		
		6615	Phenanthrene		
		6665	Pyrene		
	EPA 8270D			10186002	Semivolatile Organic compounds by GC/MS
		6703	1,1'-Biphenyl (BZ-0)		
		6715	1,2,4,5-Tetrachlorobenzene		
		5155	1,2,4-Trichlorobenzene		
		4610	1,2-Dichlorobenzene		
		6221	1,2-Diphenylhydrazine		
		6885	1,3,5-Trinitrobenzene (1,3,5-TNB)		
		4615	1,3-Dichlorobenzene		
		6160	1,3-Dinitrobenzene (1,3-DNB)		
		4620	1,4-Dichlorobenzene		
		6165	1,4-Dinitrobenzene		
		4735	1,4-Dioxane (1,4- Diethyleneoxide)		
		6420	1,4-Naphthoquinone		
		6630	1,4-Phenylenediamine		
		5790	1-Chloronaphthalene		
		6380	1-Methylnaphthalene		
		6425	1-Naphthylamine		
		4659	2,2-Oxybis(1-chloropropane)		
		6735	2,3,4,6-Tetrachlorophenol		
		6835	2,4,5-Trichlorophenol		
		6840	2,4,6-Trichlorophenol		
		6000	2,4-Dichlorophenol		
		6130	2,4-Dimethylphenol		
		6175	2,4-Dinitrophenol		
		6185	2,4-Dinitrotoluene (2,4-DNT)		
		6005	2,6-Dichlorophenol		
		6190	2,6-Dinitrotoluene (2,6-DNT)		
		5515	2-Acetylaminofluorene		
		5795	2-Chloronaphthalene		
		5800	2-Chlorophenol		
		6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)		
		5145	2-Methylaniline (o-Toluidine)		

Non-Potable Water	EPA 8270D	6385	2-Methylnaphthalene
		6400	2-Methylphenol (o-Cresol)
		6430	2-Naphthylamine
		6460	2-Nitroaniline
		6490	2-Nitrophenol
		5050	2-Picoline (2-Methylpyridine)
		6412	3 & 4 Methylphenol
		5945	3,3'-Dichlorobenzidine
		6120	3,3'-Dimethylbenzidine
		6355	3-Methylcholanthrene
		6405	3-Methylphenol (m-Cresol)
		6465	3-Nitroaniline
		6365	4,4-Methylenebis(2-chloroaniline)
		5540	4-Aminobiphenyl
		5660	4-Bromophenyl phenyl ether (BDE-3)
		5700	4-Chloro-3-methylphenol
		5745	4-Chloroaniline
		5825	4-Chlorophenyl phenylether
		6105	4-Dimethyl aminoazobenzene
		6410	4-Methylphenol (p-Cresol)
		6470	4-Nitroaniline
		6500	4-Nitrophenol
		6510	4-Nitroquinoline 1-oxide
		6570	5-Nitro-o-toluidine
		6115	7,12-Dimethylbenz(a) anthracene
		6125	a-a-Dimethylphenethylamine
		5500	Acenaphthene
		5505	Acenaphthylene
		5510	Acetophenone
		5545	Aniline
		5555	Anthracene
		5560	Aramite
		5562	Azobenzene
		5570	Benzaldehyde
		5595	Benzidine
		5575	Benzo(a)anthracene
		5580	Benzo(a)pyrene
		5590	Benzo(g,h,i)perylene
		5600	Benzo(k)fluoranthene
		5585	Benzo[b]fluoranthene
		5610	Benzoic acid
		5630	Benzyl alcohol
		5760	bis(2-Chloroethoxy)methane

Non-Potable Water	EPA 8270D	5765	bis(2-Chloroethyl) ether
		5780	bis(2-Chloroisopropyl) ether
		5670	Butyl benzyl phthalate
		7180	Caprolactam
		5680	Carbazole
		7260	Chlorobenzilate
		5855	Chrysene
		8906	Coelution - 3-Chlorophenol + 4-Chlorophenol
		5862	Cresols, Total
		6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
		7405	Diallate
		5900	Dibenz(a, j) acridine
		5895	Dibenz(a,h) anthracene
		5905	Dibenzofuran
		6070	Diethyl phthalate
		7475	Dimethoate
		6135	Dimethyl phthalate
		5925	Di-n-butyl phthalate
		6200	Di-n-octyl phthalate
		8620	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)
		6205	Diphenylamine
		8625	Disulfoton
		6260	Ethyl methanesulfonate
		7580	Famphur
		6265	Fluoranthene
		6270	Fluorene
		6275	Hexachlorobenzene
		4835	Hexachlorobutadiene
		6285	Hexachlorocyclopentadiene
		4840	Hexachloroethane
		6295	Hexachloropropene
		6315	Indeno(1,2,3-cd) pyrene
		7725	Isodrin
		6320	Isophorone
		6325	Isosafrole
		6345	Methapyrilene
		6375	Methyl methanesulfonate
		7825	Methyl parathion (Parathion, methyl)
		5005	Naphthalene
		5015	Nitrobenzene
		6525	n-Nitrosodiethylamine

Non-Potable Water	EPA 8270D	6530	n-Nitrosodimethylamine		
		5025	n-Nitroso-di-n-butylamine		
		6545	n-Nitrosodi-n-propylamine		
		6535	n-Nitrosodiphenylamine		
		6550	n-Nitrosomethylethalamine		
		6555	n-Nitrosomorpholine		
		6560	n-Nitrosopiperidine		
		6565	n-Nitrosopyrrolidine		
		8290	o,o,o-Triethyl phosphorothioate		
		7955	Parathion, ethyl		
		6590	Pentachlorobenzene		
		5035	Pentachloroethane		
		6600	Pentachloronitrobenzene		
		6605	Pentachlorophenol		
		6610	Phenacetin		
		6615	Phenanthrene		
		6625	Phenol		
		7985	Phorate		
		9663	p-Phenylenediamine		
		6650	Pronamide (Kerb)		
		6665	Pyrene		
		5095	Pyridine		
		6685	Safrole		
		8155	Sulfotepp		
		8235	Thionazin (Zinophos)		
	EPA 8270D SIM			10242509	Semivolatile Organic compounds by GC/MS Selective Ion Monitoring
		4735	1,4-Dioxane (1,4- Diethyleneoxide)		
		6380	1-Methylnaphthalene		
		6385	2-Methylnaphthalene		
		5500	Acenaphthene		
		5505	Acenaphthylene		
		5555	Anthracene		
		5575	Benzo(a)anthracene		
		5580	Benzo(a)pyrene		
		5590	Benzo(g,h,i)perylene		
		5600	Benzo(k)fluoranthene		
		5585	Benzo[b]fluoranthene		
		5670	Butyl benzyl phthalate		
		5855	Chrysene		
		6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)		
		5895	Dibenz(a,h) anthracene		
		5905	Dibenzofuran		

Non-Potable Water

EPA 8270D SIM	6070	Diethyl phthalate		
	6135	Dimethyl phthalate		
	5925	Di-n-butyl phthalate		
	6200	Di-n-octyl phthalate		
	6265	Fluoranthene		
	6270	Fluorene		
	6315	Indeno(1,2,3-cd) pyrene		
	5005	Naphthalene		
	6530	n-Nitrosodimethylamine		
	6535	n-Nitrosodiphenylamine		
	6615	Phenanthrene		
	6665	Pyrene		
EPA 8310			10187607	Polynuclear Aromatic Hydrocarbons by HPLC/UV-VIS
	6380	1-Methylnaphthalene		
	6385	2-Methylnaphthalene		
	5500	Acenaphthene		
	5505	Acenaphthylene		
	5555	Anthracene		
	5575	Benzo(a)anthracene		
	5580	Benzo(a)pyrene		
	5590	Benzo(g,h,i)perylene		
	5600	Benzo(k)fluoranthene		
	5585	Benzo[b]fluoranthene		
	5855	Chrysene		
	5895	Dibenz(a,h) anthracene		
	6265	Fluoranthene		
	6270	Fluorene		
	6315	Indeno(1,2,3-cd) pyrene		
	5005	Naphthalene		
	6615	Phenanthrene		
	6665	Pyrene		
EPA 8321A			10189001	Solvent Extractable non-volatile compounds by HPLC/TS/MS
	6885	1,3,5-Trinitrobenzene (1,3,5-TNB)		
	6160	1,3-Dinitrobenzene (1,3-DNB)		
	6014	2,3-Dinitrotoluene		
	8655	2,4,5-T		
	9651	2,4,6-Trinitrotoluene (2,4,6-TNT)		
	8545	2,4-D		
	8560	2,4-DB		
	6185	2,4-Dinitrotoluene (2,4-DNT)		
	6190	2,6-Dinitrotoluene (2,6-DNT)		
	9303	2-Amino-4,6-dinitrotoluene (2-am-dnt)		

Non-Potable Water

EPA 8321A	9507	2-Nitrotoluene		
	9510	3-Nitrotoluene		
	9306	4-Amino-2,6-dinitrotoluene (4-am-dnt)		
	9513	4-Nitrotoluene		
	7010	Aldicarb (Temik)		
	7040	Aminocarb		
	7195	Carbaryl (Sevin)		
	7205	Carbofuran (Furaden)		
	7275	Chloropropham		
	8555	Dalapon		
	8595	Dicamba		
	8605	Dichloroprop (Dichlorprop)		
	8620	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)		
	7505	Diuron		
	7610	Fenuron		
	7630	Fluometuron		
	7765	Linuron (Lorox)		
	7775	MCPA		
	7780	MCPP		
	7800	Methiocarb (Mesurol)		
	7805	Methomyl (Lannate)		
	6415	Methyl-2,4,6-trinitrophenylnitramine (tetryl)		
	7855	Mexacarbate		
	7885	Monuron		
	7915	Neburon		
	5015	Nitrobenzene		
	6485	Nitroglycerin		
	9522	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)		
	6605	Pentachlorophenol		
	9558	Pentaerythritoltetranitrate (PETN)		
	8075	Propham		
	8080	Propoxur (Baygon)		
	9432	RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)		
	8120	Siduron		
	8650	Silvex (2,4,5-TP)		
EPA 8321B			10189205	Solvent Extractable non-volatile compounds by HPLC/TS/MS
	6885	1,3,5-Trinitrobenzene (1,3,5-TNB)		
	6160	1,3-Dinitrobenzene (1,3-DNB)		
	6014	2,3-Dinitrotoluene		
	8655	2,4,5-T		

Non-Potable Water	EPA 8321B	9651	2,4,6-Trinitrotoluene (2,4,6-TNT)
		8545	2,4-D
		8560	2,4-DB
		6185	2,4-Dinitrotoluene (2,4-DNT)
		6190	2,6-Dinitrotoluene (2,6-DNT)
		9303	2-Amino-4,6-dinitrotoluene (2-am-dnt)
		9507	2-Nitrotoluene
		9510	3-Nitrotoluene
		9306	4-Amino-2,6-dinitrotoluene (4-am-dnt)
		9513	4-Nitrotoluene
		7010	Aldicarb (Temik)
		7040	Aminocarb
		7195	Carbaryl (Sevin)
		7205	Carbofuran (Furaden)
		7275	Chloropropham
		8555	Dalapon
		8595	Dicamba
		8605	Dichloroprop (Dichlorprop)
		8620	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)
		7505	Diuron
		7610	Fenuron
		7630	Fluometuron
		7765	Linuron (Lorox)
		7775	MCPA
		7780	MCPP
		7800	Methiocarb (Mesurol)
		7805	Methomyl (Lannate)
		6415	Methyl-2,4,6-trinitrophenylnitramine (tetryl)
		7855	Mexacarbate
		7885	Monuron
		7915	Neburon
		5015	Nitrobenzene
		6485	Nitroglycerin
		9522	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)
		6605	Pentachlorophenol
		9558	Pentaerythritoltetranitrate (PETN)
		8075	Propham
		8080	Propoxur (Baygon)
		9432	RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)
		8120	Siduron
		8650	Silvex (2,4,5-TP)

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4025

TestAmerica Denver

EPA CODE: CO00026

4955 Yarrow St.

Certificate: 4025 - 006

Arvada, CO 80002 Issue Date: 1/9/2017 Expiration Date: 1/8/2018

As of 1/9/2017 this list supercedes all previous lists for this certificate number.

Non-Potable Water

EPA 8330A			10190008	Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)
	6885	1,3,5-Trinitrobenzene (1,3,5-TNB)		
	6160	1,3-Dinitrobenzene (1,3-DNB)		
	9651	2,4,6-Trinitrotoluene (2,4,6-TNT)		
	5882	2,4-diamino-6-nitrotoluene		
	6185	2,4-Dinitrotoluene (2,4-DNT)		
	6181	2,6-diamino-4-nitrotoluene		
	6190	2,6-Dinitrotoluene (2,6-DNT)		
	9303	2-Amino-4,6-dinitrotoluene (2-am-dnt)		
	9507	2-Nitrotoluene		
	9510	3-Nitrotoluene		
	9306	4-Amino-2,6-dinitrotoluene (4-am-dnt)		
	9513	4-Nitrotoluene		
	7046	Ammonium Picrate		
	6415	Methyl-2,4,6-trinitrophenylnitramine (tetryl)		
	5015	Nitrobenzene		
	6485	Nitroglycerin		
	9522	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)		
	9558	Pentaerythritoltetranitrate (PETN)		
	1899	Picric Acid (2,4,6-Trinitrophenol)		
	9432	RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)		
EPA 8330B			10308006	Nitroaromatics, Nitramines and Nitrate Esters by High Performance Liquid Chromatography (HPLC)
	6885	1,3,5-Trinitrobenzene (1,3,5-TNB)		
	6160	1,3-Dinitrobenzene (1,3-DNB)		
	9651	2,4,6-Trinitrotoluene (2,4,6-TNT)		
	5882	2,4-diamino-6-nitrotoluene		
	6185	2,4-Dinitrotoluene (2,4-DNT)		
	6181	2,6-diamino-4-nitrotoluene		
	6190	2,6-Dinitrotoluene (2,6-DNT)		
	9303	2-Amino-4,6-dinitrotoluene (2-am-dnt)		
	9507	2-Nitrotoluene		
	6150	3,5-Dinitroaniline		
	9510	3-Nitrotoluene		
	9306	4-Amino-2,6-dinitrotoluene (4-am-dnt)		
	9513	4-Nitrotoluene		
	7046	Ammonium Picrate		
	6415	Methyl-2,4,6-trinitrophenylnitramine (tetryl)		
	5015	Nitrobenzene		

Non-Potable Water

EPA 8330B	6485	Nitroglycerin		
	9522	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)		
	9558	Pentaerythritoltetranitrate (PETN)		
	1899	Picric Acid (2,4,6-Trinitrophenol)		
	9432	RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)		
EPA 9012A			10193405	Total and Amenable Cyanide (automated colorimetric with off-line distillation)
	1510	Amenable cyanide		
	1645	Total cyanide		
EPA 9012B			10243206	Total and Amenable Cyanide (automated colorimetric with off-line distillation)
	1510	Amenable cyanide		
	1645	Total cyanide		
EPA 9020B			10194408	Total Organic Halides
	2045	Total organic halides (TOX)		
EPA 9030B			10195605	Acid-Soluble and Acid-Insoluble sulfides: Distillation
	2005	Sulfide		
EPA 9034			10196006	Titrimetric Procedure for Acid-Soluble and Acid-Insoluble Sulfides
	2005	Sulfide		
EPA 9040B			10197203	pH Electrometric Measurement
	1900	pH		
EPA 9040C			10244403	pH Electrometric Measurement
	1900	pH		
EPA 9050A			10198808	Specific Conductance
	1610	Conductivity		
EPA 9056			10199005	Determination of Inorganic Anions by Ion Chromatography
	1540	Bromide		
	1575	Chloride		
	1730	Fluoride		
	1805	Nitrate		
	1835	Nitrite		
	1870	Orthophosphate as P		
	2000	Sulfate		
	1825	Total nitrate+nitrite		
EPA 9056A			10199607	Determination of Inorganic Anions by Ion Chromatography
	1540	Bromide		
	1575	Chloride		

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EPA 9056A	1730	Fluoride		
	1805	Nitrate		
	1820	Nitrate-nitrite		
	1835	Nitrite		
	1870	Orthophosphate as P		
	2000	Sulfate		
EPA 9060			10200201	Total Organic Carbon
	1710	Dissolved organic carbon (DOC)		
	2040	Total organic carbon		
EPA 9060A			10244801	Total Organic Carbon
	1710	Dissolved organic carbon (DOC)		
	2040	Total organic carbon		
EPA 9066			10200609	Phenolics (Colorimetric, Automated 4-AAP with Distillation)
	1905	Total phenolics		
EPA RSK-175 (GC-FID)			10212905	Methane, Ethane, and Ethene in water by Headspace GC/FID
	4323	Acetylene		
	4747	Ethane		
	4752	Ethene		
	4877	Isobutylene		
	4926	Methane		
	5007	n-Butane		
	5028	n-Pentane		
	5029	n-Propane		
FLDEP SOP 02/12/01			90015820	Calculation of Un-ionized Ammonia in Fresh Water
	2058	Un-ionized Ammonia		
NWTPH-Dx			90018409	Oregon DEQ TPH Diesel Range
	9369	Diesel range organics (DRO)		
	9499	Motor Oil		
	9506	Residual Range Organics (RRO)		
	2050	Total Petroleum Hydrocarbons (TPH)		
NWTPH-Gx			90018603	Oregon DEQ TPH Gasoline Range Organics by GC/FID-PID Purge & Trap
	9408	Gasoline range organics (GRO)		
SM 2120 B-2001 online			20039309	Color by Visual Comparison
	1605	Color		
SM 2120 B-2011			20039310	Color
	1605	Color		
SM 2310 B-97 online			20044604	Acidity by Titration Method
	1500	Acidity, as CaCO3		

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SM 2320 B-2011			20045618	Alkalinity as CaCO3
	1505	Alkalinity as CaCO3		
SM 2320 B-97 online			20045607	Alkalinity by Titration Method
	1505	Alkalinity as CaCO3		
SM 2340 B-2011			20046611	Hardness
	1750	Hardness		
SM 2340 B-97 online			20046600	Hardness by calculation
	1550	Calcium hardness as CaCO3		
	1750	Hardness		
	1755	Total hardness as CaCO3		
SM 2340 C-97 online			20047603	Hardness by EDTA Titration Method
	1755	Total hardness as CaCO3		
SM 2510 B-97 online			20048606	Conductivity by Probe
	1610	Conductivity		
SM 2540 B-97 online			20049405	Total Solids Dried at 103 - 105C
	1950	Residue-total		
SM 2540 C-2011			20050413	Residue-filterable (TDS)
	1955	Residue-filterable (TDS)		
SM 2540 C-97 online			20050402	Total Dissolved Solids Dried at 180C
	1955	Residue-filterable (TDS)		
SM 2540 D-97 online			20051201	Total Suspended Solids Dried at 103 - 105C
	1960	Residue-nonfilterable (TSS)		
SM 2540 F-97 online			20052204	Settleable Solids
	1965	Residue-settleable		
SM 3500-Cr B-2009 online			20066255	Chromium by Colorimetric Method
	1045	Chromium VI		
SM 3500-Cr D 19th ED			20067009	Chromium by Colorimetric Method
	1045	Chromium VI		
SM 3500-Fe B 20th ED			20068604	Iron by Colorimetric Method
	1070	Iron		
SM 3500-Fe B-97 online			20069005	Iron by Phenanthroline Method
	1070	Iron		
SM 3500-Fe D 19th ED			20069209	Iron by Phenanthroline Method
	1070	Iron		
SM 4500-CN E-1999			20096417	Cyanide by Colorimetric Method
	1645	Total cyanide		

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SM 4500-CN E-2011 2011			20096428	Cyanide by Colormetric Method
	1645	Total cyanide		
SM 4500-CN G-1999 online			20097216	Cyanide Amenable to Chlorination after Distillation
	1510	Amenable cyanide		
SM 4500-CN^- C-97 online			20095607	Cyanide by Total Cyanide after Distillation
	1645	Total cyanide		
SM 4500-CN^- I-97 online			20098004	Cyanide by Weak Acid Dissociable Cyanide
	2074	Weak Acid Dissociable Cyanide		
SM 4500-H+ B-2000 online			20105219	pH Value by Electrometric Method .
	1900	pH		
SM 4500-H+ B-2011			20105220	pH - Electrometric Measurement
	1900	pH		
SM 4500-$NO2^-$ B-2000 online			20113104	Nitrite by Colorimetric Determination
	1835	Nitrite		
	1840	Nitrite as N		
SM 4500-S2 D-2000			20125853	Sulfide by Methylene Blue Method
	2005	Sulfide		
SM 4500-$S2^-$ F-2000 online			20126652	Sulfide by Iodometric Method
	2005	Sulfide		
SM 4500-$SO3^-$ B-2000 online			20130625	Sulfite by Iodometric Method
	2015	Sulfite-SO3		
SM 5210 B-2001 online			20135255	Biochemical Oxygen Demand (BOD), 5-Day
	1530	Biochemical oxygen demand		
	1555	Carbonaceous BOD, CBOD		
SM 5210 B-2011			20135266	Biochemical Oxygen Demand (5 days @ 20 C).
	1530	Biochemical oxygen demand		
SM 5310 B-2000			20137819	Total Organic Carbon (TOC) by Combustion Infra-red Method
	1710	Dissolved organic carbon (DOC)		
	2040	Total organic carbon		
SM 5310 B-2011 2011			20137820	TOC by High-Temperature Combustion Method
	1710	Dissolved organic carbon (DOC)		

Solids

ASTM D2216 - 10 10			30025106	Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
	8641	Percent Moisture		

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CA HML 939-M			90016765	Determination of Organic Lead Compounds by Graphite Furnace Absorption Spectrometry
	1208	Organic Lead		
DV-LC-0012			60036035	TestAmerica Denver - PFOA in NPW and SCM by HPLC-MS-MS
	7044	Ammonium Perfluorooctanoate (APFO)		
	6911	Perfluorobutane Sulfonate (PFBS)		
	6915	Perfluorobutyric acid (PFBA)		
	9562	Perfluorodecane Sulfonate (PFDS)		
	6905	Perfluorodecanoic acid (PFDA)		
	6903	Perfluorododecanoic (PFDDA)		
	6908	Perfluoroheptanoic acid (PFHA)		
	6910	Perfluorohexane Sulfonate (PFHS)		
	6913	Perfluorohexanoic acid (PFHXA)		
	6906	Perfluorononanoic acid (PFNA)		
	6917	Perfluorooctane Sulfonamide (PFOSA)		
	6912	Perfluorooctanoic acid		
	6909	Perfluorooctanoic Sulfonate (PFOS)		
	6914	Perfluoropentanoic acid (PFPEA)		
	6902	Perfluorotetradecanoic acid (PFTDA)		
	9563	Perfluorotridecanoic (PFTRIA)		
	6904	Perfluoroundecanoic acid (PFUDA)		
DV-LC-0020 3			60036013	TestAmerica Denver - Disodium Iminodiacetate (IDA) by LC/MS/MS (modified EPA 8321A)
	6119	Disodium Inimodiacetate		
DV-WC-0077			60036046	TestAmerica Denver - Determination of Hydrazine, Monomethyl Hydrazine, and Unsymmetrical Dimethylhydrazine by IC
	9378	1,1-Dimethyl hydrazine		
	9486	Hydrazine		
	9495	Methyl hydrazine (MMH)		
EPA 1010			10116606	Pensky-Martens Closed-Cup Method for Determining Ignitability
	1780	Ignitability		
EPA 1010A			10234807	Pensky-Martens Closed-Cup Method for Determining Ignitability
	1780	Ignitability		
EPA 1311			10118806	Toxicity Characteristic Leaching Procedure
	9822	Extraction/Preparation		
EPA 1312			10119003	Synthetic Precipitation Leaching Procedure
	9822	Extraction/Preparation		

Solids

EPA 160.4			10010409	Total Volatile Solids, ignition @ 550 C.
	1970	Residue-volatile		
EPA 3050B			10135601	Acid Digestion of Sediments, Sludges, and soils
	9822	Extraction/Preparation		
EPA 335.4			10061208	Methods for the Determination of Inorganic Substances in Environmental Samples
	1645	Total cyanide		
EPA 350.1			10063204	Ammonia Nitrogen - Colorimetric, Auto Phenate
	1515	Ammonia as N		
EPA 350.1 2			10063602	Ammonia Nitrogen - Colorimetric, Auto Phenate
	1515	Ammonia as N		
EPA 351.2			10065006	Total Kjeldahl Nitrogen - Block Digest, Phenate
	1790	Kjeldahl nitrogen		
EPA 353.2 2			10067604	Nitrate/Nitrite Nitrogen - Automated, Cadmium
	1820	Nitrate-nitrite		
	1825	Total nitrate+nitrite		
EPA 3540C			10140202	Soxhlet Extraction
	9822	Extraction/Preparation		
EPA 3546			10141205	Microwave Extraction
	8031	Extraction/Preparation		
EPA 3550C			10142004	Ultrasonic Extraction
	8031	Extraction/Preparation		
EPA 3580A			10143007	Waste Dilution
	8031	Extraction/Preparation		
EPA 3620B			10145809	Florisil Cleanup
	8031	Extraction/Preparation		
EPA 3660B			10148400	Sulfur cleanup
	8031	Extraction/Preparation		
EPA 3665A			10148808	Sulfuric Acid / permanganate Cleanup
	9822	Extraction/Preparation		
EPA 5035			10154004	Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples
	9822	Extraction/Preparation		
EPA 5035A			10284807	Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples
	8031	Extraction/Preparation		

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Solids

EPA 6010B			10155609	ICP - AES
	1000	Aluminum		
	1005	Antimony		
	1010	Arsenic		
	1015	Barium		
	1020	Beryllium		
	1025	Boron		
	1030	Cadmium		
	1035	Calcium		
	1040	Chromium		
	1050	Cobalt		
	1055	Copper		
	1070	Iron		
	1075	Lead		
	1080	Lithium		
	1085	Magnesium		
	1090	Manganese		
	1100	Molybdenum		
	1105	Nickel		
	1910	Phosphorus, total		
	1125	Potassium		
	1140	Selenium		
	1990	Silica as SiO2		
	1145	Silicon		
	1150	Silver		
	1155	Sodium		
	1160	Strontium		
	2017	Sulfur		
	1165	Thallium		
	1175	Tin		
	1180	Titanium		
	1185	Vanadium		
	1190	Zinc		
EPA 6010C			10155803	ICP - AES
	1000	Aluminum		
	1005	Antimony		
	1010	Arsenic		
	1015	Barium		
	1020	Beryllium		
	1025	Boron		
	1030	Cadmium		
	1035	Calcium		
	1040	Chromium		

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Solids	EPA 6010C	1050	Cobalt	
		1055	Copper	
		1070	Iron	
		1075	Lead	
		1080	Lithium	
		1085	Magnesium	
		1090	Manganese	
		1100	Molybdenum	
		1105	Nickel	
		1910	Phosphorus, total	
		1125	Potassium	
		1140	Selenium	
		1990	Silica as SiO2	
		1145	Silicon	
		1150	Silver	
		1155	Sodium	
		1160	Strontium	
		2017	Sulfur	
		1165	Thallium	
		1175	Tin	
		1180	Titanium	
		1185	Vanadium	
		1190	Zinc	
	EPA 6010D		10155916	Metals by ICP - AES
		1000	Aluminum	
		1005	Antimony	
		1010	Arsenic	
		1015	Barium	
		1020	Beryllium	
		1025	Boron	
		1030	Cadmium	
		1035	Calcium	
		1040	Chromium	
		1050	Cobalt	
		1055	Copper	
		1070	Iron	
		1075	Lead	
		1080	Lithium	
		1085	Magnesium	
		1090	Manganese	
		1100	Molybdenum	
		1105	Nickel	
		1910	Phosphorus, total	

Solids	EPA 6010D	1125	Potassium		
		1140	Selenium		
		1990	Silica as SiO2		
		1145	Silicon		
		1150	Silver		
		1155	Sodium		
		1160	Strontium		
		2017	Sulfur		
		1165	Thallium		
		1175	Tin		
		1180	Titanium		
		1185	Vanadium		
		1190	Zinc		
	EPA 6020			10156000	Inductively Coupled Plasma-Mass Spectrometry
		1005	Antimony		
		1010	Arsenic		
		1015	Barium		
		1020	Beryllium		
		1030	Cadmium		
		1040	Chromium		
		1050	Cobalt		
		1055	Copper		
		1075	Lead		
		1090	Manganese		
		1100	Molybdenum		
		1105	Nickel		
		1140	Selenium		
		1150	Silver		
		1165	Thallium		
		1170	Thorium		
		1175	Tin		
		3035	Uranium		
		1185	Vanadium		
		1190	Zinc		
	EPA 6020A			10156408	Inductively Coupled Plasma-Mass Spectrometry
		1005	Antimony		
		1010	Arsenic		
		1015	Barium		
		1020	Beryllium		
		1030	Cadmium		
		1040	Chromium		
		1050	Cobalt		

Solids	EPA 6020A	1055	Copper		
		1075	Lead		
		1090	Manganese		
		1100	Molybdenum		
		1105	Nickel		
		1140	Selenium		
		1150	Silver		
		1165	Thallium		
		1170	Thorium		
		1175	Tin		
		3035	Uranium		
		1185	Vanadium		
		1190	Zinc		
	EPA 6020B 2014			10156420	Inductively Coupled Plasma-Mass Spectrometry
		1005	Antimony		
		1010	Arsenic		
		1015	Barium		
		1020	Beryllium		
		1030	Cadmium		
		1040	Chromium		
		1050	Cobalt		
		1055	Copper		
		1075	Lead		
		1090	Manganese		
		1100	Molybdenum		
		1105	Nickel		
		1140	Selenium		
		1150	Silver		
		1165	Thallium		
		1170	Thorium		
		1175	Tin		
		3035	Uranium		
		1185	Vanadium		
		1190	Zinc		
	EPA 6860			10304800	Perchlorate in Water, Soils and Solid Wastes Using Ion Chromatography/Electrospray Ionization/Mass Spectrometry
		1895	Perchlorate		
	EPA 7471A			10166208	Mercury in Solid Waste by Cold Vapor Atomic Absorption
		1095	Mercury		

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EPA 7471B			10166402	Mercury by Cold Vapor Atomic Absorption
	1095	Mercury		
EPA 8011			10173009	1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and GC/ECD
	5180	1,2,3-Trichloropropane		
	4585	1,2-Dibromoethane (EDB, Ethylene dibromide)		
	4580	Dibromochloropropane		
EPA 8015B			10173601	Non-halogenated organics using GC/FID
	9369	Diesel range organics (DRO)		
	4750	Ethanol		
	9408	Gasoline range organics (GRO)		
	4875	Isobutyl alcohol (2-Methyl-1-propanol)		
	4895	Isopropyl alcohol (2-Propanol, Isopropanol)		
	9488	Jet Fuel		
	4930	Methanol		
	9499	Motor Oil		
	4425	n-Butyl alcohol (1-Butanol, n-Butanol)		
	5055	n-Propanol		
EPA 8015C			10173805	Non-halogenated organics using GC/FID
	9369	Diesel range organics (DRO)		
	4720	Diethylene glycol (2,2-Oxybisethanol)		
	4750	Ethanol		
	4785	Ethylene glycol		
	9408	Gasoline range organics (GRO)		
	4875	Isobutyl alcohol (2-Methyl-1-propanol)		
	4895	Isopropyl alcohol (2-Propanol, Isopropanol)		
	9488	Jet Fuel		
	4930	Methanol		
	9499	Motor Oil		
	4425	n-Butyl alcohol (1-Butanol, n-Butanol)		
	5055	n-Propanol		
	6657	Propylene Glycol		
	9646	Triethylene Glycol		
EPA 8015D			10305609	Nonhalogenated Organics Using GC/FID
	9369	Diesel range organics (DRO)		
	4750	Ethanol		
	9408	Gasoline range organics (GRO)		
	4875	Isobutyl alcohol (2-Methyl-1-propanol)		

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EPA 8015D	4895	Isopropyl alcohol (2-Propanol, Isopropanol)		
	9488	Jet Fuel		
	4930	Methanol		
	9499	Motor Oil		
	4425	n-Butyl alcohol (1-Butanol, n-Butanol)		
	5055	n-Propanol		
EPA 8021B			10174808	Aromatic and Halogenated Volatiles by GC with PID and/or ECD Purge & Trap
	4610	1,2-Dichlorobenzene		
	4615	1,3-Dichlorobenzene		
	4620	1,4-Dichlorobenzene		
	4375	Benzene		
	4475	Chlorobenzene		
	4765	Ethylbenzene		
	5240	m+p-xylene		
	5000	Methyl tert-butyl ether (MTBE)		
	5005	Naphthalene		
	5250	o-Xylene		
	5140	Toluene		
	5260	Xylene (total)		
EPA 8081A			10178606	Organochlorine Pesticides by GC/ECD
	8580	2,4'-DDD		
	8585	2,4'-DDE		
	8590	2,4'-DDT		
	7355	4,4'-DDD		
	7360	4,4'-DDE		
	7365	4,4'-DDT		
	7025	Aldrin		
	7110	alpha-BHC (alpha-Hexachlorocyclohexane)		
	7240	alpha-Chlordane		
	7115	beta-BHC (beta-Hexachlorocyclohexane)		
	7250	Chlordane (tech.)		
	7260	Chlorobenzilate		
	7105	delta-BHC		
	7405	Diallate		
	7470	Dieldrin		
	7510	Endosulfan I		
	7515	Endosulfan II		
	7520	Endosulfan sulfate		
	7540	Endrin		
	7530	Endrin aldehyde		

Solids	EPA 8081A	7535	Endrin ketone	
		7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	
		7245	gamma-Chlordane	
		7685	Heptachlor	
		7690	Heptachlor epoxide	
		6275	Hexachlorobenzene	
		6280	Hexachlorocyclohexanes	
		7725	Isodrin	
		7740	Kepone	
		7810	Methoxychlor	
		7870	Mirex	
		8250	Toxaphene (Chlorinated camphene)	
		8310	tris-(2,3-Dibromopropyl) phosphate (tris-BP)	
	EPA 8081B			10178800 Organochlorine Pesticides by GC/ECD
		8580	2,4'-DDD	
		8585	2,4'-DDE	
		8590	2,4'-DDT	
		7355	4,4'-DDD	
		7360	4,4'-DDE	
		7365	4,4'-DDT	
		7025	Aldrin	
		7110	alpha-BHC (alpha-Hexachlorocyclohexane)	
		7240	alpha-Chlordane	
		7115	beta-BHC (beta-Hexachlorocyclohexane)	
		7250	Chlordane (tech.)	
		7260	Chlorobenzilate	
		7105	delta-BHC	
		7405	Diallate	
		7470	Dieldrin	
		7510	Endosulfan I	
		7515	Endosulfan II	
		7520	Endosulfan sulfate	
		7540	Endrin	
		7530	Endrin aldehyde	
		7535	Endrin ketone	
		7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	
		7245	gamma-Chlordane	
		7685	Heptachlor	
		7690	Heptachlor epoxide	
		6275	Hexachlorobenzene	

Solids

EPA 8081B				
	6280	Hexachlorocyclohexanes		
	7725	Isodrin		
	7740	Kepone		
	7810	Methoxychlor		
	7870	Mirex		
	8250	Toxaphene (Chlorinated camphene)		
	8310	tris-(2,3-Dibromopropyl) phosphate (tris-BP)		
EPA 8082			10179007	Polychlorinated Biphenyls (PCBs) by GC/ECD
	8880	Aroclor-1016 (PCB-1016)		
	8885	Aroclor-1221 (PCB-1221)		
	8890	Aroclor-1232 (PCB-1232)		
	8895	Aroclor-1242 (PCB-1242)		
	8900	Aroclor-1248 (PCB-1248)		
	8905	Aroclor-1254 (PCB-1254)		
	8910	Aroclor-1260 (PCB-1260)		
	8912	Aroclor-1262 (PCB-1262)		
	8913	Aroclor-1268 (PCB-1268)		
EPA 8082A			10179201	Polychlorinated Biphenyls (PCBs) by GC/ECD
	8880	Aroclor-1016 (PCB-1016)		
	8885	Aroclor-1221 (PCB-1221)		
	8890	Aroclor-1232 (PCB-1232)		
	8895	Aroclor-1242 (PCB-1242)		
	8900	Aroclor-1248 (PCB-1248)		
	8905	Aroclor-1254 (PCB-1254)		
	8910	Aroclor-1260 (PCB-1260)		
	8912	Aroclor-1262 (PCB-1262)		
	8913	Aroclor-1268 (PCB-1268)		
EPA 8141A			10182000	Organophosphorous Pesticides by GC/NPD
	7045	Anilazine		
	7065	Atrazine		
	7070	Azinphos-ethyl (Ethyl guthion)		
	7075	Azinphos-methyl (Guthion)		
	7125	Bolstar (Sulprofos)		
	7220	Carbophenothion		
	7300	Chlorpyrifos		
	7315	Coumaphos		
	7390	Demeton		
	7395	Demeton-o		
	7385	Demeton-s		
	7410	Diazinon		
	8610	Dichlorovos (DDVP, Dichlorvos)		

Solids	EPA 8141A	7475	Dimethoate	
		8625	Disulfoton	
		7550	EPN	
		7570	Ethoprop	
		7580	Famphur	
		7600	Fensulfothion	
		7605	Fenthion	
		7770	Malathion	
		7785	Merphos	
		7825	Methyl parathion (Parathion, methyl)	
		7850	Mevinphos	
		7905	Naled	
		8290	o,o,o-Triethyl phosphorothioate	
		7955	Parathion, ethyl	
		7985	Phorate	
		8000	Phosmet (Imidan)	
		8060	Propazine	
		8110	Ronnel	
		8125	Simazine	
		8155	Sulfotepp	
		8200	Tetrachlorvinphos (Stirophos, Gardona) Z-isomer	
		8235	Thionazin (Zinophos)	
		8245	Tokuthion (Prothiophos)	
		8275	Trichloronate	
	EPA 8141B			10182204 Organophosphorous Pesticides by GC/NPD
		7045	Anilazine	
		7065	Atrazine	
		7070	Azinphos-ethyl (Ethyl guthion)	
		7075	Azinphos-methyl (Guthion)	
		7125	Bolstar (Sulprofos)	
		7220	Carbophenothion	
		7300	Chlorpyrifos	
		7315	Coumaphos	
		7390	Demeton	
		7395	Demeton-o	
		7385	Demeton-s	
		7410	Diazinon	
		8610	Dichlorovos (DDVP, Dichlorvos)	
		7475	Dimethoate	
		8625	Disulfoton	
		7550	EPN	
		7570	Ethoprop	

Solids

EPA 8141B	7580	Famphur		
	7600	Fensulfothion		
	7605	Fenthion		
	7770	Malathion		
	7785	Merphos		
	7825	Methyl parathion (Parathion, methyl)		
	7850	Mevinphos		
	7905	Naled		
	7955	Parathion, ethyl		
	7985	Phorate		
	8000	Phosmet (Imidan)		
	8110	Ronnel		
	8125	Simazine		
	8155	Sulfotepp		
	8200	Tetrachlorvinphos (Stirophos, Gardona) Z-isomer		
	8235	Thionazin (Zinophos)		
	8245	Tokuthion (Prothiophos)		
	8275	Trichloronate		
EPA 8151A			10183207	Chlorinated Herbicides by GC/ECD
	8655	2,4,5-T		
	8545	2,4-D		
	8560	2,4-DB		
	8555	Dalapon		
	8595	Dicamba		
	8605	Dichloroprop (Dichlorprop)		
	7775	MCPA		
	7780	MCPP		
	8645	Picloram		
	8650	Silvex (2,4,5-TP)		
EPA 8260B			10184802	Volatile Organic Compounds by purge and trap GC/MS
	5105	1,1,1,2-Tetrachloroethane		
	5185	1,1,1-Trichloro-2,2,2-trifluoroethane		
	5160	1,1,1-Trichloroethane		
	5110	1,1,2,2-Tetrachloroethane		
	5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		
	5165	1,1,2-Trichloroethane		
	5167	1,1,2-Trichlorofluoroethane		
	5172	1,1,2-Trifluoroethane		
	5171	1,1-Dichloro-1-fluoroethane		
	4630	1,1-Dichloroethane		
	4640	1,1-Dichloroethylene		

Solids	EPA 8260B	4670	1,1-Dichloropropene
		5150	1,2,3-Trichlorobenzene
		5180	1,2,3-Trichloropropane
		5182	1,2,3-Trimethylbenzene
		5155	1,2,4-Trichlorobenzene
		5210	1,2,4-Trimethylbenzene
		4570	1,2-Dibromo-3-chloropropane (DBCP)
		4585	1,2-Dibromoethane (EDB, Ethylene dibromide)
		4695	1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon-114)
		4697	1,2-Dichloro-1,1,2-trifluoroethane
		4610	1,2-Dichlorobenzene
		4635	1,2-Dichloroethane (Ethylene dichloride)
		4655	1,2-Dichloropropane
		6800	1,3,5-Trichlorobenzene
		5215	1,3,5-Trimethylbenzene
		4615	1,3-Dichlorobenzene
		4660	1,3-Dichloropropane
		4675	1,3-Dichloropropene
		4620	1,4-Dichlorobenzene
		4735	1,4-Dioxane (1,4- Diethyleneoxide)
		4919	1-Chloro-1,1-difluoroethane
		4510	1-Chlorohexane
		5222	2,2-Dichloro-1,1,1-trifluoroethane (Freon 123)
		4665	2,2-Dichloropropane
		4410	2-Butanone (Methyl ethyl ketone, MEK)
		4411	2-Chloro-1,1,1-trifluoroethane
		4500	2-Chloroethyl vinyl ether
		4535	2-Chlorotoluene
		4860	2-Hexanone (MBK)
		5020	2-Nitropropane
		5045	2-Pentanone
		4540	4-Chlorotoluene
		4910	4-Isopropyltoluene (p-Cymene)
		4995	4-Methyl-2-pentanone (MIBK)
		4315	Acetone
		4320	Acetonitrile
		4325	Acrolein (Propenal)
		4340	Acrylonitrile
		4355	Allyl chloride (3-Chloropropene)
		4375	Benzene
		4385	Bromobenzene

Solids	EPA 8260B	4390	Bromochloromethane
		4395	Bromodichloromethane
		4400	Bromoform
		4450	Carbon disulfide
		4455	Carbon tetrachloride
		4475	Chlorobenzene
		4575	Chlorodibromomethane
		4577	Chlorodifluoromethane (Freon-22)
		4485	Chloroethane (Ethyl chloride)
		4486	Chlorofluoromethane
		4505	Chloroform
		4522	Chloropentafluoroethane
		4525	Chloroprene (2-Chloro-1,3-butadiene)
		4526	Chlorotrifluoroethene
		4705	cis & trans-1,2-Dichloroethene
		4645	cis-1,2-Dichloroethylene
		4680	cis-1,3-Dichloropropene
		4600	cis-1,4-Dichloro-2-butene
		4555	Cyclohexane
		4560	Cyclohexanone
		4595	Dibromomethane (Methylene bromide)
		4625	Dichlorodifluoromethane (Freon-12)
		4627	Dichlorofluoromethane (Freon 21)
		4725	Diethyl ether
		9375	Di-isopropylether (DIPE)
		4750	Ethanol
		4755	Ethyl acetate
		4810	Ethyl methacrylate
		4765	Ethylbenzene
		4795	Ethylene oxide
		4770	Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)
		4772	Fluoromethane (Freon 41)
		4835	Hexachlorobutadiene
		4870	Iodomethane (Methyl iodide)
		4875	Isobutyl alcohol (2-Methyl-1-propanol)
		4895	Isopropyl alcohol (2-Propanol, Isopropanol)
		4900	Isopropylbenzene (Cumene)
		5240	m+p-xylene
		4925	Methacrylonitrile
		4940	Methyl acetate
		4950	Methyl bromide (Bromomethane)
		4960	Methyl chloride (Chloromethane)

Solids

EPA 8260B	4990	Methyl methacrylate		
	5000	Methyl tert-butyl ether (MTBE)		
	4965	Methylcyclohexane		
	4975	Methylene chloride (Dichloromethane)		
	5245	m-Xylene		
	5005	Naphthalene		
	4425	n-Butyl alcohol (1-Butanol, n-Butanol)		
	4435	n-Butylbenzene		
	4855	n-Hexane		
	5090	n-Propylbenzene		
	5250	o-Xylene		
	5035	Pentachloroethane		
	5080	Propionitrile (Ethyl cyanide)		
	9579	Propylene oxide		
	5255	p-Xylene		
	9607	sec-Butyl Alcohol (2-Butanol)		
	4440	sec-Butylbenzene		
	5100	Styrene		
	4370	T-amylmethylether (TAME)		
	4420	tert-Butyl alcohol		
	4445	tert-Butylbenzene		
	5115	Tetrachloroethylene (Perchloroethylene)		
	5120	Tetrahydrofuran (THF)		
	9574	Tetrahydrothiophene		
	5140	Toluene		
	4027	Total BTEX		
	5205	Total trihalomethanes		
	4700	trans-1,2-Dichloroethylene		
	4685	trans-1,3-Dichloropropylene		
	4605	trans-1,4-Dichloro-2-butene		
	5170	Trichloroethene (Trichloroethylene)		
	5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)		
	5225	Vinyl acetate		
	5235	Vinyl chloride		
	5237	Vinyl Fluoride		
	5260	Xylene (total)		
EPA 8260B SIM			10184904	Volatile Organic Compounds by purge and trap GC/MS-SIM
	4735	1,4-Dioxane (1,4- Diethyleneoxide)		
EPA 8270C			10185805	Semivolatile Organic compounds by GC/MS
	6703	1,1'-Biphenyl (BZ-0)		
	6715	1,2,4,5-Tetrachlorobenzene		

Solids	EPA 8270C	5155	1,2,4-Trichlorobenzene
		4610	1,2-Dichlorobenzene
		6221	1,2-Diphenylhydrazine
		6885	1,3,5-Trinitrobenzene (1,3,5-TNB)
		4615	1,3-Dichlorobenzene
		6160	1,3-Dinitrobenzene (1,3-DNB)
		4620	1,4-Dichlorobenzene
		6165	1,4-Dinitrobenzene
		4735	1,4-Dioxane (1,4- Diethyleneoxide)
		6420	1,4-Naphthoquinone
		6630	1,4-Phenylenediamine
		5790	1-Chloronaphthalene
		6380	1-Methylnaphthalene
		6425	1-Naphthylamine
		4659	2,2-Oxybis(1-chloropropane)
		6735	2,3,4,6-Tetrachlorophenol
		6835	2,4,5-Trichlorophenol
		6840	2,4,6-Trichlorophenol
		6000	2,4-Dichlorophenol
		6130	2,4-Dimethylphenol
		6175	2,4-Dinitrophenol
		6185	2,4-Dinitrotoluene (2,4-DNT)
		6005	2,6-Dichlorophenol
		6190	2,6-Dinitrotoluene (2,6-DNT)
		5515	2-Acetylaminofluorene
		9322	2-Butoxyethanol
		5795	2-Chloronaphthalene
		5800	2-Chlorophenol
		5866	2-Ethoxyethanol (cellosolve)
		6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)
		5145	2-Methylaniline (o-Toluidine)
		6385	2-Methylnaphthalene
		6400	2-Methylphenol (o-Cresol)
		6430	2-Naphthylamine
		6460	2-Nitroaniline
		6490	2-Nitrophenol
		5050	2-Picoline (2-Methylpyridine)
		6412	3 & 4 Methylphenol
		5945	3,3'-Dichlorobenzidine
		6120	3,3'-Dimethylbenzidine
		6355	3-Methylcholanthrene
		6405	3-Methylphenol (m-Cresol)
		6465	3-Nitroaniline

Solids	EPA 8270C	6365	4,4-Methylenebis(2-chloroaniline)
		5540	4-Aminobiphenyl
		5660	4-Bromophenyl phenyl ether (BDE-3)
		5700	4-Chloro-3-methylphenol
		5745	4-Chloroaniline
		5825	4-Chlorophenyl phenylether
		6105	4-Dimethyl aminoazobenzene
		6410	4-Methylphenol (p-Cresol)
		6470	4-Nitroaniline
		6500	4-Nitrophenol
		6510	4-Nitroquinoline 1-oxide
		6570	5-Nitro-o-toluidine
		6112	6-Methylchrysene
		6115	7,12-Dimethylbenz(a) anthracene
		6125	a-a-Dimethylphenethylamine
		5500	Acenaphthene
		5505	Acenaphthylene
		5510	Acetophenone
		4330	Acrylamide
		7005	Alachlor
		4357	alpha-Methylstyrene
		5545	Aniline
		5555	Anthracene
		5560	Aramite
		7065	Atrazine
		5562	Azobenzene
		5570	Benzaldehyde
		5567	Benzenethiol (Phenylmercaptan)
		5595	Benzidine
		5575	Benzo(a)anthracene
		5580	Benzo(a)pyrene
		5605	Benzo(e)pyrene
		5590	Benzo(g,h,i)perylene
		5600	Benzo(k)fluoranthene
		5585	Benzo[b]fluoranthene
		5610	Benzoic acid
		5630	Benzyl alcohol
		5760	bis(2-Chloroethoxy)methane
		5765	bis(2-Chloroethyl) ether
		5780	bis(2-Chloroisopropyl) ether
		5670	Butyl benzyl phthalate
		7180	Caprolactam
		5680	Carbazole

Solids	EPA 8270C	7210	Carbofuran phenol
		7260	Chlorobenzilate
		5855	Chrysene
		5862	Cresols, Total
		6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
		7405	Diallate
		9354	Dibenz(a, h) acridine
		5900	Dibenz(a, j) acridine
		5895	Dibenz(a,h) anthracene
		5890	Dibenzo(a,e) pyrene
		5905	Dibenzofuran
		6070	Diethyl phthalate
		7475	Dimethoate
		6135	Dimethyl phthalate
		5925	Di-n-butyl phthalate
		6200	Di-n-octyl phthalate
		8620	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)
		6205	Diphenylamine
		8625	Disulfoton
		6260	Ethyl methanesulfonate
		7580	Famphur
		6265	Fluoranthene
		6270	Fluorene
		6275	Hexachlorobenzene
		4835	Hexachlorobutadiene
		6285	Hexachlorocyclopentadiene
		4840	Hexachloroethane
		6295	Hexachloropropene
		6312	Indene
		6315	Indeno(1,2,3-cd) pyrene
		7725	Isodrin
		6320	Isophorone
		6325	Isosafrole
		6345	Methapyrilene
		6375	Methyl methanesulfonate
		7825	Methyl parathion (Parathion, methyl)
		5010	n, n-Dimethyl formamide
		5005	Naphthalene
		5875	n-Decane
		6300	n-Hexadecane
		5015	Nitrobenzene
		6525	n-Nitrosodiethylamine

Solids	EPA 8270C	6530	n-Nitrosodimethylamine		
		5025	n-Nitroso-di-n-butylamine		
		6545	n-Nitrosodi-n-propylamine		
		6535	n-Nitrosodiphenylamine		
		6550	n-Nitrosomethylethalamine		
		6555	n-Nitrosomorpholine		
		6560	n-Nitrosopiperidine		
		6565	n-Nitrosopyrrolidine		
		8290	o,o,o-Triethyl phosphorothioate		
		5550	o-Anisidine		
		5553	Octachlorostyrene		
		7955	Parathion, ethyl		
		6590	Pentachlorobenzene		
		5035	Pentachloroethane		
		6600	Pentachloronitrobenzene		
		6605	Pentachlorophenol		
		6608	Perylene		
		6610	Phenacetin		
		6615	Phenanthrene		
		6625	Phenol		
		7985	Phorate		
		6635	Phthalic acid		
		6640	Phthalic anhydride		
		9663	p-Phenylenediamine		
		6650	Pronamide (Kerb)		
		6665	Pyrene		
		5095	Pyridine		
		6670	Quinoline		
		6685	Safrole		
		8155	Sulfotepp		
		8235	Thionazin (Zinophos)		
		5200	Triethylamine		
		8310	tris-(2,3-Dibromopropyl) phosphate (tris-BP)		
	EPA 8270C SIM			10242407	Semivolatile Organic compounds by GC/MS Selective Ion Monitoring
		4735	1,4-Dioxane (1,4- Diethyleneoxide)		
		6380	1-Methylnaphthalene		
		6385	2-Methylnaphthalene		
		5500	Acenaphthene		
		5505	Acenaphthylene		
		5555	Anthracene		
		5575	Benzo(a)anthracene		
		5580	Benzo(a)pyrene		

Solids	EPA 8270C SIM	5605	Benzo(e)pyrene		
		5590	Benzo(g,h,i)perylene		
		5600	Benzo(k)fluoranthene		
		5585	Benzo[b]fluoranthene		
		5670	Butyl benzyl phthalate		
		5855	Chrysene		
		6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)		
		5895	Dibenz(a,h) anthracene		
		5905	Dibenzofuran		
		6070	Diethyl phthalate		
		6135	Dimethyl phthalate		
		5925	Di-n-butyl phthalate		
		6200	Di-n-octyl phthalate		
		6265	Fluoranthene		
		6270	Fluorene		
		6315	Indeno(1,2,3-cd) pyrene		
		5005	Naphthalene		
		6525	n-Nitrosodiethylamine		
		6530	n-Nitrosodimethylamine		
		6545	n-Nitrosodi-n-propylamine		
		6535	n-Nitrosodiphenylamine		
		6615	Phenanthrene		
		6665	Pyrene		
	EPA 8270D			10186002	Semivolatile Organic compounds by GC/MS
		6703	1,1'-Biphenyl (BZ-0)		
		6715	1,2,4,5-Tetrachlorobenzene		
		5155	1,2,4-Trichlorobenzene		
		4610	1,2-Dichlorobenzene		
		6221	1,2-Diphenylhydrazine		
		6885	1,3,5-Trinitrobenzene (1,3,5-TNB)		
		4615	1,3-Dichlorobenzene		
		6160	1,3-Dinitrobenzene (1,3-DNB)		
		4620	1,4-Dichlorobenzene		
		6165	1,4-Dinitrobenzene		
		4735	1,4-Dioxane (1,4- Diethyleneoxide)		
		6420	1,4-Naphthoquinone		
		6630	1,4-Phenylenediamine		
		5790	1-Chloronaphthalene		
		6380	1-Methylnaphthalene		
		6425	1-Naphthylamine		
		4659	2,2-Oxybis(1-chloropropane)		
		6735	2,3,4,6-Tetrachlorophenol		

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4025

TestAmerica Denver

EPA CODE: CO00026

4955 Yarrow St.

Certificate: 4025 - 006

Arvada, CO 80002 Issue Date: 1/9/2017 Expiration Date: 1/8/2018

As of 1/9/2017 this list supercedes all previous lists for this certificate number.

Solids	EPA 8270D	6835	2,4,5-Trichlorophenol
		6840	2,4,6-Trichlorophenol
		6000	2,4-Dichlorophenol
		6130	2,4-Dimethylphenol
		6175	2,4-Dinitrophenol
		6185	2,4-Dinitrotoluene (2,4-DNT)
		6005	2,6-Dichlorophenol
		6190	2,6-Dinitrotoluene (2,6-DNT)
		5515	2-Acetylaminofluorene
		5795	2-Chloronaphthalene
		5800	2-Chlorophenol
		6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2 -methylphenol)
		5145	2-Methylaniline (o-Toluidine)
		6385	2-Methylnaphthalene
		6400	2-Methylphenol (o-Cresol)
		6430	2-Naphthylamine
		6460	2-Nitroaniline
		6490	2-Nitrophenol
		5050	2-Picoline (2-Methylpyridine)
		6412	3 & 4 Methylphenol
		5945	3,3'-Dichlorobenzidine
		6120	3,3'-Dimethylbenzidine
		6355	3-Methylcholanthrene
		6405	3-Methylphenol (m-Cresol)
		6465	3-Nitroaniline
		6365	4,4-Methylenebis(2-chloroaniline)
		5540	4-Aminobiphenyl
		5660	4-Bromophenyl phenyl ether (BDE-3)
		5700	4-Chloro-3-methylphenol
		5745	4-Chloroaniline
		5825	4-Chlorophenyl phenylether
		6105	4-Dimethyl aminoazobenzene
		6410	4-Methylphenol (p-Cresol)
		6470	4-Nitroaniline
		6500	4-Nitrophenol
		6510	4-Nitroquinoline 1-oxide
		6570	5-Nitro-o-toluidine
		6115	7,12-Dimethylbenz(a) anthracene
		6125	a-a-Dimethylphenethylamine
		5500	Acenaphthene
		5505	Acenaphthylene
		5510	Acetophenone
		5545	Aniline

Solids	EPA 8270D	5555	Anthracene
		5560	Aramite
		5562	Azobenzene
		5570	Benzaldehyde
		5595	Benzidine
		5575	Benzo(a)anthracene
		5580	Benzo(a)pyrene
		5590	Benzo(g,h,i)perylene
		5600	Benzo(k)fluoranthene
		5585	Benzo[b]fluoranthene
		5610	Benzoic acid
		5630	Benzyl alcohol
		5760	bis(2-Chloroethoxy)methane
		5765	bis(2-Chloroethyl) ether
		5780	bis(2-Chloroisopropyl) ether
		5670	Butyl benzyl phthalate
		7180	Caprolactam
		5680	Carbazole
		7260	Chlorobenzilate
		5855	Chrysene
		8906	Coelution - 3-Chlorophenol + 4-Chlorophenol
		5862	Cresols, Total
		6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
		7405	Diallate
		5900	Dibenz(a, j) acridine
		5895	Dibenz(a,h) anthracene
		5905	Dibenzofuran
		6070	Diethyl phthalate
		7475	Dimethoate
		6135	Dimethyl phthalate
		5925	Di-n-butyl phthalate
		6200	Di-n-octyl phthalate
		8620	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)
		6205	Diphenylamine
		8625	Disulfoton
		6260	Ethyl methanesulfonate
		7580	Famphur
		6265	Fluoranthene
		6270	Fluorene
		6275	Hexachlorobenzene
		4835	Hexachlorobutadiene

Solids	EPA 8270D	6285	Hexachlorocyclopentadiene		
		4840	Hexachloroethane		
		6295	Hexachloropropene		
		6315	Indeno(1,2,3-cd) pyrene		
		7725	Isodrin		
		6320	Isophorone		
		6325	Isosafrole		
		6345	Methapyrilene		
		6375	Methyl methanesulfonate		
		7825	Methyl parathion (Parathion, methyl)		
		5005	Naphthalene		
		5015	Nitrobenzene		
		6525	n-Nitrosodiethylamine		
		6530	n-Nitrosodimethylamine		
		5025	n-Nitroso-di-n-butylamine		
		6545	n-Nitrosodi-n-propylamine		
		6535	n-Nitrosodiphenylamine		
		6550	n-Nitrosomethylethalamine		
		6555	n-Nitrosomorpholine		
		6560	n-Nitrosopiperidine		
		6565	n-Nitrosopyrrolidine		
		8290	o,o,o-Triethyl phosphorothioate		
		7955	Parathion, ethyl		
		6590	Pentachlorobenzene		
		5035	Pentachloroethane		
		6600	Pentachloronitrobenzene		
		6605	Pentachlorophenol		
		6610	Phenacetin		
		6615	Phenanthrene		
		6625	Phenol		
		7985	Phorate		
		9663	p-Phenylenediamine		
		6650	Pronamide (Kerb)		
		6665	Pyrene		
		5095	Pyridine		
		6685	Safrole		
		8155	Sulfotepp		
		8235	Thionazin (Zinophos)		
	EPA 8270D SIM			10242509	Semivolatile Organic compounds by GC/MS Selective Ion Monitoring
		4735	1,4-Dioxane (1,4- Diethyleneoxide)		
		6380	1-Methylnaphthalene		
		6385	2-Methylnaphthalene		
		5500	Acenaphthene		

Solids	EPA 8270D SIM	5505	Acenaphthylene	
		5555	Anthracene	
		5575	Benzo(a)anthracene	
		5580	Benzo(a)pyrene	
		5590	Benzo(g,h,i)perylene	
		5600	Benzo(k)fluoranthene	
		5585	Benzo[b]fluoranthene	
		5670	Butyl benzyl phthalate	
		5855	Chrysene	
		6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	
		5895	Dibenz(a,h) anthracene	
		5905	Dibenzofuran	
		6070	Diethyl phthalate	
		6135	Dimethyl phthalate	
		5925	Di-n-butyl phthalate	
		6200	Di-n-octyl phthalate	
		6265	Fluoranthene	
		6270	Fluorene	
		6315	Indeno(1,2,3-cd) pyrene	
		5005	Naphthalene	
		6530	n-Nitrosodimethylamine	
		6535	n-Nitrosodiphenylamine	
		6615	Phenanthrene	
		6665	Pyrene	
	EPA 8310			10187607 Polynuclear Aromatic Hydrocarbons by HPLC/UV-VIS
		6380	1-Methylnaphthalene	
		6385	2-Methylnaphthalene	
		5500	Acenaphthene	
		5505	Acenaphthylene	
		5555	Anthracene	
		5575	Benzo(a)anthracene	
		5580	Benzo(a)pyrene	
		5590	Benzo(g,h,i)perylene	
		5600	Benzo(k)fluoranthene	
		5585	Benzo[b]fluoranthene	
		5855	Chrysene	
		5895	Dibenz(a,h) anthracene	
		6265	Fluoranthene	
		6270	Fluorene	
		6315	Indeno(1,2,3-cd) pyrene	
		5005	Naphthalene	
		6615	Phenanthrene	

Solids	EPA 8310	6665	Pyrene	
	EPA 8321A			10189001 Solvent Extractable non-volatile compounds by HPLC/TS/MS
		6885	1,3,5-Trinitrobenzene (1,3,5-TNB)	
		6160	1,3-Dinitrobenzene (1,3-DNB)	
		6014	2,3-Dinitrotoluene	
		8655	2,4,5-T	
		9651	2,4,6-Trinitrotoluene (2,4,6-TNT)	
		8545	2,4-D	
		8560	2,4-DB	
		6185	2,4-Dinitrotoluene (2,4-DNT)	
		6190	2,6-Dinitrotoluene (2,6-DNT)	
		9303	2-Amino-4,6-dinitrotoluene (2-am-dnt)	
		9507	2-Nitrotoluene	
		9510	3-Nitrotoluene	
		9306	4-Amino-2,6-dinitrotoluene (4-am-dnt)	
		9513	4-Nitrotoluene	
		7010	Aldicarb (Temik)	
		7040	Aminocarb	
		7195	Carbaryl (Sevin)	
		7205	Carbofuran (Furaden)	
		7275	Chloropropham	
		8555	Dalapon	
		8595	Dicamba	
		8605	Dichloroprop (Dichlorprop)	
		8620	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	
		7505	Diuron	
		7610	Fenuron	
		7630	Fluometuron	
		7765	Linuron (Lorox)	
		7775	MCPA	
		7780	MCPP	
		7800	Methiocarb (Mesurol)	
		7805	Methomyl (Lannate)	
		6415	Methyl-2,4,6-trinitrophenylnitramine (tetryl)	
		7855	Mexacarbate	
		7885	Monuron	
		7915	Neburon	
		5015	Nitrobenzene	
		6485	Nitroglycerin	

Solids	EPA 8321A	9522	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)		
		6605	Pentachlorophenol		
		9558	Pentaerythritoltetranitrate (PETN)		
		8075	Propham		
		8080	Propoxur (Baygon)		
		9432	RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)		
		8120	Siduron		
		8650	Silvex (2,4,5-TP)		
	EPA 8321B			10189205	Solvent Extractable non-volatile compounds by HPLC/TS/MS
		6885	1,3,5-Trinitrobenzene (1,3,5-TNB)		
		6160	1,3-Dinitrobenzene (1,3-DNB)		
		6014	2,3-Dinitrotoluene		
		8655	2,4,5-T		
		9651	2,4,6-Trinitrotoluene (2,4,6-TNT)		
		8545	2,4-D		
		8560	2,4-DB		
		6185	2,4-Dinitrotoluene (2,4-DNT)		
		6190	2,6-Dinitrotoluene (2,6-DNT)		
		9303	2-Amino-4,6-dinitrotoluene (2-am-dnt)		
		9507	2-Nitrotoluene		
		9510	3-Nitrotoluene		
		9306	4-Amino-2,6-dinitrotoluene (4-am-dnt)		
		9513	4-Nitrotoluene		
		7010	Aldicarb (Temik)		
		7040	Aminocarb		
		7195	Carbaryl (Sevin)		
		7205	Carbofuran (Furaden)		
		7275	Chloropropham		
		8555	Dalapon		
		8595	Dicamba		
		8605	Dichloroprop (Dichlorprop)		
		8620	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)		
		7505	Diuron		
		7610	Fenuron		
		7630	Fluometuron		
		7765	Linuron (Lorox)		
		7775	MCPA		
		7780	MCPP		
		7800	Methiocarb (Mesurol)		
		7805	Methomyl (Lannate)		

Solids	EPA 8321B	6415	Methyl-2,4,6-trinitrophenylnitramine (tetryl)		
		7855	Mexacarbate		
		7885	Monuron		
		7915	Neburon		
		5015	Nitrobenzene		
		6485	Nitroglycerin		
		9522	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)		
		6605	Pentachlorophenol		
		9558	Pentaerythritoltetranitrate (PETN)		
		8075	Propham		
		8080	Propoxur (Baygon)		
		9432	RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)		
		8120	Siduron		
		8650	Silvex (2,4,5-TP)		
	EPA 8330A			10190008	Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)
		6885	1,3,5-Trinitrobenzene (1,3,5-TNB)		
		6160	1,3-Dinitrobenzene (1,3-DNB)		
		9651	2,4,6-Trinitrotoluene (2,4,6-TNT)		
		5882	2,4-diamino-6-nitrotoluene		
		6185	2,4-Dinitrotoluene (2,4-DNT)		
		6181	2,6-diamino-4-nitrotoluene		
		6190	2,6-Dinitrotoluene (2,6-DNT)		
		9303	2-Amino-4,6-dinitrotoluene (2-am-dnt)		
		9507	2-Nitrotoluene		
		9510	3-Nitrotoluene		
		9306	4-Amino-2,6-dinitrotoluene (4-am-dnt)		
		9513	4-Nitrotoluene		
		7046	Ammonium Picrate		
		6415	Methyl-2,4,6-trinitrophenylnitramine (tetryl)		
		5015	Nitrobenzene		
		6485	Nitroglycerin		
		9522	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)		
		9558	Pentaerythritoltetranitrate (PETN)		
		1899	Picric Acid (2,4,6-Trinitrophenol)		
		9432	RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)		

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4025

TestAmerica Denver

EPA CODE: CO00026

4955 Yarrow St.

Certificate: 4025 - 006

Arvada, CO 80002 Issue Date: 1/9/2017 Expiration Date: 1/8/2018

As of 1/9/2017 this list supercedes all previous lists for this certificate number.

Solids

EPA 8330B			10308006	Nitroaromatics, Nitramines and Nitrate Esters by High Performance Liquid Chromatography (HPLC)
	6885	1,3,5-Trinitrobenzene (1,3,5-TNB)		
	6160	1,3-Dinitrobenzene (1,3-DNB)		
	9651	2,4,6-Trinitrotoluene (2,4,6-TNT)		
	5882	2,4-diamino-6-nitrotoluene		
	6185	2,4-Dinitrotoluene (2,4-DNT)		
	6181	2,6-diamino-4-nitrotoluene		
	6190	2,6-Dinitrotoluene (2,6-DNT)		
	9303	2-Amino-4,6-dinitrotoluene (2-am-dnt)		
	9507	2-Nitrotoluene		
	6150	3,5-Dinitroaniline		
	9510	3-Nitrotoluene		
	9306	4-Amino-2,6-dinitrotoluene (4-am-dnt)		
	9513	4-Nitrotoluene		
	7046	Ammonium Picrate		
	6415	Methyl-2,4,6-trinitrophenylnitramine (tetryl)		
	5015	Nitrobenzene		
	6485	Nitroglycerin		
	9522	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)		
	9558	Pentaerythritoltetranitrate (PETN)		
	1899	Picric Acid (2,4,6-Trinitrophenol)		
	9432	RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)		
EPA 9012A			10193405	Total and Amenable Cyanide (automated colorimetric with off-line distillation)
	1645	Total cyanide		
EPA 9012B			10243206	Total and Amenable Cyanide (automated colorimetric with off-line distillation)
	1645	Total cyanide		
EPA 9030B			10195605	Acid-Soluble and Acid-Insoluble sulfides: Distillation
	2005	Sulfide		
EPA 9034			10196006	Titrimetric Procedure for Acid-Soluble and Acid-Insoluble Sulfides
	2005	Sulfide		
EPA 9045C			10198400	Soil and Waste pH
	1900	pH		
EPA 9045D			10244607	Soil and Waste pH
	1900	pH		

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Solids

EPA 9050A			10198808	Specific Conductance
	1610	Conductivity		
EPA 9056			10199005	Determination of Inorganic Anions by Ion Chromatography
	1540	Bromide		
	1575	Chloride		
	1730	Fluoride		
	1805	Nitrate		
	1835	Nitrite		
	1870	Orthophosphate as P		
	2000	Sulfate		
	1825	Total nitrate+nitrite		
EPA 9056A			10199607	Determination of Inorganic Anions by Ion Chromatography
	1540	Bromide		
	1575	Chloride		
	1730	Fluoride		
	1805	Nitrate		
	1820	Nitrate-nitrite		
	1835	Nitrite		
	1870	Orthophosphate as P		
	2000	Sulfate		
EPA 9060			10200201	Total Organic Carbon
	2040	Total organic carbon		
EPA 9060A			10244801	Total Organic Carbon
	2040	Total organic carbon		
EPA 9071B			10201602	Oil and Grease Extraction Method for sludge and sediment samples
	1803	n-Hexane Extractable Material (O&G)		
	1860	Oil & Grease		
EPA 9095A			10204203	Paint Filter Liquids Test
	9822	Extraction/Preparation		
NWTPH-Dx			90018409	Oregon DEQ TPH Diesel Range
	9369	Diesel range organics (DRO)		
	9499	Motor Oil		
	8641	Percent Moisture		
	9506	Residual Range Organics (RRO)		
	2050	Total Petroleum Hydrocarbons (TPH)		
NWTPH-Gx			90018603	Oregon DEQ TPH Gasoline Range Organics by GC/FID-PID Purge & Trap
	9408	Gasoline range organics (GRO)		

Solids

SM 2320 B-97 online	1505	Alkalinity as CaCO3	20045607	Alkalinity by Titration Method
SM 2510 B-97 online	1610	Conductivity	20048606	Conductivity by Probe
SM 2540 B-97 online	1950	Residue-total	20049405	Total Solids Dried at 103 - 105C
SM 4500-CN C-1999	1635	Cyanide	20095652	Cyanide (Total) after Distillation
SM 4500-CN E-1999	1645	Total cyanide	20096417	Cyanide by Colorimetric Method
SM 4500-CN E-2011 2011	1645	Total cyanide	20096428	Cyanide by Colormetric Method
SM 4500-CN^- C-97 online	1645	Total cyanide	20095607	Cyanide by Total Cyanide after Distillation
SM 4500-$NO2^-$ B-2000 online	1835 1840	Nitrite Nitrite as N	20113104	Nitrite by Colorimetric Determination

OREGON

Environmental Laboratory Accreditation Program

NELAP Recognized

TestAmerica Sacramento

4040

880 Riverside Parkway

West Sacramento, CA 95605

IS GRANTED APPROVAL BY ORELAP UNDER THE 2009 TNI STANDARDS, TO PERFORM ANALYSES ON ENVIRONMENTAL SAMPLES IN MATRICES AS LISTED BELOW :

Air	*Drinking Water*	*Non Potable Water*	*Solids and Chem. Waste*	*Tissue*
Chemistry	Chemistry	Chemistry	Chemistry	Chemistry

AND AS RECORDED IN THE LIST OF APPROVED ANALYTES, METHODS, ANALYTICAL TECHNIQUES, AND FIELDS OF TESTING ISSUED CONCURRENTLY WITH THIS CERTIFICATE AND REVISED AS NECESSARY.

ACCREDITED STATUS DEPENDS ON SUCCESSFUL ONGOING PARTICIPATION IN THE PROGRAM AND CONTINUED COMPLIANCE WITH THE STANDARDS.

CUSTOMERS ARE URGED TO VERIFY THE LABORATORY'S CURRENT ACCREDITATION STATUS IN OREGON.

Scott C. Hoatson
Oregon State Public Health Laboratory
Interim ORELAP Program Manager
3150 NW. 229th Ave, Suite 100
Hillsboro, OR 97124

EFFECTIVE DATE : 01/30/2017

EXPIRATION DATE : 01/29/2018

Certificate No : 4040 - 008

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4040

TestAmerica Sacramento

EPA CODE: CA00044

880 Riverside Parkway

Certificate: 4040 - 008

West Sacramento, CA 95605 Issue Date: 1/30/2017 Expiration Date: 1/29/2018

As of 1/30/2017 this list supercedes all previous lists for this certificate number.

MATRIX	Reference	Code	Analyte	Code	Description
Air					
	ASTM D1946-90			30024465	Reformed Gas by Gas Chromatography
		4836	1-Propene (Propylene)		
		3755	Carbon dioxide		
		3780	Carbon monoxide		
		4747	Ethane		
		4752	Ethene		
		1767	Helium		
		1772	Hydrogen		
		4926	Methane		
		1843	Nitrogen		
		5029	n-Propane		
		3895	Oxygen		
	EPA 1668A			10129405	Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS
		8896	Total Pentachlorobiphenyls		
	EPA 3050B			10135601	Acid Digestion of Sediments, Sludges, and soils
		8031	Extraction/Preparation		
	EPA 3620B			10145809	Florisil Cleanup
		8031	Extraction/Preparation		
	EPA 3C			10247708	Fixed Gasses by GC/TCD
		3755	Carbon dioxide		
		4926	Methane		
		1843	Nitrogen		
		3895	Oxygen		
	EPA 6020			10156000	Inductively Coupled Plasma-Mass Spectrometry
		1000	Aluminum		
		1005	Antimony		
		1010	Arsenic		
		1015	Barium		
		1020	Beryllium		
		1025	Boron		
		1030	Cadmium		
		1035	Calcium		
		1040	Chromium		
		1050	Cobalt		
		1055	Copper		
		1070	Iron		

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Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4040

TestAmerica Sacramento

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West Sacramento, CA 95605 Issue Date: 1/30/2017 Expiration Date: 1/29/2018

As of 1/30/2017 this list supercedes all previous lists for this certificate number.

Air	EPA 6020	1075	Lead		
		1080	Lithium		
		1085	Magnesium		
		1090	Manganese		
		1100	Molybdenum		
		1105	Nickel		
		1910	Phosphorus, total		
		1125	Potassium		
		1140	Selenium		
		1150	Silver		
		1155	Sodium		
		1160	Strontium		
		1165	Thallium		
		1175	Tin		
		1180	Titanium		
		3035	Uranium		
		1185	Vanadium		
		1190	Zinc		
	EPA 6020A			10156408	Inductively Coupled Plasma-Mass Spectrometry
		1000	Aluminum		
		1005	Antimony		
		1010	Arsenic		
		1015	Barium		
		1020	Beryllium		
		1025	Boron		
		1030	Cadmium		
		1035	Calcium		
		1040	Chromium		
		1050	Cobalt		
		1055	Copper		
		1070	Iron		
		1075	Lead		
		1080	Lithium		
		1085	Magnesium		
		1090	Manganese		
		1100	Molybdenum		
		1105	Nickel		
		1125	Potassium		
		1140	Selenium		
		1150	Silver		
		1155	Sodium		
		1160	Strontium		
		1165	Thallium		

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Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4040

TestAmerica Sacramento

EPA CODE: CA00044

880 Riverside Parkway

Certificate: 4040 - 008

West Sacramento, CA 95605 Issue Date: 1/30/2017 Expiration Date: 1/29/2018

As of 1/30/2017 this list supercedes all previous lists for this certificate number.

Air

EPA 6020A	1170	Thorium		
	1175	Tin		
	1180	Titanium		
	3035	Uranium		
	1185	Vanadium		
	1190	Zinc		
EPA Method 15			10402207	Hydrogen sulfide (H2S), carbonyl sulfide (COS) and carbon disulfide (CS2)emissions from stationary sources
	3840	Hydrogen sulfide		
	3845	Hydrogen sulfide, carbonyl sulfide, carbon disulfide		
EPA Method 16			10402401	Semicontinuous Determination Of Sulfur Emissions from Stationary Sources
	3830	H2S, methyl mercaptan, dimethyl sulfide, dimethyl disulfide		
	3840	Hydrogen sulfide		
EPA Method 26A 2000			10403200	Determination of Hydrogen Halides and Halogen Emissions From Stationary Sources - Isokinetic Method
	1541	Bromine		
	1580	Chlorine		
	1768	Hydrobromic Acid (Hydrogen Bromide)		
	1770	Hydrochloric acid (Hydrogen chloride (gas only))		
	1775	Hydrogen fluoride (Hydrofluoric acid)		
EPA Method 29			10403722	Determination of Metals Emissions from Stationary Sources
	1005	Antimony		
	1010	Arsenic		
	1015	Barium		
	1020	Beryllium		
	1030	Cadmium		
	1040	Chromium		
	1050	Cobalt		
	1055	Copper		
	1075	Lead		
	1090	Manganese		
	1095	Mercury		
	1105	Nickel		
	1910	Phosphorus, total		
	1140	Selenium		
	1150	Silver		
	1165	Thallium		
	1190	Zinc		

Air	EPA TO-10A (GC/ECD)			10247504	Pesticides and PCBs with LV PUF by GC/ECD
		7355	4,4'-DDD		
		7360	4,4'-DDE		
		7365	4,4'-DDT		
		7025	Aldrin		
		7110	alpha-BHC (alpha-Hexachlorocyclohexane)		
		7240	alpha-Chlordane		
		8880	Aroclor-1016 (PCB-1016)		
		8885	Aroclor-1221 (PCB-1221)		
		8890	Aroclor-1232 (PCB-1232)		
		8895	Aroclor-1242 (PCB-1242)		
		8900	Aroclor-1248 (PCB-1248)		
		8905	Aroclor-1254 (PCB-1254)		
		8910	Aroclor-1260 (PCB-1260)		
		8913	Aroclor-1268 (PCB-1268)		
		7115	beta-BHC (beta-Hexachlorocyclohexane)		
		7250	Chlordane (tech.)		
		7105	delta-BHC		
		7470	Dieldrin		
		7510	Endosulfan I		
		7515	Endosulfan II		
		7520	Endosulfan sulfate		
		7540	Endrin		
		7530	Endrin aldehyde		
		7535	Endrin ketone		
		7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)		
		7245	gamma-Chlordane		
		7685	Heptachlor		
		7690	Heptachlor epoxide		
		7810	Methoxychlor		
		8250	Toxaphene (Chlorinated camphene)		
	EPA TO-13A			10248405	Polycyclic Aromatic Hydrocarbons in Ambient Air by GC/MS
		5155	1,2,4-Trichlorobenzene		
		4610	1,2-Dichlorobenzene		
		4615	1,3-Dichlorobenzene		
		4620	1,4-Dichlorobenzene		
		9546	1,4-Dithiane		
		6380	1-Methylnaphthalene		
		4659	2,2-Oxybis(1-chloropropane)		
		6735	2,3,4,6-Tetrachlorophenol		

Air	EPA TO-13A	6835	2,4,5-Trichlorophenol
		6840	2,4,6-Trichlorophenol
		6000	2,4-Dichlorophenol
		6130	2,4-Dimethylphenol
		6175	2,4-Dinitrophenol
		6185	2,4-Dinitrotoluene (2,4-DNT)
		6190	2,6-Dinitrotoluene (2,6-DNT)
		5795	2-Chloronaphthalene
		5800	2-Chlorophenol
		6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2 -methylphenol)
		6385	2-Methylnaphthalene
		6400	2-Methylphenol (o-Cresol)
		6460	2-Nitroaniline
		6490	2-Nitrophenol
		6412	3 & 4 Methylphenol
		5945	3,3'-Dichlorobenzidine
		6465	3-Nitroaniline
		5660	4-Bromophenyl phenyl ether (BDE-3)
		5700	4-Chloro-3-methylphenol
		5745	4-Chloroaniline
		5825	4-Chlorophenyl phenylether
		6470	4-Nitroaniline
		6500	4-Nitrophenol
		5500	Acenaphthene
		5505	Acenaphthylene
		5545	Aniline
		5555	Anthracene
		5575	Benzo(a)anthracene
		5580	Benzo(a)pyrene
		5605	Benzo(e)pyrene
		5590	Benzo(g,h,i)perylene
		5600	Benzo(k)fluoranthene
		5585	Benzo[b]fluoranthene
		5610	Benzoic acid
		5630	Benzyl alcohol
		5760	bis(2-Chloroethoxy)methane
		5765	bis(2-Chloroethyl) ether
		5670	Butyl benzyl phthalate
		5680	Carbazole
		5855	Chrysene
		6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
		5895	Dibenz(a,h) anthracene

Air	EPA TO-13A	5905	Dibenzofuran	
		6070	Diethyl phthalate	
		6135	Dimethyl phthalate	
		5925	Di-n-butyl phthalate	
		6200	Di-n-octyl phthalate	
		6265	Fluoranthene	
		6270	Fluorene	
		6275	Hexachlorobenzene	
		4835	Hexachlorobutadiene	
		6285	Hexachlorocyclopentadiene	
		4840	Hexachloroethane	
		6315	Indeno(1,2,3-cd) pyrene	
		6320	Isophorone	
		5005	Naphthalene	
		5015	Nitrobenzene	
		6530	n-Nitrosodimethylamine	
		6545	n-Nitrosodi-n-propylamine	
		6535	n-Nitrosodiphenylamine	
		6605	Pentachlorophenol	
		6615	Phenanthrene	
		6625	Phenol	
		9551	p-Oxathiane (1,4-Oxathiane)	
		6665	Pyrene	
		9577	Thiodiglycol	
	EPA TO-13A SIM		10248449	Polycyclic Aromatic Hydrocarbons in Ambient Air by GC/MS SIM
		6380	1-Methylnaphthalene	
		6385	2-Methylnaphthalene	
		5500	Acenaphthene	
		5505	Acenaphthylene	
		5555	Anthracene	
		5575	Benzo(a)anthracene	
		5580	Benzo(a)pyrene	
		5590	Benzo(g,h,i)perylene	
		5600	Benzo(k)fluoranthene	
		5585	Benzo[b]fluoranthene	
		5855	Chrysene	
		5895	Dibenz(a,h) anthracene	
		6265	Fluoranthene	
		6270	Fluorene	
		6315	Indeno(1,2,3-cd) pyrene	
		5005	Naphthalene	
		6615	Phenanthrene	
		6665	Pyrene	

Air	EPA TO-14A		10248609	Volatile Organic Compounds with SUMMA canister and GC/MS
	5160	1,1,1-Trichloroethane		
	5110	1,1,2,2-Tetrachloroethane		
	5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		
	5165	1,1,2-Trichloroethane		
	4630	1,1-Dichloroethane		
	4640	1,1-Dichloroethylene		
	5180	1,2,3-Trichloropropane		
	5155	1,2,4-Trichlorobenzene		
	5210	1,2,4-Trimethylbenzene		
	4585	1,2-Dibromoethane (EDB, Ethylene dibromide)		
	4695	1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon-114)		
	4610	1,2-Dichlorobenzene		
	4635	1,2-Dichloroethane (Ethylene dichloride)		
	4655	1,2-Dichloropropane		
	5215	1,3,5-Trimethylbenzene		
	9318	1,3-Butadiene		
	4615	1,3-Dichlorobenzene		
	4660	1,3-Dichloropropane		
	4620	1,4-Dichlorobenzene		
	4735	1,4-Dioxane (1,4- Diethyleneoxide)		
	4410	2-Butanone (Methyl ethyl ketone, MEK)		
	4860	2-Hexanone (MBK)		
	4995	4-Methyl-2-pentanone (MIBK)		
	4315	Acetone		
	4375	Benzene		
	5635	Benzyl chloride		
	4385	Bromobenzene		
	4395	Bromodichloromethane		
	4400	Bromoform		
	4450	Carbon disulfide		
	4455	Carbon tetrachloride		
	4475	Chlorobenzene		
	4575	Chlorodibromomethane		
	4485	Chloroethane (Ethyl chloride)		
	4505	Chloroform		
	4705	cis & trans-1,2-Dichloroethene		
	4645	cis-1,2-Dichloroethylene		
	4680	cis-1,3-Dichloropropene		
	4555	Cyclohexane		
	4625	Dichlorodifluoromethane (Freon-12)		

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Air	EPA TO-14A	4755	Ethyl acetate		
		4765	Ethylbenzene		
		4835	Hexachlorobutadiene		
		4895	Isopropyl alcohol (2-Propanol, Isopropanol)		
		4900	Isopropylbenzene (Cumene)		
		5240	m+p-xylene		
		4950	Methyl bromide (Bromomethane)		
		4960	Methyl chloride (Chloromethane)		
		5000	Methyl tert-butyl ether (MTBE)		
		4975	Methylene chloride (Dichloromethane)		
		4825	n-Heptane		
		4855	n-Hexane		
		5027	n-Octane		
		5090	n-Propylbenzene		
		5250	o-Xylene		
		5100	Styrene		
		5115	Tetrachloroethylene (Perchloroethylene)		
		5140	Toluene		
		4700	trans-1,2-Dichloroethylene		
		4685	trans-1,3-Dichloropropylene		
		5170	Trichloroethene (Trichloroethylene)		
		5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)		
		5235	Vinyl chloride		
		5260	Xylene (total)		
	EPA TO-15			10248803	VOCs collected in Canisters by GC/MS
		5105	1,1,1,2-Tetrachloroethane		
		5160	1,1,1-Trichloroethane		
		5110	1,1,2,2-Tetrachloroethane		
		5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		
		5165	1,1,2-Trichloroethane		
		4630	1,1-Dichloroethane		
		4640	1,1-Dichloroethylene		
		4670	1,1-Dichloropropene		
		5180	1,2,3-Trichloropropane		
		5182	1,2,3-Trimethylbenzene		
		5155	1,2,4-Trichlorobenzene		
		5210	1,2,4-Trimethylbenzene		
		4570	1,2-Dibromo-3-chloropropane (DBCP)		
		4585	1,2-Dibromoethane (EDB, Ethylene dibromide)		
		4695	1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon-114)		

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Air	EPA TO-15	4610	1,2-Dichlorobenzene
		4635	1,2-Dichloroethane (Ethylene dichloride)
		4655	1,2-Dichloropropane
		5215	1,3,5-Trimethylbenzene
		9318	1,3-Butadiene
		4615	1,3-Dichlorobenzene
		4660	1,3-Dichloropropane
		4620	1,4-Dichlorobenzene
		4735	1,4-Dioxane (1,4- Diethyleneoxide)
		4836	1-Propene (Propylene)
		5220	2,2,4-Trimethylpentane
		4665	2,2-Dichloropropane
		4410	2-Butanone (Methyl ethyl ketone, MEK)
		4535	2-Chlorotoluene
		4860	2-Hexanone (MBK)
		4934	2-Methyl-2-Butene
		4939	2-Methylheptane
		4946	2-Methylhexane
		4941	2-Methylpentane (Isohexane)
		4942	2-methylpropane (Isobutane)
		4531	3-Ethyltoluene (1-Methyl-3-ethylbenzene)
		4529	3-Methyl-1-Butene
		4532	3-Methylheptane
		4533	3-Methylhexane
		4534	3-Methylpentane
		4540	4-Chlorotoluene
		4542	4-Ethyltoluene
		4910	4-Isopropyltoluene (p-Cymene)
		4913	4-Methyl-1-Pentene
		4995	4-Methyl-2-pentanone (MIBK)
		4300	Acetaldehyde
		4315	Acetone
		4320	Acetonitrile
		4323	Acetylene
		4325	Acrolein (Propenal)
		4340	Acrylonitrile
		4355	Allyl chloride (3-Chloropropene)
		4357	alpha-Methylstyrene
		6698	alpha-Pinene
		4375	Benzene
		5635	Benzyl chloride
		4385	Bromobenzene
		4390	Bromochloromethane

Air	EPA TO-15	4395	Bromodichloromethane
		4400	Bromoform
		4450	Carbon disulfide
		4455	Carbon tetrachloride
		4475	Chlorobenzene
		4575	Chlorodibromomethane
		4577	Chlorodifluoromethane (Freon-22)
		4485	Chloroethane (Ethyl chloride)
		4505	Chloroform
		4525	Chloroprene (2-Chloro-1,3-butadiene)
		4705	cis & trans-1,2-Dichloroethene
		4645	cis-1,2-Dichloroethylene
		4680	cis-1,3-Dichloropropene
		4602	cis-2-Butene
		4604	cis-2-Hexene
		4603	cis-2-pentene
		4555	Cyclohexane
		4562	Cyclopentane
		4563	Cyclopentene
		4595	Dibromomethane (Methylene bromide)
		4625	Dichlorodifluoromethane (Freon-12)
		4627	Dichlorofluoromethane (Freon 21)
		4725	Diethyl ether
		9375	Di-isopropylether (DIPE)
		4747	Ethane
		4750	Ethanol
		4752	Ethene
		4755	Ethyl acetate
		4765	Ethylbenzene
		4770	Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)
		9408	Gasoline range organics (GRO)
		4835	Hexachlorobutadiene
		6317	Isoheptane
		4895	Isopropyl alcohol (2-Propanol, Isopropanol)
		4900	Isopropylbenzene (Cumene)
		5240	m+p-xylene
		4930	Methanol
		4950	Methyl bromide (Bromomethane)
		4960	Methyl chloride (Chloromethane)
		9498	Methyl isocyanate
		4990	Methyl methacrylate
		5000	Methyl tert-butyl ether (MTBE)

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Air	EPA TO-15	4965	Methylcyclohexane		
		4966	Methylcyclopentane		
		4975	Methylene chloride (Dichloromethane)		
		5245	m-Xylene		
		5005	Naphthalene		
		5007	n-Butane		
		4435	n-Butylbenzene		
		4825	n-Heptane		
		4855	n-Hexane		
		5026	n-Nonane		
		5027	n-Octane		
		5028	n-Pentane		
		5029	n-Propane		
		5090	n-Propylbenzene		
		5250	o-Xylene		
		5253	p-Diethylbenzene		
		5255	p-Xylene		
		4440	sec-Butylbenzene		
		5100	Styrene		
		4370	T-amylmethylether (TAME)		
		4420	tert-Butyl alcohol		
		4445	tert-Butylbenzene		
		5115	Tetrachloroethylene (Perchloroethylene)		
		5120	Tetrahydrofuran (THF)		
		5140	Toluene		
		4700	trans-1,2-Dichloroethylene		
		4685	trans-1,3-Dichloropropylene		
		5170	Trichloroethene (Trichloroethylene)		
		5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)		
		5225	Vinyl acetate		
		5230	Vinyl bromide (Bromoethane)		
		5235	Vinyl chloride		
		5260	Xylene (total)		
	EPA TO-15 GC/MS SIM			10248858	VOCs collected in Canisters by GC/MS SIM
		5160	1,1,1-Trichloroethane		
		5110	1,1,2,2-Tetrachloroethane		
		5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		
		5165	1,1,2-Trichloroethane		
		4630	1,1-Dichloroethane		
		4640	1,1-Dichloroethylene		
		5180	1,2,3-Trichloropropane		

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Air	EPA TO-15 GC/MS SIM	5155	1,2,4-Trichlorobenzene
		5210	1,2,4-Trimethylbenzene
		4585	1,2-Dibromoethane (EDB, Ethylene dibromide)
		4695	1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon-114)
		4610	1,2-Dichlorobenzene
		4635	1,2-Dichloroethane (Ethylene dichloride)
		4655	1,2-Dichloropropane
		5215	1,3,5-Trimethylbenzene
		9318	1,3-Butadiene
		4615	1,3-Dichlorobenzene
		4620	1,4-Dichlorobenzene
		4735	1,4-Dioxane (1,4- Diethyleneoxide)
		4836	1-Propene (Propylene)
		4410	2-Butanone (Methyl ethyl ketone, MEK)
		4860	2-Hexanone (MBK)
		4542	4-Ethyltoluene
		4995	4-Methyl-2-pentanone (MIBK)
		4315	Acetone
		4320	Acetonitrile
		4325	Acrolein (Propenal)
		4340	Acrylonitrile
		4375	Benzene
		5635	Benzyl chloride
		4395	Bromodichloromethane
		4400	Bromoform
		4455	Carbon tetrachloride
		4475	Chlorobenzene
		4575	Chlorodibromomethane
		4485	Chloroethane (Ethyl chloride)
		4505	Chloroform
		4645	cis-1,2-Dichloroethylene
		4680	cis-1,3-Dichloropropene
		4555	Cyclohexane
		4625	Dichlorodifluoromethane (Freon-12)
		4755	Ethyl acetate
		4765	Ethylbenzene
		4835	Hexachlorobutadiene
		4895	Isopropyl alcohol (2-Propanol, Isopropanol)
		5240	m+p-xylene
		4950	Methyl bromide (Bromomethane)
		4960	Methyl chloride (Chloromethane)

Air	EPA TO-15 GC/MS SIM	5000	Methyl tert-butyl ether (MTBE)		
		4975	Methylene chloride (Dichloromethane)		
		5245	m-Xylene		
		5005	Naphthalene		
		4825	n-Heptane		
		4855	n-Hexane		
		5250	o-Xylene		
		5255	p-Xylene		
		5100	Styrene		
		5115	Tetrachloroethylene (Perchloroethylene)		
		5120	Tetrahydrofuran (THF)		
		5140	Toluene		
		4700	trans-1,2-Dichloroethylene		
		4685	trans-1,3-Dichloropropylene		
		5170	Trichloroethene (Trichloroethylene)		
		5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)		
		5225	Vinyl acetate		
		5235	Vinyl chloride		
		5260	Xylene (total)		
	EPA TO-4A			10249204	Pesticides and PCBs by HV PUF GC
		7355	4,4'-DDD		
		7240	alpha-Chlordane		
		8912	Aroclor-1262 (PCB-1262)		
		8913	Aroclor-1268 (PCB-1268)		
		7115	beta-BHC (beta-Hexachlorocyclohexane)		
		7105	delta-BHC		
		7470	Dieldrin		
		7510	Endosulfan I		
		7515	Endosulfan II		
		7520	Endosulfan sulfate		
		7540	Endrin		
		7530	Endrin aldehyde		
		7535	Endrin ketone		
		7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)		
		7245	gamma-Chlordane		
		7685	Heptachlor		
		7690	Heptachlor epoxide		
		7810	Methoxychlor		
		8250	Toxaphene (Chlorinated camphene)		
	EPA TO-4A			10249204	Pesticides and PCBs by HV PUF GC
		7360	4,4'-DDE		

Air	EPA TO-4A	7365	4,4'-DDT		
		7025	Aldrin		
		7110	alpha-BHC (alpha-Hexachlorocyclohexane)		
		8880	Aroclor-1016 (PCB-1016)		
		8885	Aroclor-1221 (PCB-1221)		
		8890	Aroclor-1232 (PCB-1232)		
		8895	Aroclor-1242 (PCB-1242)		
		8900	Aroclor-1248 (PCB-1248)		
		8905	Aroclor-1254 (PCB-1254)		
		8910	Aroclor-1260 (PCB-1260)		
		7250	Chlordane (tech.)		
	EPA TO-9A			10249408	Polychlorinated Dibenzodioxins in Ambient Air by GC/HRMS
		9516	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)		
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)		
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-Hxcdd)		
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,6,7,8-Hxcdd)		
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-Hxcdd)		
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
		9549	2,3,4,7,8-Pentachlorodibenzofuran		
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
		9612	2,3,7,8-Tetrachlorodibenzofuran		

Biological Tissue

EPA 1613B			10120602	Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS
	9516	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)		
	9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		
	9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		
	9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)		
	9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		
	9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
	9453	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-Hxcdd)		
	9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
	9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,6,7,8-Hxcdd)		
	9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
	9459	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-Hxcdd)		
	9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
	9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		
	9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
	9549	2,3,4,7,8-Pentachlorodibenzofuran		
	9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
	9612	2,3,7,8-Tetrachlorodibenzofuran		
	9438	Hpcdd, total		
	9444	Hpcdf, total		
	9468	Hxcdd, total		
	9483	Hxcdf, total		
	9555	Pecdd, total		
	9552	Pecdf, total		
	9609	TCDD, total		
	9615	TCDF, total		
EPA 1668A			10129405	Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS
	9095	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ-206)		

Biological Tissue	EPA 1668A	9090	2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ-194)
		9101	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl (BZ-207)
		9103	2,2',3,3',4,4',5,6-Octachlorobiphenyl (BZ-195)
		9102	2,2',3,3',4,4',5,6'-Octachlorobiphenyl (BZ-196)
		9065	2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ-170)
		9104	2,2',3,3',4,4',6,6'-Octachlorobiphenyl (BZ-197)
		9106	2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ-171)
		9020	2,2',3,3',4,4'-Hexachlorobiphenyl (BZ-128)
		9107	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl (BZ-208)
		9109	2,2',3,3',4,5,5',6-Octachlorobiphenyl (BZ-198)
		9108	2,2',3,3',4,5,5',6'-Octachlorobiphenyl (BZ-199)
		9110	2,2',3,3',4,5,5'-Heptachlorobiphenyl (BZ-172)
		9111	2,2',3,3',4,5,6,6'-Octachlorobiphenyl (BZ-200)
		9112	2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ-201)
		9113	2,2',3,3',4,5,6-Heptachlorobiphenyl (BZ-173)
		9116	2,2',3,3',4,5,6'-Heptachlorobiphenyl (BZ-174)
		9115	2,2',3,3',4,5',6-Heptachlorobiphenyl (BZ-175)
		9114	2,2',3,3',4,5',6'-Heptachlorobiphenyl (BZ-177)
		9118	2,2',3,3',4,5-Hexachlorobiphenyl (BZ-129)
		9117	2,2',3,3',4,5'-Hexachlorobiphenyl (BZ-130)
		9119	2,2',3,3',4,6,6'-Heptachlorobiphenyl (BZ-176)
		9121	2,2',3,3',4,6-Hexachlorobiphenyl (BZ-131)
		9120	2,2',3,3',4,6'-Hexachlorobiphenyl (BZ-132)
		9122	2,2',3,3',4-Pentachlorobiphenyl (BZ-82)
		9123	2,2',3,3',5,5',6,6'-Octachlorobiphenyl (BZ-202)
		9124	2,2',3,3',5,5',6-Heptachlorobiphenyl (BZ-178)

Biological Tissue	EPA 1668A	9125	2,2',3,3',5,5'-Hexachlorobiphenyl (BZ-133)
		9126	2,2',3,3',5,6,6'-Heptachlorobiphenyl (BZ-179)
		9128	2,2',3,3',5,6-Hexachlorobiphenyl (BZ-134)
		9127	2,2',3,3',5,6'-Hexachlorobiphenyl (BZ-135)
		9129	2,2',3,3',5-Pentachlorobiphenyl (BZ-83)
		9130	2,2',3,3',6,6'-Hexachlorobiphenyl (BZ-136)
		9131	2,2',3,3',6-Pentachlorobiphenyl (BZ-84)
		9132	2,2',3,3'-Tetrachlorobiphenyl (BZ-40)
		9133	2,2',3,4,4',5,5',6-Octachlorobiphenyl (BZ-203)
		9134	2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ-180)
		9135	2,2',3,4,4',5,6,6'-Octachlorobiphenyl (BZ-204)
		9137	2,2',3,4,4',5,6-Heptachlorobiphenyl (BZ-181)
		9136	2,2',3,4,4',5,6'-Heptachlorobiphenyl (BZ-182)
		9075	2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ-183)
		9138	2,2',3,4,4',5-Hexachlorobiphenyl (BZ-137)
		9025	2,2',3,4,4',5'-Hexachlorobiphenyl (BZ-138)
		9139	2,2',3,4,4',6,6'-Heptachlorobiphenyl (BZ-184)
		9141	2,2',3,4,4',6-Hexachlorobiphenyl (BZ-139)
		9140	2,2',3,4,4',6'-Hexachlorobiphenyl (BZ-140)
		9142	2,2',3,4,4'-Pentachlorobiphenyl (BZ-85)
		9143	2,2',3,4,5,5',6-Heptachlorobiphenyl (BZ-185)
		9080	2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ-187)
		9030	2,2',3,4,5,5'-Hexachlorobiphenyl (BZ-141)
		9144	2,2',3,4',5,5'-Hexachlorobiphenyl (BZ-146)
		9145	2,2',3,4,5,6,6'-Heptachlorobiphenyl (BZ-186)
		9146	2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ-188)
		9148	2,2',3,4,5,6-Hexachlorobiphenyl (BZ-142)

Biological Tissue	EPA 1668A	9152	2,2',3,4,5,6'-Hexachlorobiphenyl (BZ-143)
		9150	2,2',3,4,5',6-Hexachlorobiphenyl (BZ-144)
		9149	2,2',3,4',5,6-Hexachlorobiphenyl (BZ-147)
		9147	2,2',3,4',5,6'-Hexachlorobiphenyl (BZ-148)
		9151	2,2',3,4',5',6-Hexachlorobiphenyl (BZ-149)
		9153	2,2',3,4,5-Pentachlorobiphenyl (BZ-86)
		8975	2,2',3,4,5'-Pentachlorobiphenyl (BZ-87)
		9155	2,2',3,4',5-Pentachlorobiphenyl (BZ-90)
		9154	2,2',3,4',5'-Pentachlorobiphenyl (BZ-97)
		9156	2,2',3,4,6,6'-Hexachlorobiphenyl (BZ-145)
		9157	2,2',3,4',6,6'-Hexachlorobiphenyl (BZ-150)
		9158	2,2',3,4,6-Pentachlorobiphenyl (BZ-88)
		9161	2,2',3,4,6'-Pentachlorobiphenyl (BZ-89)
		9160	2,2',3,4',6-Pentachlorobiphenyl (BZ-91)
		9159	2,2',3,4',6'-Pentachlorobiphenyl (BZ-98)
		9163	2,2',3,4-Tetrachlorobiphenyl (BZ-41)
		9162	2,2',3,4'-Tetrachlorobiphenyl (BZ-42)
		9035	2,2',3,5,5',6-Hexachlorobiphenyl (BZ-151)
		9164	2,2',3,5,5'-Pentachlorobiphenyl (BZ-92)
		9165	2,2',3,5,6,6'-Hexachlorobiphenyl (BZ-152)
		9168	2,2',3,5,6-Pentachlorobiphenyl (BZ-93)
		9167	2,2',3,5,6'-Pentachlorobiphenyl (BZ-94)
		9166	2,2',3,5',6-Pentachlorobiphenyl (BZ-95)
		9169	2,2',3,5-Tetrachlorobiphenyl (BZ-43)
		8945	2,2',3,5'-Tetrachlorobiphenyl (BZ-44)
		9170	2,2',3,6,6'-Pentachlorobiphenyl (BZ-96)
		9172	2,2',3,6-Tetrachlorobiphenyl (BZ-45)
		9171	2,2',3,6'-Tetrachlorobiphenyl (BZ-46)
		9173	2,2',3-Trichlorobiphenyl (BZ-16)
		9040	2,2',4,4',5,5'-Hexachlorobiphenyl (BZ-153)
		9174	2,2',4,4',5,6'-Hexachlorobiphenyl (BZ-154)
		9175	2,2',4,4',5-Pentachlorobiphenyl (BZ-99)
		9176	2,2',4,4',6,6'-Hexachlorobiphenyl (BZ-155)

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4040

TestAmerica Sacramento

EPA CODE: CA00044

880 Riverside Parkway

Certificate: 4040 - 008

West Sacramento, CA 95605 Issue Date: 1/30/2017 Expiration Date: 1/29/2018

As of 1/30/2017 this list supercedes all previous lists for this certificate number.

Biological Tissue	EPA 1668A	9177	2,2',4,4',6-Pentachlorobiphenyl (BZ-100)
		9178	2,2',4,4'-Tetrachlorobiphenyl (BZ-47)
		8980	2,2',4,5,5'-Pentachlorobiphenyl (BZ-101)
		9180	2,2',4,5,6'-Pentachlorobiphenyl (BZ-102)
		9179	2,2',4,5',6-Pentachlorobiphenyl (BZ-103)
		9181	2,2',4,5-Tetrachlorobiphenyl (BZ-48)
		8950	2,2',4,5'-Tetrachlorobiphenyl (BZ-49)
		9182	2,2',4,6,6'-Pentachlorobiphenyl (BZ-104)
		9184	2,2',4,6-Tetrachlorobiphenyl (BZ-50)
		9183	2,2',4,6'-Tetrachlorobiphenyl (BZ-51)
		9185	2,2',4-Trichlorobiphenyl (BZ-17)
		8955	2,2',5,5'-Tetrachlorobiphenyl (BZ-52)
		9186	2,2',5,6'-Tetrachlorobiphenyl (BZ-53)
		8930	2,2',5-Trichlorobiphenyl (BZ-18)
		9187	2,2',6,6'-Tetrachlorobiphenyl (BZ-54)
		9188	2,2',6-Trichlorobiphenyl (BZ-19)
		9189	2,2'-Dichlorobiphenyl (BZ-4)
		9190	2,3,3',4,4',5,5',6-Octachlorobiphenyl (BZ-205)
		9085	2,3,3',4,4',5,5'-Heptachlorobiphenyl (BZ-189)
		9191	2,3,3',4,4',5,6-Heptachlorobiphenyl (BZ-190)
		9192	2,3,3',4,4',5',6-Heptachlorobiphenyl (BZ-191)
		9050	2,3,3',4,4',5-Hexachlorobiphenyl (BZ-156)
		9045	2,3,3',4,4',5'-Hexachlorobiphenyl (BZ-157)
		9193	2,3,3',4,4',6-Hexachlorobiphenyl (BZ-158)
		8985	2,3,3',4,4'-Pentachlorobiphenyl (BZ-105)
		9194	2,3,3',4,5,5',6-Heptachlorobiphenyl (BZ-192)
		9195	2,3,3',4',5,5',6-Heptachlorobiphenyl (BZ-193)
		9196	2,3,3',4,5,5'-Hexachlorobiphenyl (BZ-159)
		9197	2,3,3',4',5,5'-Hexachlorobiphenyl (BZ-162)
		9198	2,3,3',4,5,6-Hexachlorobiphenyl (BZ-160)

Biological Tissue	EPA 1668A	9199	2,3,3',4',5,6-Hexachlorobiphenyl (BZ-163)
		9201	2,3,3',4',5',6-Hexachlorobiphenyl (BZ-164)
		9200	2,3,3',4,5',6-Hexachlorobiphenyl (BZ-161)
		9204	2,3,3',4,5-Pentachlorobiphenyl (BZ-106)
		9205	2,3,3',4',5-Pentachlorobiphenyl (BZ-107)
		9203	2,3,3',4,5'-Pentachlorobiphenyl (BZ-108)
		9202	2,3,3',4',5'-Pentachlorobiphenyl (BZ-122)
		9206	2,3,3',4,6-Pentachlorobiphenyl (BZ-109)
		8990	2,3,3',4',6-Pentachlorobiphenyl (BZ-110)
		9208	2,3,3',4-Tetrachlorobiphenyl (BZ-55)
		9207	2,3,3',4'-Tetrachlorobiphenyl (BZ-56)
		9209	2,3,3',5,5',6-Hexachlorobiphenyl (BZ-165)
		9210	2,3,3',5,5'-Pentachlorobiphenyl (BZ-111)
		9211	2,3,3',5,6-Pentachlorobiphenyl (BZ-112)
		9212	2,3,3',5',6-Pentachlorobiphenyl (BZ-113)
		9214	2,3,3',5-Tetrachlorobiphenyl (BZ-57)
		9213	2,3,3',5'-Tetrachlorobiphenyl (BZ-58)
		9215	2,3,3',6-Tetrachlorobiphenyl (BZ-59)
		9216	2,3,3'-Trichlorobiphenyl (BZ-20)
		9055	2,3',4,4',5,5'-Hexachlorobiphenyl (BZ-167)
		9217	2,3,4,4',5,6-Hexachlorobiphenyl (BZ-166)
		9218	2,3',4,4',5',6-Hexachlorobiphenyl (BZ-168)
		9005	2,3,4,4',5-Pentachlorobiphenyl (BZ-114)
		8995	2,3',4,4',5-Pentachlorobiphenyl (BZ-118)
		9011	2,3',4,4',5'-Pentachlorobiphenyl (BZ-123)
		9219	2,3,4,4',6-Pentachlorobiphenyl (BZ-115)
		9220	2,3',4,4',6-Pentachlorobiphenyl (BZ-119)
		9221	2,3,4,4'-Tetrachlorobiphenyl (BZ-60)
		8960	2,3',4,4'-Tetrachlorobiphenyl (BZ-66)

Biological Tissue	EPA 1668A	9223	2,3',4,5,5'-Pentachlorobiphenyl (BZ-120)
		9222	2,3',4',5,5'-Pentachlorobiphenyl (BZ-124)
		9225	2,3,4,5,6-Pentachlorobiphenyl (BZ-116)
		9227	2,3,4',5,6-Pentachlorobiphenyl (BZ-117)
		9226	2,3',4,5',6-Pentachlorobiphenyl (BZ-121)
		9224	2,3',4',5',6-Pentachlorobiphenyl (BZ-125)
		9228	2,3,4,5-Tetrachlorobiphenyl (BZ-61)
		9233	2,3,4',5-Tetrachlorobiphenyl (BZ-63)
		9231	2,3',4,5'-Tetrachlorobiphenyl (BZ-68)
		9230	2,3',4',5-Tetrachlorobiphenyl (BZ-70)
		9229	2,3',4',5'-Tetrachlorobiphenyl (BZ-76)
		9232	2,3',4,5-Tetrachlorobiphenyl (BZ-67)
		9234	2,3,4,6-Tetrachlorobiphenyl (BZ-62)
		9236	2,3,4',6-Tetrachlorobiphenyl (BZ-64)
		9235	2,3',4,6-Tetrachlorobiphenyl (BZ-69)
		9237	2,3',4',6-Tetrachlorobiphenyl (BZ-71)
		9238	2,3,4-Trichlorobiphenyl (BZ-21)
		9241	2,3,4'-Trichlorobiphenyl (BZ-22)
		9240	2,3',4-Trichlorobiphenyl (BZ-25)
		9239	2,3',4'-Trichlorobiphenyl (BZ-33)
		9242	2,3',5,5'-Tetrachlorobiphenyl (BZ-72)
		9243	2,3,5,6-Tetrachlorobiphenyl (BZ-65)
		9244	2,3',5',6-Tetrachlorobiphenyl (BZ-73)
		9245	2,3,5-Trichlorobiphenyl (BZ-23)
		8935	2,3',5-Trichlorobiphenyl (BZ-26)
		9246	2,3',5'-Trichlorobiphenyl (BZ-34)
		9247	2,3,6-Trichlorobiphenyl (BZ-24)
		9248	2,3',6-Trichlorobiphenyl (BZ-27)
		8920	2,3-Dichlorobiphenyl (BZ-5)
		9249	2,3'-Dichlorobiphenyl (BZ-6)
		9250	2,4,4',5-Tetrachlorobiphenyl (BZ-74)
		9251	2,4,4',6-Tetrachlorobiphenyl (BZ-75)
		9252	2,4,4'-Trichlorobiphenyl (BZ-28)
		9253	2,4,5-Trichlorobiphenyl (BZ-29)
		8940	2,4',5-Trichlorobiphenyl (BZ-31)
		9254	2,4,6-Trichlorobiphenyl (BZ-30)
		9255	2,4',6-Trichlorobiphenyl (BZ-32)
		9257	2,4-Dichlorobiphenyl (BZ-7)
		9256	2,4'-Dichlorobiphenyl (BZ-8)

Biological Tissue	EPA 1668A	9258	2,5-Dichlorobiphenyl (BZ-9)		
		9259	2,6-Dichlorobiphenyl (BZ-10)		
		8915	2-Chlorobiphenyl (BZ-1)		
		9060	3,3',4,4',5,5'-Hexachlorobiphenyl (BZ-169)		
		9015	3,3',4,4',5-Pentachlorobiphenyl (BZ-126)		
		8965	3,3',4,4'-Tetrachlorobiphenyl (BZ-77)		
		9260	3,3',4,5,5'-Pentachlorobiphenyl (BZ-127)		
		9262	3,3',4,5-Tetrachlorobiphenyl (BZ-78)		
		9261	3,3',4,5'-Tetrachlorobiphenyl (BZ-79)		
		9263	3,3',4-Trichlorobiphenyl (BZ-35)		
		9264	3,3',5,5'-Tetrachlorobiphenyl (BZ-80)		
		9265	3,3',5-Trichlorobiphenyl (BZ-36)		
		8925	3,3'-Dichlorobiphenyl (BZ-11)		
		8970	3,4,4',5-Tetrachlorobiphenyl (BZ-81)		
		9266	3,4,4'-Trichlorobiphenyl (BZ-37)		
		9267	3,4,5-Trichlorobiphenyl (BZ-38)		
		9268	3,4',5-Trichlorobiphenyl (BZ-39)		
		9270	3,4-Dichlorobiphenyl (BZ-12)		
		9269	3,4'-Dichlorobiphenyl (BZ-13)		
		9271	3,5-Dichlorobiphenyl (BZ-14)		
		9272	3-Chlorobiphenyl (BZ-2)		
		9273	4,4'-Dichlorobiphenyl (BZ-15)		
		9274	4-Chlorobiphenyl (BZ-3)		
		9105	Decachlorobiphenyl (BZ-209)		
		8876	Total Dichlorobiphenyls		
		8877	Total Heptachlorobiphenyls		
		8888	Total Hexachlorobiphenyls		
		8889	Total Monochlorobiphenyls		
		8891	Total Nonachlorobiphenyls		
		8892	Total Octachlorobiphenyls		
		8896	Total Pentachlorobiphenyls		
		8893	Total Tetrachlorobiphenyls		
		8894	Total Trichlorobiphenyls		
	EPA 1668C			10262109	Chlorinated Biphenyl Cogeners in Water, Soil, Sediment, and Tissue by GC-HRMS
		9095	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ-206)		
		9090	2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ-194)		
		9101	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl (BZ-207)		

Biological Tissue	EPA 1668C	9103	2,2',3,3',4,4',5,6-Octachlorobiphenyl (BZ-195)
		9102	2,2',3,3',4,4',5,6'-Octachlorobiphenyl (BZ-196)
		9065	2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ-170)
		9104	2,2',3,3',4,4',6,6'-Octachlorobiphenyl (BZ-197)
		9106	2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ-171)
		9020	2,2',3,3',4,4'-Hexachlorobiphenyl (BZ-128)
		9107	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl (BZ-208)
		9109	2,2',3,3',4,5,5',6-Octachlorobiphenyl (BZ-198)
		9108	2,2',3,3',4,5,5',6'-Octachlorobiphenyl (BZ-199)
		9110	2,2',3,3',4,5,5'-Heptachlorobiphenyl (BZ-172)
		9111	2,2',3,3',4,5,6,6'-Octachlorobiphenyl (BZ-200)
		9112	2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ-201)
		9113	2,2',3,3',4,5,6-Heptachlorobiphenyl (BZ-173)
		9116	2,2',3,3',4,5,6'-Heptachlorobiphenyl (BZ-174)
		9115	2,2',3,3',4,5',6-Heptachlorobiphenyl (BZ-175)
		9114	2,2',3,3',4,5',6'-Heptachlorobiphenyl (BZ-177)
		9118	2,2',3,3',4,5-Hexachlorobiphenyl (BZ-129)
		9117	2,2',3,3',4,5'-Hexachlorobiphenyl (BZ-130)
		9119	2,2',3,3',4,6,6'-Heptachlorobiphenyl (BZ-176)
		9121	2,2',3,3',4,6-Hexachlorobiphenyl (BZ-131)
		9120	2,2',3,3',4,6'-Hexachlorobiphenyl (BZ-132)
		9122	2,2',3,3',4-Pentachlorobiphenyl (BZ-82)
		9123	2,2',3,3',5,5',6,6'-Octachlorobiphenyl (BZ-202)
		9124	2,2',3,3',5,5',6-Heptachlorobiphenyl (BZ-178)
		9125	2,2',3,3',5,5'-Hexachlorobiphenyl (BZ-133)
		9126	2,2',3,3',5,6,6'-Heptachlorobiphenyl (BZ-179)

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4040

TestAmerica Sacramento

EPA CODE: CA00044

880 Riverside Parkway

Certificate: 4040 - 008

West Sacramento, CA 95605 Issue Date: 1/30/2017 Expiration Date: 1/29/2018

As of 1/30/2017 this list supercedes all previous lists for this certificate number.

Biological Tissue	EPA 1668C	9128	2,2',3,3',5,6-Hexachlorobiphenyl (BZ-134)
		9127	2,2',3,3',5,6'-Hexachlorobiphenyl (BZ-135)
		9129	2,2',3,3',5-Pentachlorobiphenyl (BZ-83)
		9130	2,2',3,3',6,6'-Hexachlorobiphenyl (BZ-136)
		9131	2,2',3,3',6-Pentachlorobiphenyl (BZ-84)
		9132	2,2',3,3'-Tetrachlorobiphenyl (BZ-40)
		9133	2,2',3,4,4',5,5',6-Octachlorobiphenyl (BZ-203)
		9134	2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ-180)
		9135	2,2',3,4,4',5,6,6'-Octachlorobiphenyl (BZ-204)
		9137	2,2',3,4,4',5,6-Heptachlorobiphenyl (BZ-181)
		9136	2,2',3,4,4',5,6'-Heptachlorobiphenyl (BZ-182)
		9075	2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ-183)
		9138	2,2',3,4,4',5-Hexachlorobiphenyl (BZ-137)
		9025	2,2',3,4,4',5'-Hexachlorobiphenyl (BZ-138)
		9139	2,2',3,4,4',6,6'-Heptachlorobiphenyl (BZ-184)
		9141	2,2',3,4,4',6-Hexachlorobiphenyl (BZ-139)
		9140	2,2',3,4,4',6'-Hexachlorobiphenyl (BZ-140)
		9142	2,2',3,4,4'-Pentachlorobiphenyl (BZ-85)
		9143	2,2',3,4,5,5',6-Heptachlorobiphenyl (BZ-185)
		9080	2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ-187)
		9030	2,2',3,4,5,5'-Hexachlorobiphenyl (BZ-141)
		9144	2,2',3,4',5,5'-Hexachlorobiphenyl (BZ-146)
		9145	2,2',3,4,5,6,6'-Heptachlorobiphenyl (BZ-186)
		9146	2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ-188)
		9148	2,2',3,4,5,6-Hexachlorobiphenyl (BZ-142)
		9152	2,2',3,4,5,6'-Hexachlorobiphenyl (BZ-143)
		9150	2,2',3,4,5',6-Hexachlorobiphenyl (BZ-144)

Biological Tissue	EPA 1668C	9149	2,2',3,4',5,6-Hexachlorobiphenyl (BZ-147)
		9147	2,2',3,4',5,6'-Hexachlorobiphenyl (BZ-148)
		9151	2,2',3,4',5',6-Hexachlorobiphenyl (BZ-149)
		9153	2,2',3,4,5-Pentachlorobiphenyl (BZ-86)
		8975	2,2',3,4,5'-Pentachlorobiphenyl (BZ-87)
		9155	2,2',3,4',5-Pentachlorobiphenyl (BZ-90)
		9154	2,2',3,4',5'-Pentachlorobiphenyl (BZ-97)
		9156	2,2',3,4,6,6'-Hexachlorobiphenyl (BZ-145)
		9157	2,2',3,4',6,6'-Hexachlorobiphenyl (BZ-150)
		9158	2,2',3,4,6-Pentachlorobiphenyl (BZ-88)
		9161	2,2',3,4,6'-Pentachlorobiphenyl (BZ-89)
		9160	2,2',3,4',6-Pentachlorobiphenyl (BZ-91)
		9159	2,2',3,4',6'-Pentachlorobiphenyl (BZ-98)
		9163	2,2',3,4-Tetrachlorobiphenyl (BZ-41)
		9162	2,2',3,4'-Tetrachlorobiphenyl (BZ-42)
		9035	2,2',3,5,5',6-Hexachlorobiphenyl (BZ-151)
		9164	2,2',3,5,5'-Pentachlorobiphenyl (BZ-92)
		9165	2,2',3,5,6,6'-Hexachlorobiphenyl (BZ-152)
		9168	2,2',3,5,6-Pentachlorobiphenyl (BZ-93)
		9167	2,2',3,5,6'-Pentachlorobiphenyl (BZ-94)
		9166	2,2',3,5',6-Pentachlorobiphenyl (BZ-95)
		9169	2,2',3,5-Tetrachlorobiphenyl (BZ-43)
		8945	2,2',3,5'-Tetrachlorobiphenyl (BZ-44)
		9170	2,2',3,6,6'-Pentachlorobiphenyl (BZ-96)
		9172	2,2',3,6-Tetrachlorobiphenyl (BZ-45)
		9171	2,2',3,6'-Tetrachlorobiphenyl (BZ-46)
		9173	2,2',3-Trichlorobiphenyl (BZ-16)
		9040	2,2',4,4',5,5'-Hexachlorobiphenyl (BZ-153)
		9174	2,2',4,4',5,6'-Hexachlorobiphenyl (BZ-154)
		9175	2,2',4,4',5-Pentachlorobiphenyl (BZ-99)
		9176	2,2',4,4',6,6'-Hexachlorobiphenyl (BZ-155)
		9177	2,2',4,4',6-Pentachlorobiphenyl (BZ-100)
		9178	2,2',4,4'-Tetrachlorobiphenyl (BZ-47)
		8980	2,2',4,5,5'-Pentachlorobiphenyl (BZ-101)

Biological Tissue	EPA 1668C	9180	2,2',4,5,6'-Pentachlorobiphenyl (BZ-102)
		9179	2,2',4,5',6-Pentachlorobiphenyl (BZ-103)
		9181	2,2',4,5-Tetrachlorobiphenyl (BZ-48)
		8950	2,2',4,5'-Tetrachlorobiphenyl (BZ-49)
		9182	2,2',4,6,6'-Pentachlorobiphenyl (BZ-104)
		9184	2,2',4,6-Tetrachlorobiphenyl (BZ-50)
		9183	2,2',4,6'-Tetrachlorobiphenyl (BZ-51)
		9185	2,2',4-Trichlorobiphenyl (BZ-17)
		8955	2,2',5,5'-Tetrachlorobiphenyl (BZ-52)
		9186	2,2',5,6'-Tetrachlorobiphenyl (BZ-53)
		8930	2,2',5-Trichlorobiphenyl (BZ-18)
		9187	2,2',6,6'-Tetrachlorobiphenyl (BZ-54)
		9188	2,2',6-Trichlorobiphenyl (BZ-19)
		9189	2,2'-Dichlorobiphenyl (BZ-4)
		9190	2,3,3',4,4',5,5',6-Octachlorobiphenyl (BZ-205)
		9085	2,3,3',4,4',5,5'-Heptachlorobiphenyl (BZ-189)
		9191	2,3,3',4,4',5,6-Heptachlorobiphenyl (BZ-190)
		9192	2,3,3',4,4',5',6-Heptachlorobiphenyl (BZ-191)
		9050	2,3,3',4,4',5-Hexachlorobiphenyl (BZ-156)
		9045	2,3,3',4,4',5'-Hexachlorobiphenyl (BZ-157)
		9193	2,3,3',4,4',6-Hexachlorobiphenyl (BZ-158)
		8985	2,3,3',4,4'-Pentachlorobiphenyl (BZ-105)
		9194	2,3,3',4,5,5',6-Heptachlorobiphenyl (BZ-192)
		9195	2,3,3',4',5,5',6-Heptachlorobiphenyl (BZ-193)
		9196	2,3,3',4,5,5'-Hexachlorobiphenyl (BZ-159)
		9197	2,3,3',4',5,5'-Hexachlorobiphenyl (BZ-162)
		9198	2,3,3',4,5,6-Hexachlorobiphenyl (BZ-160)
		9199	2,3,3',4',5,6-Hexachlorobiphenyl (BZ-163)
		9201	2,3,3',4',5',6-Hexachlorobiphenyl (BZ-164)
		9200	2,3,3',4,5',6-Hexachlorobiphenyl (BZ-161)

Biological Tissue	EPA 1668C	9204	2,3,3',4,5-Pentachlorobiphenyl (BZ-106)
		9205	2,3,3',4',5-Pentachlorobiphenyl (BZ-107)
		9203	2,3,3',4,5'-Pentachlorobiphenyl (BZ-108)
		9202	2,3,3',4',5'-Pentachlorobiphenyl (BZ-122)
		9206	2,3,3',4,6-Pentachlorobiphenyl (BZ-109)
		8990	2,3,3',4',6-Pentachlorobiphenyl (BZ-110)
		9208	2,3,3',4-Tetrachlorobiphenyl (BZ-55)
		9207	2,3,3',4'-Tetrachlorobiphenyl (BZ-56)
		9209	2,3,3',5,5',6-Hexachlorobiphenyl (BZ-165)
		9210	2,3,3',5,5'-Pentachlorobiphenyl (BZ-111)
		9211	2,3,3',5,6-Pentachlorobiphenyl (BZ-112)
		9212	2,3,3',5',6-Pentachlorobiphenyl (BZ-113)
		9214	2,3,3',5-Tetrachlorobiphenyl (BZ-57)
		9213	2,3,3',5'-Tetrachlorobiphenyl (BZ-58)
		9215	2,3,3',6-Tetrachlorobiphenyl (BZ-59)
		9216	2,3,3'-Trichlorobiphenyl (BZ-20)
		9055	2,3',4,4',5,5'-Hexachlorobiphenyl (BZ-167)
		9217	2,3,4,4',5,6-Hexachlorobiphenyl (BZ-166)
		9218	2,3',4,4',5',6-Hexachlorobiphenyl (BZ-168)
		9005	2,3,4,4',5-Pentachlorobiphenyl (BZ-114)
		8995	2,3',4,4',5-Pentachlorobiphenyl (BZ-118)
		9011	2,3',4,4',5'-Pentachlorobiphenyl (BZ-123)
		9219	2,3,4,4',6-Pentachlorobiphenyl (BZ-115)
		9220	2,3',4,4',6-Pentachlorobiphenyl (BZ-119)
		9221	2,3,4,4'-Tetrachlorobiphenyl (BZ-60)
		8960	2,3',4,4'-Tetrachlorobiphenyl (BZ-66)
		9223	2,3',4,5,5'-Pentachlorobiphenyl (BZ-120)
		9222	2,3',4',5,5'-Pentachlorobiphenyl (BZ-124)
		9225	2,3,4,5,6-Pentachlorobiphenyl (BZ-116)

Biological Tissue	EPA 1668C	9227	2,3,4',5,6-Pentachlorobiphenyl (BZ-117)
		9226	2,3',4,5',6-Pentachlorobiphenyl (BZ-121)
		9224	2,3',4',5',6-Pentachlorobiphenyl (BZ-125)
		9228	2,3,4,5-Tetrachlorobiphenyl (BZ-61)
		9233	2,3,4',5-Tetrachlorobiphenyl (BZ-63)
		9231	2,3',4,5'-Tetrachlorobiphenyl (BZ-68)
		9230	2,3',4',5-Tetrachlorobiphenyl (BZ-70)
		9229	2,3',4',5'-Tetrachlorobiphenyl (BZ-76)
		9232	2,3',4,5-Tetrachlorobiphenyl (BZ-67)
		9234	2,3,4,6-Tetrachlorobiphenyl (BZ-62)
		9236	2,3,4',6-Tetrachlorobiphenyl (BZ-64)
		9235	2,3',4,6-Tetrachlorobiphenyl (BZ-69)
		9237	2,3',4',6-Tetrachlorobiphenyl (BZ-71)
		9238	2,3,4-Trichlorobiphenyl (BZ-21)
		9241	2,3,4'-Trichlorobiphenyl (BZ-22)
		9240	2,3',4-Trichlorobiphenyl (BZ-25)
		9239	2,3',4'-Trichlorobiphenyl (BZ-33)
		9242	2,3',5,5'-Tetrachlorobiphenyl (BZ-72)
		9243	2,3,5,6-Tetrachlorobiphenyl (BZ-65)
		9244	2,3',5',6-Tetrachlorobiphenyl (BZ-73)
		9245	2,3,5-Trichlorobiphenyl (BZ-23)
		8935	2,3',5-Trichlorobiphenyl (BZ-26)
		9246	2,3',5'-Trichlorobiphenyl (BZ-34)
		9247	2,3,6-Trichlorobiphenyl (BZ-24)
		9248	2,3',6-Trichlorobiphenyl (BZ-27)
		8920	2,3-Dichlorobiphenyl (BZ-5)
		9249	2,3'-Dichlorobiphenyl (BZ-6)
		9250	2,4,4',5-Tetrachlorobiphenyl (BZ-74)
		9251	2,4,4',6-Tetrachlorobiphenyl (BZ-75)
		9252	2,4,4'-Trichlorobiphenyl (BZ-28)
		9253	2,4,5-Trichlorobiphenyl (BZ-29)
		8940	2,4',5-Trichlorobiphenyl (BZ-31)
		9254	2,4,6-Trichlorobiphenyl (BZ-30)
		9255	2,4',6-Trichlorobiphenyl (BZ-32)
		9257	2,4-Dichlorobiphenyl (BZ-7)
		9256	2,4'-Dichlorobiphenyl (BZ-8)
		9258	2,5-Dichlorobiphenyl (BZ-9)
		9259	2,6-Dichlorobiphenyl (BZ-10)
		8915	2-Chlorobiphenyl (BZ-1)
		9060	3,3',4,4',5,5'-Hexachlorobiphenyl (BZ-169)

Biological Tissue	EPA 1668C	9015	3,3',4,4',5-Pentachlorobiphenyl (BZ-126)	
		8965	3,3',4,4'-Tetrachlorobiphenyl (BZ-77)	
		9260	3,3',4,5,5'-Pentachlorobiphenyl (BZ-127)	
		9262	3,3',4,5-Tetrachlorobiphenyl (BZ-78)	
		9261	3,3',4,5'-Tetrachlorobiphenyl (BZ-79)	
		9263	3,3',4-Trichlorobiphenyl (BZ-35)	
		9264	3,3',5,5'-Tetrachlorobiphenyl (BZ-80)	
		9265	3,3',5-Trichlorobiphenyl (BZ-36)	
		8925	3,3'-Dichlorobiphenyl (BZ-11)	
		8970	3,4,4',5-Tetrachlorobiphenyl (BZ-81)	
		9266	3,4,4'-Trichlorobiphenyl (BZ-37)	
		9267	3,4,5-Trichlorobiphenyl (BZ-38)	
		9268	3,4',5-Trichlorobiphenyl (BZ-39)	
		9270	3,4-Dichlorobiphenyl (BZ-12)	
		9269	3,4'-Dichlorobiphenyl (BZ-13)	
		9271	3,5-Dichlorobiphenyl (BZ-14)	
		9272	3-Chlorobiphenyl (BZ-2)	
		9273	4,4'-Dichlorobiphenyl (BZ-15)	
		9274	4-Chlorobiphenyl (BZ-3)	
		9105	Decachlorobiphenyl (BZ-209)	
		8876	Total Dichlorobiphenyls	
		8877	Total Heptachlorobiphenyls	
		8888	Total Hexachlorobiphenyls	
		8889	Total Monochlorobiphenyls	
		8891	Total Nonachlorobiphenyls	
		8892	Total Octachlorobiphenyls	
		8896	Total Pentachlorobiphenyls	
		8893	Total Tetrachlorobiphenyls	
		8894	Total Trichlorobiphenyls	
	EPA 537 1.1			10091675 Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS
		4846	2-(N-Ethyl-perfluorooctane sufonamido) acetic acid	
		4847	2-(N-Methyl-perfluorooctane sulfonamido) acetic acid	
		6457	6:2 Fluorotelomersulfonate (6:2FTS)	
		6461	8:2 Fluorotelomersulfonate (8:2FTS)	
		9395	N-Ethylperfluorooctanesulfonamide (EtFOSA)	
		9433	N-Methylperfluorooctanesulfonamide (MeFOSA)	
		6911	Perfluorobutane Sulfonate (PFBS)	
		6915	Perfluorobutyric acid (PFBA)	
		9562	Perfluorodecane Sulfonate (PFDS)	

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

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West Sacramento, CA 95605 Issue Date: 1/30/2017 Expiration Date: 1/29/2018

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Biological Tissue	EPA 537 1.1				
		6905	Perfluorodecanoic acid (PFDA)		
		6903	Perfluorododecanoic (PFDDA)		
		9470	Perfluoroheptanesulfonic acid (PFHpS)		
		6908	Perfluoroheptanoic acid (PFHA)		
		6910	Perfluorohexane Sulfonate (PFHS)		
		6913	Perfluorohexanoic acid (PFHXA)		
		6906	Perfluorononanoic acid (PFNA)		
		6917	Perfluorooctane Sulfonamide (PFOSA)		
		6912	Perfluorooctanoic acid		
		6909	Perfluorooctanoic Sulfonate (PFOS)		
		6914	Perfluoropentanoic acid (PFPEA)		
		6902	Perfluorotetradecanoic acid (PFTDA)		
		9563	Perfluorotridecanoic (PFTRIA)		
		6904	Perfluoroundecanoic acid (PFUDA)		
	EPA 8290A			10187403	Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS
		9431	N-Ethylperfluorooctanesulfonamidoethanol (EtFOSE)		
		9434	N-Methylperfluorooctanesulfonamidoethanol (MeFOSA)		
Drinking Water	EPA 1613B			10120602	Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
	EPA 331.0 1.0			10059708	Determination of Perchlorate in Drinking Water by Liquid Chromatography Electrospray Mass Spectrometry (LC/ESI/MS)
		1895	Perchlorate		
	EPA 537 1.1			10091675	Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS
		6911	Perfluorobutane Sulfonate (PFBS)		
		6908	Perfluoroheptanoic acid (PFHA)		
		6910	Perfluorohexane Sulfonate (PFHS)		
		6906	Perfluorononanoic acid (PFNA)		
		6912	Perfluorooctanoic acid		
		6909	Perfluorooctanoic Sulfonate (PFOS)		
Non-Potable Water	EPA 1311			10118806	Toxicity Characteristic Leaching Procedure
		8031	Extraction/Preparation		

Non-Potable Water

EPA 1312			10119003	Synthetic Precipitation Leaching Procedure
	8031	Extraction/Preparation		
EPA 1613B			10120602	Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS
	9516	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)		
	9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		
	9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		
	9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)		
	9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		
	9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
	9453	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-Hxcdd)		
	9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
	9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,6,7,8-Hxcdd)		
	9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
	9459	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-Hxcdd)		
	9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
	9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		
	9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
	9549	2,3,4,7,8-Pentachlorodibenzofuran		
	9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
	9612	2,3,7,8-Tetrachlorodibenzofuran		
	9438	Hpcdd, total		
	9444	Hpcdf, total		
	9468	Hxcdd, total		
	9483	Hxcdf, total		
	9555	Pecdd, total		
	9552	Pecdf, total		
	9609	TCDD, total		
	9615	TCDF, total		
EPA 1668A			10129405	Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS
	9095	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ-206)		

Non-Potable Water	EPA 1668A	9090	2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ-194)
		9101	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl (BZ-207)
		9103	2,2',3,3',4,4',5,6-Octachlorobiphenyl (BZ-195)
		9102	2,2',3,3',4,4',5,6'-Octachlorobiphenyl (BZ-196)
		9065	2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ-170)
		9104	2,2',3,3',4,4',6,6'-Octachlorobiphenyl (BZ-197)
		9106	2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ-171)
		9020	2,2',3,3',4,4'-Hexachlorobiphenyl (BZ-128)
		9107	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl (BZ-208)
		9109	2,2',3,3',4,5,5',6-Octachlorobiphenyl (BZ-198)
		9108	2,2',3,3',4,5,5',6'-Octachlorobiphenyl (BZ-199)
		9110	2,2',3,3',4,5,5'-Heptachlorobiphenyl (BZ-172)
		9111	2,2',3,3',4,5,6,6'-Octachlorobiphenyl (BZ-200)
		9112	2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ-201)
		9113	2,2',3,3',4,5,6-Heptachlorobiphenyl (BZ-173)
		9116	2,2',3,3',4,5,6'-Heptachlorobiphenyl (BZ-174)
		9115	2,2',3,3',4,5',6-Heptachlorobiphenyl (BZ-175)
		9114	2,2',3,3',4,5',6'-Heptachlorobiphenyl (BZ-177)
		9118	2,2',3,3',4,5-Hexachlorobiphenyl (BZ-129)
		9117	2,2',3,3',4,5'-Hexachlorobiphenyl (BZ-130)
		9119	2,2',3,3',4,6,6'-Heptachlorobiphenyl (BZ-176)
		9121	2,2',3,3',4,6-Hexachlorobiphenyl (BZ-131)
		9120	2,2',3,3',4,6'-Hexachlorobiphenyl (BZ-132)
		9122	2,2',3,3',4-Pentachlorobiphenyl (BZ-82)
		9123	2,2',3,3',5,5',6,6'-Octachlorobiphenyl (BZ-202)
		9124	2,2',3,3',5,5',6-Heptachlorobiphenyl (BZ-178)

Non-Potable Water	EPA 1668A	9125	2,2',3,3',5,5'-Hexachlorobiphenyl (BZ-133)
		9126	2,2',3,3',5,6,6'-Heptachlorobiphenyl (BZ-179)
		9128	2,2',3,3',5,6-Hexachlorobiphenyl (BZ-134)
		9127	2,2',3,3',5,6'-Hexachlorobiphenyl (BZ-135)
		9129	2,2',3,3',5-Pentachlorobiphenyl (BZ-83)
		9130	2,2',3,3',6,6'-Hexachlorobiphenyl (BZ-136)
		9131	2,2',3,3',6-Pentachlorobiphenyl (BZ-84)
		9132	2,2',3,3'-Tetrachlorobiphenyl (BZ-40)
		9133	2,2',3,4,4',5,5',6-Octachlorobiphenyl (BZ-203)
		9134	2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ-180)
		9135	2,2',3,4,4',5,6,6'-Octachlorobiphenyl (BZ-204)
		9137	2,2',3,4,4',5,6-Heptachlorobiphenyl (BZ-181)
		9136	2,2',3,4,4',5,6'-Heptachlorobiphenyl (BZ-182)
		9075	2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ-183)
		9138	2,2',3,4,4',5-Hexachlorobiphenyl (BZ-137)
		9025	2,2',3,4,4',5'-Hexachlorobiphenyl (BZ-138)
		9139	2,2',3,4,4',6,6'-Heptachlorobiphenyl (BZ-184)
		9141	2,2',3,4,4',6-Hexachlorobiphenyl (BZ-139)
		9140	2,2',3,4,4',6'-Hexachlorobiphenyl (BZ-140)
		9142	2,2',3,4,4'-Pentachlorobiphenyl (BZ-85)
		9143	2,2',3,4,5,5',6-Heptachlorobiphenyl (BZ-185)
		9080	2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ-187)
		9030	2,2',3,4,5,5'-Hexachlorobiphenyl (BZ-141)
		9144	2,2',3,4',5,5'-Hexachlorobiphenyl (BZ-146)
		9145	2,2',3,4,5,6,6'-Heptachlorobiphenyl (BZ-186)
		9146	2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ-188)
		9148	2,2',3,4,5,6-Hexachlorobiphenyl (BZ-142)

Non-Potable Water	EPA 1668A	9152	2,2',3,4,5,6'-Hexachlorobiphenyl (BZ-143)
		9150	2,2',3,4,5',6-Hexachlorobiphenyl (BZ-144)
		9149	2,2',3,4',5,6-Hexachlorobiphenyl (BZ-147)
		9147	2,2',3,4',5,6'-Hexachlorobiphenyl (BZ-148)
		9151	2,2',3,4',5',6-Hexachlorobiphenyl (BZ-149)
		9153	2,2',3,4,5-Pentachlorobiphenyl (BZ-86)
		8975	2,2',3,4,5'-Pentachlorobiphenyl (BZ-87)
		9155	2,2',3,4',5-Pentachlorobiphenyl (BZ-90)
		9154	2,2',3,4',5'-Pentachlorobiphenyl (BZ-97)
		9156	2,2',3,4,6,6'-Hexachlorobiphenyl (BZ-145)
		9157	2,2',3,4',6,6'-Hexachlorobiphenyl (BZ-150)
		9158	2,2',3,4,6-Pentachlorobiphenyl (BZ-88)
		9161	2,2',3,4,6'-Pentachlorobiphenyl (BZ-89)
		9160	2,2',3,4',6-Pentachlorobiphenyl (BZ-91)
		9159	2,2',3,4',6'-Pentachlorobiphenyl (BZ-98)
		9163	2,2',3,4-Tetrachlorobiphenyl (BZ-41)
		9162	2,2',3,4'-Tetrachlorobiphenyl (BZ-42)
		9035	2,2',3,5,5',6-Hexachlorobiphenyl (BZ-151)
		9164	2,2',3,5,5'-Pentachlorobiphenyl (BZ-92)
		9165	2,2',3,5,6,6'-Hexachlorobiphenyl (BZ-152)
		9168	2,2',3,5,6-Pentachlorobiphenyl (BZ-93)
		9167	2,2',3,5,6'-Pentachlorobiphenyl (BZ-94)
		9166	2,2',3,5',6-Pentachlorobiphenyl (BZ-95)
		9169	2,2',3,5-Tetrachlorobiphenyl (BZ-43)
		8945	2,2',3,5'-Tetrachlorobiphenyl (BZ-44)
		9170	2,2',3,6,6'-Pentachlorobiphenyl (BZ-96)
		9172	2,2',3,6-Tetrachlorobiphenyl (BZ-45)
		9171	2,2',3,6'-Tetrachlorobiphenyl (BZ-46)
		9173	2,2',3-Trichlorobiphenyl (BZ-16)
		9040	2,2',4,4',5,5'-Hexachlorobiphenyl (BZ-153)
		9174	2,2',4,4',5,6'-Hexachlorobiphenyl (BZ-154)
		9175	2,2',4,4',5-Pentachlorobiphenyl (BZ-99)
		9176	2,2',4,4',6,6'-Hexachlorobiphenyl (BZ-155)

Non-Potable Water	EPA 1668A	9177	2,2',4,4',6-Pentachlorobiphenyl (BZ-100)
		9178	2,2',4,4'-Tetrachlorobiphenyl (BZ-47)
		8980	2,2',4,5,5'-Pentachlorobiphenyl (BZ-101)
		9180	2,2',4,5,6'-Pentachlorobiphenyl (BZ-102)
		9179	2,2',4,5',6-Pentachlorobiphenyl (BZ-103)
		9181	2,2',4,5-Tetrachlorobiphenyl (BZ-48)
		8950	2,2',4,5'-Tetrachlorobiphenyl (BZ-49)
		9182	2,2',4,6,6'-Pentachlorobiphenyl (BZ-104)
		9184	2,2',4,6-Tetrachlorobiphenyl (BZ-50)
		9183	2,2',4,6'-Tetrachlorobiphenyl (BZ-51)
		9185	2,2',4-Trichlorobiphenyl (BZ-17)
		8955	2,2',5,5'-Tetrachlorobiphenyl (BZ-52)
		9186	2,2',5,6'-Tetrachlorobiphenyl (BZ-53)
		8930	2,2',5-Trichlorobiphenyl (BZ-18)
		9187	2,2',6,6'-Tetrachlorobiphenyl (BZ-54)
		9188	2,2',6-Trichlorobiphenyl (BZ-19)
		9189	2,2'-Dichlorobiphenyl (BZ-4)
		9190	2,3,3',4,4',5,5',6-Octachlorobiphenyl (BZ-205)
		9085	2,3,3',4,4',5,5'-Heptachlorobiphenyl (BZ-189)
		9191	2,3,3',4,4',5,6-Heptachlorobiphenyl (BZ-190)
		9192	2,3,3',4,4',5',6-Heptachlorobiphenyl (BZ-191)
		9050	2,3,3',4,4',5-Hexachlorobiphenyl (BZ-156)
		9045	2,3,3',4,4',5'-Hexachlorobiphenyl (BZ-157)
		9193	2,3,3',4,4',6-Hexachlorobiphenyl (BZ-158)
		8985	2,3,3',4,4'-Pentachlorobiphenyl (BZ-105)
		9194	2,3,3',4,5,5',6-Heptachlorobiphenyl (BZ-192)
		9195	2,3,3',4',5,5',6-Heptachlorobiphenyl (BZ-193)
		9196	2,3,3',4,5,5'-Hexachlorobiphenyl (BZ-159)
		9197	2,3,3',4',5,5'-Hexachlorobiphenyl (BZ-162)
		9198	2,3,3',4,5,6-Hexachlorobiphenyl (BZ-160)

Non-Potable Water	EPA 1668A	9199	2,3,3',4',5,6-Hexachlorobiphenyl (BZ-163)
		9201	2,3,3',4',5',6-Hexachlorobiphenyl (BZ-164)
		9200	2,3,3',4,5',6-Hexachlorobiphenyl (BZ-161)
		9204	2,3,3',4,5-Pentachlorobiphenyl (BZ-106)
		9205	2,3,3',4',5-Pentachlorobiphenyl (BZ-107)
		9203	2,3,3',4,5'-Pentachlorobiphenyl (BZ-108)
		9202	2,3,3',4',5'-Pentachlorobiphenyl (BZ-122)
		9206	2,3,3',4,6-Pentachlorobiphenyl (BZ-109)
		8990	2,3,3',4',6-Pentachlorobiphenyl (BZ-110)
		9208	2,3,3',4-Tetrachlorobiphenyl (BZ-55)
		9207	2,3,3',4'-Tetrachlorobiphenyl (BZ-56)
		9209	2,3,3',5,5',6-Hexachlorobiphenyl (BZ-165)
		9210	2,3,3',5,5'-Pentachlorobiphenyl (BZ-111)
		9211	2,3,3',5,6-Pentachlorobiphenyl (BZ-112)
		9212	2,3,3',5',6-Pentachlorobiphenyl (BZ-113)
		9214	2,3,3',5-Tetrachlorobiphenyl (BZ-57)
		9213	2,3,3',5'-Tetrachlorobiphenyl (BZ-58)
		9215	2,3,3',6-Tetrachlorobiphenyl (BZ-59)
		9216	2,3,3'-Trichlorobiphenyl (BZ-20)
		9055	2,3',4,4',5,5'-Hexachlorobiphenyl (BZ-167)
		9217	2,3,4,4',5,6-Hexachlorobiphenyl (BZ-166)
		9218	2,3',4,4',5',6-Hexachlorobiphenyl (BZ-168)
		9005	2,3,4,4',5-Pentachlorobiphenyl (BZ-114)
		8995	2,3',4,4',5-Pentachlorobiphenyl (BZ-118)
		9011	2,3',4,4',5'-Pentachlorobiphenyl (BZ-123)
		9219	2,3,4,4',6-Pentachlorobiphenyl (BZ-115)
		9220	2,3',4,4',6-Pentachlorobiphenyl (BZ-119)
		9221	2,3,4,4'-Tetrachlorobiphenyl (BZ-60)
		8960	2,3',4,4'-Tetrachlorobiphenyl (BZ-66)

Non-Potable Water	EPA 1668A	9223	2,3',4,5,5'-Pentachlorobiphenyl (BZ-120)
		9222	2,3',4',5,5'-Pentachlorobiphenyl (BZ-124)
		9225	2,3,4,5,6-Pentachlorobiphenyl (BZ-116)
		9227	2,3,4',5,6-Pentachlorobiphenyl (BZ-117)
		9226	2,3',4,5',6-Pentachlorobiphenyl (BZ-121)
		9224	2,3',4',5',6-Pentachlorobiphenyl (BZ-125)
		9228	2,3,4,5-Tetrachlorobiphenyl (BZ-61)
		9233	2,3,4',5-Tetrachlorobiphenyl (BZ-63)
		9231	2,3',4,5'-Tetrachlorobiphenyl (BZ-68)
		9230	2,3',4',5-Tetrachlorobiphenyl (BZ-70)
		9229	2,3',4',5'-Tetrachlorobiphenyl (BZ-76)
		9232	2,3',4,5-Tetrachlorobiphenyl (BZ-67)
		9234	2,3,4,6-Tetrachlorobiphenyl (BZ-62)
		9236	2,3,4',6-Tetrachlorobiphenyl (BZ-64)
		9235	2,3',4,6-Tetrachlorobiphenyl (BZ-69)
		9237	2,3',4',6-Tetrachlorobiphenyl (BZ-71)
		9238	2,3,4-Trichlorobiphenyl (BZ-21)
		9241	2,3,4'-Trichlorobiphenyl (BZ-22)
		9240	2,3',4-Trichlorobiphenyl (BZ-25)
		9239	2,3',4'-Trichlorobiphenyl (BZ-33)
		9242	2,3',5,5'-Tetrachlorobiphenyl (BZ-72)
		9243	2,3,5,6-Tetrachlorobiphenyl (BZ-65)
		9244	2,3',5',6-Tetrachlorobiphenyl (BZ-73)
		9245	2,3,5-Trichlorobiphenyl (BZ-23)
		8935	2,3',5-Trichlorobiphenyl (BZ-26)
		9246	2,3',5'-Trichlorobiphenyl (BZ-34)
		9247	2,3,6-Trichlorobiphenyl (BZ-24)
		9248	2,3',6-Trichlorobiphenyl (BZ-27)
		8920	2,3-Dichlorobiphenyl (BZ-5)
		9249	2,3'-Dichlorobiphenyl (BZ-6)
		9250	2,4,4',5-Tetrachlorobiphenyl (BZ-74)
		9251	2,4,4',6-Tetrachlorobiphenyl (BZ-75)
		9252	2,4,4'-Trichlorobiphenyl (BZ-28)
		9253	2,4,5-Trichlorobiphenyl (BZ-29)
		8940	2,4',5-Trichlorobiphenyl (BZ-31)
		9254	2,4,6-Trichlorobiphenyl (BZ-30)
		9255	2,4',6-Trichlorobiphenyl (BZ-32)
		9257	2,4-Dichlorobiphenyl (BZ-7)
		9256	2,4'-Dichlorobiphenyl (BZ-8)

Non-Potable Water	EPA 1668A	9258	2,5-Dichlorobiphenyl (BZ-9)		
		9259	2,6-Dichlorobiphenyl (BZ-10)		
		8915	2-Chlorobiphenyl (BZ-1)		
		9060	3,3',4,4',5,5'-Hexachlorobiphenyl (BZ-169)		
		9015	3,3',4,4',5-Pentachlorobiphenyl (BZ-126)		
		8965	3,3',4,4'-Tetrachlorobiphenyl (BZ-77)		
		9260	3,3',4,5,5'-Pentachlorobiphenyl (BZ-127)		
		9262	3,3',4,5-Tetrachlorobiphenyl (BZ-78)		
		9261	3,3',4,5'-Tetrachlorobiphenyl (BZ-79)		
		9263	3,3',4-Trichlorobiphenyl (BZ-35)		
		9264	3,3',5,5'-Tetrachlorobiphenyl (BZ-80)		
		9265	3,3',5-Trichlorobiphenyl (BZ-36)		
		8925	3,3'-Dichlorobiphenyl (BZ-11)		
		8970	3,4,4',5-Tetrachlorobiphenyl (BZ-81)		
		9266	3,4,4'-Trichlorobiphenyl (BZ-37)		
		9267	3,4,5-Trichlorobiphenyl (BZ-38)		
		9268	3,4',5-Trichlorobiphenyl (BZ-39)		
		9270	3,4-Dichlorobiphenyl (BZ-12)		
		9269	3,4'-Dichlorobiphenyl (BZ-13)		
		9271	3,5-Dichlorobiphenyl (BZ-14)		
		9272	3-Chlorobiphenyl (BZ-2)		
		9273	4,4'-Dichlorobiphenyl (BZ-15)		
		9274	4-Chlorobiphenyl (BZ-3)		
		9105	Decachlorobiphenyl (BZ-209)		
		8876	Total Dichlorobiphenyls		
		8877	Total Heptachlorobiphenyls		
		8888	Total Hexachlorobiphenyls		
		8889	Total Monochlorobiphenyls		
		8891	Total Nonachlorobiphenyls		
		8892	Total Octachlorobiphenyls		
		8896	Total Pentachlorobiphenyls		
		8893	Total Tetrachlorobiphenyls		
		8894	Total Trichlorobiphenyls		
	EPA 1668C			10262109	Chlorinated Biphenyl Cogeners in Water, Soil, Sediment, and Tissue by GC-HRMS
		9095	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ-206)		
		9090	2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ-194)		
		9101	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl (BZ-207)		

Non-Potable Water	EPA 1668C	9103	2,2',3,3',4,4',5,6-Octachlorobiphenyl (BZ-195)
		9102	2,2',3,3',4,4',5,6'-Octachlorobiphenyl (BZ-196)
		9065	2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ-170)
		9104	2,2',3,3',4,4',6,6'-Octachlorobiphenyl (BZ-197)
		9106	2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ-171)
		9020	2,2',3,3',4,4'-Hexachlorobiphenyl (BZ-128)
		9107	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl (BZ-208)
		9109	2,2',3,3',4,5,5',6-Octachlorobiphenyl (BZ-198)
		9108	2,2',3,3',4,5,5',6'-Octachlorobiphenyl (BZ-199)
		9110	2,2',3,3',4,5,5'-Heptachlorobiphenyl (BZ-172)
		9111	2,2',3,3',4,5,6,6'-Octachlorobiphenyl (BZ-200)
		9112	2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ-201)
		9113	2,2',3,3',4,5,6-Heptachlorobiphenyl (BZ-173)
		9116	2,2',3,3',4,5,6'-Heptachlorobiphenyl (BZ-174)
		9115	2,2',3,3',4,5',6-Heptachlorobiphenyl (BZ-175)
		9114	2,2',3,3',4,5',6'-Heptachlorobiphenyl (BZ-177)
		9118	2,2',3,3',4,5-Hexachlorobiphenyl (BZ-129)
		9117	2,2',3,3',4,5'-Hexachlorobiphenyl (BZ-130)
		9119	2,2',3,3',4,6,6'-Heptachlorobiphenyl (BZ-176)
		9121	2,2',3,3',4,6-Hexachlorobiphenyl (BZ-131)
		9120	2,2',3,3',4,6'-Hexachlorobiphenyl (BZ-132)
		9122	2,2',3,3',4-Pentachlorobiphenyl (BZ-82)
		9123	2,2',3,3',5,5',6,6'-Octachlorobiphenyl (BZ-202)
		9124	2,2',3,3',5,5',6-Heptachlorobiphenyl (BZ-178)
		9125	2,2',3,3',5,5'-Hexachlorobiphenyl (BZ-133)
		9126	2,2',3,3',5,6,6'-Heptachlorobiphenyl (BZ-179)

Non-Potable Water	EPA 1668C	9128	2,2',3,3',5,6-Hexachlorobiphenyl (BZ-134)
		9127	2,2',3,3',5,6'-Hexachlorobiphenyl (BZ-135)
		9129	2,2',3,3',5-Pentachlorobiphenyl (BZ-83)
		9130	2,2',3,3',6,6'-Hexachlorobiphenyl (BZ-136)
		9131	2,2',3,3',6-Pentachlorobiphenyl (BZ-84)
		9132	2,2',3,3'-Tetrachlorobiphenyl (BZ-40)
		9133	2,2',3,4,4',5,5',6-Octachlorobiphenyl (BZ-203)
		9134	2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ-180)
		9135	2,2',3,4,4',5,6,6'-Octachlorobiphenyl (BZ-204)
		9137	2,2',3,4,4',5,6-Heptachlorobiphenyl (BZ-181)
		9136	2,2',3,4,4',5,6'-Heptachlorobiphenyl (BZ-182)
		9075	2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ-183)
		9138	2,2',3,4,4',5-Hexachlorobiphenyl (BZ-137)
		9025	2,2',3,4,4',5'-Hexachlorobiphenyl (BZ-138)
		9139	2,2',3,4,4',6,6'-Heptachlorobiphenyl (BZ-184)
		9141	2,2',3,4,4',6-Hexachlorobiphenyl (BZ-139)
		9140	2,2',3,4,4',6'-Hexachlorobiphenyl (BZ-140)
		9142	2,2',3,4,4'-Pentachlorobiphenyl (BZ-85)
		9143	2,2',3,4,5,5',6-Heptachlorobiphenyl (BZ-185)
		9080	2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ-187)
		9030	2,2',3,4,5,5'-Hexachlorobiphenyl (BZ-141)
		9144	2,2',3,4',5,5'-Hexachlorobiphenyl (BZ-146)
		9145	2,2',3,4,5,6,6'-Heptachlorobiphenyl (BZ-186)
		9146	2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ-188)
		9148	2,2',3,4,5,6-Hexachlorobiphenyl (BZ-142)
		9152	2,2',3,4,5,6'-Hexachlorobiphenyl (BZ-143)
		9150	2,2',3,4,5',6-Hexachlorobiphenyl (BZ-144)

Non-Potable Water	EPA 1668C	9149	2,2',3,4',5,6-Hexachlorobiphenyl (BZ-147)
		9147	2,2',3,4',5,6'-Hexachlorobiphenyl (BZ-148)
		9151	2,2',3,4',5',6-Hexachlorobiphenyl (BZ-149)
		9153	2,2',3,4,5-Pentachlorobiphenyl (BZ-86)
		8975	2,2',3,4,5'-Pentachlorobiphenyl (BZ-87)
		9155	2,2',3,4',5-Pentachlorobiphenyl (BZ-90)
		9154	2,2',3,4',5'-Pentachlorobiphenyl (BZ-97)
		9156	2,2',3,4,6,6'-Hexachlorobiphenyl (BZ-145)
		9157	2,2',3,4',6,6'-Hexachlorobiphenyl (BZ-150)
		9158	2,2',3,4,6-Pentachlorobiphenyl (BZ-88)
		9161	2,2',3,4,6'-Pentachlorobiphenyl (BZ-89)
		9160	2,2',3,4',6-Pentachlorobiphenyl (BZ-91)
		9159	2,2',3,4',6'-Pentachlorobiphenyl (BZ-98)
		9163	2,2',3,4-Tetrachlorobiphenyl (BZ-41)
		9162	2,2',3,4'-Tetrachlorobiphenyl (BZ-42)
		9035	2,2',3,5,5',6-Hexachlorobiphenyl (BZ-151)
		9164	2,2',3,5,5'-Pentachlorobiphenyl (BZ-92)
		9165	2,2',3,5,6,6'-Hexachlorobiphenyl (BZ-152)
		9168	2,2',3,5,6-Pentachlorobiphenyl (BZ-93)
		9167	2,2',3,5,6'-Pentachlorobiphenyl (BZ-94)
		9166	2,2',3,5',6-Pentachlorobiphenyl (BZ-95)
		9169	2,2',3,5-Tetrachlorobiphenyl (BZ-43)
		8945	2,2',3,5'-Tetrachlorobiphenyl (BZ-44)
		9170	2,2',3,6,6'-Pentachlorobiphenyl (BZ-96)
		9172	2,2',3,6-Tetrachlorobiphenyl (BZ-45)
		9171	2,2',3,6'-Tetrachlorobiphenyl (BZ-46)
		9173	2,2',3-Trichlorobiphenyl (BZ-16)
		9040	2,2',4,4',5,5'-Hexachlorobiphenyl (BZ-153)
		9174	2,2',4,4',5,6'-Hexachlorobiphenyl (BZ-154)
		9175	2,2',4,4',5-Pentachlorobiphenyl (BZ-99)
		9176	2,2',4,4',6,6'-Hexachlorobiphenyl (BZ-155)
		9177	2,2',4,4',6-Pentachlorobiphenyl (BZ-100)
		9178	2,2',4,4'-Tetrachlorobiphenyl (BZ-47)
		8980	2,2',4,5,5'-Pentachlorobiphenyl (BZ-101)

Non-Potable Water	EPA 1668C	9180	2,2',4,5,6'-Pentachlorobiphenyl (BZ-102)
		9179	2,2',4,5',6-Pentachlorobiphenyl (BZ-103)
		9181	2,2',4,5-Tetrachlorobiphenyl (BZ-48)
		8950	2,2',4,5'-Tetrachlorobiphenyl (BZ-49)
		9182	2,2',4,6,6'-Pentachlorobiphenyl (BZ-104)
		9184	2,2',4,6-Tetrachlorobiphenyl (BZ-50)
		9183	2,2',4,6'-Tetrachlorobiphenyl (BZ-51)
		9185	2,2',4-Trichlorobiphenyl (BZ-17)
		8955	2,2',5,5'-Tetrachlorobiphenyl (BZ-52)
		9186	2,2',5,6'-Tetrachlorobiphenyl (BZ-53)
		8930	2,2',5-Trichlorobiphenyl (BZ-18)
		9187	2,2',6,6'-Tetrachlorobiphenyl (BZ-54)
		9188	2,2',6-Trichlorobiphenyl (BZ-19)
		9189	2,2'-Dichlorobiphenyl (BZ-4)
		9190	2,3,3',4,4',5,5',6-Octachlorobiphenyl (BZ-205)
		9085	2,3,3',4,4',5,5'-Heptachlorobiphenyl (BZ-189)
		9191	2,3,3',4,4',5,6-Heptachlorobiphenyl (BZ-190)
		9192	2,3,3',4,4',5',6-Heptachlorobiphenyl (BZ-191)
		9050	2,3,3',4,4',5-Hexachlorobiphenyl (BZ-156)
		9045	2,3,3',4,4',5'-Hexachlorobiphenyl (BZ-157)
		9193	2,3,3',4,4',6-Hexachlorobiphenyl (BZ-158)
		8985	2,3,3',4,4'-Pentachlorobiphenyl (BZ-105)
		9194	2,3,3',4,5,5',6-Heptachlorobiphenyl (BZ-192)
		9195	2,3,3',4',5,5',6-Heptachlorobiphenyl (BZ-193)
		9196	2,3,3',4,5,5'-Hexachlorobiphenyl (BZ-159)
		9197	2,3,3',4',5,5'-Hexachlorobiphenyl (BZ-162)
		9198	2,3,3',4,5,6-Hexachlorobiphenyl (BZ-160)
		9199	2,3,3',4',5,6-Hexachlorobiphenyl (BZ-163)
		9201	2,3,3',4',5',6-Hexachlorobiphenyl (BZ-164)
		9200	2,3,3',4,5',6-Hexachlorobiphenyl (BZ-161)

Non-Potable Water	EPA 1668C	9204	2,3,3',4,5-Pentachlorobiphenyl (BZ-106)
		9205	2,3,3',4',5-Pentachlorobiphenyl (BZ-107)
		9203	2,3,3',4,5'-Pentachlorobiphenyl (BZ-108)
		9202	2,3,3',4',5'-Pentachlorobiphenyl (BZ-122)
		9206	2,3,3',4,6-Pentachlorobiphenyl (BZ-109)
		8990	2,3,3',4',6-Pentachlorobiphenyl (BZ-110)
		9208	2,3,3',4-Tetrachlorobiphenyl (BZ-55)
		9207	2,3,3',4'-Tetrachlorobiphenyl (BZ-56)
		9209	2,3,3',5,5',6-Hexachlorobiphenyl (BZ-165)
		9210	2,3,3',5,5'-Pentachlorobiphenyl (BZ-111)
		9211	2,3,3',5,6-Pentachlorobiphenyl (BZ-112)
		9212	2,3,3',5',6-Pentachlorobiphenyl (BZ-113)
		9214	2,3,3',5-Tetrachlorobiphenyl (BZ-57)
		9213	2,3,3',5'-Tetrachlorobiphenyl (BZ-58)
		9215	2,3,3',6-Tetrachlorobiphenyl (BZ-59)
		9216	2,3,3'-Trichlorobiphenyl (BZ-20)
		9055	2,3',4,4',5,5'-Hexachlorobiphenyl (BZ-167)
		9217	2,3,4,4',5,6-Hexachlorobiphenyl (BZ-166)
		9218	2,3',4,4',5',6-Hexachlorobiphenyl (BZ-168)
		9005	2,3,4,4',5-Pentachlorobiphenyl (BZ-114)
		8995	2,3',4,4',5-Pentachlorobiphenyl (BZ-118)
		9011	2,3',4,4',5'-Pentachlorobiphenyl (BZ-123)
		9219	2,3,4,4',6-Pentachlorobiphenyl (BZ-115)
		9220	2,3',4,4',6-Pentachlorobiphenyl (BZ-119)
		9221	2,3,4,4'-Tetrachlorobiphenyl (BZ-60)
		8960	2,3',4,4'-Tetrachlorobiphenyl (BZ-66)
		9223	2,3',4,5,5'-Pentachlorobiphenyl (BZ-120)
		9222	2,3',4',5,5'-Pentachlorobiphenyl (BZ-124)
		9225	2,3,4,5,6-Pentachlorobiphenyl (BZ-116)

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		9226	2,3',4,5',6-Pentachlorobiphenyl (BZ-121)
		9224	2,3',4',5',6-Pentachlorobiphenyl (BZ-125)
		9228	2,3,4,5-Tetrachlorobiphenyl (BZ-61)
		9233	2,3,4',5-Tetrachlorobiphenyl (BZ-63)
		9231	2,3',4,5'-Tetrachlorobiphenyl (BZ-68)
		9230	2,3',4',5-Tetrachlorobiphenyl (BZ-70)
		9229	2,3',4',5'-Tetrachlorobiphenyl (BZ-76)
		9232	2,3',4,5-Tetrachlorobiphenyl (BZ-67)
		9234	2,3,4,6-Tetrachlorobiphenyl (BZ-62)
		9236	2,3,4',6-Tetrachlorobiphenyl (BZ-64)
		9235	2,3',4,6-Tetrachlorobiphenyl (BZ-69)
		9237	2,3',4',6-Tetrachlorobiphenyl (BZ-71)
		9238	2,3,4-Trichlorobiphenyl (BZ-21)
		9241	2,3,4'-Trichlorobiphenyl (BZ-22)
		9240	2,3',4-Trichlorobiphenyl (BZ-25)
		9239	2,3',4'-Trichlorobiphenyl (BZ-33)
		9242	2,3',5,5'-Tetrachlorobiphenyl (BZ-72)
		9243	2,3,5,6-Tetrachlorobiphenyl (BZ-65)
		9244	2,3',5',6-Tetrachlorobiphenyl (BZ-73)
		9245	2,3,5-Trichlorobiphenyl (BZ-23)
		8935	2,3',5-Trichlorobiphenyl (BZ-26)
		9246	2,3',5'-Trichlorobiphenyl (BZ-34)
		9247	2,3,6-Trichlorobiphenyl (BZ-24)
		9248	2,3',6-Trichlorobiphenyl (BZ-27)
		8920	2,3-Dichlorobiphenyl (BZ-5)
		9249	2,3'-Dichlorobiphenyl (BZ-6)
		9250	2,4,4',5-Tetrachlorobiphenyl (BZ-74)
		9251	2,4,4',6-Tetrachlorobiphenyl (BZ-75)
		9252	2,4,4'-Trichlorobiphenyl (BZ-28)
		9253	2,4,5-Trichlorobiphenyl (BZ-29)
		8940	2,4',5-Trichlorobiphenyl (BZ-31)
		9254	2,4,6-Trichlorobiphenyl (BZ-30)
		9255	2,4',6-Trichlorobiphenyl (BZ-32)
		9257	2,4-Dichlorobiphenyl (BZ-7)
		9256	2,4'-Dichlorobiphenyl (BZ-8)
		9258	2,5-Dichlorobiphenyl (BZ-9)
		9259	2,6-Dichlorobiphenyl (BZ-10)
		8915	2-Chlorobiphenyl (BZ-1)
		9060	3,3',4,4',5,5'-Hexachlorobiphenyl (BZ-169)

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Non-Potable Water	EPA 1668C	9015	3,3',4,4',5-Pentachlorobiphenyl (BZ-126)		
		8965	3,3',4,4'-Tetrachlorobiphenyl (BZ-77)		
		9260	3,3',4,5,5'-Pentachlorobiphenyl (BZ-127)		
		9262	3,3',4,5-Tetrachlorobiphenyl (BZ-78)		
		9261	3,3',4,5'-Tetrachlorobiphenyl (BZ-79)		
		9263	3,3',4-Trichlorobiphenyl (BZ-35)		
		9264	3,3',5,5'-Tetrachlorobiphenyl (BZ-80)		
		9265	3,3',5-Trichlorobiphenyl (BZ-36)		
		8925	3,3'-Dichlorobiphenyl (BZ-11)		
		8970	3,4,4',5-Tetrachlorobiphenyl (BZ-81)		
		9266	3,4,4'-Trichlorobiphenyl (BZ-37)		
		9267	3,4,5-Trichlorobiphenyl (BZ-38)		
		9268	3,4',5-Trichlorobiphenyl (BZ-39)		
		9270	3,4-Dichlorobiphenyl (BZ-12)		
		9269	3,4'-Dichlorobiphenyl (BZ-13)		
		9271	3,5-Dichlorobiphenyl (BZ-14)		
		9272	3-Chlorobiphenyl (BZ-2)		
		9273	4,4'-Dichlorobiphenyl (BZ-15)		
		9274	4-Chlorobiphenyl (BZ-3)		
		9105	Decachlorobiphenyl (BZ-209)		
		8876	Total Dichlorobiphenyls		
		8877	Total Heptachlorobiphenyls		
		8888	Total Hexachlorobiphenyls		
		8889	Total Monochlorobiphenyls		
		8891	Total Nonachlorobiphenyls		
		8892	Total Octachlorobiphenyls		
		8896	Total Pentachlorobiphenyls		
		8893	Total Tetrachlorobiphenyls		
		8894	Total Trichlorobiphenyls		
	EPA 200.7 4.4			10013806	ICP - metals
		1000	Aluminum		
		1005	Antimony		
		1010	Arsenic		
		1015	Barium		
		1020	Beryllium		
		1025	Boron		
		1030	Cadmium		
		1035	Calcium		
		1040	Chromium		
		1050	Cobalt		
		1055	Copper		
		1760	Hardness (calc.)		

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Non-Potable Water	EPA 200.7 4.4	1070	Iron		
		1075	Lead		
		1085	Magnesium		
		1090	Manganese		
		1100	Molybdenum		
		1105	Nickel		
		1910	Phosphorus, total		
		1125	Potassium		
		1140	Selenium		
		1990	Silica as SiO2		
		1150	Silver		
		1155	Sodium		
		1160	Strontium		
		1165	Thallium		
		1175	Tin		
		1180	Titanium		
		1185	Vanadium		
		1190	Zinc		
	EPA 200.8 5.4			10014605	Metals by ICP-MS
		1000	Aluminum		
		1005	Antimony		
		1010	Arsenic		
		1015	Barium		
		1020	Beryllium		
		1025	Boron		
		1030	Cadmium		
		1035	Calcium		
		1040	Chromium		
		1050	Cobalt		
		1055	Copper		
		1070	Iron		
		1075	Lead		
		1080	Lithium		
		1085	Magnesium		
		1090	Manganese		
		1100	Molybdenum		
		1105	Nickel		
		1125	Potassium		
		1140	Selenium		
		1150	Silver		
		1155	Sodium		
		1160	Strontium		
		1165	Thallium		

Non-Potable Water

EPA 200.8 5.4	1175	Tin		
	1180	Titanium		
	3035	Uranium		
	1185	Vanadium		
	1190	Zinc		
EPA 245.1			10036201	Mercury by Cold Vapor Atomic Absorption
	1095	Mercury		
EPA 300.0			10053006	Ion chromatography - anions.
	1540	Bromide		
	1575	Chloride		
	1730	Fluoride		
	1810	Nitrate as N		
	1820	Nitrate-nitrite		
	1835	Nitrite		
	1870	Orthophosphate as P		
	2000	Sulfate		
EPA 3005A			10133207	Acid Digestion of waters for Total Recoverable or Dissolved Metals
	8031	Extraction/Preparation		
EPA 3010A			10133605	Acid Digestion of Aqueous samples and Extracts for Total Metals
	8031	Extraction/Preparation		
EPA 314.0			10055400	Perchlorate in Drinking Water by Ion Chromatography
	1895	Perchlorate		
EPA 3510C			10138202	Separatory Funnel Liquid-liquid extraction
	8031	Extraction/Preparation		
EPA 353.2			10067206	Nitrate/Nitrite Nitrogen - Automated, Cadmium
	1820	Nitrate-nitrite		
	1840	Nitrite as N		
EPA 3535			10139205	Solid-Phase Extraction (SPE)
	8031	Extraction/Preparation		
EPA 3580A			10143007	Waste Dilution
	8031	Extraction/Preparation		
EPA 3620B			10145809	Florisil Cleanup
	8031	Extraction/Preparation		
EPA 3630C			10146802	Silica gel cleanup
	8031	Extraction/Preparation		
EPA 3640A			10147203	Gel Preparation Cleanup
	8031	Extraction/Preparation		

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EPA 3660B			10148400	Sulfur cleanup
	8031	Extraction/Preparation		
EPA 410.4			10077006	Chemical Oxygen Demand - Colorimetric, Automated.
	1565	Chemical oxygen demand		
EPA 5030B			10153409	Purge and trap for aqueous samples
	8031	Extraction/Preparation		
EPA 537 1.1			10091675	Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS
	4846	2-(N-Ethyl-perfluorooctane sufonamido) acetic acid		
	4847	2-(N-Methyl-perfluorooctane sulfonamido) acetic acid		
	6457	6:2 Fluorotelomersulfonate (6:2FTS)		
	6461	8:2 Fluorotelomersulfonate (8:2FTS)		
	9395	N-Ethylperfluorooctanesulfonamide (EtFOSA)		
	9433	N-Methylperfluorooctanesulfonamide (MeFOSA)		
	6911	Perfluorobutane Sulfonate (PFBS)		
	6915	Perfluorobutyric acid (PFBA)		
	9562	Perfluorodecane Sulfonate (PFDS)		
	6905	Perfluorodecanoic acid (PFDA)		
	6903	Perfluorododecanoic (PFDDA)		
	9470	Perfluoroheptanesulfonic acid (PFHpS)		
	6908	Perfluoroheptanoic acid (PFHA)		
	6901	Perfluorohexadecanoic acid (PFHxDA)		
	6910	Perfluorohexane Sulfonate (PFHS)		
	6913	Perfluorohexanoic acid (PFHXA)		
	6906	Perfluorononanoic acid (PFNA)		
	6916	Perfluorooctadecanoic acid (PFODA)		
	6917	Perfluorooctane Sulfonamide (PFOSA)		
	6912	Perfluorooctanoic acid		
	6909	Perfluorooctanoic Sulfonate (PFOS)		
	6914	Perfluoropentanoic acid (PFPEA)		
	6902	Perfluorotetradecanoic acid (PFTDA)		
	9563	Perfluorotridecanoic (PFTRIA)		
	6904	Perfluoroundecanoic acid (PFUDA)		
EPA 6010B			10155609	ICP - AES
	1000	Aluminum		
	1005	Antimony		
	1010	Arsenic		
	1015	Barium		
	1020	Beryllium		

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Non-Potable Water	EPA 6010B	1025	Boron		
		1030	Cadmium		
		1035	Calcium		
		1040	Chromium		
		1050	Cobalt		
		1055	Copper		
		1070	Iron		
		1075	Lead		
		1085	Magnesium		
		1090	Manganese		
		1100	Molybdenum		
		1105	Nickel		
		1910	Phosphorus, total		
		1125	Potassium		
		1140	Selenium		
		1990	Silica as SiO2		
		1150	Silver		
		1155	Sodium		
		1160	Strontium		
		1165	Thallium		
		1175	Tin		
		1180	Titanium		
		1185	Vanadium		
		1190	Zinc		
	EPA 6010C			10155803	ICP - AES
		1000	Aluminum		
		1005	Antimony		
		1010	Arsenic		
		1015	Barium		
		1020	Beryllium		
		1025	Boron		
		1030	Cadmium		
		1035	Calcium		
		1040	Chromium		
		1050	Cobalt		
		1055	Copper		
		1070	Iron		
		1075	Lead		
		1085	Magnesium		
		1090	Manganese		
		1100	Molybdenum		
		1105	Nickel		
		1910	Phosphorus, total		

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Non-Potable Water	EPA 6010C	1125	Potassium		
		1140	Selenium		
		1990	Silica as SiO2		
		1150	Silver		
		1155	Sodium		
		1160	Strontium		
		1165	Thallium		
		1175	Tin		
		1180	Titanium		
		1185	Vanadium		
		1190	Zinc		
	EPA 6020			10156000	Inductively Coupled Plasma-Mass Spectrometry
		1000	Aluminum		
		1005	Antimony		
		1010	Arsenic		
		1015	Barium		
		1020	Beryllium		
		1025	Boron		
		1030	Cadmium		
		1035	Calcium		
		1040	Chromium		
		1050	Cobalt		
		1055	Copper		
		1070	Iron		
		1075	Lead		
		1080	Lithium		
		1085	Magnesium		
		1090	Manganese		
		1100	Molybdenum		
		1105	Nickel		
		1910	Phosphorus, total		
		1125	Potassium		
		1140	Selenium		
		1150	Silver		
		1155	Sodium		
		1160	Strontium		
		1165	Thallium		
		1175	Tin		
		1180	Titanium		
		3035	Uranium		
		1185	Vanadium		
		1190	Zinc		

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EPA 6020A			10156408	Inductively Coupled Plasma-Mass Spectrometry
	1000	Aluminum		
	1005	Antimony		
	1010	Arsenic		
	1015	Barium		
	1020	Beryllium		
	1025	Boron		
	1030	Cadmium		
	1035	Calcium		
	1040	Chromium		
	1050	Cobalt		
	1055	Copper		
	1070	Iron		
	1075	Lead		
	1080	Lithium		
	1085	Magnesium		
	1090	Manganese		
	1100	Molybdenum		
	1105	Nickel		
	1910	Phosphorus, total		
	1125	Potassium		
	1140	Selenium		
	1150	Silver		
	1155	Sodium		
	1160	Strontium		
	1165	Thallium		
	1175	Tin		
	1180	Titanium		
	3035	Uranium		
	1185	Vanadium		
	1190	Zinc		
EPA 608			10103603	Organochlorine Pesticides & PCBs by GC/ECD
	7355	4,4'-DDD		
	7360	4,4'-DDE		
	7365	4,4'-DDT		
	7025	Aldrin		
	7110	alpha-BHC (alpha-Hexachlorocyclohexane)		
	8880	Aroclor-1016 (PCB-1016)		
	8885	Aroclor-1221 (PCB-1221)		
	8890	Aroclor-1232 (PCB-1232)		
	8895	Aroclor-1242 (PCB-1242)		

Non-Potable Water	EPA 608	8900	Aroclor-1248 (PCB-1248)		
		8905	Aroclor-1254 (PCB-1254)		
		8910	Aroclor-1260 (PCB-1260)		
		7115	beta-BHC (beta-Hexachlorocyclohexane)		
		7250	Chlordane (tech.)		
		7105	delta-BHC		
		7470	Dieldrin		
		7510	Endosulfan I		
		7515	Endosulfan II		
		7520	Endosulfan sulfate		
		7540	Endrin		
		7530	Endrin aldehyde		
		7535	Endrin ketone		
		7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)		
		7245	gamma-Chlordane		
		7685	Heptachlor		
		7690	Heptachlor epoxide		
		7810	Methoxychlor		
		8250	Toxaphene (Chlorinated camphene)		
	EPA 624			10107207	Volatile Organic Compounds by purge and trap GC/MS
		5160	1,1,1-Trichloroethane		
		5110	1,1,2,2-Tetrachloroethane		
		5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		
		5165	1,1,2-Trichloroethane		
		4630	1,1-Dichloroethane		
		4640	1,1-Dichloroethylene		
		4610	1,2-Dichlorobenzene		
		4635	1,2-Dichloroethane (Ethylene dichloride)		
		4655	1,2-Dichloropropane		
		4615	1,3-Dichlorobenzene		
		4620	1,4-Dichlorobenzene		
		4410	2-Butanone (Methyl ethyl ketone, MEK)		
		4500	2-Chloroethyl vinyl ether		
		4860	2-Hexanone (MBK)		
		4995	4-Methyl-2-pentanone (MIBK)		
		4315	Acetone		
		4325	Acrolein (Propenal)		
		4340	Acrylonitrile		
		4375	Benzene		
		4395	Bromodichloromethane		
		4400	Bromoform		

Non-Potable Water

EPA 624	4450	Carbon disulfide	
	4455	Carbon tetrachloride	
	4475	Chlorobenzene	
	4575	Chlorodibromomethane	
	4485	Chloroethane (Ethyl chloride)	
	4505	Chloroform	
	4645	cis-1,2-Dichloroethylene	
	4680	cis-1,3-Dichloropropene	
	4595	Dibromomethane (Methylene bromide)	
	4625	Dichlorodifluoromethane (Freon-12)	
	4750	Ethanol	
	4765	Ethylbenzene	
	5240	m+p-xylene	
	4950	Methyl bromide (Bromomethane)	
	4960	Methyl chloride (Chloromethane)	
	4975	Methylene chloride (Dichloromethane)	
	5250	o-Xylene	
	5100	Styrene	
	5115	Tetrachloroethylene (Perchloroethylene)	
	5140	Toluene	
	4700	trans-1,2-Dichloroethylene	
	4685	trans-1,3-Dichloropropylene	
	5170	Trichloroethene (Trichloroethylene)	
	5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	
	5225	Vinyl acetate	
	5235	Vinyl chloride	
	5260	Xylene (total)	
EPA 625		10300002	Base/Neutrals and Acids by GC/MS
	5155	1,2,4-Trichlorobenzene	
	4610	1,2-Dichlorobenzene	
	4615	1,3-Dichlorobenzene	
	4620	1,4-Dichlorobenzene	
	6835	2,4,5-Trichlorophenol	
	6840	2,4,6-Trichlorophenol	
	5880	2,4-Diaminotoluene	
	6000	2,4-Dichlorophenol	
	6130	2,4-Dimethylphenol	
	6175	2,4-Dinitrophenol	
	6190	2,6-Dinitrotoluene (2,6-DNT)	
	5795	2-Chloronaphthalene	
	5800	2-Chlorophenol	
	6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4040

TestAmerica Sacramento

EPA CODE: CA00044

880 Riverside Parkway

Certificate: 4040 - 008

West Sacramento, CA 95605 Issue Date: 1/30/2017 Expiration Date: 1/29/2018

As of 1/30/2017 this list supercedes all previous lists for this certificate number.

Non-Potable Water

EPA 625	6385	2-Methylnaphthalene
	6400	2-Methylphenol (o-Cresol)
	6460	2-Nitroaniline
	5945	3,3'-Dichlorobenzidine
	6405	3-Methylphenol (m-Cresol)
	6465	3-Nitroaniline
	5660	4-Bromophenyl phenyl ether (BDE-3)
	5700	4-Chloro-3-methylphenol
	5745	4-Chloroaniline
	5825	4-Chlorophenyl phenylether
	6470	4-Nitroaniline
	6500	4-Nitrophenol
	5500	Acenaphthene
	5505	Acenaphthylene
	5555	Anthracene
	5575	Benzo(a)anthracene
	5580	Benzo(a)pyrene
	5590	Benzo(g,h,i)perylene
	5600	Benzo(k)fluoranthene
	5585	Benzo[b]fluoranthene
	5610	Benzoic acid
	5630	Benzyl alcohol
	5760	bis(2-Chloroethoxy)methane
	5780	bis(2-Chloroisopropyl) ether
	5670	Butyl benzyl phthalate
	5855	Chrysene
	6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
	5895	Dibenz(a,h) anthracene
	5905	Dibenzofuran
	6070	Diethyl phthalate
	6135	Dimethyl phthalate
	5925	Di-n-butyl phthalate
	6200	Di-n-octyl phthalate
	6265	Fluoranthene
	6270	Fluorene
	6275	Hexachlorobenzene
	4835	Hexachlorobutadiene
	6285	Hexachlorocyclopentadiene
	4840	Hexachloroethane
	6315	Indeno(1,2,3-cd) pyrene
	6320	Isophorone
	5005	Naphthalene
	5015	Nitrobenzene

Non-Potable Water

EPA 625	6545	n-Nitrosodi-n-propylamine		
	6605	Pentachlorophenol		
	6615	Phenanthrene		
	6625	Phenol		
	6665	Pyrene		
EPA 6850			10304606	Perchlorate in Water, Soils and Solid Wastes Using High Performance Liquid Chromatography/Electrospray Ionization/Mass Spectrometry
	1895	Perchlorate		
EPA 7196A			10162400	Chromium Hexavalent colorimetric
	1045	Chromium VI		
EPA 7470A			10165807	Mercury in Liquid Waste by Cold Vapor Atomic Absorption
	1095	Mercury		
EPA 8015B			10173601	Non-halogenated organics using GC/FID
	9369	Diesel range organics (DRO)		
	9499	Motor Oil		
EPA 8015C			10173805	Non-halogenated organics using GC/FID
	9369	Diesel range organics (DRO)		
	9499	Motor Oil		
EPA 8081A			10178606	Organochlorine Pesticides by GC/ECD
	7355	4,4'-DDD		
	7360	4,4'-DDE		
	7365	4,4'-DDT		
	7025	Aldrin		
	7110	alpha-BHC (alpha-Hexachlorocyclohexane)		
	7240	alpha-Chlordane		
	7115	beta-BHC (beta-Hexachlorocyclohexane)		
	7250	Chlordane (tech.)		
	7260	Chlorobenzilate		
	7105	delta-BHC		
	7405	Diallate		
	7470	Dieldrin		
	7510	Endosulfan I		
	7515	Endosulfan II		
	7520	Endosulfan sulfate		
	7540	Endrin		
	7530	Endrin aldehyde		
	7535	Endrin ketone		

Non-Potable Water

EPA 8081A	7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)		
	7245	gamma-Chlordane		
	7685	Heptachlor		
	7690	Heptachlor epoxide		
	7725	Isodrin		
	7810	Methoxychlor		
	8250	Toxaphene (Chlorinated camphene)		
EPA 8081B			10178800	Organochlorine Pesticides by GC/ECD
	7355	4,4'-DDD		
	7360	4,4'-DDE		
	7365	4,4'-DDT		
	7025	Aldrin		
	7110	alpha-BHC (alpha-Hexachlorocyclohexane)		
	7240	alpha-Chlordane		
	7115	beta-BHC (beta-Hexachlorocyclohexane)		
	7250	Chlordane (tech.)		
	7260	Chlorobenzilate		
	7105	delta-BHC		
	7405	Diallate		
	7470	Dieldrin		
	7510	Endosulfan I		
	7515	Endosulfan II		
	7520	Endosulfan sulfate		
	7540	Endrin		
	7530	Endrin aldehyde		
	7535	Endrin ketone		
	7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)		
	7245	gamma-Chlordane		
	7685	Heptachlor		
	7690	Heptachlor epoxide		
	7725	Isodrin		
	7810	Methoxychlor		
	8250	Toxaphene (Chlorinated camphene)		
EPA 8082			10179007	Polychlorinated Biphenyls (PCBs) by GC/ECD
	8880	Aroclor-1016 (PCB-1016)		
	8885	Aroclor-1221 (PCB-1221)		
	8890	Aroclor-1232 (PCB-1232)		
	8895	Aroclor-1242 (PCB-1242)		
	8900	Aroclor-1248 (PCB-1248)		
	8905	Aroclor-1254 (PCB-1254)		

Non-Potable Water

EPA 8082				
	8910	Aroclor-1260 (PCB-1260)		
	8912	Aroclor-1262 (PCB-1262)		
	8913	Aroclor-1268 (PCB-1268)		
EPA 8082A			10179201	Polychlorinated Biphenyls (PCBs) by GC/ECD
	8880	Aroclor-1016 (PCB-1016)		
	8885	Aroclor-1221 (PCB-1221)		
	8890	Aroclor-1232 (PCB-1232)		
	8895	Aroclor-1242 (PCB-1242)		
	8900	Aroclor-1248 (PCB-1248)		
	8905	Aroclor-1254 (PCB-1254)		
	8910	Aroclor-1260 (PCB-1260)		
	8912	Aroclor-1262 (PCB-1262)		
	8913	Aroclor-1268 (PCB-1268)		
EPA 8260B			10184802	Volatile Organic Compounds by purge and trap GC/MS
	5105	1,1,1,2-Tetrachloroethane		
	5160	1,1,1-Trichloroethane		
	5110	1,1,2,2-Tetrachloroethane		
	5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		
	5165	1,1,2-Trichloroethane		
	4630	1,1-Dichloroethane		
	4640	1,1-Dichloroethylene		
	4670	1,1-Dichloropropene		
	5150	1,2,3-Trichlorobenzene		
	5180	1,2,3-Trichloropropane		
	5155	1,2,4-Trichlorobenzene		
	5210	1,2,4-Trimethylbenzene		
	4585	1,2-Dibromoethane (EDB, Ethylene dibromide)		
	4610	1,2-Dichlorobenzene		
	4635	1,2-Dichloroethane (Ethylene dichloride)		
	4655	1,2-Dichloropropane		
	5215	1,3,5-Trimethylbenzene		
	4615	1,3-Dichlorobenzene		
	4660	1,3-Dichloropropane		
	4620	1,4-Dichlorobenzene		
	4735	1,4-Dioxane (1,4- Diethyleneoxide)		
	4510	1-Chlorohexane		
	4665	2,2-Dichloropropane		
	4410	2-Butanone (Methyl ethyl ketone, MEK)		
	4500	2-Chloroethyl vinyl ether		
	4535	2-Chlorotoluene		
	4860	2-Hexanone (MBK)		

Non-Potable Water	EPA 8260B	4540	4-Chlorotoluene
		4910	4-Isopropyltoluene (p-Cymene)
		4995	4-Methyl-2-pentanone (MIBK)
		4315	Acetone
		4325	Acrolein (Propenal)
		4340	Acrylonitrile
		4355	Allyl chloride (3-Chloropropene)
		4375	Benzene
		5635	Benzyl chloride
		4385	Bromobenzene
		4390	Bromochloromethane
		4395	Bromodichloromethane
		4400	Bromoform
		4450	Carbon disulfide
		4455	Carbon tetrachloride
		4475	Chlorobenzene
		4575	Chlorodibromomethane
		4485	Chloroethane (Ethyl chloride)
		4505	Chloroform
		4525	Chloroprene (2-Chloro-1,3-butadiene)
		4645	cis-1,2-Dichloroethylene
		4680	cis-1,3-Dichloropropene
		4580	Dibromochloropropane
		4595	Dibromomethane (Methylene bromide)
		4625	Dichlorodifluoromethane (Freon-12)
		9375	Di-isopropylether (DIPE)
		4810	Ethyl methacrylate
		4765	Ethylbenzene
		4770	Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)
		9408	Gasoline range organics (GRO)
		4835	Hexachlorobutadiene
		4870	Iodomethane (Methyl iodide)
		4875	Isobutyl alcohol (2-Methyl-1-propanol)
		4900	Isopropylbenzene (Cumene)
		5240	m+p-xylene
		4925	Methacrylonitrile
		4950	Methyl bromide (Bromomethane)
		4960	Methyl chloride (Chloromethane)
		4990	Methyl methacrylate
		5000	Methyl tert-butyl ether (MTBE)
		4975	Methylene chloride (Dichloromethane)
		5005	Naphthalene
		4425	n-Butyl alcohol (1-Butanol, n-Butanol)

Non-Potable Water

EPA 8260B	4435	n-Butylbenzene		
	4855	n-Hexane		
	5090	n-Propylbenzene		
	5250	o-Xylene		
	5080	Propionitrile (Ethyl cyanide)		
	4440	sec-Butylbenzene		
	5100	Styrene		
	4370	T-amylmethylether (TAME)		
	4420	tert-Butyl alcohol		
	4445	tert-Butylbenzene		
	5115	Tetrachloroethylene (Perchloroethylene)		
	5140	Toluene		
	4700	trans-1,2-Dichloroethylene		
	4685	trans-1,3-Dichloropropylene		
	4605	trans-1,4-Dichloro-2-butene		
	5170	Trichloroethene (Trichloroethylene)		
	5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)		
	5225	Vinyl acetate		
	5235	Vinyl chloride		
	5260	Xylene (total)		
EPA 8260C			10307003	Volatile Organics: GC/MS (capillary column)
	5105	1,1,1,2-Tetrachloroethane		
	5160	1,1,1-Trichloroethane		
	5110	1,1,2,2-Tetrachloroethane		
	5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		
	5165	1,1,2-Trichloroethane		
	4630	1,1-Dichloroethane		
	4640	1,1-Dichloroethylene		
	4670	1,1-Dichloropropene		
	5150	1,2,3-Trichlorobenzene		
	5180	1,2,3-Trichloropropane		
	5155	1,2,4-Trichlorobenzene		
	5210	1,2,4-Trimethylbenzene		
	4585	1,2-Dibromoethane (EDB, Ethylene dibromide)		
	4610	1,2-Dichlorobenzene		
	4635	1,2-Dichloroethane (Ethylene dichloride)		
	4655	1,2-Dichloropropane		
	5215	1,3,5-Trimethylbenzene		
	4615	1,3-Dichlorobenzene		
	4660	1,3-Dichloropropane		
	4620	1,4-Dichlorobenzene		

Non-Potable Water	EPA 8260C	4735	1,4-Dioxane (1,4- Diethyleneoxide)
		4510	1-Chlorohexane
		4665	2,2-Dichloropropane
		4410	2-Butanone (Methyl ethyl ketone, MEK)
		4500	2-Chloroethyl vinyl ether
		4535	2-Chlorotoluene
		4860	2-Hexanone (MBK)
		4540	4-Chlorotoluene
		4910	4-Isopropyltoluene (p-Cymene)
		4995	4-Methyl-2-pentanone (MIBK)
		4315	Acetone
		4325	Acrolein (Propenal)
		4340	Acrylonitrile
		4355	Allyl chloride (3-Chloropropene)
		4375	Benzene
		5635	Benzyl chloride
		4385	Bromobenzene
		4390	Bromochloromethane
		4395	Bromodichloromethane
		4400	Bromoform
		4450	Carbon disulfide
		4455	Carbon tetrachloride
		4475	Chlorobenzene
		4575	Chlorodibromomethane
		4485	Chloroethane (Ethyl chloride)
		4505	Chloroform
		4525	Chloroprene (2-Chloro-1,3-butadiene)
		4645	cis-1,2-Dichloroethylene
		4680	cis-1,3-Dichloropropene
		4580	Dibromochloropropane
		4595	Dibromomethane (Methylene bromide)
		4625	Dichlorodifluoromethane (Freon-12)
		9375	Di-isopropylether (DIPE)
		4810	Ethyl methacrylate
		4765	Ethylbenzene
		4770	Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)
		9408	Gasoline range organics (GRO)
		4835	Hexachlorobutadiene
		4870	Iodomethane (Methyl iodide)
		4875	Isobutyl alcohol (2-Methyl-1-propanol)
		4900	Isopropylbenzene (Cumene)
		5240	m+p-xylene
		4925	Methacrylonitrile

Non-Potable Water

EPA 8260C	4950	Methyl bromide (Bromomethane)	
	4960	Methyl chloride (Chloromethane)	
	4990	Methyl methacrylate	
	5000	Methyl tert-butyl ether (MTBE)	
	4975	Methylene chloride (Dichloromethane)	
	5005	Naphthalene	
	4425	n-Butyl alcohol (1-Butanol, n-Butanol)	
	4435	n-Butylbenzene	
	4855	n-Hexane	
	5090	n-Propylbenzene	
	5250	o-Xylene	
	5080	Propionitrile (Ethyl cyanide)	
	4440	sec-Butylbenzene	
	5100	Styrene	
	4370	T-amylmethylether (TAME)	
	4420	tert-Butyl alcohol	
	4445	tert-Butylbenzene	
	5115	Tetrachloroethylene (Perchloroethylene)	
	5140	Toluene	
	4700	trans-1,2-Dichloroethylene	
	4685	trans-1,3-Dichloropropylene	
	4605	trans-1,4-Dichloro-2-butene	
	5170	Trichloroethene (Trichloroethylene)	
	5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	
	5225	Vinyl acetate	
	5235	Vinyl chloride	
	5260	Xylene (total)	
EPA 8270C			10185805 Semivolatile Organic compounds by GC/MS
	6703	1,1'-Biphenyl (BZ-0)	
	6715	1,2,4,5-Tetrachlorobenzene	
	5155	1,2,4-Trichlorobenzene	
	4610	1,2-Dichlorobenzene	
	6885	1,3,5-Trinitrobenzene (1,3,5-TNB)	
	4615	1,3-Dichlorobenzene	
	6160	1,3-Dinitrobenzene (1,3-DNB)	
	4620	1,4-Dichlorobenzene	
	6165	1,4-Dinitrobenzene	
	6420	1,4-Naphthoquinone	
	6630	1,4-Phenylenediamine	
	5790	1-Chloronaphthalene	
	6380	1-Methylnaphthalene	
	6425	1-Naphthylamine	

Non-Potable Water	EPA 8270C	6735	2,3,4,6-Tetrachlorophenol
		6740	2,3,5,6-Tetrachlorophenol
		6835	2,4,5-Trichlorophenol
		6840	2,4,6-Trichlorophenol
		6000	2,4-Dichlorophenol
		6130	2,4-Dimethylphenol
		6175	2,4-Dinitrophenol
		6005	2,6-Dichlorophenol
		6190	2,6-Dinitrotoluene (2,6-DNT)
		5515	2-Acetylaminofluorene
		5795	2-Chloronaphthalene
		5800	2-Chlorophenol
		6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2 -methylphenol)
		5145	2-Methylaniline (o-Toluidine)
		6385	2-Methylnaphthalene
		6400	2-Methylphenol (o-Cresol)
		6430	2-Naphthylamine
		6460	2-Nitroaniline
		6490	2-Nitrophenol
		5050	2-Picoline (2-Methylpyridine)
		5945	3,3'-Dichlorobenzidine
		6120	3,3'-Dimethylbenzidine
		6355	3-Methylcholanthrene
		6405	3-Methylphenol (m-Cresol)
		6465	3-Nitroaniline
		5540	4-Aminobiphenyl
		5660	4-Bromophenyl phenyl ether (BDE-3)
		5700	4-Chloro-3-methylphenol
		5745	4-Chloroaniline
		5825	4-Chlorophenyl phenylether
		6105	4-Dimethyl aminoazobenzene
		6410	4-Methylphenol (p-Cresol)
		6470	4-Nitroaniline
		6500	4-Nitrophenol
		6510	4-Nitroquinoline 1-oxide
		6570	5-Nitro-o-toluidine
		6115	7,12-Dimethylbenz(a) anthracene
		6125	a-a-Dimethylphenethylamine
		5500	Acenaphthene
		5505	Acenaphthylene
		5510	Acetophenone
		5545	Aniline
		5555	Anthracene

Non-Potable Water	EPA 8270C	5560	Aramite
		5562	Azobenzene
		5570	Benzaldehyde
		5595	Benzidine
		5575	Benzo(a)anthracene
		5580	Benzo(a)pyrene
		5590	Benzo(g,h,i)perylene
		5600	Benzo(k)fluoranthene
		5585	Benzo[b]fluoranthene
		5610	Benzoic acid
		5630	Benzyl alcohol
		5760	bis(2-Chloroethoxy)methane
		5765	bis(2-Chloroethyl) ether
		5780	bis(2-Chloroisopropyl) ether
		5670	Butyl benzyl phthalate
		5680	Carbazole
		7260	Chlorobenzilate
		5855	Chrysene
		6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
		7405	Diallate
		5900	Dibenz(a, j) acridine
		5895	Dibenz(a,h) anthracene
		5905	Dibenzofuran
		6070	Diethyl phthalate
		7475	Dimethoate
		6135	Dimethyl phthalate
		5925	Di-n-butyl phthalate
		6200	Di-n-octyl phthalate
		8620	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)
		6205	Diphenylamine
		8625	Disulfoton
		6260	Ethyl methanesulfonate
		7580	Famphur
		6265	Fluoranthene
		6270	Fluorene
		6275	Hexachlorobenzene
		4835	Hexachlorobutadiene
		6285	Hexachlorocyclopentadiene
		4840	Hexachloroethane
		6295	Hexachloropropene
		6315	Indeno(1,2,3-cd) pyrene
		7725	Isodrin

Non-Potable Water	EPA 8270C	6320	Isophorone		
		6325	Isosafrole		
		7740	Kepone		
		6345	Methapyrilene		
		6375	Methyl methanesulfonate		
		7825	Methyl parathion (Parathion, methyl)		
		5005	Naphthalene		
		5015	Nitrobenzene		
		6525	n-Nitrosodiethylamine		
		6530	n-Nitrosodimethylamine		
		5025	n-Nitroso-di-n-butylamine		
		6545	n-Nitrosodi-n-propylamine		
		6535	n-Nitrosodiphenylamine		
		6550	n-Nitrosomethylethalamine		
		6555	n-Nitrosomorpholine		
		6560	n-Nitrosopiperidine		
		6565	n-Nitrosopyrrolidine		
		8290	o,o,o-Triethyl phosphorothioate		
		7955	Parathion, ethyl		
		6590	Pentachlorobenzene		
		5035	Pentachloroethane		
		6600	Pentachloronitrobenzene		
		6605	Pentachlorophenol		
		6610	Phenacetin		
		6615	Phenanthrene		
		6625	Phenol		
		7985	Phorate		
		6650	Pronamide (Kerb)		
		6665	Pyrene		
		5095	Pyridine		
		6685	Safrole		
		8155	Sulfotepp		
		8235	Thionazin (Zinophos)		
	EPA 8270C SIM			10242407	Semivolatile Organic compounds by GC/MS Selective Ion Monitoring
		4735	1,4-Dioxane (1,4- Diethyleneoxide)		
		6380	1-Methylnaphthalene		
		6185	2,4-Dinitrotoluene (2,4-DNT)		
		6385	2-Methylnaphthalene		
		5500	Acenaphthene		
		5505	Acenaphthylene		
		5555	Anthracene		
		5575	Benzo(a)anthracene		
		5580	Benzo(a)pyrene		

Non-Potable Water	EPA 8270C SIM	5590	Benzo(g,h,i)perylene		
		5600	Benzo(k)fluoranthene		
		5855	Chrysene		
		5895	Dibenz(a,h) anthracene		
		6265	Fluoranthene		
		6270	Fluorene		
		6315	Indeno(1,2,3-cd) pyrene		
		5005	Naphthalene		
		6615	Phenanthrene		
		6665	Pyrene		
	EPA 8270D			10186002	Semivolatile Organic compounds by GC/MS
		6703	1,1'-Biphenyl (BZ-0)		
		6715	1,2,4,5-Tetrachlorobenzene		
		5155	1,2,4-Trichlorobenzene		
		4610	1,2-Dichlorobenzene		
		6885	1,3,5-Trinitrobenzene (1,3,5-TNB)		
		4615	1,3-Dichlorobenzene		
		6160	1,3-Dinitrobenzene (1,3-DNB)		
		4620	1,4-Dichlorobenzene		
		6165	1,4-Dinitrobenzene		
		6420	1,4-Naphthoquinone		
		6630	1,4-Phenylenediamine		
		5790	1-Chloronaphthalene		
		6380	1-Methylnaphthalene		
		6425	1-Naphthylamine		
		6735	2,3,4,6-Tetrachlorophenol		
		6740	2,3,5,6-Tetrachlorophenol		
		6835	2,4,5-Trichlorophenol		
		6840	2,4,6-Trichlorophenol		
		6000	2,4-Dichlorophenol		
		6130	2,4-Dimethylphenol		
		6175	2,4-Dinitrophenol		
		6185	2,4-Dinitrotoluene (2,4-DNT)		
		6005	2,6-Dichlorophenol		
		6190	2,6-Dinitrotoluene (2,6-DNT)		
		5515	2-Acetylaminofluorene		
		5795	2-Chloronaphthalene		
		5800	2-Chlorophenol		
		6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)		
		5145	2-Methylaniline (o-Toluidine)		
		6385	2-Methylnaphthalene		
		6400	2-Methylphenol (o-Cresol)		

Non-Potable Water	EPA 8270D	6430	2-Naphthylamine
		6460	2-Nitroaniline
		6490	2-Nitrophenol
		5050	2-Picoline (2-Methylpyridine)
		5945	3,3'-Dichlorobenzidine
		6120	3,3'-Dimethylbenzidine
		6355	3-Methylcholanthrene
		6405	3-Methylphenol (m-Cresol)
		6465	3-Nitroaniline
		5540	4-Aminobiphenyl
		5660	4-Bromophenyl phenyl ether (BDE-3)
		5700	4-Chloro-3-methylphenol
		5745	4-Chloroaniline
		5825	4-Chlorophenyl phenylether
		6105	4-Dimethyl aminoazobenzene
		6410	4-Methylphenol (p-Cresol)
		6470	4-Nitroaniline
		6500	4-Nitrophenol
		6510	4-Nitroquinoline 1-oxide
		6570	5-Nitro-o-toluidine
		6115	7,12-Dimethylbenz(a) anthracene
		6125	a-a-Dimethylphenethylamine
		5500	Acenaphthene
		5505	Acenaphthylene
		5510	Acetophenone
		5545	Aniline
		5555	Anthracene
		5560	Aramite
		5562	Azobenzene
		5570	Benzaldehyde
		5595	Benzidine
		5575	Benzo(a)anthracene
		5580	Benzo(a)pyrene
		5590	Benzo(g,h,i)perylene
		5600	Benzo(k)fluoranthene
		5585	Benzo[b]fluoranthene
		5610	Benzoic acid
		5630	Benzyl alcohol
		5760	bis(2-Chloroethoxy)methane
		5765	bis(2-Chloroethyl) ether
		5780	bis(2-Chloroisopropyl) ether
		5670	Butyl benzyl phthalate
		5680	Carbazole

Non-Potable Water	EPA 8270D	7260	Chlorobenzilate
		5855	Chrysene
		6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
		7405	Diallate
		5900	Dibenz(a, j) acridine
		5895	Dibenz(a,h) anthracene
		5905	Dibenzofuran
		6070	Diethyl phthalate
		7475	Dimethoate
		6135	Dimethyl phthalate
		5925	Di-n-butyl phthalate
		6200	Di-n-octyl phthalate
		8620	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)
		6205	Diphenylamine
		8625	Disulfoton
		6260	Ethyl methanesulfonate
		7580	Famphur
		6265	Fluoranthene
		6270	Fluorene
		6275	Hexachlorobenzene
		4835	Hexachlorobutadiene
		6285	Hexachlorocyclopentadiene
		4840	Hexachloroethane
		6295	Hexachloropropene
		6315	Indeno(1,2,3-cd) pyrene
		7725	Isodrin
		6320	Isophorone
		6325	Isosafrole
		7740	Kepone
		6345	Methapyrilene
		6375	Methyl methanesulfonate
		7825	Methyl parathion (Parathion, methyl)
		5005	Naphthalene
		5015	Nitrobenzene
		6525	n-Nitrosodiethylamine
		6530	n-Nitrosodimethylamine
		5025	n-Nitroso-di-n-butylamine
		6545	n-Nitrosodi-n-propylamine
		6535	n-Nitrosodiphenylamine
		6550	n-Nitrosomethylethalamine
		6555	n-Nitrosomorpholine
		6560	n-Nitrosopiperidine

Non-Potable Water	EPA 8270D	6565	n-Nitrosopyrrolidine		
		8290	o,o,o-Triethyl phosphorothioate		
		7955	Parathion, ethyl		
		6590	Pentachlorobenzene		
		5035	Pentachloroethane		
		6600	Pentachloronitrobenzene		
		6605	Pentachlorophenol		
		6610	Phenacetin		
		6615	Phenanthrene		
		6625	Phenol		
		7985	Phorate		
		6650	Pronamide (Kerb)		
		6665	Pyrene		
		5095	Pyridine		
		6685	Safrole		
		8155	Sulfotepp		
		8235	Thionazin (Zinophos)		
	EPA 8270D SIM			10242509	Semivolatile Organic compounds by GC/MS Selective Ion Monitoring
		4735	1,4-Dioxane (1,4- Diethyleneoxide)		
		6380	1-Methylnaphthalene		
		6385	2-Methylnaphthalene		
		5500	Acenaphthene		
		5505	Acenaphthylene		
		5555	Anthracene		
		5575	Benzo(a)anthracene		
		5580	Benzo(a)pyrene		
		5590	Benzo(g,h,i)perylene		
		5600	Benzo(k)fluoranthene		
		5585	Benzo[b]fluoranthene		
		5855	Chrysene		
		5895	Dibenz(a,h) anthracene		
		6265	Fluoranthene		
		6270	Fluorene		
		6315	Indeno(1,2,3-cd) pyrene		
		5005	Naphthalene		
		6615	Phenanthrene		
		6665	Pyrene		
	EPA 8280A			10186808	Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS
		9516	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)		
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		

Non-Potable Water	EPA 8280A	9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)	
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-Hxcdd)	
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)	
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,6,7,8-Hxcdd)	
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)	
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-Hxcdd)	
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)	
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)	
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran	
		9549	2,3,4,7,8-Pentachlorodibenzofuran	
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)	
		9612	2,3,7,8-Tetrachlorodibenzofuran	
		9438	Hpcdd, total	
		9444	Hpcdf, total	
		9468	Hxcdd, total	
		9483	Hxcdf, total	
		9555	Pecdd, total	
		9552	Pecdf, total	
		9609	TCDD, total	
		9615	TCDF, total	
	EPA 8280B			10187005 Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS
		9516	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)	

Non-Potable Water	EPA 8280B	9453	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-Hxcdd)	
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)	
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,6,7,8-Hxcdd)	
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)	
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-Hxcdd)	
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)	
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)	
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran	
		9549	2,3,4,7,8-Pentachlorodibenzofuran	
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)	
		9612	2,3,7,8-Tetrachlorodibenzofuran	
		9438	Hpcdd, total	
		9444	Hpcdf, total	
		9468	Hxcdd, total	
		9483	Hxcdf, total	
		9555	Pecdd, total	
		9552	Pecdf, total	
		9609	TCDD, total	
		9615	TCDF, total	
	EPA 8290			10187209 Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS
		9516	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)	
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-Hxcdd)	
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)	
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,6,7,8-Hxcdd)	
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)	

Non-Potable Water

EPA 8290	9459	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-Hxcdd)		
	9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
	9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		
	9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
	9549	2,3,4,7,8-Pentachlorodibenzofuran		
	9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
	9612	2,3,7,8-Tetrachlorodibenzofuran		
	9438	Hpcdd, total		
	9444	Hpcdf, total		
	9468	Hxcdd, total		
	9483	Hxcdf, total		
	9555	Pecdd, total		
	9552	Pecdf, total		
	9609	TCDD, total		
	9615	TCDF, total		
EPA 8290A			10187403	Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS
	9516	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)		
	9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		
	9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		
	9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)		
	9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		
	9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
	9453	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-Hxcdd)		
	9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
	9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,6,7,8-Hxcdd)		
	9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
	9459	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-Hxcdd)		
	9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
	9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		
	9480	2,3,4,6,7,8-Hexachlorodibenzofuran		

Non-Potable Water

EPA 8290A	9549	2,3,4,7,8-Pentachlorodibenzofuran		
	9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
	9612	2,3,7,8-Tetrachlorodibenzofuran		
	9438	Hpcdd, total		
	9444	Hpcdf, total		
	9468	Hxcdd, total		
	9483	Hxcdf, total		
	9431	N-Ethylperfluorooctanesulfonamidoethanol (EtFOSE)		
	9434	N-Methylperfluorooctanesulfonamidoethanol (MeFOSA)		
	9555	Pecdd, total		
	9552	Pecdf, total		
	9609	TCDD, total		
	9615	TCDF, total		
EPA 8330A			10190008	Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)
	6885	1,3,5-Trinitrobenzene (1,3,5-TNB)		
	6160	1,3-Dinitrobenzene (1,3-DNB)		
	9651	2,4,6-Trinitrotoluene (2,4,6-TNT)		
	6185	2,4-Dinitrotoluene (2,4-DNT)		
	6190	2,6-Dinitrotoluene (2,6-DNT)		
	9303	2-Amino-4,6-dinitrotoluene (2-am-dnt)		
	9507	2-Nitrotoluene		
	9510	3-Nitrotoluene		
	9306	4-Amino-2,6-dinitrotoluene (4-am-dnt)		
	9513	4-Nitrotoluene		
	9418	Hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine (MNX)		
	6415	Methyl-2,4,6-trinitrophenylnitramine (tetryl)		
	5015	Nitrobenzene		
	6485	Nitroglycerin		
	9522	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)		
	9558	Pentaerythritoltetranitrate (PETN)		
	9432	RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)		
EPA 8330B			10308006	Nitroaromatics, Nitramines and Nitrate Esters by High Performance Liquid Chromatography (HPLC)
	6885	1,3,5-Trinitrobenzene (1,3,5-TNB)		
	6160	1,3-Dinitrobenzene (1,3-DNB)		

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4040

TestAmerica Sacramento

EPA CODE: CA00044

880 Riverside Parkway

Certificate: 4040 - 008

West Sacramento, CA 95605 Issue Date: 1/30/2017 Expiration Date: 1/29/2018

As of 1/30/2017 this list supercedes all previous lists for this certificate number.

Non-Potable Water

EPA 8330B	9651	2,4,6-Trinitrotoluene (2,4,6-TNT)		
	6185	2,4-Dinitrotoluene (2,4-DNT)		
	6190	2,6-Dinitrotoluene (2,6-DNT)		
	9303	2-Amino-4,6-dinitrotoluene (2-am-dnt)		
	9507	2-Nitrotoluene		
	6150	3,5-Dinitroaniline		
	9510	3-Nitrotoluene		
	9306	4-Amino-2,6-dinitrotoluene (4-am-dnt)		
	9513	4-Nitrotoluene		
	9416	Hexahydro-1,3-dinitroso-5-nitro-1,3,5-triazine (DNX)		
	9418	Hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine (MNX)		
	6415	Methyl-2,4,6-trinitrophenylnitramine (tetryl)		
	5015	Nitrobenzene		
	6485	Nitroglycerin		
	9522	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)		
	9558	Pentaerythritoltetranitrate (PETN)		
	1899	Picric Acid (2,4,6-Trinitrophenol)		
	9432	RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)		
EPA 9040B			10197203	pH Electrometric Measurement
	1900	pH		
EPA 9040C			10244403	pH Electrometric Measurement
	1900	pH		
EPA 9056			10199005	Determination of Inorganic Anions by Ion Chromatography
	1540	Bromide		
	1575	Chloride		
	1730	Fluoride		
	1805	Nitrate		
	1835	Nitrite		
	1870	Orthophosphate as P		
	2000	Sulfate		
SM 2320 B 21st ED			20045403	Alkalinity by Titration Method
	1505	Alkalinity as CaCO3		
SM 2340 B-97 online			20046600	Hardness by calculation
	1550	Calcium hardness as CaCO3		
SM 2540 B-97 online			20049405	Total Solids Dried at 103 - 105C
	1950	Residue-total		

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Non-Potable Water

SM 2540 C-97 online			20050402	Total Dissolved Solids Dried at 180C
	1955	Residue-filterable (TDS)		
SM 2540 D-97 online			20051201	Total Suspended Solids Dried at 103 - 105C
	1960	Residue-nonfilterable (TSS)		
SM 4500-H+ B-2000 online			20105219	pH Value by Electrometric Method .
	1900	pH		
SM 4500-NO_3^- F-97 online			20117606	Nitrate by Automated Cadmium Reduction Method
	1820	Nitrate-nitrite		
	1840	Nitrite as N		
WS-LC-0004 2.4			60055132	TestAmerica West Sacramento - Chemical Warfare Degradates in Water and Soil by HPLC/ESI/MS/MS
	6102	Diisopropylmethyl phosphonate		
	6104	Dimethyl methyl phosphonate		
	7508	Ethylmethylphosphonic acid		
	9481	Isopropylmethylphosphonic acid		
	7516	Methylphosphonic acid		
	9577	Thiodiglycol		
WS-LC-0010 3.4			60055154	TestAmerica West Sacramento - Nitroguanidine (EPA 8330)
	6462	2-Nitroguanidine		
WS-LC-0025 1.2			60055427	TestAmerica West Sacramento - Perfluorinated Compounds (PFCs) in Water, Soil, Sediments, and Tissue by LC/MS/MS
	6904	Perfluoroundecanoic acid (PFUDA)		
WS-MS-0010			60055483	Alkylphenol Compounds by GC/MS-SIM Internal Standard Technique
	6514	4-Octylphenol		
	9301	Bisphenol A		
	9529	Nonyl phenol		
	9589	Nonyl phenol diethoxylate		
	9592	Nonyl phenol monoethoxylate		
WS-MS-0011 2014			60055529	TestAmerica West Sacramento - 1,4-Dioxane by GC/MS SIM
	4735	1,4-Dioxane (1,4- Diethyleneoxide)		
WS-MS-0012 2014			60055530	TestAmerica West Sacramento - Nitrosamines by GC/MS/MS with LVI
	6525	n-Nitrosodiethylamine		
	6530	n-Nitrosodimethylamine		
	5025	n-Nitroso-di-n-butylamine		
	6545	n-Nitrosodi-n-propylamine		
	6535	n-Nitrosodiphenylamine		
	6550	n-Nitrosomethylethalamine		

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Non-Potable Water	WS-MS-0012 2014				
		6555	n-Nitrosomorpholine		
		6520	n-Nitroso-n-methylurea		
		6560	n-Nitrosopiperidine		
		6565	n-Nitrosopyrrolidine		
	WS-WC-0050 3.8			60055472	TestAmerica West Sacramento - Nitrocellulose in Aqueous and Soil/Sediment Samples by Colorimetric Autoanalyzer
		6484	Nitrocellulose		
Solids					
	EPA 1311			10118806	Toxicity Characteristic Leaching Procedure
		8031	Extraction/Preparation		
	EPA 1312			10119003	Synthetic Precipitation Leaching Procedure
		8031	Extraction/Preparation		
	EPA 1613B			10120602	Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS
		9516	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)		
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)		
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-Hxcdd)		
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,6,7,8-Hxcdd)		
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-Hxcdd)		
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
		9549	2,3,4,7,8-Pentachlorodibenzofuran		
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		

Solids	EPA 1613B	9612	2,3,7,8-Tetrachlorodibenzofuran		
		9438	Hpcdd, total		
		9444	Hpcdf, total		
		9468	Hxcdd, total		
		9483	Hxcdf, total		
		9555	Pecdd, total		
		9552	Pecdf, total		
		9609	TCDD, total		
		9615	TCDF, total		
	EPA 1668A			10129405	Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS
		9095	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ-206)		
		9090	2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ-194)		
		9101	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl (BZ-207)		
		9103	2,2',3,3',4,4',5,6-Octachlorobiphenyl (BZ-195)		
		9102	2,2',3,3',4,4',5,6'-Octachlorobiphenyl (BZ-196)		
		9065	2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ-170)		
		9104	2,2',3,3',4,4',6,6'-Octachlorobiphenyl (BZ-197)		
		9106	2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ-171)		
		9020	2,2',3,3',4,4'-Hexachlorobiphenyl (BZ-128)		
		9107	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl (BZ-208)		
		9109	2,2',3,3',4,5,5',6-Octachlorobiphenyl (BZ-198)		
		9108	2,2',3,3',4,5,5',6'-Octachlorobiphenyl (BZ-199)		
		9110	2,2',3,3',4,5,5'-Heptachlorobiphenyl (BZ-172)		
		9111	2,2',3,3',4,5,6,6'-Octachlorobiphenyl (BZ-200)		
		9112	2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ-201)		
		9113	2,2',3,3',4,5,6-Heptachlorobiphenyl (BZ-173)		
		9116	2,2',3,3',4,5,6'-Heptachlorobiphenyl (BZ-174)		
		9115	2,2',3,3',4,5',6-Heptachlorobiphenyl (BZ-175)		
		9114	2,2',3,3',4,5',6'-Heptachlorobiphenyl (BZ-177)		

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Solids	EPA 1668A	9118	2,2',3,3',4,5-Hexachlorobiphenyl (BZ-129)
		9117	2,2',3,3',4,5'-Hexachlorobiphenyl (BZ-130)
		9119	2,2',3,3',4,6,6'-Heptachlorobiphenyl (BZ-176)
		9121	2,2',3,3',4,6-Hexachlorobiphenyl (BZ-131)
		9120	2,2',3,3',4,6'-Hexachlorobiphenyl (BZ-132)
		9122	2,2',3,3',4-Pentachlorobiphenyl (BZ-82)
		9123	2,2',3,3',5,5',6,6'-Octachlorobiphenyl (BZ-202)
		9124	2,2',3,3',5,5',6-Heptachlorobiphenyl (BZ-178)
		9125	2,2',3,3',5,5'-Hexachlorobiphenyl (BZ-133)
		9126	2,2',3,3',5,6,6'-Heptachlorobiphenyl (BZ-179)
		9128	2,2',3,3',5,6-Hexachlorobiphenyl (BZ-134)
		9127	2,2',3,3',5,6'-Hexachlorobiphenyl (BZ-135)
		9129	2,2',3,3',5-Pentachlorobiphenyl (BZ-83)
		9130	2,2',3,3',6,6'-Hexachlorobiphenyl (BZ-136)
		9131	2,2',3,3',6-Pentachlorobiphenyl (BZ-84)
		9132	2,2',3,3'-Tetrachlorobiphenyl (BZ-40)
		9133	2,2',3,4,4',5,5',6-Octachlorobiphenyl (BZ-203)
		9134	2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ-180)
		9135	2,2',3,4,4',5,6,6'-Octachlorobiphenyl (BZ-204)
		9137	2,2',3,4,4',5,6-Heptachlorobiphenyl (BZ-181)
		9136	2,2',3,4,4',5,6'-Heptachlorobiphenyl (BZ-182)
		9075	2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ-183)
		9138	2,2',3,4,4',5-Hexachlorobiphenyl (BZ-137)
		9025	2,2',3,4,4',5'-Hexachlorobiphenyl (BZ-138)
		9139	2,2',3,4,4',6,6'-Heptachlorobiphenyl (BZ-184)
		9141	2,2',3,4,4',6-Hexachlorobiphenyl (BZ-139)
		9140	2,2',3,4,4',6'-Hexachlorobiphenyl (BZ-140)

Solids	EPA 1668A	9142	2,2',3,4,4'-Pentachlorobiphenyl (BZ-85)
		9143	2,2',3,4,5,5',6-Heptachlorobiphenyl (BZ-185)
		9080	2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ-187)
		9030	2,2',3,4,5,5'-Hexachlorobiphenyl (BZ-141)
		9144	2,2',3,4',5,5'-Hexachlorobiphenyl (BZ-146)
		9145	2,2',3,4,5,6,6'-Heptachlorobiphenyl (BZ-186)
		9146	2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ-188)
		9148	2,2',3,4,5,6-Hexachlorobiphenyl (BZ-142)
		9152	2,2',3,4,5,6'-Hexachlorobiphenyl (BZ-143)
		9150	2,2',3,4,5',6-Hexachlorobiphenyl (BZ-144)
		9149	2,2',3,4',5,6-Hexachlorobiphenyl (BZ-147)
		9147	2,2',3,4',5,6'-Hexachlorobiphenyl (BZ-148)
		9151	2,2',3,4',5',6-Hexachlorobiphenyl (BZ-149)
		9153	2,2',3,4,5-Pentachlorobiphenyl (BZ-86)
		8975	2,2',3,4,5'-Pentachlorobiphenyl (BZ-87)
		9155	2,2',3,4',5-Pentachlorobiphenyl (BZ-90)
		9154	2,2',3,4',5'-Pentachlorobiphenyl (BZ-97)
		9156	2,2',3,4,6,6'-Hexachlorobiphenyl (BZ-145)
		9157	2,2',3,4',6,6'-Hexachlorobiphenyl (BZ-150)
		9158	2,2',3,4,6-Pentachlorobiphenyl (BZ-88)
		9161	2,2',3,4,6'-Pentachlorobiphenyl (BZ-89)
		9160	2,2',3,4',6-Pentachlorobiphenyl (BZ-91)
		9159	2,2',3,4',6'-Pentachlorobiphenyl (BZ-98)
		9163	2,2',3,4-Tetrachlorobiphenyl (BZ-41)
		9162	2,2',3,4'-Tetrachlorobiphenyl (BZ-42)
		9035	2,2',3,5,5',6-Hexachlorobiphenyl (BZ-151)
		9164	2,2',3,5,5'-Pentachlorobiphenyl (BZ-92)
		9165	2,2',3,5,6,6'-Hexachlorobiphenyl (BZ-152)
		9168	2,2',3,5,6-Pentachlorobiphenyl (BZ-93)
		9167	2,2',3,5,6'-Pentachlorobiphenyl (BZ-94)
		9166	2,2',3,5',6-Pentachlorobiphenyl (BZ-95)

Solids	EPA 1668A	9169	2,2',3,5-Tetrachlorobiphenyl (BZ-43)
		8945	2,2',3,5'-Tetrachlorobiphenyl (BZ-44)
		9170	2,2',3,6,6'-Pentachlorobiphenyl (BZ-96)
		9172	2,2',3,6-Tetrachlorobiphenyl (BZ-45)
		9171	2,2',3,6'-Tetrachlorobiphenyl (BZ-46)
		9173	2,2',3-Trichlorobiphenyl (BZ-16)
		9040	2,2',4,4',5,5'-Hexachlorobiphenyl (BZ-153)
		9174	2,2',4,4',5,6'-Hexachlorobiphenyl (BZ-154)
		9175	2,2',4,4',5-Pentachlorobiphenyl (BZ-99)
		9176	2,2',4,4',6,6'-Hexachlorobiphenyl (BZ-155)
		9177	2,2',4,4',6-Pentachlorobiphenyl (BZ-100)
		9178	2,2',4,4'-Tetrachlorobiphenyl (BZ-47)
		8980	2,2',4,5,5'-Pentachlorobiphenyl (BZ-101)
		9180	2,2',4,5,6'-Pentachlorobiphenyl (BZ-102)
		9179	2,2',4,5',6-Pentachlorobiphenyl (BZ-103)
		9181	2,2',4,5-Tetrachlorobiphenyl (BZ-48)
		8950	2,2',4,5'-Tetrachlorobiphenyl (BZ-49)
		9182	2,2',4,6,6'-Pentachlorobiphenyl (BZ-104)
		9184	2,2',4,6-Tetrachlorobiphenyl (BZ-50)
		9183	2,2',4,6'-Tetrachlorobiphenyl (BZ-51)
		9185	2,2',4-Trichlorobiphenyl (BZ-17)
		8955	2,2',5,5'-Tetrachlorobiphenyl (BZ-52)
		9186	2,2',5,6'-Tetrachlorobiphenyl (BZ-53)
		8930	2,2',5-Trichlorobiphenyl (BZ-18)
		9187	2,2',6,6'-Tetrachlorobiphenyl (BZ-54)
		9188	2,2',6-Trichlorobiphenyl (BZ-19)
		9189	2,2'-Dichlorobiphenyl (BZ-4)
		9190	2,3,3',4,4',5,5',6-Octachlorobiphenyl (BZ-205)
		9085	2,3,3',4,4',5,5'-Heptachlorobiphenyl (BZ-189)
		9191	2,3,3',4,4',5,6-Heptachlorobiphenyl (BZ-190)
		9192	2,3,3',4,4',5',6-Heptachlorobiphenyl (BZ-191)
		9050	2,3,3',4,4',5-Hexachlorobiphenyl (BZ-156)
		9045	2,3,3',4,4',5'-Hexachlorobiphenyl (BZ-157)

Solids	EPA 1668A	9193	2,3,3',4,4',6-Hexachlorobiphenyl (BZ-158)
		8985	2,3,3',4,4'-Pentachlorobiphenyl (BZ-105)
		9194	2,3,3',4,5,5',6-Heptachlorobiphenyl (BZ-192)
		9195	2,3,3',4',5,5',6-Heptachlorobiphenyl (BZ-193)
		9196	2,3,3',4,5,5'-Hexachlorobiphenyl (BZ-159)
		9197	2,3,3',4',5,5'-Hexachlorobiphenyl (BZ-162)
		9198	2,3,3',4,5,6-Hexachlorobiphenyl (BZ-160)
		9199	2,3,3',4',5,6-Hexachlorobiphenyl (BZ-163)
		9201	2,3,3',4',5',6-Hexachlorobiphenyl (BZ-164)
		9200	2,3,3',4,5',6-Hexachlorobiphenyl (BZ-161)
		9204	2,3,3',4,5-Pentachlorobiphenyl (BZ-106)
		9205	2,3,3',4',5-Pentachlorobiphenyl (BZ-107)
		9203	2,3,3',4,5'-Pentachlorobiphenyl (BZ-108)
		9202	2,3,3',4',5'-Pentachlorobiphenyl (BZ-122)
		9206	2,3,3',4,6-Pentachlorobiphenyl (BZ-109)
		8990	2,3,3',4',6-Pentachlorobiphenyl (BZ-110)
		9208	2,3,3',4-Tetrachlorobiphenyl (BZ-55)
		9207	2,3,3',4'-Tetrachlorobiphenyl (BZ-56)
		9209	2,3,3',5,5',6-Hexachlorobiphenyl (BZ-165)
		9210	2,3,3',5,5'-Pentachlorobiphenyl (BZ-111)
		9211	2,3,3',5,6-Pentachlorobiphenyl (BZ-112)
		9212	2,3,3',5',6-Pentachlorobiphenyl (BZ-113)
		9214	2,3,3',5-Tetrachlorobiphenyl (BZ-57)
		9213	2,3,3',5'-Tetrachlorobiphenyl (BZ-58)
		9215	2,3,3',6-Tetrachlorobiphenyl (BZ-59)
		9216	2,3,3'-Trichlorobiphenyl (BZ-20)
		9055	2,3',4,4',5,5'-Hexachlorobiphenyl (BZ-167)
		9217	2,3,4,4',5,6-Hexachlorobiphenyl (BZ-166)

Solids	EPA 1668A	9218	2,3',4,4',5',6-Hexachlorobiphenyl (BZ-168)
		9005	2,3,4,4',5-Pentachlorobiphenyl (BZ-114)
		8995	2,3',4,4',5-Pentachlorobiphenyl (BZ-118)
		9011	2,3',4,4',5'-Pentachlorobiphenyl (BZ-123)
		9219	2,3,4,4',6-Pentachlorobiphenyl (BZ-115)
		9220	2,3',4,4',6-Pentachlorobiphenyl (BZ-119)
		9221	2,3,4,4'-Tetrachlorobiphenyl (BZ-60)
		8960	2,3',4,4'-Tetrachlorobiphenyl (BZ-66)
		9223	2,3',4,5,5'-Pentachlorobiphenyl (BZ-120)
		9222	2,3',4',5,5'-Pentachlorobiphenyl (BZ-124)
		9225	2,3,4,5,6-Pentachlorobiphenyl (BZ-116)
		9227	2,3,4',5,6-Pentachlorobiphenyl (BZ-117)
		9226	2,3',4,5',6-Pentachlorobiphenyl (BZ-121)
		9224	2,3',4',5',6-Pentachlorobiphenyl (BZ-125)
		9228	2,3,4,5-Tetrachlorobiphenyl (BZ-61)
		9233	2,3,4',5-Tetrachlorobiphenyl (BZ-63)
		9231	2,3',4,5'-Tetrachlorobiphenyl (BZ-68)
		9230	2,3',4',5-Tetrachlorobiphenyl (BZ-70)
		9229	2,3',4',5'-Tetrachlorobiphenyl (BZ-76)
		9232	2,3',4,5-Tetrachlorobiphenyl (BZ-67)
		9234	2,3,4,6-Tetrachlorobiphenyl (BZ-62)
		9236	2,3,4',6-Tetrachlorobiphenyl (BZ-64)
		9235	2,3',4,6-Tetrachlorobiphenyl (BZ-69)
		9237	2,3',4',6-Tetrachlorobiphenyl (BZ-71)
		9238	2,3,4-Trichlorobiphenyl (BZ-21)
		9241	2,3,4'-Trichlorobiphenyl (BZ-22)
		9240	2,3',4-Trichlorobiphenyl (BZ-25)
		9239	2,3',4'-Trichlorobiphenyl (BZ-33)
		9242	2,3',5,5'-Tetrachlorobiphenyl (BZ-72)
		9243	2,3,5,6-Tetrachlorobiphenyl (BZ-65)
		9244	2,3',5',6-Tetrachlorobiphenyl (BZ-73)
		9245	2,3,5-Trichlorobiphenyl (BZ-23)
		8935	2,3',5-Trichlorobiphenyl (BZ-26)
		9246	2,3',5'-Trichlorobiphenyl (BZ-34)
		9247	2,3,6-Trichlorobiphenyl (BZ-24)

Solids	EPA 1668A	9248	2,3',6-Trichlorobiphenyl (BZ-27)
		8920	2,3-Dichlorobiphenyl (BZ-5)
		9249	2,3'-Dichlorobiphenyl (BZ-6)
		9250	2,4,4',5-Tetrachlorobiphenyl (BZ-74)
		9251	2,4,4',6-Tetrachlorobiphenyl (BZ-75)
		9252	2,4,4'-Trichlorobiphenyl (BZ-28)
		9253	2,4,5-Trichlorobiphenyl (BZ-29)
		8940	2,4',5-Trichlorobiphenyl (BZ-31)
		9254	2,4,6-Trichlorobiphenyl (BZ-30)
		9255	2,4',6-Trichlorobiphenyl (BZ-32)
		9257	2,4-Dichlorobiphenyl (BZ-7)
		9256	2,4'-Dichlorobiphenyl (BZ-8)
		9258	2,5-Dichlorobiphenyl (BZ-9)
		9259	2,6-Dichlorobiphenyl (BZ-10)
		8915	2-Chlorobiphenyl (BZ-1)
		9060	3,3',4,4',5,5'-Hexachlorobiphenyl (BZ-169)
		9015	3,3',4,4',5-Pentachlorobiphenyl (BZ-126)
		8965	3,3',4,4'-Tetrachlorobiphenyl (BZ-77)
		9260	3,3',4,5,5'-Pentachlorobiphenyl (BZ-127)
		9262	3,3',4,5-Tetrachlorobiphenyl (BZ-78)
		9261	3,3',4,5'-Tetrachlorobiphenyl (BZ-79)
		9263	3,3',4-Trichlorobiphenyl (BZ-35)
		9264	3,3',5,5'-Tetrachlorobiphenyl (BZ-80)
		9265	3,3',5-Trichlorobiphenyl (BZ-36)
		8925	3,3'-Dichlorobiphenyl (BZ-11)
		8970	3,4,4',5-Tetrachlorobiphenyl (BZ-81)
		9266	3,4,4'-Trichlorobiphenyl (BZ-37)
		9267	3,4,5-Trichlorobiphenyl (BZ-38)
		9268	3,4',5-Trichlorobiphenyl (BZ-39)
		9270	3,4-Dichlorobiphenyl (BZ-12)
		9269	3,4'-Dichlorobiphenyl (BZ-13)
		9271	3,5-Dichlorobiphenyl (BZ-14)
		9272	3-Chlorobiphenyl (BZ-2)
		9273	4,4'-Dichlorobiphenyl (BZ-15)
		9274	4-Chlorobiphenyl (BZ-3)
		9105	Decachlorobiphenyl (BZ-209)
		8876	Total Dichlorobiphenyls
		8877	Total Heptachlorobiphenyls
		8888	Total Hexachlorobiphenyls
		8889	Total Monochlorobiphenyls
		8891	Total Nonachlorobiphenyls

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4040

TestAmerica Sacramento

EPA CODE: CA00044

880 Riverside Parkway

Certificate: 4040 - 008

West Sacramento, CA 95605 Issue Date: 1/30/2017 Expiration Date: 1/29/2018

As of 1/30/2017 this list supercedes all previous lists for this certificate number.

Solids	EPA 1668A	8892	Total Octachlorobiphenyls		
		8896	Total Pentachlorobiphenyls		
		8893	Total Tetrachlorobiphenyls		
		8894	Total Trichlorobiphenyls		
	EPA 1668C			10262109	Chlorinated Biphenyl Cogeners in Water, Soil, Sediment, and Tissue by GC-HRMS
		9095	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ-206)		
		9090	2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ-194)		
		9101	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl (BZ-207)		
		9103	2,2',3,3',4,4',5,6-Octachlorobiphenyl (BZ-195)		
		9102	2,2',3,3',4,4',5,6'-Octachlorobiphenyl (BZ-196)		
		9065	2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ-170)		
		9104	2,2',3,3',4,4',6,6'-Octachlorobiphenyl (BZ-197)		
		9106	2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ-171)		
		9020	2,2',3,3',4,4'-Hexachlorobiphenyl (BZ-128)		
		9107	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl (BZ-208)		
		9109	2,2',3,3',4,5,5',6-Octachlorobiphenyl (BZ-198)		
		9108	2,2',3,3',4,5,5',6'-Octachlorobiphenyl (BZ-199)		
		9110	2,2',3,3',4,5,5'-Heptachlorobiphenyl (BZ-172)		
		9111	2,2',3,3',4,5,6,6'-Octachlorobiphenyl (BZ-200)		
		9112	2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ-201)		
		9113	2,2',3,3',4,5,6-Heptachlorobiphenyl (BZ-173)		
		9116	2,2',3,3',4,5,6'-Heptachlorobiphenyl (BZ-174)		
		9115	2,2',3,3',4,5',6-Heptachlorobiphenyl (BZ-175)		
		9114	2,2',3,3',4,5',6'-Heptachlorobiphenyl (BZ-177)		
		9118	2,2',3,3',4,5-Hexachlorobiphenyl (BZ-129)		
		9117	2,2',3,3',4,5'-Hexachlorobiphenyl (BZ-130)		
		9119	2,2',3,3',4,6,6'-Heptachlorobiphenyl (BZ-176)		

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4040

TestAmerica Sacramento

EPA CODE: CA00044

880 Riverside Parkway

Certificate: 4040 - 008

West Sacramento, CA 95605 Issue Date: 1/30/2017 Expiration Date: 1/29/2018

As of 1/30/2017 this list supercedes all previous lists for this certificate number.

Solids	EPA 1668C	9121	2,2',3,3',4,6-Hexachlorobiphenyl (BZ-131)
		9120	2,2',3,3',4,6'-Hexachlorobiphenyl (BZ-132)
		9122	2,2',3,3',4-Pentachlorobiphenyl (BZ-82)
		9123	2,2',3,3',5,5',6,6'-Octachlorobiphenyl (BZ-202)
		9124	2,2',3,3',5,5',6-Heptachlorobiphenyl (BZ-178)
		9125	2,2',3,3',5,5'-Hexachlorobiphenyl (BZ-133)
		9126	2,2',3,3',5,6,6'-Heptachlorobiphenyl (BZ-179)
		9128	2,2',3,3',5,6-Hexachlorobiphenyl (BZ-134)
		9127	2,2',3,3',5,6'-Hexachlorobiphenyl (BZ-135)
		9129	2,2',3,3',5-Pentachlorobiphenyl (BZ-83)
		9130	2,2',3,3',6,6'-Hexachlorobiphenyl (BZ-136)
		9131	2,2',3,3',6-Pentachlorobiphenyl (BZ-84)
		9132	2,2',3,3'-Tetrachlorobiphenyl (BZ-40)
		9133	2,2',3,4,4',5,5',6-Octachlorobiphenyl (BZ-203)
		9134	2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ-180)
		9135	2,2',3,4,4',5,6,6'-Octachlorobiphenyl (BZ-204)
		9137	2,2',3,4,4',5,6-Heptachlorobiphenyl (BZ-181)
		9136	2,2',3,4,4',5,6'-Heptachlorobiphenyl (BZ-182)
		9075	2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ-183)
		9138	2,2',3,4,4',5-Hexachlorobiphenyl (BZ-137)
		9025	2,2',3,4,4',5'-Hexachlorobiphenyl (BZ-138)
		9139	2,2',3,4,4',6,6'-Heptachlorobiphenyl (BZ-184)
		9141	2,2',3,4,4',6-Hexachlorobiphenyl (BZ-139)
		9140	2,2',3,4,4',6'-Hexachlorobiphenyl (BZ-140)
		9142	2,2',3,4,4'-Pentachlorobiphenyl (BZ-85)
		9143	2,2',3,4,5,5',6-Heptachlorobiphenyl (BZ-185)
		9080	2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ-187)

Solids	EPA 1668C	9030	2,2',3,4,5,5'-Hexachlorobiphenyl (BZ-141)
		9144	2,2',3,4',5,5'-Hexachlorobiphenyl (BZ-146)
		9145	2,2',3,4,5,6,6'-Heptachlorobiphenyl (BZ-186)
		9146	2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ-188)
		9148	2,2',3,4,5,6-Hexachlorobiphenyl (BZ-142)
		9152	2,2',3,4,5,6'-Hexachlorobiphenyl (BZ-143)
		9150	2,2',3,4,5',6-Hexachlorobiphenyl (BZ-144)
		9149	2,2',3,4',5,6-Hexachlorobiphenyl (BZ-147)
		9147	2,2',3,4',5,6'-Hexachlorobiphenyl (BZ-148)
		9151	2,2',3,4',5',6-Hexachlorobiphenyl (BZ-149)
		9153	2,2',3,4,5-Pentachlorobiphenyl (BZ-86)
		8975	2,2',3,4,5'-Pentachlorobiphenyl (BZ-87)
		9155	2,2',3,4',5-Pentachlorobiphenyl (BZ-90)
		9154	2,2',3,4',5'-Pentachlorobiphenyl (BZ-97)
		9156	2,2',3,4,6,6'-Hexachlorobiphenyl (BZ-145)
		9157	2,2',3,4',6,6'-Hexachlorobiphenyl (BZ-150)
		9158	2,2',3,4,6-Pentachlorobiphenyl (BZ-88)
		9161	2,2',3,4,6'-Pentachlorobiphenyl (BZ-89)
		9160	2,2',3,4',6-Pentachlorobiphenyl (BZ-91)
		9159	2,2',3,4',6'-Pentachlorobiphenyl (BZ-98)
		9163	2,2',3,4-Tetrachlorobiphenyl (BZ-41)
		9162	2,2',3,4'-Tetrachlorobiphenyl (BZ-42)
		9035	2,2',3,5,5',6-Hexachlorobiphenyl (BZ-151)
		9164	2,2',3,5,5'-Pentachlorobiphenyl (BZ-92)
		9165	2,2',3,5,6,6'-Hexachlorobiphenyl (BZ-152)
		9168	2,2',3,5,6-Pentachlorobiphenyl (BZ-93)
		9167	2,2',3,5,6'-Pentachlorobiphenyl (BZ-94)
		9166	2,2',3,5',6-Pentachlorobiphenyl (BZ-95)
		9169	2,2',3,5-Tetrachlorobiphenyl (BZ-43)
		8945	2,2',3,5'-Tetrachlorobiphenyl (BZ-44)
		9170	2,2',3,6,6'-Pentachlorobiphenyl (BZ-96)
		9172	2,2',3,6-Tetrachlorobiphenyl (BZ-45)

Solids	EPA 1668C	9171	2,2',3,6'-Tetrachlorobiphenyl (BZ-46)
		9173	2,2',3-Trichlorobiphenyl (BZ-16)
		9040	2,2',4,4',5,5'-Hexachlorobiphenyl (BZ-153)
		9174	2,2',4,4',5,6'-Hexachlorobiphenyl (BZ-154)
		9175	2,2',4,4',5-Pentachlorobiphenyl (BZ-99)
		9176	2,2',4,4',6,6'-Hexachlorobiphenyl (BZ-155)
		9177	2,2',4,4',6-Pentachlorobiphenyl (BZ-100)
		9178	2,2',4,4'-Tetrachlorobiphenyl (BZ-47)
		8980	2,2',4,5,5'-Pentachlorobiphenyl (BZ-101)
		9180	2,2',4,5,6'-Pentachlorobiphenyl (BZ-102)
		9179	2,2',4,5',6-Pentachlorobiphenyl (BZ-103)
		9181	2,2',4,5-Tetrachlorobiphenyl (BZ-48)
		8950	2,2',4,5'-Tetrachlorobiphenyl (BZ-49)
		9182	2,2',4,6,6'-Pentachlorobiphenyl (BZ-104)
		9184	2,2',4,6-Tetrachlorobiphenyl (BZ-50)
		9183	2,2',4,6'-Tetrachlorobiphenyl (BZ-51)
		9185	2,2',4-Trichlorobiphenyl (BZ-17)
		8955	2,2',5,5'-Tetrachlorobiphenyl (BZ-52)
		9186	2,2',5,6'-Tetrachlorobiphenyl (BZ-53)
		8930	2,2',5-Trichlorobiphenyl (BZ-18)
		9187	2,2',6,6'-Tetrachlorobiphenyl (BZ-54)
		9188	2,2',6-Trichlorobiphenyl (BZ-19)
		9189	2,2'-Dichlorobiphenyl (BZ-4)
		9190	2,3,3',4,4',5,5',6-Octachlorobiphenyl (BZ-205)
		9085	2,3,3',4,4',5,5'-Heptachlorobiphenyl (BZ-189)
		9191	2,3,3',4,4',5,6-Heptachlorobiphenyl (BZ-190)
		9192	2,3,3',4,4',5',6-Heptachlorobiphenyl (BZ-191)
		9050	2,3,3',4,4',5-Hexachlorobiphenyl (BZ-156)
		9045	2,3,3',4,4',5'-Hexachlorobiphenyl (BZ-157)
		9193	2,3,3',4,4',6-Hexachlorobiphenyl (BZ-158)
		8985	2,3,3',4,4'-Pentachlorobiphenyl (BZ-105)
		9194	2,3,3',4,5,5',6-Heptachlorobiphenyl (BZ-192)

Solids	EPA 1668C	9195	2,3,3',4',5,5',6-Heptachlorobiphenyl (BZ-193)
		9196	2,3,3',4,5,5'-Hexachlorobiphenyl (BZ-159)
		9197	2,3,3',4',5,5'-Hexachlorobiphenyl (BZ-162)
		9198	2,3,3',4,5,6-Hexachlorobiphenyl (BZ-160)
		9199	2,3,3',4',5,6-Hexachlorobiphenyl (BZ-163)
		9201	2,3,3',4',5',6-Hexachlorobiphenyl (BZ-164)
		9200	2,3,3',4,5',6-Hexachlorobiphenyl (BZ-161)
		9204	2,3,3',4,5-Pentachlorobiphenyl (BZ-106)
		9205	2,3,3',4',5-Pentachlorobiphenyl (BZ-107)
		9203	2,3,3',4,5'-Pentachlorobiphenyl (BZ-108)
		9202	2,3,3',4',5'-Pentachlorobiphenyl (BZ-122)
		9206	2,3,3',4,6-Pentachlorobiphenyl (BZ-109)
		8990	2,3,3',4',6-Pentachlorobiphenyl (BZ-110)
		9208	2,3,3',4-Tetrachlorobiphenyl (BZ-55)
		9207	2,3,3',4'-Tetrachlorobiphenyl (BZ-56)
		9209	2,3,3',5,5',6-Hexachlorobiphenyl (BZ-165)
		9210	2,3,3',5,5'-Pentachlorobiphenyl (BZ-111)
		9211	2,3,3',5,6-Pentachlorobiphenyl (BZ-112)
		9212	2,3,3',5',6-Pentachlorobiphenyl (BZ-113)
		9214	2,3,3',5-Tetrachlorobiphenyl (BZ-57)
		9213	2,3,3',5'-Tetrachlorobiphenyl (BZ-58)
		9215	2,3,3',6-Tetrachlorobiphenyl (BZ-59)
		9216	2,3,3'-Trichlorobiphenyl (BZ-20)
		9055	2,3',4,4',5,5'-Hexachlorobiphenyl (BZ-167)
		9217	2,3,4,4',5,6-Hexachlorobiphenyl (BZ-166)
		9218	2,3',4,4',5',6-Hexachlorobiphenyl (BZ-168)
		9005	2,3,4,4',5-Pentachlorobiphenyl (BZ-114)
		8995	2,3',4,4',5-Pentachlorobiphenyl (BZ-118)

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4040

TestAmerica Sacramento

EPA CODE: CA00044

880 Riverside Parkway

Certificate: 4040 - 008

West Sacramento, CA 95605 Issue Date: 1/30/2017 Expiration Date: 1/29/2018

As of 1/30/2017 this list supercedes all previous lists for this certificate number.

Solids	EPA 1668C	9011	2,3',4,4',5'-Pentachlorobiphenyl (BZ-123)
		9219	2,3,4,4',6-Pentachlorobiphenyl (BZ-115)
		9220	2,3',4,4',6-Pentachlorobiphenyl (BZ-119)
		9221	2,3,4,4'-Tetrachlorobiphenyl (BZ-60)
		8960	2,3',4,4'-Tetrachlorobiphenyl (BZ-66)
		9223	2,3',4,5,5'-Pentachlorobiphenyl (BZ-120)
		9222	2,3',4',5,5'-Pentachlorobiphenyl (BZ-124)
		9225	2,3,4,5,6-Pentachlorobiphenyl (BZ-116)
		9227	2,3,4',5,6-Pentachlorobiphenyl (BZ-117)
		9226	2,3',4,5',6-Pentachlorobiphenyl (BZ-121)
		9224	2,3',4',5',6-Pentachlorobiphenyl (BZ-125)
		9228	2,3,4,5-Tetrachlorobiphenyl (BZ-61)
		9233	2,3,4',5-Tetrachlorobiphenyl (BZ-63)
		9231	2,3',4,5'-Tetrachlorobiphenyl (BZ-68)
		9230	2,3',4',5-Tetrachlorobiphenyl (BZ-70)
		9229	2,3',4',5'-Tetrachlorobiphenyl (BZ-76)
		9232	2,3',4,5-Tetrachlorobiphenyl (BZ-67)
		9234	2,3,4,6-Tetrachlorobiphenyl (BZ-62)
		9236	2,3,4',6-Tetrachlorobiphenyl (BZ-64)
		9235	2,3',4,6-Tetrachlorobiphenyl (BZ-69)
		9237	2,3',4',6-Tetrachlorobiphenyl (BZ-71)
		9238	2,3,4-Trichlorobiphenyl (BZ-21)
		9241	2,3,4'-Trichlorobiphenyl (BZ-22)
		9240	2,3',4-Trichlorobiphenyl (BZ-25)
		9239	2,3',4'-Trichlorobiphenyl (BZ-33)
		9242	2,3',5,5'-Tetrachlorobiphenyl (BZ-72)
		9243	2,3,5,6-Tetrachlorobiphenyl (BZ-65)
		9244	2,3',5',6-Tetrachlorobiphenyl (BZ-73)
		9245	2,3,5-Trichlorobiphenyl (BZ-23)
		8935	2,3',5-Trichlorobiphenyl (BZ-26)
		9246	2,3',5'-Trichlorobiphenyl (BZ-34)
		9247	2,3,6-Trichlorobiphenyl (BZ-24)
		9248	2,3',6-Trichlorobiphenyl (BZ-27)
		8920	2,3-Dichlorobiphenyl (BZ-5)
		9249	2,3'-Dichlorobiphenyl (BZ-6)
		9250	2,4,4',5-Tetrachlorobiphenyl (BZ-74)
		9251	2,4,4',6-Tetrachlorobiphenyl (BZ-75)

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4040

TestAmerica Sacramento

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880 Riverside Parkway

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Solids	EPA 1668C	9252	2,4,4'-Trichlorobiphenyl (BZ-28)
		9253	2,4,5-Trichlorobiphenyl (BZ-29)
		8940	2,4',5-Trichlorobiphenyl (BZ-31)
		9254	2,4,6-Trichlorobiphenyl (BZ-30)
		9255	2,4',6-Trichlorobiphenyl (BZ-32)
		9257	2,4-Dichlorobiphenyl (BZ-7)
		9256	2,4'-Dichlorobiphenyl (BZ-8)
		9258	2,5-Dichlorobiphenyl (BZ-9)
		9259	2,6-Dichlorobiphenyl (BZ-10)
		8915	2-Chlorobiphenyl (BZ-1)
		9060	3,3',4,4',5,5'-Hexachlorobiphenyl (BZ-169)
		9015	3,3',4,4',5-Pentachlorobiphenyl (BZ-126)
		8965	3,3',4,4'-Tetrachlorobiphenyl (BZ-77)
		9260	3,3',4,5,5'-Pentachlorobiphenyl (BZ-127)
		9262	3,3',4,5-Tetrachlorobiphenyl (BZ-78)
		9261	3,3',4,5'-Tetrachlorobiphenyl (BZ-79)
		9263	3,3',4-Trichlorobiphenyl (BZ-35)
		9264	3,3',5,5'-Tetrachlorobiphenyl (BZ-80)
		9265	3,3',5-Trichlorobiphenyl (BZ-36)
		8925	3,3'-Dichlorobiphenyl (BZ-11)
		8970	3,4,4',5-Tetrachlorobiphenyl (BZ-81)
		9266	3,4,4'-Trichlorobiphenyl (BZ-37)
		9267	3,4,5-Trichlorobiphenyl (BZ-38)
		9268	3,4',5-Trichlorobiphenyl (BZ-39)
		9270	3,4-Dichlorobiphenyl (BZ-12)
		9269	3,4'-Dichlorobiphenyl (BZ-13)
		9271	3,5-Dichlorobiphenyl (BZ-14)
		9272	3-Chlorobiphenyl (BZ-2)
		9273	4,4'-Dichlorobiphenyl (BZ-15)
		9274	4-Chlorobiphenyl (BZ-3)
		9105	Decachlorobiphenyl (BZ-209)
		8876	Total Dichlorobiphenyls
		8877	Total Heptachlorobiphenyls
		8888	Total Hexachlorobiphenyls
		8889	Total Monochlorobiphenyls
		8891	Total Nonachlorobiphenyls
		8892	Total Octachlorobiphenyls
		8896	Total Pentachlorobiphenyls
		8893	Total Tetrachlorobiphenyls
		8894	Total Trichlorobiphenyls

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4040

TestAmerica Sacramento

EPA CODE: CA00044

880 Riverside Parkway

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Solids

EPA 3050B			10135601	Acid Digestion of Sediments, Sludges, and soils
	8031	Extraction/Preparation		
EPA 314.0			10055400	Perchlorate in Drinking Water by Ion Chromatography
	1895	Perchlorate		
EPA 3535			10139205	Solid-Phase Extraction (SPE)
	8031	Extraction/Preparation		
EPA 3540C			10140202	Soxhlet Extraction
	8031	Extraction/Preparation		
EPA 3546			10141205	Microwave Extraction
	8031	Extraction/Preparation		
EPA 3550B			10141807	Ultrasonic Extraction
	8031	Extraction/Preparation		
EPA 3550C			10142004	Ultrasonic Extraction
	8031	Extraction/Preparation		
EPA 3580A			10143007	Waste Dilution
	8031	Extraction/Preparation		
EPA 3620B			10145809	Florisil Cleanup
	8031	Extraction/Preparation		
EPA 3630C			10146802	Silica gel cleanup
	8031	Extraction/Preparation		
EPA 3640A			10147203	Gel Preparation Cleanup
	8031	Extraction/Preparation		
EPA 3660B			10148400	Sulfur cleanup
	8031	Extraction/Preparation		
EPA 5035			10154004	Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples
	8031	Extraction/Preparation		
EPA 5035A			10284807	Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples
	8031	Extraction/Preparation		
EPA 537 1.1			10091675	Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS
	4846	2-(N-Ethyl-perfluorooctane sufonamido) acetic acid		
	4847	2-(N-Methyl-perfluorooctane sulfonamido) acetic acid		
	6457	6:2 Fluorotelomersulfonate (6:2FTS)		
	6461	8:2 Fluorotelomersulfonate (8:2FTS)		

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4040

TestAmerica Sacramento

EPA CODE: CA00044

880 Riverside Parkway

Certificate: 4040 - 008

West Sacramento, CA 95605 Issue Date: 1/30/2017 Expiration Date: 1/29/2018

As of 1/30/2017 this list supercedes all previous lists for this certificate number.

Solids	EPA 537 1.1	9395	N-Ethylperfluorooctanesulfonamide (EtFOSA)	
		9433	N-Methylperfluorooctanesulfonamide (MeFOSA)	
		6911	Perfluorobutane Sulfonate (PFBS)	
		6915	Perfluorobutyric acid (PFBA)	
		9562	Perfluorodecane Sulfonate (PFDS)	
		6905	Perfluorodecanoic acid (PFDA)	
		6903	Perfluorododecanoic (PFDDA)	
		9470	Perfluoroheptanesulfonic acid (PFHpS)	
		6908	Perfluoroheptanoic acid (PFHA)	
		6901	Perfluorohexadecanoic acid (PFHxDA)	
		6910	Perfluorohexane Sulfonate (PFHS)	
		6913	Perfluorohexanoic acid (PFHXA)	
		6906	Perfluorononanoic acid (PFNA)	
		6916	Perfluorooctadecanoic acid (PFODA)	
		6917	Perfluorooctane Sulfonamide (PFOSA)	
		6912	Perfluorooctanoic acid	
		6909	Perfluorooctanoic Sulfonate (PFOS)	
		6914	Perfluoropentanoic acid (PFPEA)	
		6902	Perfluorotetradecanoic acid (PFTDA)	
		9563	Perfluorotridecanoic (PFTRIA)	
		6904	Perfluoroundecanoic acid (PFUDA)	
	EPA 6010B			10155609 ICP - AES
		1000	Aluminum	
		1005	Antimony	
		1010	Arsenic	
		1015	Barium	
		1020	Beryllium	
		1025	Boron	
		1030	Cadmium	
		1035	Calcium	
		1040	Chromium	
		1050	Cobalt	
		1055	Copper	
		1070	Iron	
		1075	Lead	
		1085	Magnesium	
		1090	Manganese	
		1100	Molybdenum	
		1105	Nickel	
		1910	Phosphorus, total	
		1125	Potassium	
		1140	Selenium	

Solids

EPA 6010B				
	1150	Silver		
	1155	Sodium		
	1160	Strontium		
	1165	Thallium		
	1175	Tin		
	1180	Titanium		
	1185	Vanadium		
	1190	Zinc		
EPA 6010C			10155803	ICP - AES
	1000	Aluminum		
	1005	Antimony		
	1010	Arsenic		
	1015	Barium		
	1020	Beryllium		
	1025	Boron		
	1030	Cadmium		
	1035	Calcium		
	1040	Chromium		
	1050	Cobalt		
	1055	Copper		
	1070	Iron		
	1075	Lead		
	1085	Magnesium		
	1090	Manganese		
	1100	Molybdenum		
	1105	Nickel		
	1910	Phosphorus, total		
	1125	Potassium		
	1140	Selenium		
	1150	Silver		
	1155	Sodium		
	1160	Strontium		
	1165	Thallium		
	1175	Tin		
	1180	Titanium		
	1185	Vanadium		
	1190	Zinc		
EPA 6020			10156000	Inductively Coupled Plasma-Mass Spectrometry
	1000	Aluminum		
	1005	Antimony		
	1010	Arsenic		
	1015	Barium		

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Solids	EPA 6020	1020	Beryllium	
		1025	Boron	
		1030	Cadmium	
		1035	Calcium	
		1040	Chromium	
		1050	Cobalt	
		1055	Copper	
		1070	Iron	
		1075	Lead	
		1080	Lithium	
		1085	Magnesium	
		1090	Manganese	
		1100	Molybdenum	
		1105	Nickel	
		1910	Phosphorus, total	
		1125	Potassium	
		1140	Selenium	
		1150	Silver	
		1155	Sodium	
		1160	Strontium	
		1165	Thallium	
		1175	Tin	
		1180	Titanium	
		3035	Uranium	
		1185	Vanadium	
		1190	Zinc	
	EPA 6020A			10156408 Inductively Coupled Plasma-Mass Spectrometry
		1000	Aluminum	
		1005	Antimony	
		1010	Arsenic	
		1015	Barium	
		1020	Beryllium	
		1025	Boron	
		1030	Cadmium	
		1035	Calcium	
		1040	Chromium	
		1050	Cobalt	
		1055	Copper	
		1070	Iron	
		1075	Lead	
		1080	Lithium	
		1085	Magnesium	
		1090	Manganese	

Solids

EPA 6020A				
	1100	Molybdenum		
	1105	Nickel		
	1910	Phosphorus, total		
	1125	Potassium		
	1140	Selenium		
	1150	Silver		
	1155	Sodium		
	1160	Strontium		
	1165	Thallium		
	1175	Tin		
	1180	Titanium		
	3035	Uranium		
	1185	Vanadium		
	1190	Zinc		
EPA 6850			10304606	Perchlorate in Water, Soils and Solid Wastes Using High Performance Liquid Chromatography/Electrospray Ionization/Mass Spectrometry
	1895	Perchlorate		
EPA 7471A			10166208	Mercury in Solid Waste by Cold Vapor Atomic Absorption
	1095	Mercury		
EPA 7471B			10166402	Mercury by Cold Vapor Atomic Absorption
	1095	Mercury		
EPA 8015B			10173601	Non-halogenated organics using GC/FID
	9369	Diesel range organics (DRO)		
	9499	Motor Oil		
EPA 8015C			10173805	Non-halogenated organics using GC/FID
	9369	Diesel range organics (DRO)		
	9499	Motor Oil		
EPA 8081A			10178606	Organochlorine Pesticides by GC/ECD
	7355	4,4'-DDD		
	7360	4,4'-DDE		
	7365	4,4'-DDT		
	7025	Aldrin		
	7110	alpha-BHC (alpha-Hexachlorocyclohexane)		
	7240	alpha-Chlordane		
	7115	beta-BHC (beta-Hexachlorocyclohexane)		
	7250	Chlordane (tech.)		
	7260	Chlorobenzilate		
	7105	delta-BHC		

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Solids	EPA 8081A	7405	Diallate		
		7470	Dieldrin		
		7510	Endosulfan I		
		7515	Endosulfan II		
		7520	Endosulfan sulfate		
		7540	Endrin		
		7530	Endrin aldehyde		
		7535	Endrin ketone		
		7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)		
		7245	gamma-Chlordane		
		7685	Heptachlor		
		7690	Heptachlor epoxide		
		7725	Isodrin		
		7810	Methoxychlor		
		8250	Toxaphene (Chlorinated camphene)		
	EPA 8081B			10178800	Organochlorine Pesticides by GC/ECD
		7355	4,4'-DDD		
		7360	4,4'-DDE		
		7365	4,4'-DDT		
		7025	Aldrin		
		7110	alpha-BHC (alpha-Hexachlorocyclohexane)		
		7240	alpha-Chlordane		
		7115	beta-BHC (beta-Hexachlorocyclohexane)		
		7250	Chlordane (tech.)		
		7260	Chlorobenzilate		
		7105	delta-BHC		
		7405	Diallate		
		7470	Dieldrin		
		7510	Endosulfan I		
		7515	Endosulfan II		
		7520	Endosulfan sulfate		
		7540	Endrin		
		7530	Endrin aldehyde		
		7535	Endrin ketone		
		7120	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)		
		7245	gamma-Chlordane		
		7685	Heptachlor		
		7690	Heptachlor epoxide		
		7725	Isodrin		
		7810	Methoxychlor		

Solids

EPA 8081B	8250	Toxaphene (Chlorinated camphene)		
EPA 8082			10179007	Polychlorinated Biphenyls (PCBs) by GC/ECD
	8880	Aroclor-1016 (PCB-1016)		
	8885	Aroclor-1221 (PCB-1221)		
	8890	Aroclor-1232 (PCB-1232)		
	8895	Aroclor-1242 (PCB-1242)		
	8900	Aroclor-1248 (PCB-1248)		
	8905	Aroclor-1254 (PCB-1254)		
	8910	Aroclor-1260 (PCB-1260)		
	8912	Aroclor-1262 (PCB-1262)		
	8913	Aroclor-1268 (PCB-1268)		
EPA 8082A			10179201	Polychlorinated Biphenyls (PCBs) by GC/ECD
	8880	Aroclor-1016 (PCB-1016)		
	8885	Aroclor-1221 (PCB-1221)		
	8890	Aroclor-1232 (PCB-1232)		
	8895	Aroclor-1242 (PCB-1242)		
	8900	Aroclor-1248 (PCB-1248)		
	8905	Aroclor-1254 (PCB-1254)		
	8910	Aroclor-1260 (PCB-1260)		
	8912	Aroclor-1262 (PCB-1262)		
	8913	Aroclor-1268 (PCB-1268)		
EPA 8260B			10184802	Volatile Organic Compounds by purge and trap GC/MS
	5105	1,1,1,2-Tetrachloroethane		
	5160	1,1,1-Trichloroethane		
	5110	1,1,2,2-Tetrachloroethane		
	5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		
	5165	1,1,2-Trichloroethane		
	4630	1,1-Dichloroethane		
	4640	1,1-Dichloroethylene		
	4670	1,1-Dichloropropene		
	5150	1,2,3-Trichlorobenzene		
	5180	1,2,3-Trichloropropane		
	5155	1,2,4-Trichlorobenzene		
	5210	1,2,4-Trimethylbenzene		
	4585	1,2-Dibromoethane (EDB, Ethylene dibromide)		
	4610	1,2-Dichlorobenzene		
	4635	1,2-Dichloroethane (Ethylene dichloride)		
	4655	1,2-Dichloropropane		
	5215	1,3,5-Trimethylbenzene		

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Solids	EPA 8260B	4615	1,3-Dichlorobenzene
		4660	1,3-Dichloropropane
		4620	1,4-Dichlorobenzene
		4735	1,4-Dioxane (1,4- Diethyleneoxide)
		4510	1-Chlorohexane
		4665	2,2-Dichloropropane
		4410	2-Butanone (Methyl ethyl ketone, MEK)
		4500	2-Chloroethyl vinyl ether
		4535	2-Chlorotoluene
		4860	2-Hexanone (MBK)
		4540	4-Chlorotoluene
		4910	4-Isopropyltoluene (p-Cymene)
		4995	4-Methyl-2-pentanone (MIBK)
		4315	Acetone
		4325	Acrolein (Propenal)
		4340	Acrylonitrile
		4355	Allyl chloride (3-Chloropropene)
		4375	Benzene
		5635	Benzyl chloride
		4385	Bromobenzene
		4390	Bromochloromethane
		4395	Bromodichloromethane
		4400	Bromoform
		4450	Carbon disulfide
		4455	Carbon tetrachloride
		4475	Chlorobenzene
		4575	Chlorodibromomethane
		4485	Chloroethane (Ethyl chloride)
		4505	Chloroform
		4525	Chloroprene (2-Chloro-1,3-butadiene)
		4645	cis-1,2-Dichloroethylene
		4680	cis-1,3-Dichloropropene
		4580	Dibromochloropropane
		4595	Dibromomethane (Methylene bromide)
		4625	Dichlorodifluoromethane (Freon-12)
		9375	Di-isopropylether (DIPE)
		4810	Ethyl methacrylate
		4765	Ethylbenzene
		4770	Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)
		9408	Gasoline range organics (GRO)
		4835	Hexachlorobutadiene
		4870	Iodomethane (Methyl iodide)
		4875	Isobutyl alcohol (2-Methyl-1-propanol)

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Solids	EPA 8260B	4900	Isopropylbenzene (Cumene)	
		5240	m+p-xylene	
		4925	Methacrylonitrile	
		4950	Methyl bromide (Bromomethane)	
		4960	Methyl chloride (Chloromethane)	
		4990	Methyl methacrylate	
		5000	Methyl tert-butyl ether (MTBE)	
		4975	Methylene chloride (Dichloromethane)	
		5005	Naphthalene	
		4425	n-Butyl alcohol (1-Butanol, n-Butanol)	
		4435	n-Butylbenzene	
		4855	n-Hexane	
		5090	n-Propylbenzene	
		5250	o-Xylene	
		5080	Propionitrile (Ethyl cyanide)	
		4440	sec-Butylbenzene	
		5100	Styrene	
		4370	T-amylmethylether (TAME)	
		4420	tert-Butyl alcohol	
		4445	tert-Butylbenzene	
		5115	Tetrachloroethylene (Perchloroethylene)	
		5140	Toluene	
		4700	trans-1,2-Dichloroethylene	
		4685	trans-1,3-Dichloropropylene	
		4605	trans-1,4-Dichloro-2-butene	
		5170	Trichloroethene (Trichloroethylene)	
		5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	
		5225	Vinyl acetate	
		5235	Vinyl chloride	
		5260	Xylene (total)	
	EPA 8260C			10307003 Volatile Organics: GC/MS (capillary column)
		5105	1,1,1,2-Tetrachloroethane	
		5160	1,1,1-Trichloroethane	
		5110	1,1,2,2-Tetrachloroethane	
		5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	
		5165	1,1,2-Trichloroethane	
		4630	1,1-Dichloroethane	
		4640	1,1-Dichloroethylene	
		4670	1,1-Dichloropropene	
		5150	1,2,3-Trichlorobenzene	
		5180	1,2,3-Trichloropropane	

Solids	EPA 8260C	5155	1,2,4-Trichlorobenzene
		5210	1,2,4-Trimethylbenzene
		4585	1,2-Dibromoethane (EDB, Ethylene dibromide)
		4610	1,2-Dichlorobenzene
		4635	1,2-Dichloroethane (Ethylene dichloride)
		4655	1,2-Dichloropropane
		5215	1,3,5-Trimethylbenzene
		4615	1,3-Dichlorobenzene
		4660	1,3-Dichloropropane
		4620	1,4-Dichlorobenzene
		4735	1,4-Dioxane (1,4- Diethyleneoxide)
		4510	1-Chlorohexane
		4665	2,2-Dichloropropane
		4410	2-Butanone (Methyl ethyl ketone, MEK)
		4500	2-Chloroethyl vinyl ether
		4535	2-Chlorotoluene
		4860	2-Hexanone (MBK)
		4540	4-Chlorotoluene
		4910	4-Isopropyltoluene (p-Cymene)
		4995	4-Methyl-2-pentanone (MIBK)
		4315	Acetone
		4325	Acrolein (Propenal)
		4340	Acrylonitrile
		4355	Allyl chloride (3-Chloropropene)
		4375	Benzene
		5635	Benzyl chloride
		4385	Bromobenzene
		4390	Bromochloromethane
		4395	Bromodichloromethane
		4400	Bromoform
		4450	Carbon disulfide
		4455	Carbon tetrachloride
		4475	Chlorobenzene
		4575	Chlorodibromomethane
		4485	Chloroethane (Ethyl chloride)
		4505	Chloroform
		4525	Chloroprene (2-Chloro-1,3-butadiene)
		4645	cis-1,2-Dichloroethylene
		4680	cis-1,3-Dichloropropene
		4580	Dibromochloropropane
		4595	Dibromomethane (Methylene bromide)
		4625	Dichlorodifluoromethane (Freon-12)
		9375	Di-isopropylether (DIPE)

Solids	EPA 8260C	4810	Ethyl methacrylate		
		4765	Ethylbenzene		
		4770	Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)		
		9408	Gasoline range organics (GRO)		
		4835	Hexachlorobutadiene		
		4870	Iodomethane (Methyl iodide)		
		4875	Isobutyl alcohol (2-Methyl-1-propanol)		
		4900	Isopropylbenzene (Cumene)		
		5240	m+p-xylene		
		4925	Methacrylonitrile		
		4950	Methyl bromide (Bromomethane)		
		4960	Methyl chloride (Chloromethane)		
		4990	Methyl methacrylate		
		5000	Methyl tert-butyl ether (MTBE)		
		4975	Methylene chloride (Dichloromethane)		
		5005	Naphthalene		
		4425	n-Butyl alcohol (1-Butanol, n-Butanol)		
		4435	n-Butylbenzene		
		4855	n-Hexane		
		5090	n-Propylbenzene		
		5250	o-Xylene		
		5080	Propionitrile (Ethyl cyanide)		
		4440	sec-Butylbenzene		
		5100	Styrene		
		4370	T-amylmethylether (TAME)		
		4420	tert-Butyl alcohol		
		4445	tert-Butylbenzene		
		5115	Tetrachloroethylene (Perchloroethylene)		
		5140	Toluene		
		4700	trans-1,2-Dichloroethylene		
		4685	trans-1,3-Dichloropropylene		
		4605	trans-1,4-Dichloro-2-butene		
		5170	Trichloroethene (Trichloroethylene)		
		5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)		
		5225	Vinyl acetate		
		5235	Vinyl chloride		
		5260	Xylene (total)		
	EPA 8270C			10185805	Semivolatile Organic compounds by GC/MS
		6703	1,1'-Biphenyl (BZ-0)		
		6715	1,2,4,5-Tetrachlorobenzene		
		5155	1,2,4-Trichlorobenzene		

Solids	EPA 8270C	4610	1,2-Dichlorobenzene
		6885	1,3,5-Trinitrobenzene (1,3,5-TNB)
		4615	1,3-Dichlorobenzene
		6160	1,3-Dinitrobenzene (1,3-DNB)
		4620	1,4-Dichlorobenzene
		6165	1,4-Dinitrobenzene
		6420	1,4-Naphthoquinone
		6630	1,4-Phenylenediamine
		5790	1-Chloronaphthalene
		6380	1-Methylnaphthalene
		6425	1-Naphthylamine
		6735	2,3,4,6-Tetrachlorophenol
		6740	2,3,5,6-Tetrachlorophenol
		6835	2,4,5-Trichlorophenol
		6840	2,4,6-Trichlorophenol
		6000	2,4-Dichlorophenol
		6130	2,4-Dimethylphenol
		6175	2,4-Dinitrophenol
		6005	2,6-Dichlorophenol
		6190	2,6-Dinitrotoluene (2,6-DNT)
		5515	2-Acetylaminofluorene
		5795	2-Chloronaphthalene
		5800	2-Chlorophenol
		6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2 -methylphenol)
		5145	2-Methylaniline (o-Toluidine)
		6385	2-Methylnaphthalene
		6400	2-Methylphenol (o-Cresol)
		6430	2-Naphthylamine
		6460	2-Nitroaniline
		6490	2-Nitrophenol
		5050	2-Picoline (2-Methylpyridine)
		5945	3,3'-Dichlorobenzidine
		6120	3,3'-Dimethylbenzidine
		6355	3-Methylcholanthrene
		6405	3-Methylphenol (m-Cresol)
		6465	3-Nitroaniline
		5540	4-Aminobiphenyl
		5660	4-Bromophenyl phenyl ether (BDE-3)
		5700	4-Chloro-3-methylphenol
		5745	4-Chloroaniline
		5825	4-Chlorophenyl phenylether
		6105	4-Dimethyl aminoazobenzene
		6410	4-Methylphenol (p-Cresol)

Solids	EPA 8270C	6470	4-Nitroaniline
		6500	4-Nitrophenol
		6510	4-Nitroquinoline 1-oxide
		6570	5-Nitro-o-toluidine
		6115	7,12-Dimethylbenz(a) anthracene
		6125	a-a-Dimethylphenethylamine
		5500	Acenaphthene
		5505	Acenaphthylene
		5510	Acetophenone
		5545	Aniline
		5555	Anthracene
		5560	Aramite
		5562	Azobenzene
		5570	Benzaldehyde
		5595	Benzidine
		5575	Benzo(a)anthracene
		5580	Benzo(a)pyrene
		5590	Benzo(g,h,i)perylene
		5600	Benzo(k)fluoranthene
		5585	Benzo[b]fluoranthene
		5610	Benzoic acid
		5630	Benzyl alcohol
		5760	bis(2-Chloroethoxy)methane
		5765	bis(2-Chloroethyl) ether
		5780	bis(2-Chloroisopropyl) ether
		5670	Butyl benzyl phthalate
		5680	Carbazole
		7260	Chlorobenzilate
		5855	Chrysene
		6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
		7405	Diallate
		5900	Dibenz(a, j) acridine
		5895	Dibenz(a,h) anthracene
		5905	Dibenzofuran
		6070	Diethyl phthalate
		7475	Dimethoate
		6135	Dimethyl phthalate
		5925	Di-n-butyl phthalate
		6200	Di-n-octyl phthalate
		8620	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)
		6205	Diphenylamine
		8625	Disulfoton

Solids	EPA 8270C	6260	Ethyl methanesulfonate
		7580	Famphur
		6265	Fluoranthene
		6270	Fluorene
		6275	Hexachlorobenzene
		4835	Hexachlorobutadiene
		6285	Hexachlorocyclopentadiene
		4840	Hexachloroethane
		6295	Hexachloropropene
		6315	Indeno(1,2,3-cd) pyrene
		7725	Isodrin
		6320	Isophorone
		6325	Isosafrole
		7740	Kepone
		6345	Methapyrilene
		6375	Methyl methanesulfonate
		7825	Methyl parathion (Parathion, methyl)
		5005	Naphthalene
		5015	Nitrobenzene
		6525	n-Nitrosodiethylamine
		6530	n-Nitrosodimethylamine
		5025	n-Nitroso-di-n-butylamine
		6545	n-Nitrosodi-n-propylamine
		6535	n-Nitrosodiphenylamine
		6550	n-Nitrosomethylethalamine
		6555	n-Nitrosomorpholine
		6560	n-Nitrosopiperidine
		6565	n-Nitrosopyrrolidine
		8290	o,o,o-Triethyl phosphorothioate
		7955	Parathion, ethyl
		6590	Pentachlorobenzene
		5035	Pentachloroethane
		6600	Pentachloronitrobenzene
		6605	Pentachlorophenol
		6610	Phenacetin
		6615	Phenanthrene
		6625	Phenol
		7985	Phorate
		6650	Pronamide (Kerb)
		6665	Pyrene
		5095	Pyridine
		6685	Safrole
		8155	Sulfotepp

Solids

	EPA 8270C	8235	Thionazin (Zinophos)	
	EPA 8270C SIM		10242407	Semivolatile Organic compounds by GC/MS Selective Ion Monitoring
		6380	1-Methylnaphthalene	
		6185	2,4-Dinitrotoluene (2,4-DNT)	
		6385	2-Methylnaphthalene	
		5500	Acenaphthene	
		5505	Acenaphthylene	
		5555	Anthracene	
		5575	Benzo(a)anthracene	
		5580	Benzo(a)pyrene	
		5590	Benzo(g,h,i)perylene	
		5600	Benzo(k)fluoranthene	
		5855	Chrysene	
		5895	Dibenz(a,h) anthracene	
		6265	Fluoranthene	
		6270	Fluorene	
		6315	Indeno(1,2,3-cd) pyrene	
		5005	Naphthalene	
		6615	Phenanthrene	
		6665	Pyrene	
	EPA 8270D		10186002	Semivolatile Organic compounds by GC/MS
		6703	1,1'-Biphenyl (BZ-0)	
		6715	1,2,4,5-Tetrachlorobenzene	
		5155	1,2,4-Trichlorobenzene	
		4610	1,2-Dichlorobenzene	
		6885	1,3,5-Trinitrobenzene (1,3,5-TNB)	
		4615	1,3-Dichlorobenzene	
		6160	1,3-Dinitrobenzene (1,3-DNB)	
		4620	1,4-Dichlorobenzene	
		6165	1,4-Dinitrobenzene	
		6420	1,4-Naphthoquinone	
		6630	1,4-Phenylenediamine	
		5790	1-Chloronaphthalene	
		6380	1-Methylnaphthalene	
		6425	1-Naphthylamine	
		6735	2,3,4,6-Tetrachlorophenol	
		6740	2,3,5,6-Tetrachlorophenol	
		6835	2,4,5-Trichlorophenol	
		6840	2,4,6-Trichlorophenol	
		6000	2,4-Dichlorophenol	
		6130	2,4-Dimethylphenol	

Solids	EPA 8270D	6175	2,4-Dinitrophenol
		6185	2,4-Dinitrotoluene (2,4-DNT)
		6005	2,6-Dichlorophenol
		6190	2,6-Dinitrotoluene (2,6-DNT)
		5515	2-Acetylaminofluorene
		5795	2-Chloronaphthalene
		5800	2-Chlorophenol
		6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2 -methylphenol)
		5145	2-Methylaniline (o-Toluidine)
		6385	2-Methylnaphthalene
		6400	2-Methylphenol (o-Cresol)
		6430	2-Naphthylamine
		6460	2-Nitroaniline
		6490	2-Nitrophenol
		5050	2-Picoline (2-Methylpyridine)
		5945	3,3'-Dichlorobenzidine
		6120	3,3'-Dimethylbenzidine
		6355	3-Methylcholanthrene
		6405	3-Methylphenol (m-Cresol)
		6465	3-Nitroaniline
		5540	4-Aminobiphenyl
		5660	4-Bromophenyl phenyl ether (BDE-3)
		5700	4-Chloro-3-methylphenol
		5745	4-Chloroaniline
		5825	4-Chlorophenyl phenylether
		6105	4-Dimethyl aminoazobenzene
		6410	4-Methylphenol (p-Cresol)
		6470	4-Nitroaniline
		6500	4-Nitrophenol
		6510	4-Nitroquinoline 1-oxide
		6570	5-Nitro-o-toluidine
		6115	7,12-Dimethylbenz(a) anthracene
		6125	a-a-Dimethylphenethylamine
		5500	Acenaphthene
		5505	Acenaphthylene
		5510	Acetophenone
		5545	Aniline
		5555	Anthracene
		5560	Aramite
		5562	Azobenzene
		5570	Benzaldehyde
		5595	Benzidine
		5575	Benzo(a)anthracene

Solids	EPA 8270D	5580	Benzo(a)pyrene
		5590	Benzo(g,h,i)perylene
		5600	Benzo(k)fluoranthene
		5585	Benzo[b]fluoranthene
		5610	Benzoic acid
		5630	Benzyl alcohol
		5760	bis(2-Chloroethoxy)methane
		5765	bis(2-Chloroethyl) ether
		5780	bis(2-Chloroisopropyl) ether
		5670	Butyl benzyl phthalate
		5680	Carbazole
		7260	Chlorobenzilate
		5855	Chrysene
		6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
		7405	Diallate
		5900	Dibenz(a, j) acridine
		5895	Dibenz(a,h) anthracene
		5905	Dibenzofuran
		6070	Diethyl phthalate
		7475	Dimethoate
		6135	Dimethyl phthalate
		5925	Di-n-butyl phthalate
		6200	Di-n-octyl phthalate
		8620	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)
		6205	Diphenylamine
		8625	Disulfoton
		6260	Ethyl methanesulfonate
		7580	Famphur
		6265	Fluoranthene
		6270	Fluorene
		6275	Hexachlorobenzene
		4835	Hexachlorobutadiene
		6285	Hexachlorocyclopentadiene
		4840	Hexachloroethane
		6295	Hexachloropropene
		6315	Indeno(1,2,3-cd) pyrene
		7725	Isodrin
		6320	Isophorone
		6325	Isosafrole
		7740	Kepone
		6345	Methapyrilene
		6375	Methyl methanesulfonate

Solids	EPA 8270D	7825	Methyl parathion (Parathion, methyl)
		5005	Naphthalene
		5015	Nitrobenzene
		6525	n-Nitrosodiethylamine
		6530	n-Nitrosodimethylamine
		5025	n-Nitroso-di-n-butylamine
		6545	n-Nitrosodi-n-propylamine
		6535	n-Nitrosodiphenylamine
		6550	n-Nitrosomethylethalamine
		6555	n-Nitrosomorpholine
		6560	n-Nitrosopiperidine
		6565	n-Nitrosopyrrolidine
		8290	o,o,o-Triethyl phosphorothioate
		7955	Parathion, ethyl
		6590	Pentachlorobenzene
		5035	Pentachloroethane
		6600	Pentachloronitrobenzene
		6605	Pentachlorophenol
		6610	Phenacetin
		6615	Phenanthrene
		6625	Phenol
		7985	Phorate
		6650	Pronamide (Kerb)
		6665	Pyrene
		5095	Pyridine
		6685	Safrole
		8155	Sulfotepp
		8235	Thionazin (Zinophos)
	EPA 8270D SIM	10242509	Semivolatile Organic compounds by GC/MS Selective Ion Monitoring
		6380	1-Methylnaphthalene
		6385	2-Methylnaphthalene
		5500	Acenaphthene
		5505	Acenaphthylene
		5555	Anthracene
		5575	Benzo(a)anthracene
		5580	Benzo(a)pyrene
		5590	Benzo(g,h,i)perylene
		5600	Benzo(k)fluoranthene
		5585	Benzo[b]fluoranthene
		5855	Chrysene
		5895	Dibenz(a,h) anthracene
		6265	Fluoranthene
		6270	Fluorene

Solids	EPA 8270D SIM	6315	Indeno(1,2,3-cd) pyrene	
		5005	Naphthalene	
		6615	Phenanthrene	
		6665	Pyrene	
	EPA 8280A			10186808 Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS
		9516	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)	
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-Hxcdd)	
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)	
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,6,7,8-Hxcdd)	
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)	
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-Hxcdd)	
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)	
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)	
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran	
		9549	2,3,4,7,8-Pentachlorodibenzofuran	
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)	
		9612	2,3,7,8-Tetrachlorodibenzofuran	
		9438	Hpcdd, total	
		9444	Hpcdf, total	
		9468	Hxcdd, total	
		9483	Hxcdf, total	
		9555	Pecdd, total	
		9552	Pecdf, total	
		9609	TCDD, total	
		9615	TCDF, total	

Solids	EPA 8280B		10187005	Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS
	9516	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)		
	9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		
	9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		
	9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)		
	9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		
	9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
	9453	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-Hxcdd)		
	9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
	9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,6,7,8-Hxcdd)		
	9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
	9459	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-Hxcdd)		
	9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
	9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		
	9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
	9549	2,3,4,7,8-Pentachlorodibenzofuran		
	9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
	9612	2,3,7,8-Tetrachlorodibenzofuran		
	9438	Hpcdd, total		
	9444	Hpcdf, total		
	9468	Hxcdd, total		
	9483	Hxcdf, total		
	9555	Pecdd, total		
	9552	Pecdf, total		
	9609	TCDD, total		
	9615	TCDF, total		
	EPA 8290		10187209	Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS
	9516	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)		
	9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		

Solids	EPA 8290	9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)	
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-Hxcdd)	
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)	
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,6,7,8-Hxcdd)	
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)	
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-Hxcdd)	
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)	
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)	
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran	
		9549	2,3,4,7,8-Pentachlorodibenzofuran	
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)	
		9612	2,3,7,8-Tetrachlorodibenzofuran	
		9438	Hpcdd, total	
		9444	Hpcdf, total	
		9468	Hxcdd, total	
		9483	Hxcdf, total	
		9555	Pecdd, total	
		9552	Pecdf, total	
		9609	TCDD, total	
		9615	TCDF, total	
	EPA 8290A			10187403 Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS
		9516	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)	

Solids	EPA 8290A	9453	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-Hxcdd)	
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)	
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,6,7,8-Hxcdd)	
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)	
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-Hxcdd)	
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)	
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)	
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran	
		9549	2,3,4,7,8-Pentachlorodibenzofuran	
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)	
		9612	2,3,7,8-Tetrachlorodibenzofuran	
		9438	Hpcdd, total	
		9444	Hpcdf, total	
		9468	Hxcdd, total	
		9483	Hxcdf, total	
		9431	N-Ethylperfluorooctanesulfonamidoethanol (EtFOSE)	
		9434	N-Methylperfluorooctanesulfonamidoethanol (MeFOSA)	
		9555	Pecdd, total	
		9552	Pecdf, total	
		9609	TCDD, total	
		9615	TCDF, total	
	EPA 8330A			10190008 Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)
		6885	1,3,5-Trinitrobenzene (1,3,5-TNB)	
		6160	1,3-Dinitrobenzene (1,3-DNB)	
		9651	2,4,6-Trinitrotoluene (2,4,6-TNT)	
		6185	2,4-Dinitrotoluene (2,4-DNT)	
		6190	2,6-Dinitrotoluene (2,6-DNT)	
		9303	2-Amino-4,6-dinitrotoluene (2-am-dnt)	
		9507	2-Nitrotoluene	
		9510	3-Nitrotoluene	
		9306	4-Amino-2,6-dinitrotoluene (4-am-dnt)	
		9513	4-Nitrotoluene	
		9418	Hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine (MNX)	

Solids	EPA 8330A	6415	Methyl-2,4,6-trinitrophenylnitramine (tetryl)		
		5015	Nitrobenzene		
		6485	Nitroglycerin		
		9522	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)		
		9558	Pentaerythritoltetranitrate (PETN)		
		9432	RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)		
	EPA 8330B			10308006	Nitroaromatics, Nitramines and Nitrate Esters by High Performance Liquid Chromatography (HPLC)
		6887	1,3,5-Trinitroso-1,3,5-hexahydrotriazine (TNX)		
		6885	1,3,5-Trinitrobenzene (1,3,5-TNB)		
		6160	1,3-Dinitrobenzene (1,3-DNB)		
		9651	2,4,6-Trinitrotoluene (2,4,6-TNT)		
		6185	2,4-Dinitrotoluene (2,4-DNT)		
		6190	2,6-Dinitrotoluene (2,6-DNT)		
		9303	2-Amino-4,6-dinitrotoluene (2-am-dnt)		
		9507	2-Nitrotoluene		
		6150	3,5-Dinitroaniline		
		9510	3-Nitrotoluene		
		9306	4-Amino-2,6-dinitrotoluene (4-am-dnt)		
		9513	4-Nitrotoluene		
		9416	Hexahydro-1,3-dinitroso-5-nitro-1,3,5-triazine (DNX)		
		9418	Hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine (MNX)		
		6415	Methyl-2,4,6-trinitrophenylnitramine (tetryl)		
		5015	Nitrobenzene		
		6485	Nitroglycerin		
		9522	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)		
		9558	Pentaerythritoltetranitrate (PETN)		
		1899	Picric Acid (2,4,6-Trinitrophenol)		
		9432	RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)		
	EPA 9045C			10198400	Soil and Waste pH
		1900	pH		
	EPA 9045D			10244607	Soil and Waste pH
		1900	pH		
	EPA 9056			10199005	Determination of Inorganic Anions by Ion Chromatography
		1540	Bromide		

OREGON

Environmental Laboratory Accreditation Program

ORELAP Fields of Accreditation

ORELAP ID: 4040

TestAmerica Sacramento

EPA CODE: CA00044

880 Riverside Parkway

Certificate: 4040 - 008

West Sacramento, CA 95605 Issue Date: 1/30/2017 Expiration Date: 1/29/2018

As of 1/30/2017 this list supercedes all previous lists for this certificate number.

Solids

	EPA 9056	1575	Chloride		
		1730	Fluoride		
		1805	Nitrate		
		1835	Nitrite		
		2000	Sulfate		
	WS-LC-0004 2.4			60055132	TestAmerica West Sacramento - Chemical Warfare Degradates in Water and Soil by HPLC/ESI/MS/MS
		6102	Diisopropylmethyl phosphonate		
		6104	Dimethyl methyl phosphonate		
		7508	Ethylmethylphosphonic acid		
		9481	Isopropylmethylphosphonic acid		
		7516	Methylphosphonic acid		
		9577	Thiodiglycol		
	WS-LC-0010 3.4			60055154	TestAmerica West Sacramento - Nitroguanidine (EPA 8330)
		6462	2-Nitroguanidine		
	WS-LC-0025 1.2			60055427	TestAmerica West Sacramento - Perfluorinated Compounds (PFCs) in Water, Soil, Sediments, and Tissue by LC/MS/MS
		6904	Perfluoroundecanoic acid (PFUDA)		
	WS-MS-0010			60055483	Alkylphenol Compounds by GC/MS-SIM Internal Standard Technique
		6514	4-Octylphenol		
		9301	Bisphenol A		
		9529	Nonyl phenol		
		9589	Nonyl phenol diethoxylate		
		9592	Nonyl phenol monoethoxylate		
	WS-MS-0012 2014			60055530	TestAmerica West Sacramento - Nitrosamines by GC/MS/MS with LVI
		6525	n-Nitrosodiethylamine		
		6530	n-Nitrosodimethylamine		
		5025	n-Nitroso-di-n-butylamine		
		6545	n-Nitrosodi-n-propylamine		
		6535	n-Nitrosodiphenylamine		
		6550	n-Nitrosomethylethalamine		
		6555	n-Nitrosomorpholine		
		6520	n-Nitroso-n-methylurea		
		6560	n-Nitrosopiperidine		
		6565	n-Nitrosopyrrolidine		
	WS-WC-0050 3.8			60055472	TestAmerica West Sacramento - Nitrocellulose in Aqueous and Soil/Sediment Samples by Colorimetric Autoanalyzer
		6484	Nitrocellulose		


NELAP RECOGNIZED
TNI
ACCREDITATION BODY

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Is hereby granting a Louisiana Environmental Laboratory Accreditation to

TestAmerica Laboratories Inc
13715 Rider Trail N
Earth City, Missouri 63045-1205

Agency Interest No. 106151
Activity No. ACC20160002

According to the Louisiana Administrative Code, Title 33, Part I, Subpart 3, LABORATORY ACCREDITATION, the State of Louisiana formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed in the attachment.

The laboratory agrees to perform all analyses listed on this scope of accreditation according to the Part I, Subpart 3 requirements and agrees to adapt to any changes in the requirements. It also acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part I and the 2009 TNI Standard by which the laboratory was assessed. Please contact the Department of Environmental Quality, Louisiana Environmental Laboratory Accreditation Program (LELAP) to verify the laboratory's scope of accreditation and accreditation status.

Accreditation by the State of Louisiana is not an endorsement or a guarantee of validity of the data generated by the laboratory. To be accredited initially and maintain accreditation, the laboratory agrees to participate in two single-blind, single-concentration PT studies, where available, per year for each field of testing for which it seeks accreditation or maintains accreditation as required in LAC 33:I.4711.

Cheryl Sonnier Nolan
Administrator
Public Participation and Permit Support Services Division

Issued Date: 06 June 2016

Effective Date: July 1, 2016
Expiration Date: June 30, 2017
Certificate Number: 04080

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Effective Date: July 1, 2016

TestAmerica Laboratories Inc
AI Number: 106151
Activity No.: ACC20160002
Expiration Date: June 30, 2017

13715 Rider Trail N, Earth City, Missouri 63045-1205

Certificate Number: 04080

Air Emissions

Analyte	Method Name	Method Code	Type	AB
NONE	NONE	NONE	NONE	NONE

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
2755 - Americium-241	Eichrom ACW03	2259	NELAP	LA
2940 - Plutonium	Eichrom ACW03	2259	NELAP	LA
3035 - Uranium	Eichrom ACW03	2259	NELAP	LA
100499 - Neptunium	Eichrom ACW08	2260	NELAP	LA
1170 - Thorium	Eichrom ACW08	2260	NELAP	LA
2900 - Lead-210	Eichrom OTW01	2264	NELAP	LA
1170 - Thorium	Eichrom ACW10	2269	NELAP	LA
4735 - 1,4-Dioxane (1,4- Diethyleneoxide)	EPA 8260 SIM	2995	NELAP	LA
100781 - Chlorine-36	SOP No. ST-RC-0036, Rev.8	3852	NELAP	LA
1923 - Reactive Cyanide	EPA 7.3.3.2, Rev.3	10001204	NELAP	LA
1925 - Reactive sulfide	EPA 7.3.4.2, Rev.3	10001408	NELAP	LA
1610 - Conductivity	EPA 120.1	10006209	NELAP	LA
1900 - pH	EPA 150.1	10008205	NELAP	LA
1955 - Residue-filterable (TDS)	EPA 160.1	10009004	NELAP	LA
1960 - Residue-nonfilterable (TSS)	EPA 160.2	10009402	NELAP	LA
1950 - Residue-total	EPA 160.3	10009800	NELAP	LA
1000 - Aluminum	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1005 - Antimony	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1010 - Arsenic	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1015 - Barium	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1020 - Beryllium	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1025 - Boron	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1030 - Cadmium	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1035 - Calcium	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1040 - Chromium	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1050 - Cobalt	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1055 - Copper	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1070 - Iron	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1075 - Lead	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1085 - Magnesium	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1090 - Manganese	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1100 - Molybdenum	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1105 - Nickel	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1125 - Potassium	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1140 - Selenium	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1990 - Silica as SiO2	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1150 - Silver	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1155 - Sodium	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1160 - Strontium	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1165 - Thallium	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1175 - Tin	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1180 - Titanium	EPA 200.7, Rev.4.4	10013806	NELAP	LA

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
1185 - Vanadium	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1190 - Zinc	EPA 200.7, Rev.4.4	10013806	NELAP	LA
1000 - Aluminum	EPA 200.8	10014401	NELAP	LA
1005 - Antimony	EPA 200.8	10014401	NELAP	LA
1010 - Arsenic	EPA 200.8	10014401	NELAP	LA
1015 - Barium	EPA 200.8	10014401	NELAP	LA
1020 - Beryllium	EPA 200.8	10014401	NELAP	LA
1030 - Cadmium	EPA 200.8	10014401	NELAP	LA
1040 - Chromium	EPA 200.8	10014401	NELAP	LA
1050 - Cobalt	EPA 200.8	10014401	NELAP	LA
1055 - Copper	EPA 200.8	10014401	NELAP	LA
1075 - Lead	EPA 200.8	10014401	NELAP	LA
1085 - Magnesium	EPA 200.8	10014401	NELAP	LA
1090 - Manganese	EPA 200.8	10014401	NELAP	LA
1100 - Molybdenum	EPA 200.8	10014401	NELAP	LA
1105 - Nickel	EPA 200.8	10014401	NELAP	LA
1140 - Selenium	EPA 200.8	10014401	NELAP	LA
1150 - Silver	EPA 200.8	10014401	NELAP	LA
1165 - Thallium	EPA 200.8	10014401	NELAP	LA
1170 - Thorium	EPA 200.8	10014401	NELAP	LA
3035 - Uranium	EPA 200.8	10014401	NELAP	LA
1185 - Vanadium	EPA 200.8	10014401	NELAP	LA
1190 - Zinc	EPA 200.8	10014401	NELAP	LA
1095 - Mercury	EPA 245.1	10036201	NELAP	LA
1535 - Bromate	EPA 300.0	10053006	NELAP	LA
1540 - Bromide	EPA 300.0	10053006	NELAP	LA
1575 - Chloride	EPA 300.0	10053006	NELAP	LA
1730 - Fluoride	EPA 300.0	10053006	NELAP	LA
1810 - Nitrate as N	EPA 300.0	10053006	NELAP	LA
1840 - Nitrite as N	EPA 300.0	10053006	NELAP	LA
1870 - Orthophosphate as P	EPA 300.0	10053006	NELAP	LA
2000 - Sulfate	EPA 300.0	10053006	NELAP	LA
1505 - Alkalinity as CaCO3	EPA 310.1	10054601	NELAP	LA
1895 - Perchlorate	EPA 314, Rev.1	10055604	NELAP	LA
1940 - Total residual chlorine	EPA 330.1	10057804	NELAP	LA
1635 - Cyanide	EPA 335.4	10061402	NELAP	LA
1730 - Fluoride	EPA 340.2	10062201	NELAP	LA
3751 - Ammonia	EPA 350.1	10063408	NELAP	LA
1795 - Kjeldahl nitrogen - total	EPA 351.2, Rev.2	10065404	NELAP	LA
1810 - Nitrate as N	EPA 353.1	10066805	NELAP	LA
1820 - Nitrate-Nitrite	EPA 353.1	10066805	NELAP	LA
1910 - Total Phosphorus	EPA 365.2	10070403	NELAP	LA
2005 - Sulfide	EPA 376.1	10074007	NELAP	LA
1530 - Biochemical oxygen demand	EPA 405.1	10075408	NELAP	LA
1565 - Chemical oxygen demand	EPA 410.4	10077006	NELAP	LA
2040 - Total Organic Carbon	EPA 415.1	10078203	NELAP	LA
7355 - 4,4'-DDD	EPA 608	10103603	NELAP	LA
7360 - 4,4'-DDE	EPA 608	10103603	NELAP	LA
7365 - 4,4'-DDT	EPA 608	10103603	NELAP	LA
7025 - Aldrin	EPA 608	10103603	NELAP	LA
8880 - Aroclor-1016 (PCB-1016)	EPA 608	10103603	NELAP	LA
8885 - Aroclor-1221 (PCB-1221)	EPA 608	10103603	NELAP	LA
8890 - Aroclor-1232 (PCB-1232)	EPA 608	10103603	NELAP	LA
8895 - Aroclor-1242 (PCB-1242)	EPA 608	10103603	NELAP	LA
8900 - Aroclor-1248 (PCB-1248)	EPA 608	10103603	NELAP	LA

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
8905 - Aroclor-1254 (PCB-1254)	EPA 608	10103603	NELAP	LA
8910 - Aroclor-1260 (PCB-1260)	EPA 608	10103603	NELAP	LA
7250 - Chlordane (tech.)	EPA 608	10103603	NELAP	LA
7470 - Dieldrin	EPA 608	10103603	NELAP	LA
7510 - Endosulfan I	EPA 608	10103603	NELAP	LA
7515 - Endosulfan II	EPA 608	10103603	NELAP	LA
7520 - Endosulfan sulfate	EPA 608	10103603	NELAP	LA
7540 - Endrin	EPA 608	10103603	NELAP	LA
7530 - Endrin aldehyde	EPA 608	10103603	NELAP	LA
7685 - Heptachlor	EPA 608	10103603	NELAP	LA
7690 - Heptachlor epoxide	EPA 608	10103603	NELAP	LA
8250 - Toxaphene (Chlorinated camphene)	EPA 608	10103603	NELAP	LA
7110 - alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 608	10103603	NELAP	LA
7115 - beta-BHC (beta-Hexachlorocyclohexane)	EPA 608	10103603	NELAP	LA
7105 - delta-BHC	EPA 608	10103603	NELAP	LA
7120 - gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	EPA 608	10103603	NELAP	LA
5160 - 1,1,1-Trichloroethane	EPA 624	10107207	NELAP	LA
5110 - 1,1,2,2-Tetrachloroethane	EPA 624	10107207	NELAP	LA
5165 - 1,1,2-Trichloroethane	EPA 624	10107207	NELAP	LA
4630 - 1,1-Dichloroethane	EPA 624	10107207	NELAP	LA
4640 - 1,1-Dichloroethylene	EPA 624	10107207	NELAP	LA
4610 - 1,2-Dichlorobenzene	EPA 624	10107207	NELAP	LA
4635 - 1,2-Dichloroethane (Ethylene dichloride)	EPA 624	10107207	NELAP	LA
4655 - 1,2-Dichloropropane	EPA 624	10107207	NELAP	LA
4615 - 1,3-Dichlorobenzene	EPA 624	10107207	NELAP	LA
4620 - 1,4-Dichlorobenzene	EPA 624	10107207	NELAP	LA
4500 - 2-Chloroethyl vinyl ether	EPA 624	10107207	NELAP	LA
4325 - Acrolein (Propenal)	EPA 624	10107207	NELAP	LA
4340 - Acrylonitrile	EPA 624	10107207	NELAP	LA
4375 - Benzene	EPA 624	10107207	NELAP	LA
4395 - Bromodichloromethane	EPA 624	10107207	NELAP	LA
4400 - Bromoform	EPA 624	10107207	NELAP	LA
4455 - Carbon tetrachloride	EPA 624	10107207	NELAP	LA
4475 - Chlorobenzene	EPA 624	10107207	NELAP	LA
4575 - Chlorodibromomethane	EPA 624	10107207	NELAP	LA
4485 - Chloroethane (Ethyl chloride)	EPA 624	10107207	NELAP	LA
4505 - Chloroform	EPA 624	10107207	NELAP	LA
4765 - Ethylbenzene	EPA 624	10107207	NELAP	LA
4950 - Methyl bromide (Bromomethane)	EPA 624	10107207	NELAP	LA
4960 - Methyl chloride (Chloromethane)	EPA 624	10107207	NELAP	LA
4975 - Methylene chloride (Dichloromethane)	EPA 624	10107207	NELAP	LA
5115 - Tetrachloroethylene (Perchloroethylene)	EPA 624	10107207	NELAP	LA
5140 - Toluene	EPA 624	10107207	NELAP	LA
5170 - Trichloroethene (Trichloroethylene)	EPA 624	10107207	NELAP	LA
5175 - Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 624	10107207	NELAP	LA
5235 - Vinyl chloride	EPA 624	10107207	NELAP	LA
5260 - Xylene (total)	EPA 624	10107207	NELAP	LA
4680 - cis-1,3-Dichloropropene	EPA 624	10107207	NELAP	LA

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
4685 - trans-1,3-Dichloropropylene	EPA 624	10107207	NELAP	LA
5155 - 1,2,4-Trichlorobenzene	EPA 625	10107401	NELAP	LA
4610 - 1,2-Dichlorobenzene	EPA 625	10107401	NELAP	LA
4615 - 1,3-Dichlorobenzene	EPA 625	10107401	NELAP	LA
4620 - 1,4-Dichlorobenzene	EPA 625	10107401	NELAP	LA
6840 - 2,4,6-Trichlorophenol	EPA 625	10107401	NELAP	LA
6000 - 2,4-Dichlorophenol	EPA 625	10107401	NELAP	LA
6130 - 2,4-Dimethylphenol	EPA 625	10107401	NELAP	LA
6175 - 2,4-Dinitrophenol	EPA 625	10107401	NELAP	LA
6185 - 2,4-Dinitrotoluene (2,4-DNT)	EPA 625	10107401	NELAP	LA
6190 - 2,6-Dinitrotoluene (2,6-DNT)	EPA 625	10107401	NELAP	LA
5795 - 2-Chloronaphthalene	EPA 625	10107401	NELAP	LA
5800 - 2-Chlorophenol	EPA 625	10107401	NELAP	LA
6360 - 2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 625	10107401	NELAP	LA
6490 - 2-Nitrophenol	EPA 625	10107401	NELAP	LA
5945 - 3,3'-Dichlorobenzidine	EPA 625	10107401	NELAP	LA
5660 - 4-Bromophenyl phenyl ether	EPA 625	10107401	NELAP	LA
5700 - 4-Chloro-3-methylphenol	EPA 625	10107401	NELAP	LA
5825 - 4-Chlorophenyl phenylether	EPA 625	10107401	NELAP	LA
6500 - 4-Nitrophenol	EPA 625	10107401	NELAP	LA
5500 - Acenaphthene	EPA 625	10107401	NELAP	LA
5505 - Acenaphthylene	EPA 625	10107401	NELAP	LA
5555 - Anthracene	EPA 625	10107401	NELAP	LA
5575 - Benz(a)anthracene	EPA 625	10107401	NELAP	LA
5580 - Benzo(a)pyrene	EPA 625	10107401	NELAP	LA
5585 - Benzo(b)fluoranthene	EPA 625	10107401	NELAP	LA
5590 - Benzo(g,h,i)perylene	EPA 625	10107401	NELAP	LA
5600 - Benzo(k)fluoranthene	EPA 625	10107401	NELAP	LA
5670 - Butyl benzyl phthalate	EPA 625	10107401	NELAP	LA
5855 - Chrysene	EPA 625	10107401	NELAP	LA
6065 - Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	EPA 625	10107401	NELAP	LA
5925 - Di-n-butyl phthalate	EPA 625	10107401	NELAP	LA
6200 - Di-n-octyl phthalate	EPA 625	10107401	NELAP	LA
5895 - Dibenz(a,h)anthracene	EPA 625	10107401	NELAP	LA
6070 - Diethyl phthalate	EPA 625	10107401	NELAP	LA
6135 - Dimethyl phthalate	EPA 625	10107401	NELAP	LA
6265 - Fluoranthene	EPA 625	10107401	NELAP	LA
6270 - Fluorene	EPA 625	10107401	NELAP	LA
6275 - Hexachlorobenzene	EPA 625	10107401	NELAP	LA
4835 - Hexachlorobutadiene	EPA 625	10107401	NELAP	LA
6285 - Hexachlorocyclopentadiene	EPA 625	10107401	NELAP	LA
4840 - Hexachloroethane	EPA 625	10107401	NELAP	LA
6315 - Indeno(1,2,3-cd)pyrene	EPA 625	10107401	NELAP	LA
6320 - Isophorone	EPA 625	10107401	NELAP	LA
5005 - Naphthalene	EPA 625	10107401	NELAP	LA
5015 - Nitrobenzene	EPA 625	10107401	NELAP	LA
6605 - Pentachlorophenol	EPA 625	10107401	NELAP	LA
6615 - Phenanthrene	EPA 625	10107401	NELAP	LA
6625 - Phenol	EPA 625	10107401	NELAP	LA
6665 - Pyrene	EPA 625	10107401	NELAP	LA
5760 - bis(2-Chloroethoxy)methane	EPA 625	10107401	NELAP	LA
5765 - bis(2-Chloroethyl) ether	EPA 625	10107401	NELAP	LA
5780 - bis(2-Chloroisopropyl) ether	EPA 625	10107401	NELAP	LA

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
6245 - bis(2-Ethoxyethyl) phthalate	EPA 625	10107401	NELAP	LA
6545 - n-Nitrosodi-n-propylamine	EPA 625	10107401	NELAP	LA
6530 - n-Nitrosodimethylamine	EPA 625	10107401	NELAP	LA
6535 - n-Nitrosodiphenylamine	EPA 625	10107401	NELAP	LA
2835 - Gross alpha-beta	EPA 900	10112400	NELAP	LA
2830 - Gross-alpha	EPA 900	10112400	NELAP	LA
2840 - Gross-beta	EPA 900	10112400	NELAP	LA
2800 - Cesium-134	EPA 901.1	10112808	NELAP	LA
2805 - Cesium-137	EPA 901.1	10112808	NELAP	LA
2855 - Gross gamma	EPA 901.1	10112808	NELAP	LA
100586 - Photon Emitters	EPA 901.1	10112808	NELAP	LA
2955 - Radioactive cesium	EPA 901.1	10112808	NELAP	LA
3070 - Zinc-65	EPA 901.1	10112808	NELAP	LA
2965 - Radium-226	EPA 903	10113209	NELAP	LA
2750 - Total alpha radium	EPA 903	10113209	NELAP	LA
3005 - Strontium-90	EPA 905	10113801	NELAP	LA
3030 - Tritium	EPA 906	10114008	NELAP	LA
1860 - Oil & Grease	EPA 1664A (HEM)	10127807	NELAP	LA
100004 - Acid Digestion of Aqueous samples and Extracts for Total Metals	EPA 3010A	10133605	NELAP	LA
1444 - Separatory Funnel Liquid-liquid extraction	EPA 3510C	10138202	NELAP	LA
1410 - Continuous Liquid-liquid extraction	EPA 3520C	10139001	NELAP	LA
1448 - Solid-Phase Extraction (SPE)	EPA 3535A	10139409	NELAP	LA
1000 - Aluminum	EPA 6010C	10155803	NELAP	LA
1005 - Antimony	EPA 6010C	10155803	NELAP	LA
1010 - Arsenic	EPA 6010C	10155803	NELAP	LA
1015 - Barium	EPA 6010C	10155803	NELAP	LA
1020 - Beryllium	EPA 6010C	10155803	NELAP	LA
1025 - Boron	EPA 6010C	10155803	NELAP	LA
1030 - Cadmium	EPA 6010C	10155803	NELAP	LA
1035 - Calcium	EPA 6010C	10155803	NELAP	LA
1040 - Chromium	EPA 6010C	10155803	NELAP	LA
1050 - Cobalt	EPA 6010C	10155803	NELAP	LA
1055 - Copper	EPA 6010C	10155803	NELAP	LA
1070 - Iron	EPA 6010C	10155803	NELAP	LA
1075 - Lead	EPA 6010C	10155803	NELAP	LA
1080 - Lithium	EPA 6010C	10155803	NELAP	LA
1085 - Magnesium	EPA 6010C	10155803	NELAP	LA
1090 - Manganese	EPA 6010C	10155803	NELAP	LA
1100 - Molybdenum	EPA 6010C	10155803	NELAP	LA
1105 - Nickel	EPA 6010C	10155803	NELAP	LA
1909 - Phosphorus	EPA 6010C	10155803	NELAP	LA
1125 - Potassium	EPA 6010C	10155803	NELAP	LA
1140 - Selenium	EPA 6010C	10155803	NELAP	LA
1150 - Silver	EPA 6010C	10155803	NELAP	LA
1155 - Sodium	EPA 6010C	10155803	NELAP	LA
1160 - Strontium	EPA 6010C	10155803	NELAP	LA
1165 - Thallium	EPA 6010C	10155803	NELAP	LA
1175 - Tin	EPA 6010C	10155803	NELAP	LA
1180 - Titanium	EPA 6010C	10155803	NELAP	LA
1185 - Vanadium	EPA 6010C	10155803	NELAP	LA
1190 - Zinc	EPA 6010C	10155803	NELAP	LA
1000 - Aluminum	EPA 6020A	10156408	NELAP	LA
1005 - Antimony	EPA 6020A	10156408	NELAP	LA

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
1010 - Arsenic	EPA 6020A	10156408	NELAP	LA
1015 - Barium	EPA 6020A	10156408	NELAP	LA
1020 - Beryllium	EPA 6020A	10156408	NELAP	LA
1025 - Boron	EPA 6020A	10156408	NELAP	LA
1030 - Cadmium	EPA 6020A	10156408	NELAP	LA
1035 - Calcium	EPA 6020A	10156408	NELAP	LA
1034 - Cerium	EPA 6020A	10156408	NELAP	LA
1037 - Cesium	EPA 6020A	10156408	NELAP	LA
1040 - Chromium	EPA 6020A	10156408	NELAP	LA
1050 - Cobalt	EPA 6020A	10156408	NELAP	LA
1055 - Copper	EPA 6020A	10156408	NELAP	LA
1070 - Iron	EPA 6020A	10156408	NELAP	LA
1072 - Lanthanum	EPA 6020A	10156408	NELAP	LA
1075 - Lead	EPA 6020A	10156408	NELAP	LA
1080 - Lithium	EPA 6020A	10156408	NELAP	LA
1085 - Magnesium	EPA 6020A	10156408	NELAP	LA
1090 - Manganese	EPA 6020A	10156408	NELAP	LA
1100 - Molybdenum	EPA 6020A	10156408	NELAP	LA
1103 - Neodymium	EPA 6020A	10156408	NELAP	LA
1105 - Nickel	EPA 6020A	10156408	NELAP	LA
1115 - Palladium	EPA 6020A	10156408	NELAP	LA
1909 - Phosphorus	EPA 6020A	10156408	NELAP	LA
1125 - Potassium	EPA 6020A	10156408	NELAP	LA
1127 - Praseodymium	EPA 6020A	10156408	NELAP	LA
1135 - Ruthenium	EPA 6020A	10156408	NELAP	LA
1140 - Selenium	EPA 6020A	10156408	NELAP	LA
1145 - Silicon	EPA 6020A	10156408	NELAP	LA
1150 - Silver	EPA 6020A	10156408	NELAP	LA
1155 - Sodium	EPA 6020A	10156408	NELAP	LA
1160 - Strontium	EPA 6020A	10156408	NELAP	LA
1161 - Tantalum	EPA 6020A	10156408	NELAP	LA
1165 - Thallium	EPA 6020A	10156408	NELAP	LA
1170 - Thorium	EPA 6020A	10156408	NELAP	LA
1175 - Tin	EPA 6020A	10156408	NELAP	LA
1180 - Titanium	EPA 6020A	10156408	NELAP	LA
1183 - Tungsten	EPA 6020A	10156408	NELAP	LA
3035 - Uranium	EPA 6020A	10156408	NELAP	LA
1185 - Vanadium	EPA 6020A	10156408	NELAP	LA
1190 - Zinc	EPA 6020A	10156408	NELAP	LA
1192 - Zirconium	EPA 6020A	10156408	NELAP	LA
1045 - Chromium VI	EPA 7196A	10162400	NELAP	LA
1095 - Mercury	EPA 7470A	10165807	NELAP	LA
9369 - Diesel range organics (DRO)	EPA 8015B	10173601	NELAP	LA
4785 - Ethylene glycol	EPA 8015B	10173601	NELAP	LA
9408 - Gasoline range organics (GRO)	EPA 8015B	10173601	NELAP	LA
6657 - Propylene Glycol	EPA 8015B	10173601	NELAP	LA
7355 - 4,4'-DDD	EPA 8081B	10178800	NELAP	LA
7360 - 4,4'-DDE	EPA 8081B	10178800	NELAP	LA
7365 - 4,4'-DDT	EPA 8081B	10178800	NELAP	LA
7025 - Aldrin	EPA 8081B	10178800	NELAP	LA
7250 - Chlordane (tech.)	EPA 8081B	10178800	NELAP	LA
7470 - Dieldrin	EPA 8081B	10178800	NELAP	LA
7510 - Endosulfan I	EPA 8081B	10178800	NELAP	LA
7515 - Endosulfan II	EPA 8081B	10178800	NELAP	LA
7520 - Endosulfan sulfate	EPA 8081B	10178800	NELAP	LA

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
7540 - Endrin	EPA 8081B	10178800	NELAP	LA
7530 - Endrin aldehyde	EPA 8081B	10178800	NELAP	LA
7535 - Endrin ketone	EPA 8081B	10178800	NELAP	LA
7685 - Heptachlor	EPA 8081B	10178800	NELAP	LA
7690 - Heptachlor epoxide	EPA 8081B	10178800	NELAP	LA
7810 - Methoxychlor	EPA 8081B	10178800	NELAP	LA
8250 - Toxaphene (Chlorinated camphene)	EPA 8081B	10178800	NELAP	LA
7110 - alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081B	10178800	NELAP	LA
7240 - alpha-Chlordane	EPA 8081B	10178800	NELAP	LA
7115 - beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081B	10178800	NELAP	LA
7105 - delta-BHC	EPA 8081B	10178800	NELAP	LA
7120 - gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	EPA 8081B	10178800	NELAP	LA
7245 - gamma-Chlordane	EPA 8081B	10178800	NELAP	LA
8880 - Aroclor-1016 (PCB-1016)	EPA 8082A	10179201	NELAP	LA
8885 - Aroclor-1221 (PCB-1221)	EPA 8082A	10179201	NELAP	LA
8890 - Aroclor-1232 (PCB-1232)	EPA 8082A	10179201	NELAP	LA
8895 - Aroclor-1242 (PCB-1242)	EPA 8082A	10179201	NELAP	LA
8900 - Aroclor-1248 (PCB-1248)	EPA 8082A	10179201	NELAP	LA
8905 - Aroclor-1254 (PCB-1254)	EPA 8082A	10179201	NELAP	LA
8910 - Aroclor-1260 (PCB-1260)	EPA 8082A	10179201	NELAP	LA
8655 - 2,4,5-T	EPA 8151A	10183207	NELAP	LA
8545 - 2,4-D	EPA 8151A	10183207	NELAP	LA
8560 - 2,4-DB	EPA 8151A	10183207	NELAP	LA
8555 - Dalapon	EPA 8151A	10183207	NELAP	LA
8595 - Dicamba	EPA 8151A	10183207	NELAP	LA
8605 - Dichloroprop (Dichlorprop)	EPA 8151A	10183207	NELAP	LA
8620 - Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 8151A	10183207	NELAP	LA
8650 - Silvex (2,4,5-TP)	EPA 8151A	10183207	NELAP	LA
5105 - 1,1,1,2-Tetrachloroethane	EPA 8260B	10184802	NELAP	LA
5160 - 1,1,1-Trichloroethane	EPA 8260B	10184802	NELAP	LA
5110 - 1,1,2,2-Tetrachloroethane	EPA 8260B	10184802	NELAP	LA
5185 - 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260B	10184802	NELAP	LA
5165 - 1,1,2-Trichloroethane	EPA 8260B	10184802	NELAP	LA
4630 - 1,1-Dichloroethane	EPA 8260B	10184802	NELAP	LA
4640 - 1,1-Dichloroethylene	EPA 8260B	10184802	NELAP	LA
4670 - 1,1-Dichloropropene	EPA 8260B	10184802	NELAP	LA
5150 - 1,2,3-Trichlorobenzene	EPA 8260B	10184802	NELAP	LA
5180 - 1,2,3-Trichloropropane	EPA 8260B	10184802	NELAP	LA
5155 - 1,2,4-Trichlorobenzene	EPA 8260B	10184802	NELAP	LA
5210 - 1,2,4-Trimethylbenzene	EPA 8260B	10184802	NELAP	LA
4570 - 1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260B	10184802	NELAP	LA
4585 - 1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260B	10184802	NELAP	LA
4610 - 1,2-Dichlorobenzene	EPA 8260B	10184802	NELAP	LA
4635 - 1,2-Dichloroethane (Ethylene dichloride)	EPA 8260B	10184802	NELAP	LA
4655 - 1,2-Dichloropropane	EPA 8260B	10184802	NELAP	LA
5215 - 1,3,5-Trimethylbenzene	EPA 8260B	10184802	NELAP	LA
4615 - 1,3-Dichlorobenzene	EPA 8260B	10184802	NELAP	LA

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
4660 - 1,3-Dichloropropane	EPA 8260B	10184802	NELAP	LA
4620 - 1,4-Dichlorobenzene	EPA 8260B	10184802	NELAP	LA
4735 - 1,4-Dioxane (1,4- Diethyleneoxide)	EPA 8260B	10184802	NELAP	LA
4665 - 2,2-Dichloropropane	EPA 8260B	10184802	NELAP	LA
4410 - 2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260B	10184802	NELAP	LA
4500 - 2-Chloroethyl vinyl ether	EPA 8260B	10184802	NELAP	LA
4535 - 2-Chlorotoluene	EPA 8260B	10184802	NELAP	LA
4860 - 2-Hexanone	EPA 8260B	10184802	NELAP	LA
4995 - 4-Methyl-2-pentanone (MIBK)	EPA 8260B	10184802	NELAP	LA
4315 - Acetone	EPA 8260B	10184802	NELAP	LA
4320 - Acetonitrile	EPA 8260B	10184802	NELAP	LA
4325 - Acrolein (Propenal)	EPA 8260B	10184802	NELAP	LA
4340 - Acrylonitrile	EPA 8260B	10184802	NELAP	LA
4355 - Allyl chloride (3-Chloropropene)	EPA 8260B	10184802	NELAP	LA
4375 - Benzene	EPA 8260B	10184802	NELAP	LA
4385 - Bromobenzene	EPA 8260B	10184802	NELAP	LA
4390 - Bromochloromethane	EPA 8260B	10184802	NELAP	LA
4395 - Bromodichloromethane	EPA 8260B	10184802	NELAP	LA
4400 - Bromoform	EPA 8260B	10184802	NELAP	LA
4450 - Carbon disulfide	EPA 8260B	10184802	NELAP	LA
4455 - Carbon tetrachloride	EPA 8260B	10184802	NELAP	LA
4475 - Chlorobenzene	EPA 8260B	10184802	NELAP	LA
4575 - Chlorodibromomethane	EPA 8260B	10184802	NELAP	LA
4485 - Chloroethane (Ethyl chloride)	EPA 8260B	10184802	NELAP	LA
4505 - Chloroform	EPA 8260B	10184802	NELAP	LA
4525 - Chloroprene (2-Chloro-1,3-butadiene)	EPA 8260B	10184802	NELAP	LA
4595 - Dibromomethane (Methylene bromide)	EPA 8260B	10184802	NELAP	LA
4625 - Dichlorodifluoromethane (Freon-12)	EPA 8260B	10184802	NELAP	LA
4725 - Diethyl ether	EPA 8260B	10184802	NELAP	LA
4755 - Ethyl acetate	EPA 8260B	10184802	NELAP	LA
4810 - Ethyl methacrylate	EPA 8260B	10184802	NELAP	LA
4765 - Ethylbenzene	EPA 8260B	10184802	NELAP	LA
4835 - Hexachlorobutadiene	EPA 8260B	10184802	NELAP	LA
4870 - Iodomethane (Methyl iodide)	EPA 8260B	10184802	NELAP	LA
4875 - Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260B	10184802	NELAP	LA
4900 - Isopropylbenzene	EPA 8260B	10184802	NELAP	LA
4925 - Methacrylonitrile	EPA 8260B	10184802	NELAP	LA
4950 - Methyl bromide (Bromomethane)	EPA 8260B	10184802	NELAP	LA
4960 - Methyl chloride (Chloromethane)	EPA 8260B	10184802	NELAP	LA
4990 - Methyl methacrylate	EPA 8260B	10184802	NELAP	LA
5000 - Methyl tert-butyl ether (MTBE)	EPA 8260B	10184802	NELAP	LA
4975 - Methylene chloride (Dichloromethane)	EPA 8260B	10184802	NELAP	LA
5005 - Naphthalene	EPA 8260B	10184802	NELAP	LA
5035 - Pentachloroethane	EPA 8260B	10184802	NELAP	LA
5080 - Propionitrile (Ethyl cyanide)	EPA 8260B	10184802	NELAP	LA
5100 - Styrene	EPA 8260B	10184802	NELAP	LA
5115 - Tetrachloroethylene (Perchloroethylene)	EPA 8260B	10184802	NELAP	LA
5140 - Toluene	EPA 8260B	10184802	NELAP	LA
5170 - Trichloroethene (Trichloroethylene)	EPA 8260B	10184802	NELAP	LA

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
5175 - Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260B	10184802	NELAP	LA
5225 - Vinyl acetate	EPA 8260B	10184802	NELAP	LA
5235 - Vinyl chloride	EPA 8260B	10184802	NELAP	LA
5260 - Xylene (total)	EPA 8260B	10184802	NELAP	LA
4645 - cis-1,2-Dichloroethylene	EPA 8260B	10184802	NELAP	LA
4680 - cis-1,3-Dichloropropene	EPA 8260B	10184802	NELAP	LA
5240 - m+p-xylene	EPA 8260B	10184802	NELAP	LA
4435 - n-Butylbenzene	EPA 8260B	10184802	NELAP	LA
5250 - o-Xylene	EPA 8260B	10184802	NELAP	LA
4440 - sec-Butylbenzene	EPA 8260B	10184802	NELAP	LA
4445 - tert-Butylbenzene	EPA 8260B	10184802	NELAP	LA
4700 - trans-1,2-Dichloroethylene	EPA 8260B	10184802	NELAP	LA
4685 - trans-1,3-Dichloropropylene	EPA 8260B	10184802	NELAP	LA
4605 - trans-1,4-Dichloro-2-butene	EPA 8260B	10184802	NELAP	LA
6703 - 1,1'-Biphenyl (BZ-0)	EPA 8270D	10186002	NELAP	LA
6715 - 1,2,4,5-Tetrachlorobenzene	EPA 8270D	10186002	NELAP	LA
5155 - 1,2,4-Trichlorobenzene	EPA 8270D	10186002	NELAP	LA
4610 - 1,2-Dichlorobenzene	EPA 8270D	10186002	NELAP	LA
4615 - 1,3-Dichlorobenzene	EPA 8270D	10186002	NELAP	LA
4620 - 1,4-Dichlorobenzene	EPA 8270D	10186002	NELAP	LA
4735 - 1,4-Dioxane (1,4- Diethyleneoxide)	EPA 8270D	10186002	NELAP	LA
6420 - 1,4-Naphthoquinone	EPA 8270D	10186002	NELAP	LA
6380 - 1-Methylnaphthalene	EPA 8270D	10186002	NELAP	LA
6425 - 1-Naphthylamine	EPA 8270D	10186002	NELAP	LA
6735 - 2,3,4,6-Tetrachlorophenol	EPA 8270D	10186002	NELAP	LA
6835 - 2,4,5-Trichlorophenol	EPA 8270D	10186002	NELAP	LA
6840 - 2,4,6-Trichlorophenol	EPA 8270D	10186002	NELAP	LA
6000 - 2,4-Dichlorophenol	EPA 8270D	10186002	NELAP	LA
6130 - 2,4-Dimethylphenol	EPA 8270D	10186002	NELAP	LA
6175 - 2,4-Dinitrophenol	EPA 8270D	10186002	NELAP	LA
6185 - 2,4-Dinitrotoluene (2,4-DNT)	EPA 8270D	10186002	NELAP	LA
6005 - 2,6-Dichlorophenol	EPA 8270D	10186002	NELAP	LA
6190 - 2,6-Dinitrotoluene (2,6-DNT)	EPA 8270D	10186002	NELAP	LA
5515 - 2-Acetylaminofluorene	EPA 8270D	10186002	NELAP	LA
5795 - 2-Chloronaphthalene	EPA 8270D	10186002	NELAP	LA
5800 - 2-Chlorophenol	EPA 8270D	10186002	NELAP	LA
6360 - 2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270D	10186002	NELAP	LA
5145 - 2-Methylaniline (o-Toluidine)	EPA 8270D	10186002	NELAP	LA
6385 - 2-Methylnaphthalene	EPA 8270D	10186002	NELAP	LA
6400 - 2-Methylphenol (o-Cresol)	EPA 8270D	10186002	NELAP	LA
6430 - 2-Naphthylamine	EPA 8270D	10186002	NELAP	LA
6460 - 2-Nitroaniline	EPA 8270D	10186002	NELAP	LA
6490 - 2-Nitrophenol	EPA 8270D	10186002	NELAP	LA
6412 - 3+4 Methylphenol	EPA 8270D	10186002	NELAP	LA
5945 - 3,3'-Dichlorobenzidine	EPA 8270D	10186002	NELAP	LA
6120 - 3,3'-Dimethylbenzidine	EPA 8270D	10186002	NELAP	LA
6355 - 3-Methylcholanthrene	EPA 8270D	10186002	NELAP	LA
6465 - 3-Nitroaniline	EPA 8270D	10186002	NELAP	LA
5540 - 4-Aminobiphenyl	EPA 8270D	10186002	NELAP	LA
5660 - 4-Bromophenyl phenyl ether	EPA 8270D	10186002	NELAP	LA
5700 - 4-Chloro-3-methylphenol	EPA 8270D	10186002	NELAP	LA
5745 - 4-Chloroaniline	EPA 8270D	10186002	NELAP	LA
5825 - 4-Chlorophenyl phenylether	EPA 8270D	10186002	NELAP	LA

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
4540 - 4-Chlorotoluene	EPA 8270D	10186002	NELAP	LA
6470 - 4-Nitroaniline	EPA 8270D	10186002	NELAP	LA
6500 - 4-Nitrophenol	EPA 8270D	10186002	NELAP	LA
6510 - 4-Nitroquinoline 1-oxide	EPA 8270D	10186002	NELAP	LA
6570 - 5-Nitro-o-toluidine	EPA 8270D	10186002	NELAP	LA
6115 - 7,12-Dimethylbenz(a) anthracene	EPA 8270D	10186002	NELAP	LA
5500 - Acenaphthene	EPA 8270D	10186002	NELAP	LA
5505 - Acenaphthylene	EPA 8270D	10186002	NELAP	LA
5510 - Acetophenone	EPA 8270D	10186002	NELAP	LA
5545 - Aniline	EPA 8270D	10186002	NELAP	LA
5555 - Anthracene	EPA 8270D	10186002	NELAP	LA
5560 - Aramite	EPA 8270D	10186002	NELAP	LA
7065 - Atrazine	EPA 8270D	10186002	NELAP	LA
5562 - Azobenzene	EPA 8270D	10186002	NELAP	LA
5575 - Benz(a)anthracene	EPA 8270D	10186002	NELAP	LA
5570 - Benzaldehyde	EPA 8270D	10186002	NELAP	LA
5580 - Benzo(a)pyrene	EPA 8270D	10186002	NELAP	LA
5585 - Benzo(b)fluoranthene	EPA 8270D	10186002	NELAP	LA
5590 - Benzo(g,h,i)perylene	EPA 8270D	10186002	NELAP	LA
5600 - Benzo(k)fluoranthene	EPA 8270D	10186002	NELAP	LA
5610 - Benzoic acid	EPA 8270D	10186002	NELAP	LA
5630 - Benzyl alcohol	EPA 8270D	10186002	NELAP	LA
5670 - Butyl benzyl phthalate	EPA 8270D	10186002	NELAP	LA
7180 - Caprolactam	EPA 8270D	10186002	NELAP	LA
5680 - Carbazole	EPA 8270D	10186002	NELAP	LA
7260 - Chlorobenzilate	EPA 8270D	10186002	NELAP	LA
5855 - Chrysene	EPA 8270D	10186002	NELAP	LA
4557 - Cyclohexanol	EPA 8270D	10186002	NELAP	LA
6065 - Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	EPA 8270D	10186002	NELAP	LA
5925 - Di-n-butyl phthalate	EPA 8270D	10186002	NELAP	LA
6200 - Di-n-octyl phthalate	EPA 8270D	10186002	NELAP	LA
7405 - Diallate	EPA 8270D	10186002	NELAP	LA
5895 - Dibenz(a,h)anthracene	EPA 8270D	10186002	NELAP	LA
5905 - Dibenzofuran	EPA 8270D	10186002	NELAP	LA
6070 - Diethyl phthalate	EPA 8270D	10186002	NELAP	LA
7475 - Dimethoate	EPA 8270D	10186002	NELAP	LA
6135 - Dimethyl phthalate	EPA 8270D	10186002	NELAP	LA
8625 - Disulfoton	EPA 8270D	10186002	NELAP	LA
4810 - Ethyl methacrylate	EPA 8270D	10186002	NELAP	LA
6260 - Ethyl methanesulfonate	EPA 8270D	10186002	NELAP	LA
7580 - Famphur	EPA 8270D	10186002	NELAP	LA
6265 - Fluoranthene	EPA 8270D	10186002	NELAP	LA
6270 - Fluorene	EPA 8270D	10186002	NELAP	LA
6275 - Hexachlorobenzene	EPA 8270D	10186002	NELAP	LA
4835 - Hexachlorobutadiene	EPA 8270D	10186002	NELAP	LA
6285 - Hexachlorocyclopentadiene	EPA 8270D	10186002	NELAP	LA
4840 - Hexachloroethane	EPA 8270D	10186002	NELAP	LA
6295 - Hexachloropropene	EPA 8270D	10186002	NELAP	LA
6315 - Indeno(1,2,3-cd)pyrene	EPA 8270D	10186002	NELAP	LA
7725 - Isodrin	EPA 8270D	10186002	NELAP	LA
6320 - Isophorone	EPA 8270D	10186002	NELAP	LA
6325 - Isosafrole	EPA 8270D	10186002	NELAP	LA
6345 - Methapyrilene	EPA 8270D	10186002	NELAP	LA
4990 - Methyl methacrylate	EPA 8270D	10186002	NELAP	LA

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
6375 - Methyl methanesulfonate	EPA 8270D	10186002	NELAP	LA
7825 - Methyl parathion (Parathion, methyl)	EPA 8270D	10186002	NELAP	LA
5005 - Naphthalene	EPA 8270D	10186002	NELAP	LA
5015 - Nitrobenzene	EPA 8270D	10186002	NELAP	LA
6590 - Pentachlorobenzene	EPA 8270D	10186002	NELAP	LA
5035 - Pentachloroethane	EPA 8270D	10186002	NELAP	LA
6600 - Pentachloronitrobenzene	EPA 8270D	10186002	NELAP	LA
6605 - Pentachlorophenol	EPA 8270D	10186002	NELAP	LA
6610 - Phenacetin	EPA 8270D	10186002	NELAP	LA
6615 - Phenanthrene	EPA 8270D	10186002	NELAP	LA
6625 - Phenol	EPA 8270D	10186002	NELAP	LA
6665 - Pyrene	EPA 8270D	10186002	NELAP	LA
5095 - Pyridine	EPA 8270D	10186002	NELAP	LA
6125 - a-a-Dimethylphenethylamine	EPA 8270D	10186002	NELAP	LA
5760 - bis(2-Chloroethoxy)methane	EPA 8270D	10186002	NELAP	LA
5765 - bis(2-Chloroethyl) ether	EPA 8270D	10186002	NELAP	LA
5780 - bis(2-Chloroisopropyl) ether	EPA 8270D	10186002	NELAP	LA
5025 - n-Nitroso-di-n-butylamine	EPA 8270D	10186002	NELAP	LA
6545 - n-Nitrosodi-n-propylamine	EPA 8270D	10186002	NELAP	LA
6525 - n-Nitrosodiethylamine	EPA 8270D	10186002	NELAP	LA
6530 - n-Nitrosodimethylamine	EPA 8270D	10186002	NELAP	LA
6535 - n-Nitrosodiphenylamine	EPA 8270D	10186002	NELAP	LA
6550 - n-Nitrosomethylethylamine	EPA 8270D	10186002	NELAP	LA
6555 - n-Nitrosomorpholine	EPA 8270D	10186002	NELAP	LA
6560 - n-Nitrosopiperidine	EPA 8270D	10186002	NELAP	LA
6565 - n-Nitrosopyrrolidine	EPA 8270D	10186002	NELAP	LA
5090 - n-Propylbenzene	EPA 8270D	10186002	NELAP	LA
8290 - o,o,o-Triethyl phosphorothioate	EPA 8270D	10186002	NELAP	LA
2045 - Total Organic Halides (TOX)	EPA 9020B	10194408	NELAP	LA
2005 - Sulfide	EPA 9030	10195207	NELAP	LA
1610 - Conductivity	EPA 9050A	10198808	NELAP	LA
1540 - Bromide	EPA 9056A	10199607	NELAP	LA
1575 - Chloride	EPA 9056A	10199607	NELAP	LA
1730 - Fluoride	EPA 9056A	10199607	NELAP	LA
1810 - Nitrate as N	EPA 9056A	10199607	NELAP	LA
1840 - Nitrite as N	EPA 9056A	10199607	NELAP	LA
1870 - Orthophosphate as P	EPA 9056A	10199607	NELAP	LA
2000 - Sulfate	EPA 9056A	10199607	NELAP	LA
2835 - Gross alpha-beta	EPA 9310	10208205	NELAP	LA
2830 - Gross-alpha	EPA 9310	10208205	NELAP	LA
2840 - Gross-beta	EPA 9310	10208205	NELAP	LA
100210 - Alpha Emitting Radium Isotopes	EPA 9315	10208409	NELAP	LA
2965 - Radium-226	EPA 9315	10208409	NELAP	LA
2975 - Total radium	EPA 9315	10208409	NELAP	LA
2970 - Radium-228	EPA 9320	10208603	NELAP	LA
4323 - Acetylene	EPA RSK-175 (GC/FID)	10212905	NELAP	LA
4747 - Ethane	EPA RSK-175 (GC/FID)	10212905	NELAP	LA
4752 - Ethylene	EPA RSK-175 (GC/FID)	10212905	NELAP	LA
4926 - Methane	EPA RSK-175 (GC/FID)	10212905	NELAP	LA
1780 - Ignitability	EPA 1010A	10234807	NELAP	LA
6380 - 1-Methylnaphthalene	EPA 8270D SIM	10242509	NELAP	LA
6385 - 2-Methylnaphthalene	EPA 8270D SIM	10242509	NELAP	LA
5500 - Acenaphthene	EPA 8270D SIM	10242509	NELAP	LA
5505 - Acenaphthylene	EPA 8270D SIM	10242509	NELAP	LA
5555 - Anthracene	EPA 8270D SIM	10242509	NELAP	LA

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
5575 - Benz(a)anthracene	EPA 8270D SIM	10242509	NELAP	LA
5580 - Benzo(a)pyrene	EPA 8270D SIM	10242509	NELAP	LA
5585 - Benzo(b)fluoranthene	EPA 8270D SIM	10242509	NELAP	LA
5590 - Benzo(g,h,i)perylene	EPA 8270D SIM	10242509	NELAP	LA
5600 - Benzo(k)fluoranthene	EPA 8270D SIM	10242509	NELAP	LA
5855 - Chrysene	EPA 8270D SIM	10242509	NELAP	LA
5895 - Dibenz(a,h)anthracene	EPA 8270D SIM	10242509	NELAP	LA
6265 - Fluoranthene	EPA 8270D SIM	10242509	NELAP	LA
6270 - Fluorene	EPA 8270D SIM	10242509	NELAP	LA
6315 - Indeno(1,2,3-cd)pyrene	EPA 8270D SIM	10242509	NELAP	LA
5005 - Naphthalene	EPA 8270D SIM	10242509	NELAP	LA
6615 - Phenanthrene	EPA 8270D SIM	10242509	NELAP	LA
6665 - Pyrene	EPA 8270D SIM	10242509	NELAP	LA
2830 - Gross-alpha	EPA 900.0 (GPC)	10242601	NELAP	LA
2840 - Gross-beta	EPA 900.0 (GPC)	10242601	NELAP	LA
1645 - Total Cyanide	EPA 9010C	10243002	NELAP	LA
1645 - Total Cyanide	EPA 9012B	10243206	NELAP	LA
1900 - pH	EPA 9040C	10244403	NELAP	LA
1900 - pH	EPA 9045D	10244607	NELAP	LA
2040 - Total Organic Carbon	EPA 9060A	10244801	NELAP	LA
1406 - Purge and trap for aqueous phase samples	EPA 5030C	10284603	NELAP	LA
5105 - 1,1,1,2-Tetrachloroethane	EPA 8260C	10307003	NELAP	LA
5160 - 1,1,1-Trichloroethane	EPA 8260C	10307003	NELAP	LA
5110 - 1,1,2,2-Tetrachloroethane	EPA 8260C	10307003	NELAP	LA
5185 - 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260C	10307003	NELAP	LA
5165 - 1,1,2-Trichloroethane	EPA 8260C	10307003	NELAP	LA
4630 - 1,1-Dichloroethane	EPA 8260C	10307003	NELAP	LA
4640 - 1,1-Dichloroethylene	EPA 8260C	10307003	NELAP	LA
4670 - 1,1-Dichloropropene	EPA 8260C	10307003	NELAP	LA
5150 - 1,2,3-Trichlorobenzene	EPA 8260C	10307003	NELAP	LA
5180 - 1,2,3-Trichloropropane	EPA 8260C	10307003	NELAP	LA
5182 - 1,2,3-Trimethylbenzene	EPA 8260C	10307003	NELAP	LA
5155 - 1,2,4-Trichlorobenzene	EPA 8260C	10307003	NELAP	LA
5210 - 1,2,4-Trimethylbenzene	EPA 8260C	10307003	NELAP	LA
4570 - 1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260C	10307003	NELAP	LA
4585 - 1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260C	10307003	NELAP	LA
4697 - 1,2-Dichloro-1,1,2-trifluoroethane	EPA 8260C	10307003	NELAP	LA
4610 - 1,2-Dichlorobenzene	EPA 8260C	10307003	NELAP	LA
4635 - 1,2-Dichloroethane (Ethylene dichloride)	EPA 8260C	10307003	NELAP	LA
4655 - 1,2-Dichloropropane	EPA 8260C	10307003	NELAP	LA
5215 - 1,3,5-Trimethylbenzene	EPA 8260C	10307003	NELAP	LA
4615 - 1,3-Dichlorobenzene	EPA 8260C	10307003	NELAP	LA
4660 - 1,3-Dichloropropane	EPA 8260C	10307003	NELAP	LA
4835 - 1,3-Hexachlorobutadiene	EPA 8260C	10307003	NELAP	LA
4620 - 1,4-Dichlorobenzene	EPA 8260C	10307003	NELAP	LA
4735 - 1,4-Dioxane (1,4- Diethyleneoxide)	EPA 8260C	10307003	NELAP	LA
4510 - 1-Chlorohexane	EPA 8260C	10307003	NELAP	LA
4665 - 2,2-Dichloropropane	EPA 8260C	10307003	NELAP	LA
4410 - 2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260C	10307003	NELAP	LA

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
4500 - 2-Chloroethyl vinyl ether	EPA 8260C	10307003	NELAP	LA
4535 - 2-Chlorotoluene	EPA 8260C	10307003	NELAP	LA
4860 - 2-Hexanone	EPA 8260C	10307003	NELAP	LA
5020 - 2-Nitropropane	EPA 8260C	10307003	NELAP	LA
4540 - 4-Chlorotoluene	EPA 8260C	10307003	NELAP	LA
4910 - 4-Isopropyltoluene (p-Cymene)	EPA 8260C	10307003	NELAP	LA
4995 - 4-Methyl-2-pentanone (MIBK)	EPA 8260C	10307003	NELAP	LA
4315 - Acetone	EPA 8260C	10307003	NELAP	LA
4320 - Acetonitrile	EPA 8260C	10307003	NELAP	LA
4325 - Acrolein (Propenal)	EPA 8260C	10307003	NELAP	LA
4340 - Acrylonitrile	EPA 8260C	10307003	NELAP	LA
4355 - Allyl chloride (3-Chloropropene)	EPA 8260C	10307003	NELAP	LA
4375 - Benzene	EPA 8260C	10307003	NELAP	LA
4385 - Bromobenzene	EPA 8260C	10307003	NELAP	LA
4390 - Bromochloromethane	EPA 8260C	10307003	NELAP	LA
4395 - Bromodichloromethane	EPA 8260C	10307003	NELAP	LA
4400 - Bromoform	EPA 8260C	10307003	NELAP	LA
4450 - Carbon disulfide	EPA 8260C	10307003	NELAP	LA
4455 - Carbon tetrachloride	EPA 8260C	10307003	NELAP	LA
4475 - Chlorobenzene	EPA 8260C	10307003	NELAP	LA
4575 - Chlorodibromomethane	EPA 8260C	10307003	NELAP	LA
4485 - Chloroethane (Ethyl chloride)	EPA 8260C	10307003	NELAP	LA
4505 - Chloroform	EPA 8260C	10307003	NELAP	LA
4525 - Chloroprene (2-Chloro-1,3-butadiene)	EPA 8260C	10307003	NELAP	LA
4555 - Cyclohexane	EPA 8260C	10307003	NELAP	LA
4560 - Cyclohexanone	EPA 8260C	10307003	NELAP	LA
9375 - Di-isopropylether (DIPE) (Isopropyl ether)	EPA 8260C	10307003	NELAP	LA
4595 - Dibromomethane (Methylene bromide)	EPA 8260C	10307003	NELAP	LA
4625 - Dichlorodifluoromethane (Freon-12)	EPA 8260C	10307003	NELAP	LA
4725 - Diethyl ether	EPA 8260C	10307003	NELAP	LA
4750 - Ethanol	EPA 8260C	10307003	NELAP	LA
4755 - Ethyl acetate	EPA 8260C	10307003	NELAP	LA
4810 - Ethyl methacrylate	EPA 8260C	10307003	NELAP	LA
4770 - Ethyl-t-butyl ether (ETBE) (2-Ethoxy-2-methylpropane)	EPA 8260C	10307003	NELAP	LA
4765 - Ethylbenzene	EPA 8260C	10307003	NELAP	LA
4835 - Hexachlorobutadiene	EPA 8260C	10307003	NELAP	LA
4870 - Iodomethane (Methyl iodide)	EPA 8260C	10307003	NELAP	LA
4875 - Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260C	10307003	NELAP	LA
4895 - Isopropyl alcohol (2-Propanol, Isopropanol)	EPA 8260C	10307003	NELAP	LA
4900 - Isopropylbenzene	EPA 8260C	10307003	NELAP	LA
4925 - Methacrylonitrile	EPA 8260C	10307003	NELAP	LA
4940 - Methyl acetate	EPA 8260C	10307003	NELAP	LA
4950 - Methyl bromide (Bromomethane)	EPA 8260C	10307003	NELAP	LA
4960 - Methyl chloride (Chloromethane)	EPA 8260C	10307003	NELAP	LA
4990 - Methyl methacrylate	EPA 8260C	10307003	NELAP	LA
5000 - Methyl tert-butyl ether (MTBE)	EPA 8260C	10307003	NELAP	LA
4975 - Methylene chloride (Dichloromethane)	EPA 8260C	10307003	NELAP	LA
5005 - Naphthalene	EPA 8260C	10307003	NELAP	LA

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
5035 - Pentachloroethane	EPA 8260C	10307003	NELAP	LA
5080 - Propionitrile (Ethyl cyanide)	EPA 8260C	10307003	NELAP	LA
5100 - Styrene	EPA 8260C	10307003	NELAP	LA
4370 - T-amylmethylether (TAME)	EPA 8260C	10307003	NELAP	LA
5115 - Tetrachloroethylene (Perchloroethylene)	EPA 8260C	10307003	NELAP	LA
5120 - Tetrahydrofuran (THF)	EPA 8260C	10307003	NELAP	LA
5140 - Toluene	EPA 8260C	10307003	NELAP	LA
5170 - Trichloroethene (Trichloroethylene)	EPA 8260C	10307003	NELAP	LA
5175 - Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260C	10307003	NELAP	LA
5225 - Vinyl acetate	EPA 8260C	10307003	NELAP	LA
5235 - Vinyl chloride	EPA 8260C	10307003	NELAP	LA
5260 - Xylene (total)	EPA 8260C	10307003	NELAP	LA
4645 - cis-1,2-Dichloroethylene	EPA 8260C	10307003	NELAP	LA
4680 - cis-1,3-Dichloropropene	EPA 8260C	10307003	NELAP	LA
4600 - cis-1,4-Dichloro-2-butene	EPA 8260C	10307003	NELAP	LA
5240 - m+p-xylene	EPA 8260C	10307003	NELAP	LA
4425 - n-Butyl alcohol (1-Butanol, n-Butanol)	EPA 8260C	10307003	NELAP	LA
4435 - n-Butylbenzene	EPA 8260C	10307003	NELAP	LA
5090 - n-Propylbenzene	EPA 8260C	10307003	NELAP	LA
5250 - o-Xylene	EPA 8260C	10307003	NELAP	LA
4440 - sec-Butylbenzene	EPA 8260C	10307003	NELAP	LA
4420 - tert-Butyl alcohol	EPA 8260C	10307003	NELAP	LA
4445 - tert-Butylbenzene	EPA 8260C	10307003	NELAP	LA
4700 - trans-1,2-Dichloroethylene	EPA 8260C	10307003	NELAP	LA
4685 - trans-1,3-Dichloropropylene	EPA 8260C	10307003	NELAP	LA
4605 - trans-1,4-Dichloro-2-butene	EPA 8260C	10307003	NELAP	LA
6885 - 1,3,5-Trinitrobenzene (1,3,5-TNB)	EPA 8330B	10308006	NELAP	LA
6160 - 1,3-Dinitrobenzene (1,3-DNB)	EPA 8330B	10308006	NELAP	LA
9651 - 2,4,6-Trinitrotoluene (2,4,6-TNT)	EPA 8330B	10308006	NELAP	LA
6185 - 2,4-Dinitrotoluene (2,4-DNT)	EPA 8330B	10308006	NELAP	LA
6190 - 2,6-Dinitrotoluene (2,6-DNT)	EPA 8330B	10308006	NELAP	LA
9303 - 2-Amino-4,6-dinitrotoluene (2-am-dnt)	EPA 8330B	10308006	NELAP	LA
9507 - 2-Nitrotoluene	EPA 8330B	10308006	NELAP	LA
9510 - 3-Nitrotoluene	EPA 8330B	10308006	NELAP	LA
9306 - 4-Amino-2,6-dinitrotoluene (4-am-dnt)	EPA 8330B	10308006	NELAP	LA
9513 - 4-Nitrotoluene	EPA 8330B	10308006	NELAP	LA
6415 - Methyl-2,4,6-trinitrophenylnitramine (tetryl)	EPA 8330B	10308006	NELAP	LA
5015 - Nitrobenzene	EPA 8330B	10308006	NELAP	LA
6485 - Nitroglycerin	EPA 8330B	10308006	NELAP	LA
9522 - Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	EPA 8330B	10308006	NELAP	LA
9432 - RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)	EPA 8330B	10308006	NELAP	LA
2800 - Cesium-134	EPA 901.1	10308608	NELAP	LA
2805 - Cesium-137	EPA 901.1	10308608	NELAP	LA
2815 - Cobalt-60	EPA 901.1	10308608	NELAP	LA
2826 - Gamma Emitters	EPA 901.1	10308608	NELAP	LA
3070 - Zinc-65	EPA 901.1	10308608	NELAP	LA
2970 - Radium-228	EPA 904.0	10309805	NELAP	LA

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
100543 - Strontium, total	EPA 905.0	10310006	NELAP	LA
3005 - Strontium-90	EPA 905.0	10310006	NELAP	LA
3030 - Tritium	EPA 906.0	10310200	NELAP	LA
2965 - Radium-226	EPA 9315	10311009	NELAP	LA
1505 - Alkalinity as CaCO3	SM 2320 B-97, Online Edition	20045607	NELAP	LA
1950 - Residue-total	SM 2540 B-97, Online Edition	20049405	NELAP	LA
1955 - Residue-filterable (TDS)	SM 2540 C-97, Online Edition	20050402	NELAP	LA
1960 - Residue-nonfilterable (TSS)	SM 2540 D-97, Online Edition	20051201	NELAP	LA
1900 - pH	SM 4500-H+ B-2000	20105219	NELAP	LA
2758 - Antimony 124	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1006 - Antimony 125	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2765 - Barium-133	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1021 - Beryllium-7	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2772 - Bismuth-212	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2773 - Bismuth-214	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2794 - Cerium-141	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2800 - Cesium-134	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2805 - Cesium-137	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2812 - Cobalt-57	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2815 - Cobalt-60	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1068 - Europium-152	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1069 - Europium-154	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1078 - Europium-155	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2826 - Gamma Emitters	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2875 - Iodine-131	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2880 - Iridium-192	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2902 - Lead-212	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2903 - Lead-214	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2905 - Manganese-54	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2908 - Mercury-203	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2918 - Niobium-94	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1107 - Niobium-95	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2946 - Potassium-40	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2952 - Protactinium-234	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2960 - Radium-224	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2965 - Radium-226	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2988 - Ruthenium-103	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1136 - Ruthenium-106	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1156 - Sodium-22	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1164 - Strontium-85	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1166 - Thallium-208	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3031 - Thorium-227	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1171 - Thorium-228	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3032 - Thorium-231	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3028 - Thorium-234	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2942 - Tin-113	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3037 - Uranium-235	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3038 - Uranium-238	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3067 - Yttrium-88	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3070 - Zinc-65	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3072 - Zirconium-95	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2930 - Plutonium-238	HASL 300 A-01-R, 28th ED	90000605	NELAP	LA
2932 - Plutonium-239	HASL 300 A-01-R, 28th ED	90000605	NELAP	LA
3036 - Uranium-234	HASL 300 A-01-R, 28th ED	90000605	NELAP	LA
3038 - Uranium-238	HASL 300 A-01-R, 28th ED	90000605	NELAP	LA

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
3005 - Strontium-90	HASL 300 Sr-02-RC (GPC), 28th ED	90009204	NELAP	LA
3005 - Strontium-90	HASL 300 Sr-03-RC, 28th ED	90009806	NELAP	LA
9408 - Gasoline range organics (GRO)	IDNR OA-1	90016403	NELAP	LA
9369 - Diesel range organics (DRO)	IDNR OA-2	90016607	NELAP	LA

Solid Chemical Materials

Analyte	Method Name	Method Code	Type	AB
2755 - Americium-241	Eichrom RAW03	2257	NELAP	LA
2755 - Americium-241	Eichrom ACW03	2259	NELAP	LA
2940 - Plutonium	Eichrom ACW03	2259	NELAP	LA
3035 - Uranium	Eichrom ACW03	2259	NELAP	LA
100499 - Neptunium	Eichrom ACW08	2260	NELAP	LA
1170 - Thorium	Eichrom ACW08	2260	NELAP	LA
2900 - Lead-210	Eichrom OTW01	2264	NELAP	LA
2912 - Nickel-63	Eichrom NiW01	2267	NELAP	LA
1170 - Thorium	Eichrom ACW10	2269	NELAP	LA
3000 - Strontium-89 (calc.)	EPA 905 (Modified)	2441	NELAP	LA
3005 - Strontium-90	EPA 905 (Modified)	2441	NELAP	LA
3030 - Tritium	EPA 906 (Modified)	2442	NELAP	LA
4735 - 1,4-Dioxane (1,4- Diethyleneoxide)	EPA 8260 SIM	2995	NELAP	LA
1923 - Reactive Cyanide	EPA 7.3.3.2, Rev.3	10001204	State	LA
1925 - Reactive sulfide	EPA 7.3.4.2, Rev.3	10001408	NELAP	LA
1730 - Fluoride	EPA 340.2	10062007	NELAP	LA
1795 - Kjeldahl nitrogen - total	EPA 351.2, Rev.2	10065404	NELAP	LA
1565 - Chemical oxygen demand	EPA 410.4	10077006	NELAP	LA
2800 - Cesium-134	EPA 901.1	10112808	NELAP	LA
2805 - Cesium-137	EPA 901.1	10112808	NELAP	LA
2815 - Cobalt-60	EPA 901.1	10112808	NELAP	LA
2826 - Gamma Emitters	EPA 901.1	10112808	NELAP	LA
100586 - Photon Emitters	EPA 901.1	10112808	NELAP	LA
1466 - Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311	10118806	NELAP	LA
1460 - Synthetic Precipitation Leaching Procedure	EPA 1312	10119003	NELAP	LA
100007 - Acid Digestion of Sediments, Sludges, and soils	EPA 3050B	10135601	NELAP	LA
1402 - Alkaline Digestion for Hexavalent Chromium	EPA 3060A	10136604	NELAP	LA
1444 - Separatory Funnel Liquid-liquid extraction	EPA 3510C	10138202	NELAP	LA
1468 - Ultrasonic Extraction	EPA 3550C	10142004	NELAP	LA
1000 - Aluminum	EPA 6010C	10155803	NELAP	LA
1005 - Antimony	EPA 6010C	10155803	NELAP	LA
1010 - Arsenic	EPA 6010C	10155803	NELAP	LA
1015 - Barium	EPA 6010C	10155803	NELAP	LA
1020 - Beryllium	EPA 6010C	10155803	NELAP	LA
1025 - Boron	EPA 6010C	10155803	NELAP	LA
1030 - Cadmium	EPA 6010C	10155803	NELAP	LA
1035 - Calcium	EPA 6010C	10155803	NELAP	LA
1040 - Chromium	EPA 6010C	10155803	NELAP	LA
1050 - Cobalt	EPA 6010C	10155803	NELAP	LA
1055 - Copper	EPA 6010C	10155803	NELAP	LA
1070 - Iron	EPA 6010C	10155803	NELAP	LA

Solid Chemical Materials

Analyte	Method Name	Method Code	Type	AB
1075 - Lead	EPA 6010C	10155803	NELAP	LA
1080 - Lithium	EPA 6010C	10155803	NELAP	LA
1085 - Magnesium	EPA 6010C	10155803	NELAP	LA
1090 - Manganese	EPA 6010C	10155803	NELAP	LA
1100 - Molybdenum	EPA 6010C	10155803	NELAP	LA
1105 - Nickel	EPA 6010C	10155803	NELAP	LA
1125 - Potassium	EPA 6010C	10155803	NELAP	LA
1140 - Selenium	EPA 6010C	10155803	NELAP	LA
1145 - Silicon	EPA 6010C	10155803	NELAP	LA
1150 - Silver	EPA 6010C	10155803	NELAP	LA
1155 - Sodium	EPA 6010C	10155803	NELAP	LA
1160 - Strontium	EPA 6010C	10155803	NELAP	LA
1165 - Thallium	EPA 6010C	10155803	NELAP	LA
1175 - Tin	EPA 6010C	10155803	NELAP	LA
1180 - Titanium	EPA 6010C	10155803	NELAP	LA
1185 - Vanadium	EPA 6010C	10155803	NELAP	LA
1190 - Zinc	EPA 6010C	10155803	NELAP	LA
1000 - Aluminum	EPA 6020A	10156408	NELAP	LA
1005 - Antimony	EPA 6020A	10156408	NELAP	LA
1010 - Arsenic	EPA 6020A	10156408	NELAP	LA
1015 - Barium	EPA 6020A	10156408	NELAP	LA
1020 - Beryllium	EPA 6020A	10156408	NELAP	LA
1025 - Boron	EPA 6020A	10156408	NELAP	LA
1030 - Cadmium	EPA 6020A	10156408	NELAP	LA
1035 - Calcium	EPA 6020A	10156408	NELAP	LA
1034 - Cerium	EPA 6020A	10156408	NELAP	LA
1040 - Chromium	EPA 6020A	10156408	NELAP	LA
1050 - Cobalt	EPA 6020A	10156408	NELAP	LA
1055 - Copper	EPA 6020A	10156408	NELAP	LA
1070 - Iron	EPA 6020A	10156408	NELAP	LA
1072 - Lanthanum	EPA 6020A	10156408	NELAP	LA
1075 - Lead	EPA 6020A	10156408	NELAP	LA
1080 - Lithium	EPA 6020A	10156408	NELAP	LA
1085 - Magnesium	EPA 6020A	10156408	NELAP	LA
1090 - Manganese	EPA 6020A	10156408	NELAP	LA
1100 - Molybdenum	EPA 6020A	10156408	NELAP	LA
1103 - Neodymium	EPA 6020A	10156408	NELAP	LA
1105 - Nickel	EPA 6020A	10156408	NELAP	LA
1125 - Potassium	EPA 6020A	10156408	NELAP	LA
1127 - Praseodymium	EPA 6020A	10156408	NELAP	LA
1140 - Selenium	EPA 6020A	10156408	NELAP	LA
1150 - Silver	EPA 6020A	10156408	NELAP	LA
1155 - Sodium	EPA 6020A	10156408	NELAP	LA
1160 - Strontium	EPA 6020A	10156408	NELAP	LA
1165 - Thallium	EPA 6020A	10156408	NELAP	LA
1170 - Thorium	EPA 6020A	10156408	NELAP	LA
1175 - Tin	EPA 6020A	10156408	NELAP	LA
1180 - Titanium	EPA 6020A	10156408	NELAP	LA
1184 - Uranium	EPA 6020A	10156408	NELAP	LA
1185 - Vanadium	EPA 6020A	10156408	NELAP	LA
1190 - Zinc	EPA 6020A	10156408	NELAP	LA
1192 - Zirconium	EPA 6020A	10156408	NELAP	LA
1045 - Chromium VI	EPA 7196A	10162400	NELAP	LA
1095 - Mercury	EPA 7471B	10166402	NELAP	LA
9369 - Diesel range organics (DRO)	EPA 8015B	10173601	NELAP	LA

Solid Chemical Materials

Analyte	Method Name	Method Code	Type	AB
4785 - Ethylene glycol	EPA 8015B	10173601	NELAP	LA
9408 - Gasoline range organics (GRO)	EPA 8015B	10173601	NELAP	LA
6657 - Propylene Glycol	EPA 8015B	10173601	NELAP	LA
7355 - 4,4'-DDD	EPA 8081B	10178800	NELAP	LA
7360 - 4,4'-DDE	EPA 8081B	10178800	NELAP	LA
7365 - 4,4'-DDT	EPA 8081B	10178800	NELAP	LA
7025 - Aldrin	EPA 8081B	10178800	NELAP	LA
7250 - Chlordane (tech.)	EPA 8081B	10178800	NELAP	LA
7470 - Dieldrin	EPA 8081B	10178800	NELAP	LA
7510 - Endosulfan I	EPA 8081B	10178800	NELAP	LA
7515 - Endosulfan II	EPA 8081B	10178800	NELAP	LA
7520 - Endosulfan sulfate	EPA 8081B	10178800	NELAP	LA
7540 - Endrin	EPA 8081B	10178800	NELAP	LA
7530 - Endrin aldehyde	EPA 8081B	10178800	NELAP	LA
7535 - Endrin ketone	EPA 8081B	10178800	NELAP	LA
7685 - Heptachlor	EPA 8081B	10178800	NELAP	LA
7690 - Heptachlor epoxide	EPA 8081B	10178800	NELAP	LA
7810 - Methoxychlor	EPA 8081B	10178800	NELAP	LA
8250 - Toxaphene (Chlorinated camphene)	EPA 8081B	10178800	NELAP	LA
7110 - alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081B	10178800	NELAP	LA
7240 - alpha-Chlordane	EPA 8081B	10178800	NELAP	LA
7115 - beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081B	10178800	NELAP	LA
7105 - delta-BHC	EPA 8081B	10178800	NELAP	LA
7120 - gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	EPA 8081B	10178800	NELAP	LA
7245 - gamma-Chlordane	EPA 8081B	10178800	NELAP	LA
8880 - Aroclor-1016 (PCB-1016)	EPA 8082A	10179201	NELAP	LA
8885 - Aroclor-1221 (PCB-1221)	EPA 8082A	10179201	NELAP	LA
8890 - Aroclor-1232 (PCB-1232)	EPA 8082A	10179201	NELAP	LA
8895 - Aroclor-1242 (PCB-1242)	EPA 8082A	10179201	NELAP	LA
8900 - Aroclor-1248 (PCB-1248)	EPA 8082A	10179201	NELAP	LA
8905 - Aroclor-1254 (PCB-1254)	EPA 8082A	10179201	NELAP	LA
8910 - Aroclor-1260 (PCB-1260)	EPA 8082A	10179201	NELAP	LA
8655 - 2,4,5-T	EPA 8151A	10183207	NELAP	LA
8545 - 2,4-D	EPA 8151A	10183207	NELAP	LA
8560 - 2,4-DB	EPA 8151A	10183207	NELAP	LA
8555 - Dalapon	EPA 8151A	10183207	NELAP	LA
8595 - Dicamba	EPA 8151A	10183207	NELAP	LA
8605 - Dichloroprop (Dichlorprop)	EPA 8151A	10183207	NELAP	LA
8620 - Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 8151A	10183207	NELAP	LA
7775 - MCPA	EPA 8151A	10183207	NELAP	LA
7780 - MCPP	EPA 8151A	10183207	NELAP	LA
8650 - Silvex (2,4,5-TP)	EPA 8151A	10183207	NELAP	LA
5105 - 1,1,1,2-Tetrachloroethane	EPA 8260B	10184802	NELAP	LA
5160 - 1,1,1-Trichloroethane	EPA 8260B	10184802	NELAP	LA
5110 - 1,1,2,2-Tetrachloroethane	EPA 8260B	10184802	NELAP	LA
5185 - 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260B	10184802	NELAP	LA
5165 - 1,1,2-Trichloroethane	EPA 8260B	10184802	NELAP	LA
4630 - 1,1-Dichloroethane	EPA 8260B	10184802	NELAP	LA
4640 - 1,1-Dichloroethylene	EPA 8260B	10184802	NELAP	LA
4670 - 1,1-Dichloropropene	EPA 8260B	10184802	NELAP	LA

Solid Chemical Materials

Analyte	Method Name	Method Code	Type	AB
5150 - 1,2,3-Trichlorobenzene	EPA 8260B	10184802	NELAP	LA
5180 - 1,2,3-Trichloropropane	EPA 8260B	10184802	NELAP	LA
5155 - 1,2,4-Trichlorobenzene	EPA 8260B	10184802	NELAP	LA
5210 - 1,2,4-Trimethylbenzene	EPA 8260B	10184802	NELAP	LA
4570 - 1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260B	10184802	NELAP	LA
4585 - 1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260B	10184802	NELAP	LA
4697 - 1,2-Dichloro-1,1,2-trifluoroethane	EPA 8260B	10184802	NELAP	LA
4610 - 1,2-Dichlorobenzene	EPA 8260B	10184802	NELAP	LA
4635 - 1,2-Dichloroethane (Ethylene dichloride)	EPA 8260B	10184802	NELAP	LA
4655 - 1,2-Dichloropropane	EPA 8260B	10184802	NELAP	LA
5215 - 1,3,5-Trimethylbenzene	EPA 8260B	10184802	NELAP	LA
4615 - 1,3-Dichlorobenzene	EPA 8260B	10184802	NELAP	LA
4660 - 1,3-Dichloropropane	EPA 8260B	10184802	NELAP	LA
4620 - 1,4-Dichlorobenzene	EPA 8260B	10184802	NELAP	LA
4735 - 1,4-Dioxane (1,4- Diethyleneoxide)	EPA 8260B	10184802	NELAP	LA
4665 - 2,2-Dichloropropane	EPA 8260B	10184802	NELAP	LA
4410 - 2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260B	10184802	NELAP	LA
4500 - 2-Chloroethyl vinyl ether	EPA 8260B	10184802	NELAP	LA
4535 - 2-Chlorotoluene	EPA 8260B	10184802	NELAP	LA
4860 - 2-Hexanone	EPA 8260B	10184802	NELAP	LA
4995 - 4-Methyl-2-pentanone (MIBK)	EPA 8260B	10184802	NELAP	LA
4315 - Acetone	EPA 8260B	10184802	NELAP	LA
4320 - Acetonitrile	EPA 8260B	10184802	NELAP	LA
4325 - Acrolein (Propenal)	EPA 8260B	10184802	NELAP	LA
4340 - Acrylonitrile	EPA 8260B	10184802	NELAP	LA
4355 - Allyl chloride (3-Chloropropene)	EPA 8260B	10184802	NELAP	LA
4375 - Benzene	EPA 8260B	10184802	NELAP	LA
4385 - Bromobenzene	EPA 8260B	10184802	NELAP	LA
4390 - Bromochloromethane	EPA 8260B	10184802	NELAP	LA
4395 - Bromodichloromethane	EPA 8260B	10184802	NELAP	LA
4400 - Bromoform	EPA 8260B	10184802	NELAP	LA
4450 - Carbon disulfide	EPA 8260B	10184802	NELAP	LA
4455 - Carbon tetrachloride	EPA 8260B	10184802	NELAP	LA
4475 - Chlorobenzene	EPA 8260B	10184802	NELAP	LA
4575 - Chlorodibromomethane	EPA 8260B	10184802	NELAP	LA
4485 - Chloroethane (Ethyl chloride)	EPA 8260B	10184802	NELAP	LA
4505 - Chloroform	EPA 8260B	10184802	NELAP	LA
4525 - Chloroprene (2-Chloro-1,3-butadiene)	EPA 8260B	10184802	NELAP	LA
4595 - Dibromomethane (Methylene bromide)	EPA 8260B	10184802	NELAP	LA
4625 - Dichlorodifluoromethane (Freon-12)	EPA 8260B	10184802	NELAP	LA
4725 - Diethyl ether	EPA 8260B	10184802	NELAP	LA
4755 - Ethyl acetate	EPA 8260B	10184802	NELAP	LA
4810 - Ethyl methacrylate	EPA 8260B	10184802	NELAP	LA
4765 - Ethylbenzene	EPA 8260B	10184802	NELAP	LA
4835 - Hexachlorobutadiene	EPA 8260B	10184802	NELAP	LA
4870 - Iodomethane (Methyl iodide)	EPA 8260B	10184802	NELAP	LA
4875 - Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260B	10184802	NELAP	LA
4900 - Isopropylbenzene	EPA 8260B	10184802	NELAP	LA

Solid Chemical Materials

Analyte	Method Name	Method Code	Type	AB
4925 - Methacrylonitrile	EPA 8260B	10184802	NELAP	LA
4950 - Methyl bromide (Bromomethane)	EPA 8260B	10184802	NELAP	LA
4960 - Methyl chloride (Chloromethane)	EPA 8260B	10184802	NELAP	LA
4990 - Methyl methacrylate	EPA 8260B	10184802	NELAP	LA
5000 - Methyl tert-butyl ether (MTBE)	EPA 8260B	10184802	NELAP	LA
4975 - Methylene chloride (Dichloromethane)	EPA 8260B	10184802	NELAP	LA
5005 - Naphthalene	EPA 8260B	10184802	NELAP	LA
5035 - Pentachloroethane	EPA 8260B	10184802	NELAP	LA
5080 - Propionitrile (Ethyl cyanide)	EPA 8260B	10184802	NELAP	LA
5100 - Styrene	EPA 8260B	10184802	NELAP	LA
5115 - Tetrachloroethylene (Perchloroethylene)	EPA 8260B	10184802	NELAP	LA
5140 - Toluene	EPA 8260B	10184802	NELAP	LA
5170 - Trichloroethene (Trichloroethylene)	EPA 8260B	10184802	NELAP	LA
5175 - Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260B	10184802	NELAP	LA
5225 - Vinyl acetate	EPA 8260B	10184802	NELAP	LA
5235 - Vinyl chloride	EPA 8260B	10184802	NELAP	LA
5260 - Xylene (total)	EPA 8260B	10184802	NELAP	LA
4645 - cis-1,2-Dichloroethylene	EPA 8260B	10184802	NELAP	LA
4680 - cis-1,3-Dichloropropene	EPA 8260B	10184802	NELAP	LA
5240 - m+p-xylene	EPA 8260B	10184802	NELAP	LA
4435 - n-Butylbenzene	EPA 8260B	10184802	NELAP	LA
5250 - o-Xylene	EPA 8260B	10184802	NELAP	LA
4440 - sec-Butylbenzene	EPA 8260B	10184802	NELAP	LA
4445 - tert-Butylbenzene	EPA 8260B	10184802	NELAP	LA
4700 - trans-1,2-Dichloroethylene	EPA 8260B	10184802	NELAP	LA
4685 - trans-1,3-Dichloropropylene	EPA 8260B	10184802	NELAP	LA
4605 - trans-1,4-Dichloro-2-butene	EPA 8260B	10184802	NELAP	LA
6715 - 1,2,4,5-Tetrachlorobenzene	EPA 8270D	10186002	NELAP	LA
5155 - 1,2,4-Trichlorobenzene	EPA 8270D	10186002	NELAP	LA
4610 - 1,2-Dichlorobenzene	EPA 8270D	10186002	NELAP	LA
4615 - 1,3-Dichlorobenzene	EPA 8270D	10186002	NELAP	LA
4620 - 1,4-Dichlorobenzene	EPA 8270D	10186002	NELAP	LA
6165 - 1,4-Dinitrobenzene	EPA 8270D	10186002	NELAP	LA
4735 - 1,4-Dioxane (1,4- Diethyleneoxide)	EPA 8270D	10186002	NELAP	LA
6420 - 1,4-Naphthoquinone	EPA 8270D	10186002	NELAP	LA
6380 - 1-Methylnaphthalene	EPA 8270D	10186002	NELAP	LA
6425 - 1-Naphthylamine	EPA 8270D	10186002	NELAP	LA
4659 - 2,2'-Oxybis(1-chloropropane)	EPA 8270D	10186002	NELAP	LA
6735 - 2,3,4,6-Tetrachlorophenol	EPA 8270D	10186002	NELAP	LA
6835 - 2,4,5-Trichlorophenol	EPA 8270D	10186002	NELAP	LA
6840 - 2,4,6-Trichlorophenol	EPA 8270D	10186002	NELAP	LA
6000 - 2,4-Dichlorophenol	EPA 8270D	10186002	NELAP	LA
6130 - 2,4-Dimethylphenol	EPA 8270D	10186002	NELAP	LA
6175 - 2,4-Dinitrophenol	EPA 8270D	10186002	NELAP	LA
6185 - 2,4-Dinitrotoluene (2,4-DNT)	EPA 8270D	10186002	NELAP	LA
6005 - 2,6-Dichlorophenol	EPA 8270D	10186002	NELAP	LA
6190 - 2,6-Dinitrotoluene (2,6-DNT)	EPA 8270D	10186002	NELAP	LA
5515 - 2-Acetylaminofluorene	EPA 8270D	10186002	NELAP	LA
5795 - 2-Chloronaphthalene	EPA 8270D	10186002	NELAP	LA
5800 - 2-Chlorophenol	EPA 8270D	10186002	NELAP	LA
6360 - 2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270D	10186002	NELAP	LA

Solid Chemical Materials

Analyte	Method Name	Method Code	Type	AB
5145 - 2-Methylaniline (o-Toluidine)	EPA 8270D	10186002	NELAP	LA
6385 - 2-Methylnaphthalene	EPA 8270D	10186002	NELAP	LA
6400 - 2-Methylphenol (o-Cresol)	EPA 8270D	10186002	NELAP	LA
6430 - 2-Naphthylamine	EPA 8270D	10186002	NELAP	LA
6460 - 2-Nitroaniline	EPA 8270D	10186002	NELAP	LA
6490 - 2-Nitrophenol	EPA 8270D	10186002	NELAP	LA
6412 - 3+4 Methylphenol	EPA 8270D	10186002	NELAP	LA
5945 - 3,3'-Dichlorobenzidine	EPA 8270D	10186002	NELAP	LA
6465 - 3-Nitroaniline	EPA 8270D	10186002	NELAP	LA
5540 - 4-Aminobiphenyl	EPA 8270D	10186002	NELAP	LA
5660 - 4-Bromophenyl phenyl ether	EPA 8270D	10186002	NELAP	LA
5700 - 4-Chloro-3-methylphenol	EPA 8270D	10186002	NELAP	LA
5745 - 4-Chloroaniline	EPA 8270D	10186002	NELAP	LA
5825 - 4-Chlorophenyl phenylether	EPA 8270D	10186002	NELAP	LA
6470 - 4-Nitroaniline	EPA 8270D	10186002	NELAP	LA
6500 - 4-Nitrophenol	EPA 8270D	10186002	NELAP	LA
6510 - 4-Nitroquinoline 1-oxide	EPA 8270D	10186002	NELAP	LA
6570 - 5-Nitro-o-toluidine	EPA 8270D	10186002	NELAP	LA
6115 - 7,12-Dimethylbenz(a) anthracene	EPA 8270D	10186002	NELAP	LA
5500 - Acenaphthene	EPA 8270D	10186002	NELAP	LA
5505 - Acenaphthylene	EPA 8270D	10186002	NELAP	LA
5510 - Acetophenone	EPA 8270D	10186002	NELAP	LA
5545 - Aniline	EPA 8270D	10186002	NELAP	LA
5555 - Anthracene	EPA 8270D	10186002	NELAP	LA
5560 - Aramite	EPA 8270D	10186002	NELAP	LA
7065 - Atrazine	EPA 8270D	10186002	NELAP	LA
5562 - Azobenzene	EPA 8270D	10186002	NELAP	LA
5575 - Benz(a)anthracene	EPA 8270D	10186002	NELAP	LA
5570 - Benzaldehyde	EPA 8270D	10186002	NELAP	LA
5580 - Benzo(a)pyrene	EPA 8270D	10186002	NELAP	LA
5585 - Benzo(b)fluoranthene	EPA 8270D	10186002	NELAP	LA
5590 - Benzo(g,h,i)perylene	EPA 8270D	10186002	NELAP	LA
5600 - Benzo(k)fluoranthene	EPA 8270D	10186002	NELAP	LA
5610 - Benzoic acid	EPA 8270D	10186002	NELAP	LA
5630 - Benzyl alcohol	EPA 8270D	10186002	NELAP	LA
5670 - Butyl benzyl phthalate	EPA 8270D	10186002	NELAP	LA
7180 - Caprolactam	EPA 8270D	10186002	NELAP	LA
5680 - Carbazole	EPA 8270D	10186002	NELAP	LA
7260 - Chlorobenzilate	EPA 8270D	10186002	NELAP	LA
5855 - Chrysene	EPA 8270D	10186002	NELAP	LA
4557 - Cyclohexanol	EPA 8270D	10186002	NELAP	LA
6065 - Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	EPA 8270D	10186002	NELAP	LA
5925 - Di-n-butyl phthalate	EPA 8270D	10186002	NELAP	LA
6200 - Di-n-octyl phthalate	EPA 8270D	10186002	NELAP	LA
7405 - Diallate	EPA 8270D	10186002	NELAP	LA
5895 - Dibenz(a,h)anthracene	EPA 8270D	10186002	NELAP	LA
5905 - Dibenzofuran	EPA 8270D	10186002	NELAP	LA
6070 - Diethyl phthalate	EPA 8270D	10186002	NELAP	LA
7475 - Dimethoate	EPA 8270D	10186002	NELAP	LA
6135 - Dimethyl phthalate	EPA 8270D	10186002	NELAP	LA
8625 - Disulfoton	EPA 8270D	10186002	NELAP	LA
6260 - Ethyl methanesulfonate	EPA 8270D	10186002	NELAP	LA
7580 - Famphur	EPA 8270D	10186002	NELAP	LA
6265 - Fluoranthene	EPA 8270D	10186002	NELAP	LA

Solid Chemical Materials

Analyte	Method Name	Method Code	Type	AB
6270 - Fluorene	EPA 8270D	10186002	NELAP	LA
6275 - Hexachlorobenzene	EPA 8270D	10186002	NELAP	LA
4835 - Hexachlorobutadiene	EPA 8270D	10186002	NELAP	LA
6285 - Hexachlorocyclopentadiene	EPA 8270D	10186002	NELAP	LA
4840 - Hexachloroethane	EPA 8270D	10186002	NELAP	LA
6295 - Hexachloropropene	EPA 8270D	10186002	NELAP	LA
6315 - Indeno(1,2,3-cd)pyrene	EPA 8270D	10186002	NELAP	LA
7725 - Isodrin	EPA 8270D	10186002	NELAP	LA
6320 - Isophorone	EPA 8270D	10186002	NELAP	LA
6325 - Isosafrole	EPA 8270D	10186002	NELAP	LA
6345 - Methapyrilene	EPA 8270D	10186002	NELAP	LA
4990 - Methyl methacrylate	EPA 8270D	10186002	NELAP	LA
6375 - Methyl methanesulfonate	EPA 8270D	10186002	NELAP	LA
7825 - Methyl parathion (Parathion, methyl)	EPA 8270D	10186002	NELAP	LA
5005 - Naphthalene	EPA 8270D	10186002	NELAP	LA
5015 - Nitrobenzene	EPA 8270D	10186002	NELAP	LA
6590 - Pentachlorobenzene	EPA 8270D	10186002	NELAP	LA
5035 - Pentachloroethane	EPA 8270D	10186002	NELAP	LA
6600 - Pentachloronitrobenzene	EPA 8270D	10186002	NELAP	LA
6605 - Pentachlorophenol	EPA 8270D	10186002	NELAP	LA
6610 - Phenacetin	EPA 8270D	10186002	NELAP	LA
6615 - Phenanthrene	EPA 8270D	10186002	NELAP	LA
6625 - Phenol	EPA 8270D	10186002	NELAP	LA
6665 - Pyrene	EPA 8270D	10186002	NELAP	LA
5095 - Pyridine	EPA 8270D	10186002	NELAP	LA
6125 - a-a-Dimethylphenethylamine	EPA 8270D	10186002	NELAP	LA
5760 - bis(2-Chloroethoxy)methane	EPA 8270D	10186002	NELAP	LA
5765 - bis(2-Chloroethyl) ether	EPA 8270D	10186002	NELAP	LA
5780 - bis(2-Chloroisopropyl) ether	EPA 8270D	10186002	NELAP	LA
5025 - n-Nitroso-di-n-butylamine	EPA 8270D	10186002	NELAP	LA
6545 - n-Nitrosodi-n-propylamine	EPA 8270D	10186002	NELAP	LA
6525 - n-Nitrosodiethylamine	EPA 8270D	10186002	NELAP	LA
6530 - n-Nitrosodimethylamine	EPA 8270D	10186002	NELAP	LA
6535 - n-Nitrosodiphenylamine	EPA 8270D	10186002	NELAP	LA
6550 - n-Nitrosomethylethylamine	EPA 8270D	10186002	NELAP	LA
6555 - n-Nitrosomorpholine	EPA 8270D	10186002	NELAP	LA
6560 - n-Nitrosopiperidine	EPA 8270D	10186002	NELAP	LA
6565 - n-Nitrosopyrrolidine	EPA 8270D	10186002	NELAP	LA
5090 - n-Propylbenzene	EPA 8270D	10186002	NELAP	LA
1645 - Total Cyanide	EPA 9012A	10193405	NELAP	LA
1900 - pH	EPA 9040B	10197203	NELAP	LA
1900 - pH	EPA 9045C	10198400	NELAP	LA
1610 - Conductivity	EPA 9050A	10198808	NELAP	LA
1540 - Bromide	EPA 9056A	10199607	NELAP	LA
1575 - Chloride	EPA 9056A	10199607	NELAP	LA
1730 - Fluoride	EPA 9056A	10199607	NELAP	LA
1810 - Nitrate as N	EPA 9056A	10199607	NELAP	LA
1840 - Nitrite as N	EPA 9056A	10199607	NELAP	LA
100511 - Orthophosphate	EPA 9056A	10199607	NELAP	LA
1870 - Orthophosphate as P	EPA 9056A	10199607	NELAP	LA
2000 - Sulfate	EPA 9056A	10199607	NELAP	LA
1560 - Cation exchange capacity	EPA 9081	10203404	NELAP	LA
2830 - Gross-alpha	EPA 9310	10208205	NELAP	LA
2840 - Gross-beta	EPA 9310	10208205	NELAP	LA
100210 - Alpha Emitting Radium Isotopes	EPA 9315	10208409	NELAP	LA

Solid Chemical Materials

Analyte	Method Name	Method Code	Type	AB
2975 - Total radium	EPA 9315	10208409	NELAP	LA
2970 - Radium-228	EPA 9320	10208603	NELAP	LA
1780 - Ignitability	EPA 1010A	10234807	NELAP	LA
6380 - 1-Methylnaphthalene	EPA 8270D SIM	10242509	NELAP	LA
6385 - 2-Methylnaphthalene	EPA 8270D SIM	10242509	NELAP	LA
5500 - Acenaphthene	EPA 8270D SIM	10242509	NELAP	LA
5505 - Acenaphthylene	EPA 8270D SIM	10242509	NELAP	LA
5555 - Anthracene	EPA 8270D SIM	10242509	NELAP	LA
5575 - Benz(a)anthracene	EPA 8270D SIM	10242509	NELAP	LA
5580 - Benzo(a)pyrene	EPA 8270D SIM	10242509	NELAP	LA
5585 - Benzo(b)fluoranthene	EPA 8270D SIM	10242509	NELAP	LA
5590 - Benzo(g,h,i)perylene	EPA 8270D SIM	10242509	NELAP	LA
5600 - Benzo(k)fluoranthene	EPA 8270D SIM	10242509	NELAP	LA
5855 - Chrysene	EPA 8270D SIM	10242509	NELAP	LA
5895 - Dibenz(a,h)anthracene	EPA 8270D SIM	10242509	NELAP	LA
6265 - Fluoranthene	EPA 8270D SIM	10242509	NELAP	LA
6270 - Fluorene	EPA 8270D SIM	10242509	NELAP	LA
6315 - Indeno(1,2,3-cd)pyrene	EPA 8270D SIM	10242509	NELAP	LA
5005 - Naphthalene	EPA 8270D SIM	10242509	NELAP	LA
6615 - Phenanthrene	EPA 8270D SIM	10242509	NELAP	LA
6665 - Pyrene	EPA 8270D SIM	10242509	NELAP	LA
2830 - Gross-alpha	EPA 900.0 (GPC)	10242601	NELAP	LA
2840 - Gross-beta	EPA 900.0 (GPC)	10242601	NELAP	LA
1635 - Cyanide	EPA 9010C	10243002	NELAP	LA
1635 - Cyanide	EPA 9012B	10243206	NELAP	LA
1645 - Total Cyanide	EPA 9012B	10243206	NELAP	LA
2975 - Total radium	EPA 903.0 (GPC)	10244005	NELAP	LA
1900 - pH	EPA 9040C	10244403	NELAP	LA
1900 - pH	EPA 9045D	10244607	NELAP	LA
2040 - Total Organic Carbon	EPA 9060A	10244801	NELAP	LA
1745 - Free liquid	EPA 9095B	10245600	NELAP	LA
1406 - Purge and trap for aqueous phase samples	EPA 5030C	10284603	NELAP	LA
100017 - Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples	EPA 5035A	10284807	NELAP	LA
5105 - 1,1,1,2-Tetrachloroethane	EPA 8260C	10307003	NELAP	LA
5160 - 1,1,1-Trichloroethane	EPA 8260C	10307003	NELAP	LA
5110 - 1,1,2,2-Tetrachloroethane	EPA 8260C	10307003	NELAP	LA
5185 - 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260C	10307003	NELAP	LA
5165 - 1,1,2-Trichloroethane	EPA 8260C	10307003	NELAP	LA
4630 - 1,1-Dichloroethane	EPA 8260C	10307003	NELAP	LA
4640 - 1,1-Dichloroethylene	EPA 8260C	10307003	NELAP	LA
4670 - 1,1-Dichloropropene	EPA 8260C	10307003	NELAP	LA
5150 - 1,2,3-Trichlorobenzene	EPA 8260C	10307003	NELAP	LA
5180 - 1,2,3-Trichloropropane	EPA 8260C	10307003	NELAP	LA
5155 - 1,2,4-Trichlorobenzene	EPA 8260C	10307003	NELAP	LA
5210 - 1,2,4-Trimethylbenzene	EPA 8260C	10307003	NELAP	LA
4570 - 1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260C	10307003	NELAP	LA
4585 - 1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260C	10307003	NELAP	LA
4610 - 1,2-Dichlorobenzene	EPA 8260C	10307003	NELAP	LA
4635 - 1,2-Dichloroethane (Ethylene	EPA 8260C	10307003	NELAP	LA

Solid Chemical Materials

Analyte	Method Name	Method Code	Type	AB
dichloride)				
4655 - 1,2-Dichloropropane	EPA 8260C	10307003	NELAP	LA
5215 - 1,3,5-Trimethylbenzene	EPA 8260C	10307003	NELAP	LA
4615 - 1,3-Dichlorobenzene	EPA 8260C	10307003	NELAP	LA
4660 - 1,3-Dichloropropane	EPA 8260C	10307003	NELAP	LA
4620 - 1,4-Dichlorobenzene	EPA 8260C	10307003	NELAP	LA
4735 - 1,4-Dioxane (1,4- Diethyleneoxide)	EPA 8260C	10307003	NELAP	LA
4665 - 2,2-Dichloropropane	EPA 8260C	10307003	NELAP	LA
4410 - 2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260C	10307003	NELAP	LA
4500 - 2-Chloroethyl vinyl ether	EPA 8260C	10307003	NELAP	LA
4535 - 2-Chlorotoluene	EPA 8260C	10307003	NELAP	LA
4860 - 2-Hexanone	EPA 8260C	10307003	NELAP	LA
4540 - 4-Chlorotoluene	EPA 8260C	10307003	NELAP	LA
4910 - 4-Isopropyltoluene (p-Cymene)	EPA 8260C	10307003	NELAP	LA
4995 - 4-Methyl-2-pentanone (MIBK)	EPA 8260C	10307003	NELAP	LA
4315 - Acetone	EPA 8260C	10307003	NELAP	LA
4320 - Acetonitrile	EPA 8260C	10307003	NELAP	LA
4325 - Acrolein (Propenal)	EPA 8260C	10307003	NELAP	LA
4340 - Acrylonitrile	EPA 8260C	10307003	NELAP	LA
4355 - Allyl chloride (3-Chloropropene)	EPA 8260C	10307003	NELAP	LA
4375 - Benzene	EPA 8260C	10307003	NELAP	LA
4385 - Bromobenzene	EPA 8260C	10307003	NELAP	LA
4390 - Bromochloromethane	EPA 8260C	10307003	NELAP	LA
4395 - Bromodichloromethane	EPA 8260C	10307003	NELAP	LA
4400 - Bromoform	EPA 8260C	10307003	NELAP	LA
4450 - Carbon disulfide	EPA 8260C	10307003	NELAP	LA
4455 - Carbon tetrachloride	EPA 8260C	10307003	NELAP	LA
4475 - Chlorobenzene	EPA 8260C	10307003	NELAP	LA
4575 - Chlorodibromomethane	EPA 8260C	10307003	NELAP	LA
4485 - Chloroethane (Ethyl chloride)	EPA 8260C	10307003	NELAP	LA
4505 - Chloroform	EPA 8260C	10307003	NELAP	LA
4525 - Chloroprene (2-Chloro-1,3-butadiene)	EPA 8260C	10307003	NELAP	LA
4595 - Dibromomethane (Methylene bromide)	EPA 8260C	10307003	NELAP	LA
4625 - Dichlorodifluoromethane (Freon-12)	EPA 8260C	10307003	NELAP	LA
4725 - Diethyl ether	EPA 8260C	10307003	NELAP	LA
4755 - Ethyl acetate	EPA 8260C	10307003	NELAP	LA
4810 - Ethyl methacrylate	EPA 8260C	10307003	NELAP	LA
4765 - Ethylbenzene	EPA 8260C	10307003	NELAP	LA
4835 - Hexachlorobutadiene	EPA 8260C	10307003	NELAP	LA
4870 - Iodomethane (Methyl iodide)	EPA 8260C	10307003	NELAP	LA
4875 - Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260C	10307003	NELAP	LA
4900 - Isopropylbenzene	EPA 8260C	10307003	NELAP	LA
4925 - Methacrylonitrile	EPA 8260C	10307003	NELAP	LA
4950 - Methyl bromide (Bromomethane)	EPA 8260C	10307003	NELAP	LA
4960 - Methyl chloride (Chloromethane)	EPA 8260C	10307003	NELAP	LA
4990 - Methyl methacrylate	EPA 8260C	10307003	NELAP	LA
5000 - Methyl tert-butyl ether (MTBE)	EPA 8260C	10307003	NELAP	LA
4975 - Methylene chloride (Dichloromethane)	EPA 8260C	10307003	NELAP	LA
5005 - Naphthalene	EPA 8260C	10307003	NELAP	LA
5035 - Pentachloroethane	EPA 8260C	10307003	NELAP	LA

Solid Chemical Materials

Analyte	Method Name	Method Code	Type	AB
5080 - Propionitrile (Ethyl cyanide)	EPA 8260C	10307003	NELAP	LA
5100 - Styrene	EPA 8260C	10307003	NELAP	LA
5115 - Tetrachloroethylene (Perchloroethylene)	EPA 8260C	10307003	NELAP	LA
5140 - Toluene	EPA 8260C	10307003	NELAP	LA
5170 - Trichloroethene (Trichloroethylene)	EPA 8260C	10307003	NELAP	LA
5175 - Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260C	10307003	NELAP	LA
5225 - Vinyl acetate	EPA 8260C	10307003	NELAP	LA
5235 - Vinyl chloride	EPA 8260C	10307003	NELAP	LA
5260 - Xylene (total)	EPA 8260C	10307003	NELAP	LA
4645 - cis-1,2-Dichloroethylene	EPA 8260C	10307003	NELAP	LA
4680 - cis-1,3-Dichloropropene	EPA 8260C	10307003	NELAP	LA
5240 - m+p-xylene	EPA 8260C	10307003	NELAP	LA
5090 - n-Propylbenzene	EPA 8260C	10307003	NELAP	LA
5250 - o-Xylene	EPA 8260C	10307003	NELAP	LA
4440 - sec-Butylbenzene	EPA 8260C	10307003	NELAP	LA
4445 - tert-Butylbenzene	EPA 8260C	10307003	NELAP	LA
4700 - trans-1,2-Dichloroethylene	EPA 8260C	10307003	NELAP	LA
4685 - trans-1,3-Dichloropropylene	EPA 8260C	10307003	NELAP	LA
4605 - trans-1,4-Dichloro-2-butene	EPA 8260C	10307003	NELAP	LA
6885 - 1,3,5-Trinitrobenzene (1,3,5-TNB)	EPA 8330B	10308006	NELAP	LA
6160 - 1,3-Dinitrobenzene (1,3-DNB)	EPA 8330B	10308006	NELAP	LA
9651 - 2,4,6-Trinitrotoluene (2,4,6-TNT)	EPA 8330B	10308006	NELAP	LA
6185 - 2,4-Dinitrotoluene (2,4-DNT)	EPA 8330B	10308006	NELAP	LA
6190 - 2,6-Dinitrotoluene (2,6-DNT)	EPA 8330B	10308006	NELAP	LA
9303 - 2-Amino-4,6-dinitrotoluene (2-am-dnt)	EPA 8330B	10308006	NELAP	LA
9507 - 2-Nitrotoluene	EPA 8330B	10308006	NELAP	LA
9510 - 3-Nitrotoluene	EPA 8330B	10308006	NELAP	LA
9306 - 4-Amino-2,6-dinitrotoluene (4-am-dnt)	EPA 8330B	10308006	NELAP	LA
9513 - 4-Nitrotoluene	EPA 8330B	10308006	NELAP	LA
6415 - Methyl-2,4,6-trinitrophenylnitramine (tetryl)	EPA 8330B	10308006	NELAP	LA
5015 - Nitrobenzene	EPA 8330B	10308006	NELAP	LA
6485 - Nitroglycerin	EPA 8330B	10308006	NELAP	LA
9522 - Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	EPA 8330B	10308006	NELAP	LA
9432 - RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)	EPA 8330B	10308006	NELAP	LA
2826 - Gamma Emitters	EPA 901.1	10308608	NELAP	LA
2970 - Radium-228	EPA 904.0	10309805	NELAP	LA
3005 - Strontium-90	EPA 905.0	10310006	NELAP	LA
3030 - Tritium	EPA 906.0	10310200	NELAP	LA
2755 - Americium-241	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2758 - Antimony 124	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1006 - Antimony 125	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2765 - Barium-133	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1021 - Beryllium-7	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2772 - Bismuth-212	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2773 - Bismuth-214	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2793 - Cerium-139	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2794 - Cerium-141	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2795 - Cerium-144	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA

Solid Chemical Materials

Analyte	Method Name	Method Code	Type	AB
2800 - Cesium-134	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2805 - Cesium-137	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2812 - Cobalt-57	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2813 - Cobalt-58	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2815 - Cobalt-60	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1068 - Europium-152	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1069 - Europium-154	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2826 - Gamma Emitters	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2900 - Lead-210	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2902 - Lead-212	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2903 - Lead-214	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2905 - Manganese-54	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2908 - Mercury-203	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2918 - Niobium-94	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1107 - Niobium-95	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
100586 - Photon Emitters	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2952 - Protactinium-234	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2960 - Radium-224	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2965 - Radium-226	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2970 - Radium-228	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1136 - Ruthenium-106	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2989 - Scandium-46	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1156 - Sodium-22	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1164 - Strontium-85	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1166 - Thallium-208	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3031 - Thorium-227	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
1171 - Thorium-228	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3032 - Thorium-231	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3028 - Thorium-234	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2942 - Tin-113	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3037 - Uranium-235	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3038 - Uranium-238	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3067 - Yttrium-88	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3070 - Zinc-65	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
3072 - Zirconium-95	HASL 300 Ga-01-R, 28th ED	90000401	NELAP	LA
2930 - Plutonium-238	HASL 300 A-01-R, 28th ED	90000605	NELAP	LA
2932 - Plutonium-239	HASL 300 A-01-R, 28th ED	90000605	NELAP	LA
3036 - Uranium-234	HASL 300 A-01-R, 28th ED	90000605	NELAP	LA
3038 - Uranium-238	HASL 300 A-01-R, 28th ED	90000605	NELAP	LA
3027 - Thorium-230	HASL 300 G-01, 28th ED	90002407	NELAP	LA
2995 - Strontium-89	HASL 300 Sr-01-RC (GPC), 28th ED	90008405	NELAP	LA
3005 - Strontium-90	HASL 300 Sr-02-RC (GPC), 28th ED	90009204	NELAP	LA
3005 - Strontium-90	HASL 300 Sr-03-RC, 28th ED	90009806	NELAP	LA
9408 - Gasoline range organics (GRO)	IDNR OA-1	90016403	NELAP	LA
9369 - Diesel range organics (DRO)	IDNR OA-2	90016607	NELAP	LA

Biological Tissue

Analyte	Method Name	Method Code	Type	AB
NONE	NONE	NONE	NONE	NONE

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 200232-0

LA Testing

South Pasadena, CA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2016-07-01 through 2017-06-30

Effective Dates

For the National Voluntary Laboratory Accreditation Program

National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

LA Testing
520 Mission Street
South Pasadena, CA 91030
Mr. Jerry Drapala Ph.D.
Phone: (323) 254-9960 Fax: (323) 254-9982
Email: jdrapala@latesting.com
http://www.latesting.com

ASBESTOS FIBER ANALYSIS — NVLAP LAB CODE 200232-0

Bulk Asbestos Analysis

Code	*Description*
18/A01	EPA 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

Code	*Description*
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

For the National Voluntary Laboratory Accreditation Program