

# State Analytical Laboratory Costs to Provide Services

Type of Sampling Required	Total Avg Cost per Sample	Non-Community Transient Annual Lab Costs	Groundwater Well Annual Lab Costs	Surface Water Annual Lab Costs
Bacteriological - Analysis done by State Public Health Lab (SPHL)	\$ 11.68	\$ 140.20	\$ 280.39	\$ 280.39
Nitrate	\$ 31.77	\$ 31.77	\$ 31.77	\$ 31.77
Inorganic Contaminants (IOC)	\$ 467.75	Testing not required	\$ 155.92	\$ 467.75
Volatile Organic Contaminants (VOC)	\$ 74.53	Testing not required	\$ 24.84	\$ 74.53
Synthetic Organic Contaminants (SOC)	\$ 376.55	Testing not required	\$ 62.76	\$ 376.55
Radionuclides (RAD)	\$ 498.86	Testing not required	\$ 99.77	\$ 55.43
Disinfection Byproducts (DBP)	\$ 161.60	Testing not required	\$ 323.20	\$ 1,292.82
Lead and Copper Rule (LCR)	\$ 48.68	Testing not required	\$ 438.10	\$ 438.10
		\$ 171.97	\$ 1,416.76	\$ 3,017.34

Assumptions below were used for the number of samples and years between samples to arrive at the Annual Lab Costs in the table above. Sample numbers are based on averages and systems without compliance issues. Actual number of samples collected may be higher or lower depending on the population size, source water type and analyte exceedance(s) of regulatory standards.

Bacteriological (SPHL)	12 samples per year	24 samples per year	24 samples per year
Nitrate	1 sample per year	1 sample per year	1 sample per year
Inorganic Contaminants (IOC)	Testing not required	1 sample every 3 years	1 sample per year
Volatile Organic Contaminants (VOC)	Testing not required	1 sample every 3 years	1 sample per year
Synthetic Organic Contaminants (SOC)	Testing not required	1 sample every 6 years	1 sample per year
Radionuclides (RAD)	Testing not required	1 sample every 5 years	1 sample every 9 years
Disinfection Byproducts (DBP)	Testing not required	2 samples per year	8 samples per year
Lead and Copper Rule (LCR)	Testing not required	9 samples per year	9 samples per year

## Laboratory Cost Comparisons

Type of Sampling Required <sup>1</sup>	Commercial Lab Average Cost <sup>6</sup>	State Lab (SPHL/ESP) Average Cost <sup>5</sup>	Average Number of Samples per Year	Commercial Lab Average Annual Cost	State Lab (SPHL/ESP) Average Annual Cost	Annual State Lab Savings vs. Commercial Lab Cost
Bacteriological (SPHL) <sup>2</sup>	\$ 23.33	\$ 11.68	58,662	\$ 1,368,780.00	\$ 685,348.00	\$ 683,432.00
Nitrate	\$ 36.50	\$ 31.77	3,451	\$ 125,961.50	\$ 109,635.89	\$ 16,325.61
Inorganic Contaminants (IOC)	\$ 488.67	\$ 467.75	809	\$ 395,331.33	\$ 378,406.73	\$ 16,924.60
Volatile Organic Contaminants (VOC)	\$ 94.00	\$ 74.53	995	\$ 93,530.00	\$ 74,156.10	\$ 19,373.90
Synthetic Organic Contaminants (SOC) <sup>3</sup>	\$ 1,187.25	\$ 376.55	373	Not included <sup>4</sup>	Not included <sup>4</sup>	Not included <sup>4</sup>
Disinfection Byproducts (DBP)	\$ 140.00	\$ 161.60	2,275	\$ 318,500.00	\$ 367,645.67	\$ (49,145.67)
Lead and Copper Rule (LCR)	\$ 31.00	\$ 48.68	5,382	\$ 166,842.00	\$ 261,985.60	\$ (95,143.60)
				\$ 2,468,944.83	\$ 1,877,178.00	\$ 591,766.84

<sup>1</sup> Cost not included for lab services contracted out such as Radionuclides (RAD), Cryptosporidium (LT2), or Unregulated Contaminant Monitoring Rule (UCMR).

<sup>2</sup> SPHL sample cost is based on 58,662 samples (annual average ('16-'19) number of samples), EE cost (\$480,000)+\$205,348 (5-year average) FTE increase estimate.

<sup>3</sup> SOC Average Commercial Lab Cost includes some quotes of waiver analytes.

<sup>4</sup> SOC comparison not included as Commercial Lab Cost may contain additional analytes not required for analysis.

<sup>5</sup> Return shipping is included in State Lab Cost.

<sup>6</sup> Return shipping is not included in Commercial Lab Cost. Water systems would be required to pay \$15-\$30 per sample kit for additional overnight return shipping.