



COUNTY OF SAN LUIS OBISPO PUBLIC HEALTH LABORATORY

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LABORATORY TEST FACT SHEET

WATER TESTING OF DRINKING WATER

ORDER CODES: 8040, 8045, 8350

TEST DESCRIPTIONS

Total Coliforms and *E. coli* Presence-Absence Test (Order code: 8040)

Method: Enzyme substrate—Chromogenic

Standard Methods 9223 B

This test employs the IDEXX, Inc Colilert™ system, allowing the detection of total coliforms at one colony-forming unit (1 CFU equivalent) by hydrolysis of ortho-nitrophenyl-β-D-galactoside and *Escherichia coli* by hydrolysis of 4-methyl-umbelliferyl-β-D-glucuronide. This is the most common test for determination of the potability of drinking water, whether collected from a water system or a well.

Reference range: Total coliforms and *E. coli* tests should be negative for a water sample to be considered a safe drinking water source.

Turnaround time: 1 day

Total Coliforms and *E. coli* MPN, undiluted (Order code: 8350)

Method: Enzyme substrate—Chromogenic

Standard Methods 9223 B

This test employs the IDEXX, Inc Colilert™ Quantitray system, allowing the detection and enumeration of total coliforms by hydrolysis of ortho-nitrophenyl-β-D-galactoside and *Escherichia coli* by hydrolysis of 4-methyl-umbelliferyl-β-D-glucuronide. Enumeration results in the reporting of a Most Probable Number (MPN) and is commonly used to determine the microbial load of both the total coliforms and *E. coli*.

Reference range: Total coliforms and *E. coli* should be less than 1 MPN per 100 mL for a single sample.

Turnaround time: 1 day

Heterotrophic Plate Count (Order code: 8045)

Method: Colony count by pour plate

Standard Methods 9215 B

The heterotrophic plate count (HPC) procedure estimates the number of live heterotrophic bacteria in a water sample. The number of colony-forming units (CFUs) is the final colony count that may arise from pairs, chains, clusters, or single bacteria as well as interaction among developing colonies. The test does not differentiate between type of bacteria.

Reference range: There are no defined limits for this test.

Turnaround time: 2 days