



CUMBERLAND VALLEY ANALYTICAL SERVICES

"Laboratory services for agriculture ... from the field to the feed bunk"

Water Analysis Report

Analysis Report For

Copy To

RALPH WARD
CVAS
4999 ZANE A. MILLER DRIVE
WAYNESBORO, PA 17268

Sample ID	Date/Time Sampled	Date/Time Received	Date Reported
12345 563	08/06/2019 12:00 PM	08/07/2019 10:50 AM	08/12/2019

Farm/Client	Sample Description	Test(s) Requested
CVAS	LIVESTOCK TANK	WATER, LIVESTOCK SUITABILITY PKG., WATER, TOTAL COLIFORM & E. COLI

	Results	Farm Survey Average	Expected Levels in Drinking	Possible Problem Level for Cattle
pH	7.41	7.0*	6.8 - 7.5	< 5.5 or > 8.5
Nitrate as Nitrogen, ppm	<0.50	7.7*	0 - 10	23
Nitrate as NO ₃ , ppm	<2.2	33.8*	0 - 44	100
Total Coliform, colonies per 100 ml	>200.5		< 1	15
E.Coli, Colonies per 100 ml	>200.5		< 1	10
Hardness, ppm CaCO ₃	196	208*	0 - 180	
Total Dissolved Solids (TDS), ppm	272	368	0 - 500	3000
Chloride, ppm	21	59	0 - 250	300
Sulfates, ppm	<10	81	0 - 250	500
Calcium (Ca), ppm	65.6	65	0 - 100	150
Phosphorus (P), ppm	0.21	0.7	0 - 0.3	0.7
Magnesium (Mg), ppm	7.23	24	0 - 29	100
Potassium (K), ppm	16.6	4	0 - 20	20
Sodium (Na), ppm	18.0	46	0 - 100	300
Iron (Fe), ppm	1.31	0.79	0 - 0.03	0.4 (taste)
Manganese (Mn), ppm	0.68	0.17	0 - 0.05	0.05 (taste)
Zinc (Zn), ppm	<0.01	0.12	0 - 5	25
Copper (Cu), ppm	0.01	0.07	0 - 0.6	0.6
Sulfate - Sulfur, ppm		27	0-83	167
Alkalinity		141	0-400	>5000
Molybdenum (Mo), ppm			0-0.068	Not defined
Selenium (Se), ppm				
Boron (Bo)				Not defined

"Farm Survey Average" is from a survey of 3600 water samples collected from livestock operations throughout the United States in a study by Socha et al. Those values with an * are an average of 350 samples from problem farms reported by R. Adams and W. Sharpe. "Expected Levels" are based primarily on criteria for water fit for human consumption. "Possible Problem Levels for Cattle" is based primarily on research literature and field experiences. Source: Variability of Water Composition and Potential Impact on Animal Performance. Mike T. Socha, et al. University of Nebraska, North Platte, NE 69101; Water Intake and Quality for Dairy Cattle. Richard S. Adams and William Sharpe. Penn State College of Agricultural Sciences, Cooperative Extension.



Cumberland Valley Analytical Services, Inc.

4999 Zane A. Miller Drive, Waynesboro, PA 17268
www.foragelab.com | mail@foragelab.com | 301-790-1980 | 800-CVAS-LAB

