

March 21, 2025

AASHTO Corrosivity Customer
Attn: Principal Engineer
1527 First Ave.
Greeley, CO 80631

Project No.: 17569834

Sample ID: SS-01 5-6'

Laboratory No.: E25999-5A

	Results^{1,3}	10-Point System²
pH (SI) AASHTO T 289-91 (ASTM G51 available for some soil)	7.0	0
Conductivity (mmhos/cm) Resistivity (ohm-m) USDA Handbook 60, temperature corrected conductivity probe	0.500 20.00	NA
Minimum Lab Resistivity (ohm-cm) Minimum Lab Resistivity (ohm-m) via Miller Box, Tinker & Razor SR-2 (AASHTO T 288-12) ⁴	2250 22.5	2
Redox (mV vs. Ag/AgCl) ASTM G200 (ASTM D1498 if soil is low in moisture)	90	3.5
Free Sulfide (mg/kg DMB) EPA 9030B+9034, prescreened with lead acetate paper	NA	NA
Chloride (mg/kg DMB) AASHTO T 291-94	12	0
Sulfate (mg/kg DMB) AASHTO T 290-95	891	3
Sulfate-S (mg/kg DMB)	297.0	

1. NA = Not Analyzed; ND = Not Detected. DMB = Dry Matter Basis. Measurements taken at 25°C.

2. 10-point Corrosion system based on: Appendix A of ANSI/AWWA C105/A21.5 Standard "Polyethylene Encasement for Ductile Iron Pipe Systems." The Cl- points adapted from the DIPRA design decision model.

Sulfate is penalized at half the rate of chloride: A. A. Sagüés et. al. (<https://rosap.nrl.bts.gov/view/dot/17493>)

3. pH, Conductivity, and Redox are generally read on a 1:1 soil:water mixture if the soil is dry.

4. ASTM G57 4-Electrode Method used unless 2-electrode method is requested.

Project Manager

Date