

Extra Problem 2-B

We wish to measure chloride in environmental samples. We run 7 “blank” samples and obtain the following signals: 0.064, 0.084, 0.043, 0.032, 0.066, 0.053, 0.049. We run standards containing 100 ppm chloride, 10 ppm and 1 ppm, and respectively obtain signals of 14.543, 1.513, 0.165.

- a) What is the relative standard deviation of the blanks?
- b) What is the minimum concentration of chloride that you have confidence in quantifying?
- c) What is the minimum concentration of chloride that you can detect?