

Unit 11 Applications Physical Hydrometeorology

1. Graduate students: Consider two adjacent tensiometers inserted into unsaturated sandy-loam soil to determine whether water flow is upward or downward (to or away from the ground surface). Tensiometer 1 is at 0.2 m depth; tensiometer 2 at 0.6 m. The time series of readings were 1.2 m, 1.05 m, 0.1 m, 2.1 m, 0.2 m at tensiometer 1, and 0.2, 0.5, 0.7, 1.9, 0.5 m at tensiometer 2. Assume that no maximum or minimum of tension exists between the two levels. Determine in which way the water is flowing at each time.
2. All students: Determine the texture classes for each soil in the excel spread sheet of unit 11. Start with plotting their grain-size distributions. Discuss your categorization.