UNC Section 27 Mine Closeout Plan - RUSLE2 Soil Loss Estimation

Scenario 1 (Complex Slope):

1. Climate/Rainfall Data – McKinley County, R15
2. Soil Type – Tintero Complex, fine sandy loam
3. Management Practice – New growth of cool season grass, not harvested
4. *Detailed NESA1 slope w/ 3 different slope segments of varying grade*
    a. *Segment 1 – 1% grade, 38 feet long (horizontal length)*
    b. *Segment 2 – 7% grade, 45 feet long*
    c. *Segment 3 – 25% grade, 80 feet long*

RESULT: 1.2 t/ac/yr

Scenario 2 (Generic Soil Type):

1. Climate/Rainfall Data – McKinley County, R15
2. *Soil Type – Generic Soil (Sandy Clay Loam – low/mod OM)*
3. Management Practice – New growth of cool season grass, not harvested
4. Generic NESA1 slope with 4:1 grade, 80 feet long (horizontal length)

RESULT: 1.6 t/ac/yr

Scenario 3 (Modified Management Practice):

1. Climate/Rainfall Data – McKinley County, R15
2. Soil Type – Tintero Complex, fine sandy loam
3. *Management Practice*
    a. *Mulch Crimper*
    b. *New growth of cool season grass, fall seeding, not harvested*
4. Generic NESA1 slope with 4:1 grade, 80 feet long (horizontal length)

RESULT: 0.48 t/ac/yr