

# INSTRUCTIONS FOR SOIL PROFILE REPORTS

**1. QUALIFIED INDIVIDUALS:** Soil profiles may only be interpreted by qualified individuals.

**2. EXCAVATIONS:** To perform the soil profile report, excavate two (2) soil profile trenches. One hole is excavated in the proposed initial leach field area, the other in the proposed reserve area. If the soil profile trenches are dissimilar, additional trenches must be excavated to resolve discrepancies. The trenches are excavated to a depth of 5 (five) feet and gently sloping so ladders are not needed. Then, while observing from the surface of the ground, an additional 3 (three ) feet is excavated on one end to eight (8) feet total. This soil can be inspected as it is excavated.

**SAFETY REGULATIONS PROHIBIT INDIVIDUALS ENTERING UN-SHORED EXCAVATIONS GREATER THAN 5 (FIVE) FEET IN DEPTH.**

**3. REPORTING:** The smeared soil surface of the soil profile trench is picked off with a sharp instrument in order to expose the characteristics of the natural soil layering.

3.1 Make a preliminary determination of the depth of each soil layer or strata.

3.2 Within each strata or layer make the following determinations:

*(see Chapter 3 of the Soil Survey Manual for detailed information on the proper method of soil description)*

1 horizon depth range

2 background soil color using the Munsel Color Chart

3 abundance, size and distinctness of mottles

4 gravel content by volume

5 soil texture (USDA, Soil Conservation Service Classification)

6 strength and grade of soil structure

7 soil consistence for dry, moist and wet regimes

8 abundance and size of roots

9 abundance and size of pores

10 boundary distinctness

3.3 Review and revise preliminary soil strata.

**4. ADDITIONAL REPORTING:** The following conditions should also be noted on the report:

4.1 Impermeable layers such as claypans, hardpans, cementation.

4.2 Depth to bedrock, fractured rock, or other parent material.

4.3 Water seepage. If water seepage is encountered, the hole should be left open to observe static water level, record depth to the static level.

**5. LOCATION:** No soil description is useful unless the exact location is known. Record on a plot plan the locations of soil profile trenches triangulated from permanent landmarks or monumented property corners.