### OJT Training Module Cover Sheet

**Title:** 203 How to identify diagnostic horizons and characteristics of the higher categories

**Type:** X Skill ☐ Knowledge

**Performance Objective:** Trainee will be able to...
- Locate and recognize horizons and characteristics diagnostic for the higher categories in Soil Taxonomy.

**Target Proficiency:**
- ☐ Awareness ☐ Understanding ☐ Perform with supervision
- X Apply independently ☐ Proficiency, can teach others

**Trainer Preparation:**
- Have available a hard copy and/or an ecopy of the current *Keys to Soil Taxonomy*.
- Access pedon descriptions and/or OSDs in sufficient numbers to provide a cross representation of the survey area and thus address the activities within Cycle Steps 2, 3, and 4. Include descriptions of organic soils if they occur in your survey area.

**Special Requirements:**
Initiate an external learning request with a SF-182 in Aglearn for this activity. Instructions and a template are located on the training webpages for OJT modules.

**Prerequisite Modules:**
- 201 How to use *Soil Taxonomy* and the *Keys to Soil Taxonomy*
- 202 How to use *The Guy Smith Interviews: Rationale for Concepts in Soil Taxonomy*

**Notes:**
None

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**Approved by:**
Marc Crouch
The Five-Step OJT Cycle for Procedural Training (Skill)
### OJT Module Lesson

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<th>WHAT</th>
<th>WHY, WHEN, WHERE, HOW, SAFETY, QUALITY</th>
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| **Cycle Step 1** | You and trainee review the objective and agree on the purpose of this module. Decide whether to use a hard copy or ecopy of the *Keys to Soil Taxonomy* (*Keys*). Emphasize that the current *Keys to Soil Taxonomy* will be used since it amends and updates *Soil Taxonomy*.

Have the trainee read Chapter 2 (“Differentiae for Mineral Soils and Organic Soils”) in the *Keys*.

Have the trainee locate and read the definitions and required characteristics of:

- Horizons and Characteristics Diagnostic for Mineral Soils, including:
  - Diagnostic Surface Horizons: The Epipedon
  - Diagnostic Subsurface Horizons
- Diagnostic Soil Characteristics for Mineral Soils
- Characteristics Diagnostic for Organic Soils
- Horizons and Characteristics Diagnostic for Both Mineral and Organic Soils

Explain that these horizons and characteristics are arranged in alphabetic order rather than in a key format, but that *required characteristics* for an individual horizon or characteristic are written in a key format.

Locate on the internet the *Guide to Pronouncing Taxonomic Terms*. You and trainee should use this guide as needed during training related to Soil Taxonomy. |
| Cycle Step 2 | Select a pedon for a mineral soil or use an official soil series description (OSD) for this step. Identify the epipedon, any diagnostic subsurface horizons, and any diagnostic characteristics for the trainee. Then use the Keys to review the criteria or required characteristics of each with the trainee. Explain how you decided upon the diagnostic horizons and characteristics. If your survey area has organic soils, select one as an example. Identify the kind(s) of material, the thicknesses, and the tiers in the soil. Then, using the Keys, review the criteria with the trainee. |
| Cycle Step 3 | Assign the trainee one or more pedons and/or OSDs. If necessary, help trainee to determine the epipedon, diagnostic subsurface horizons, and any other diagnostic characteristics. Have the trainee look these up in the Keys and review the criteria with you. The trainee performs this step with supervision. |
| Cycle Step 4 | Assign the trainee one or more pedons and/or OSDs. Have the trainee determine the epipedon, diagnostic subsurface horizons, and any other diagnostic characteristics. Then have the trainee look in the Keys and review the criteria with you. The trainee performs this step without supervision. |
| Cycle Step 5 | Debrief as needed. |
OJT Module Lesson Measurement of Learning

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<td>Identify diagnostic properties.</td>
<td>During the course of work on project activities, have the trainee determine diagnostic horizons and characteristics. Repeat until the trainee is proficient.</td>
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**SF-182**

Trainee and/or supervisor access Aglearn to verify completion of the module via its SF-182.