

<p><u>13B-Hinckley gravelly loamy fine sand, 0 to 8 percent slopes.</u></p> <p>This soil is very deep, excessively drained, and nearly level and gently sloping. It is on long, narrow terraces and in broad areas that are slightly higher than the adjacent flood plain and at the base of hills and mountains. Areas are long and narrow or irregular in shape and range from 5 to 150 acres in size.</p> <p>The typical sequence, depth, and composition of the layers in this soil are as follows:</p> <p>Surface layer: 0 to 6 inches, dark brown gravelly loamy fine sand</p> <p>Subsoil: 6 to 23 inches, dark yellowish brown gravelly loamy fine sand</p> <p>Substratum: 23 to 60 inches, dark grayish brown very gravelly coarse sand</p> <p>Some areas of this unit include soils that have less than 35 percent rock fragments throughout. Some areas include soils that have a redder subsoil.</p> <p>Included in this unit in mapping are small areas of the well drained Paxton soils, the moderately well drained and somewhat poorly drained Sudbury soils, and the excessively drained Windsor soils. Paxton soils are near the edges of the unit. Sudbury soils are in depressions and drainageways, and Windsor soils are in landscape positions similar to those of the Hinckley soil. Included soils make up 15 to 20 percent of the unit.</p> <p><u>Important soil properties</u> Permeability: Rapid in the subsoil and very rapid in the substratum Available water capacity: Very low Soil reaction: Extremely acid to moderately acid Depth to bedrock: More than 60 inches Depth to the water table: At least 60 inches Root zone: Typically extends to a depth of at least 60 inches Potential for frost action: Low</p>	<p>Included in this unit in mapping are small areas of the moderately well drained Amelia and Georgia soils and the excessively drained Hinckley soils. Also included, in landscape positions similar to those of the Paxton soil, are soils that have a friable substratum and soils that are more than 35 percent rock fragments throughout. Amelia and Georgia soils are in depressions and drainageways, and Hinckley soils are near the edges of the unit. Included soils make up 15 to 20 percent of this unit.</p> <p><u>Important soil properties</u></p> <p>Permeability: Moderate in the subsoil and slow or very slow in the substratum Available water capacity: High Soil reaction: Very strongly acid to moderately acid throughout the profile Depth to dense basal till: 20 to 38 inches Depth to bedrock: More than 60 inches Water table: Perched at a depth of 1.5 to 2.5 feet in winter and spring Root zone: Typically extends to the firm substratum Potential for frost action: Moderate</p>	<p>BC-19 to 27 inches; light olive brown (2.5Y 5/4) gravelly sandy loam; common medium prominent yellowish brown (10YR 5/6) mottles and common medium prominent grayish brown (10YR 5/2) mottles; weak thin platy structure; friable; few roots; 15 percent rock fragments; slightly acid; abrupt smooth boundary.</p> <p>2C1-27 to 41 inches; light olive brown (2.5Y 5/4) very gravelly coarse sand, 1-to-2-inch-thick silt lenses; many large prominent yellowish brown (10YR 5/6) mottles and many large prominent light brownish gray (10YR 6/2) mottles in the silt lenses; single grain; loose; 37 percent rock fragments; neutral; clear smooth boundary.</p> <p>2C2-41 to 60 inches; light olive brown (2.5Y 5/4) very gravelly coarse sand; single grain; loose; 52 percent rock fragments; neutral.</p> <p>The depth to bedrock is more than 60 inches. The thickness of the solum is 18 to 30 inches. The content of rock fragments ranges from 0 to 30 percent in the solum and 25 to 60 percent in the substratum. Reaction ranges from strongly acid to slightly acid in the solum and is neutral in the substratum. The A horizon has hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 to 4. It is fine sandy loam, sandy loam, or the gravelly analogs of those textures. The B horizon has hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 2 to 6. It is fine sandy loam, sandy loam, or the gravelly analogs of those textures. The BC horizon has hue of 10YR to 2.5Y, value of 4 or 5, and chroma of 2 to 4. It is gravelly or very gravelly sandy loam or fine sandy loam. The 2C horizon has hue of 10YR to 5Y, value of 4 or 5, and chroma of 2 to 4. It is gravelly or very gravelly sand or coarse sand.</p>	<p><u>56C-Colton-Duxbury complex, 8 to 15 percent slopes, very stony.</u></p> <p>This unit consists of very deep, strongly sloping soils. It is on knolls, long, narrow terraces, and broad areas that are slightly higher than the adjacent flood plain and at the base of mountains. Areas are irregular in shape and range from 5 to 125 acres in size. Stones cover less than 1 percent to 3 percent of the surface and are typically 5 to 25 feet apart.</p> <p>This unit is about 50 percent excessively drained Colton soils, 35 percent well drained Duxbury soils, and 15 percent other soils. The Colton and Duxbury soils are in areas so intermingled that separating them in mapping was not practical.</p> <p>Typically, the Colton soils are covered by a thin layer of slightly decomposed and moderately decomposed leaves, needles, and twigs. Under that layer, the typical sequence, depth, and composition of the layers in this soil are as follows:</p> <p>Surface layer: 0 to 2 inches, black very gravelly fine sandy loam</p> <p>Subsurface layer: - 2 to 6 inches, light brownish gray very gravelly sandy loam</p> <p>Subsoil: 6 to 22 inches, reddish brown extremely gravelly sand 22 to 32 inches, brown extremely gravelly loamy sand</p> <p>Substratum: 32 to 60 inches, yellowish brown extremely gravelly sand</p> <p>Typically, the Duxbury soil is covered by a thin layer of slightly decomposed and moderately decomposed leaves, needles, and twigs. Under that layer, the typical sequence, depth, and composition of the layers in this soil are as follows:</p> <p>Surface layer: - 0 to 1 inch, pinkish gray fine sandy loam</p> <p>Subsoil: 1 to 2 inches, dark brown fine sandy loam 2 to 10 inches, yellowish red gravelly fine sandy loam 10 to 18 inches, yellowish brown gravelly fine sandy loam</p> <p>Substratum: 18 to 60 inches, light olive brown very gravelly loamy sand</p> <p>Some areas of this unit include soils that have a surface layer of silt loam. Other areas include soils that have a less red subsoil.</p> <p>Included in this unit in mapping are small areas of the well drained and excessively drained Adams soils, the well drained Berkshire soils, and the moderately well drained Sheepscot soils. Also included are areas where stones cover more than 3 percent of the surface. Adams soils are in landscape positions similar to those of the Colton and Duxbury soils. Berkshire soils are generally near the edges of the unit, and Sheepscot soils are in depressions and drainageways. Included soils make up about 15 percent of the unit.</p> <p><u>Important soil properties</u> Permeability: Colton-rapid in the subsoil and very rapid in the substratum; Duxbury-moderately rapid in the subsoil and rapid to very rapid in the substratum Available water capacity: Colton-very low; Duxbury-moderate Soil reaction: Colton-extremely acid to very strongly acid in the surface layer and subsurface layer, very strongly acid or strongly acid in the subsoil, and very strongly acid to moderately acid in the substratum; Duxbury-extremely acid to slightly acid in the surface layer and subsoil and very strongly acid to slightly acid in the substratum Depth to bedrock: More than 60 inches Depth to the water table: At least 60 inches Root zone: Typically extends to the substratum Potential for frost action: Low</p>
<p><u>13E-Hinckley gravelly loamy fine sand, 25 to 40 percent slopes.</u></p> <p>This soil is very deep, excessively drained, and steep. It is on the sides of long, narrow terraces and hills that are higher than the adjacent flood plains and at the base of hills and mountains. Areas are long and narrow or irregular in shape and range from 5 to 75 acres in size.</p> <p>The typical sequence, depth, and composition of the layers in this soil are as follows:</p> <p>Surface layer: 0 to 4 inches, dark brown gravelly loamy fine sand</p> <p>Subsoil: 4 to 23 inches, dark yellowish brown gravelly loamy fine sand</p> <p>Substratum: 23 to 60 inches, dark grayish brown very gravelly coarse sand</p> <p>Some areas of this unit include soils that have less than 35 percent rock fragments throughout. Some areas include soils that have a redder subsoil.</p> <p>Included in this unit in mapping are small areas of the well drained Paxton soils, the moderately well drained and somewhat poorly drained Sudbury soils, and the excessively drained Windsor soils. Paxton soils are near the edges of the unit. Sudbury soils are in depressions and drainageways, and Windsor soils are in landscape positions similar to those of the Hinckley soil. Included soils make up 15 to 20 percent of the unit.</p> <p><u>Important soil properties</u> Permeability: Rapid in the subsoil and very rapid in the substratum Available water capacity: Very low Soil reaction: Extremely acid to moderately acid Depth to bedrock: More than 60 inches Depth to the water table: At least 60 inches Root zone: Typically extends to a depth of at least 60 inches Potential for frost action: Low</p>	<p>Because of the variability of Fluvaquents, a typical pedon is not described. These soils have a surface layer that is 4 to 10 inches thick (100 to 250 mm). This is underlain by loamy and sandy stratified material that is distinctly or prominently mottled. The depth to bedrock is more than 60 inches (1500 mm). The content of rock fragments ranges from 15 to 60 percent. Reaction ranges from strongly acid to neutral.</p> <p><u>Udifuvents</u> Udifuvents consists of very deep, moderately well drained to excessively drained soils. These soils formed in sandy and loamy alluvium on flood plains. Slopes range from 0 to 3 percent.</p> <p>Udifuvents in this survey are only in an undifferentiated group with Fluvaquents. Udifuvents are geographically associated with the modern well drained Deerfield soils, the excessively drained Hinkley soils, the poorly drained Limerick soils, the very poorly drained Saco soils, the moderately well drained and somewhat poorly drained Sudbury soils, and Fluvaquents. Unlike Deerfield, Hinkley, and Sudbury soils, Fluvaquents are frequently flooded. They are more than 15% rock fragments, whereas Limerick soils have less than 15% rock fragments. Unlike Saco soils, Fluvaquents do not have a surface layer of muck. Unlike Udifuvents, they have mottles within a depth of 20 inches (510 mm).</p> <p>Because of the variability of Udifuvents, a typical pedon is not described. These soils have a surface layer that is 3 to 6 inches thick (75 to 150 mm) and is underlain by stratified material. The depth to bedrock is more than 60 inches (1500 mm). The content of rock fragments ranges from 15 to 75 percent throughout. Reaction ranges from strongly acid to neutral.</p>	<p><u>56B-Colton-Duxbury complex, 2 to 8 percent slopes, very stony.</u></p> <p>This unit consists of very deep, nearly level and gently sloping soils. It is on long, narrow terraces and broad areas that are slightly higher than the adjacent flood plain and at the base of hills and mountains. Areas are irregular in shape and range from 5 to 150 acres in size. Stones cover less than 1 percent to 3 percent of the surface and are typically 5 to 25 feet apart.</p> <p>This unit is about 50 percent excessively drained Colton soil, 35 percent well drained Duxbury soil, and 15 percent other soils. The Colton and Duxbury soils are in areas so intermingled that separating them in mapping was not practical.</p> <p>Typically, the Colton soil is covered by a thin layer of slightly decomposed and moderately decomposed leaves, needles, and twigs. Under that layer, the typical sequence, depth, and composition of the layers in this soil are as follows:</p> <p>Surface layer 0 to 2 inches, black very gravelly fine sandy loam</p> <p>Subsurface layer 2 to 6 inches, light brownish gray very gravelly sandy loam</p> <p>Subsoil: 6 to 22 inches, reddish brown extremely gravelly sand 22 to 32 inches, brown extremely gravelly loamy sand</p> <p>Substratum: 32 to 60 inches, yellowish brown extremely gravelly sand</p> <p>Typically, the Duxbury soil is covered by a thin layer of slightly decomposed and moderately decomposed leaves, needles, and twigs. Under that layer, the typical sequence, depth, and composition of the layers in this soil are as follows:</p> <p>Surface layer: 0 to 1 inch, pinkish gray fine sandy loam</p> <p>Subsoil: 1 to 2 inches, dark brown fine sandy loam 2 to 10 inches, yellowish red gravelly fine sandy loam 10 to 18 inches, yellowish brown gravelly fine sandy loam</p> <p>Substratum: 18 to 60 inches, light olive brown very gravelly loamy sand</p> <p>Some areas of this unit include soils that have a surface layer of silt loam. Other areas include soils that have a less red subsoil.</p> <p>Included in this unit in mapping are small areas of the well drained and excessively drained Adams soils, the well drained Berkshire soils, and the moderately well drained Sheepscot soils. Also included are areas where stones cover more than 3 percent of the surface. Adams soils are in landscape positions similar to those of the Colton and Duxbury soils. Berkshire soils are generally near the edges of the unit, and Sheepscot soils are in depressions and drainageways. Included soils make up about 15 percent of the unit.</p> <p><u>Important soil properties</u> Permeability: Colton-rapid in the subsoil and very rapid in the substratum; Duxbury-moderately rapid in the subsoil and rapid to very rapid in the substratum Available water capacity: Colton-very low; Duxbury-moderate Soil reaction: Colton-extremely acid to very strongly acid in the surface layer and subsurface layer, very strongly acid or strongly acid in the subsoil, and very strongly acid to moderately acid in the substratum; Duxbury-extremely acid to slightly acid in the surface layer and subsoil and very strongly acid to slightly acid in the substratum Depth to bedrock: More than 60 inches Depth to the water table: At least 60 inches Root zone: Typically extends to the substratum Potential for frost action: Low</p>	
<p><u>31C-Paxton fine sandy loam, 8 to 15 percent slopes, very stony.</u></p> <p>This soil is very deep, well drained, and strongly sloping. It is on the top and sides of knolls, hills, and ridges. Areas are irregular in shape and range from 5 to 150 acres in size. Stones cover less than 1 percent to 3 percent of the surface and are typically 5 to 25 feet apart.</p> <p>Typically, this soil is covered by a thin layer of slightly decomposed leaves, needles, and twigs. Under that layer, the typical sequence, depth, and composition of the layers in this soil are as follows:</p> <p>Surface layer: 0 to 9 inches, dark brown fine sandy loam Subsoil: 9 to 26 inches, yellowish brown fine sandy loam Substratum: 26 to 60 inches, mottled, firm, olive brown fine sandy loam</p> <p>Some areas of this unit include soils that have mottles in the lower part of the subsoil, soils that are neutral in reaction throughout, or soils that have carbonates between depths of 40 and 60 inches.</p>	<p><u>Sudbury Series</u></p> <p>The Sudbury series consists of very deep, moderately well drained and somewhat poorly drained soils. These soils formed in loamy glaciofluvial deposits underlain by sandy glaciofluvial deposits on kames, stream terraces, deltas, and valley trains. Permeability is moderately rapid in the solum and rapid in the substratum. Slopes range from 0 to 8 percent. Sudbury soils formed in materials similar to that of the moderately well drained Deerfield, Ninigret, and Tisbury soils; the excessively drained Hinckley and Windsor soils; the poorly drained Walpole soils; and Fluvaquents and Udifuvents. Sudbury soils have more rock fragments in the substratum than Deerfield soils. They have more sand in the particle-size control section than Ninigret and Tisbury soils. Unlike Hinckley and Windsor soils, Sudbury soils have gray mottles within a depth of 24 inches. Sudbury soils are less gray in the B horizon than Walpole soils. Fluvaquents and Udifuvents lack any soil development. Typical pedon of Sudbury fine sandy loam, 3 to 8 percent slopes, in a forested area, in the town of Clarendon, 1.2 miles east of U.S. Route 7 on Vermont Route 103 and 0.5 mile east of the Rutland Municipal Airport:</p> <p>0i-1 inch to 0; slightly decomposed pine needles.</p> <p>A-0 to 3 inches; very dark grayish brown (10YR 3/2) fine sandy loam; weak fine granular structure; very friable; many roots; 7 percent rock fragments; strongly acid; abrupt smooth boundary.</p> <p>Bw1-3 to 9 inches; dark brown (10YR 4/3) fine sandy loam; moderate fine subangular blocky structure; friable; many roots; 11 percent rock fragments; slightly acid; clear smooth boundary.</p> <p>Bw2-9 to 19 inches; light olive brown (2.5Y 5/4) sandy loam; common medium prominent olive (10YR 5/6) mottles; weak fine subangular blocky structure; friable; common roots; 10 percent rock fragments; slightly acid; clear smooth boundary.</p>	<p>Surface layer: 0 to 1 inch, pinkish gray fine sandy loam</p> <p>Subsoil: 1 to 2 inches, dark brown fine sandy loam 2 to 10 inches, yellowish red gravelly fine sandy loam 10 to 18 inches, yellowish brown gravelly fine sandy loam</p> <p>Substratum: 18 to 60 inches, light olive brown very gravelly loamy sand</p> <p>Some areas of this unit include soils that have a surface layer of silt loam. Other areas include soils that have a less red subsoil. Included in this unit in mapping are small areas of the well drained and excessively drained Adams soils, the well drained Berkshire soils, and the moderately well drained Sheepscot soils. Also included are areas where stones cover more than 3 percent of the surface. Adams soils are in landscape positions similar to those of the Colton and Duxbury soils. Berkshire soils are generally near the edges of the unit, and Sheepscot soils are in depressions and drainageways. Included soils make up about 15 percent of the unit.</p> <p><u>Important soil properties</u> Permeability: Colton-rapid in the subsoil and very rapid in the substratum; Duxbury-moderately rapid in the subsoil and rapid to very rapid in the substratum Available water capacity: Colton-very low; Duxbury-moderate Soil reaction: Colton--extremely acid to very strongly acid in the surface layer and subsurface layer, very strongly acid or strongly acid in the subsoil, and very strongly acid to moderately acid in the substratum; Duxbury-extremely acid to slightly acid in the surface layer and subsoil and very strongly acid to slightly acid in the substratum Depth to bedrock: More than 60 inches Depth to the water table: At least 60 inches Root zone: Typically extends to the substratum Potential for frost action: Low</p>	

SOIL NARRATIVES

PROJECT NAME:	MENDON	PLOT DATE:	18-NOV-2005
PROJECT NUMBER:	BRO 1443(35)	DRAWN BY:	G. Shangraw
FILE NAME:	/str5/95j290/soils.dgn	CHECKED BY:	
PROJECT LEADER:	C. Keller	SHEET	33 OF 94
DESIGNED BY:	G. Shangraw		
sJ290soilnotes.i			