

Map Unit Description

Las Animas County Area, Colorado, Parts of Huerfano and Las Animas Counties

LST Lorencito-Sarcillo-Trujillo complex, 3 to 25 percent slopes

Setting

Landscape: Foothills
Elevation: 6500 to 7800 feet
Mean annual precipitation: 15 to 18 inches
Mean annual air temperature: 43 to 52 degrees F
Frost-free period: 80 to 135 days

Composition

Lorencito and similar soils: 40 percent
Sarcillo and similar soils: 30 percent
Trujillo and similar soils: 20 percent

Description of Lorencito

Setting

Landform: Hills
Landform position (two-dimensional): Backslope, shoulder
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Slope alluvium and residuum weathered from shale and siltstone

Properties and Qualities

Slope: 10 to 25 percent
Surface area covered with stones and boulders: 15.0 percent
Depth to restrictive feature: 10 to 20 inches to Paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low or moderately high (0.06 to 0.20 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 0 percent
Gypsum maximum: 0 percent
Sodium adsorption ratio maximum: 2.0
Available water capacity: Very low (about 2.5 inches)

Interpretive Groups

Land capability (non irrigated): 7e
Ecological site: Pinus edulis-Juniperus scopulo (F048AY016NM)
Other vegetative classification: Pinyon/juniper (PIED/JUSC2)

Typical Profile

0 to 4 inches: channery clay loam
4 to 16 inches: parachannery clay
16 to 26 inches: bedrock

Description of Sarcillo

Setting

Landform: Hills
Landform position (two-dimensional): Toeslope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Slope alluvium derived from sandstone and shale

Properties and Qualities

Slope: 3 to 15 percent
Depth to restrictive feature: 10 to 20 inches to Lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low or moderately high (0.00 to 0.20 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 5 percent
Gypsum maximum: 0 percent
Available water capacity: Very low (about 2.6 inches)

Interpretive Groups

Map Unit Description

Las Animas County Area, Colorado, Parts of Huerfano and Las Animas Counties

Land capability (non irrigated): 7e
Ecological site: Pinus edulis-Juniperus scopulo (F048AY016NM)
Other vegetative classification: Pinyon/juniper (PIED/JUSC2)

Typical Profile

0 to 5 inches: loam
5 to 8 inches: clay loam
8 to 13 inches: clay
13 to 16 inches: clay
16 to 60 inches: bedrock

Description of Trujillo

Setting

Landform: Hills
Landform position (two-dimensional): Footslope, toeslope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Alluvium derived from sandstone

Properties and Qualities

Slope: 3 to 9 percent
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high or high (0.60 to 2.00 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 3 percent
Gypsum maximum: 0 percent
Sodium adsorption ratio maximum: 2.0
Available water capacity: Moderate (about 8.3 inches)

Interpretive Groups

Land capability classification (irrigated): 4e
Land capability (non irrigated): 4e
Ecological site: Loamy Foothill (R049XB202CO)
Other vegetative classification: Loamy Foothills #202 (049XY202CO_2)

Typical Profile

0 to 9 inches: loam
9 to 13 inches: loam
13 to 20 inches: clay loam
20 to 36 inches: sandy clay loam
36 to 58 inches: fine sandy loam
58 to 70 inches: fine sandy loam

Map Unit Description

Detailed Soil Map Units

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. The contrasting components are mentioned in the map unit descriptions. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description indicates the composition of the map unit and selected properties of the components of the unit.

Soils that have profiles that are almost alike make up a "soil series." Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into "soil phases." Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A "complex" consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An "association" is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An "undifferentiated group" is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include "miscellaneous areas." Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.