United States Department of Agriculture

Natural Resources Conservation Service

In cooperation with the Department of the Army, Fort Wainwright; Alaska Agricultural and Forestry Experiment Station; Fairbanks Soil and Water Conservation District; and the Alaska Soil and Water Conservation District

Soil Survey of Fort Wainwright Area, Alaska

An Interim Report

January 2001

How To Use This Soil Survey

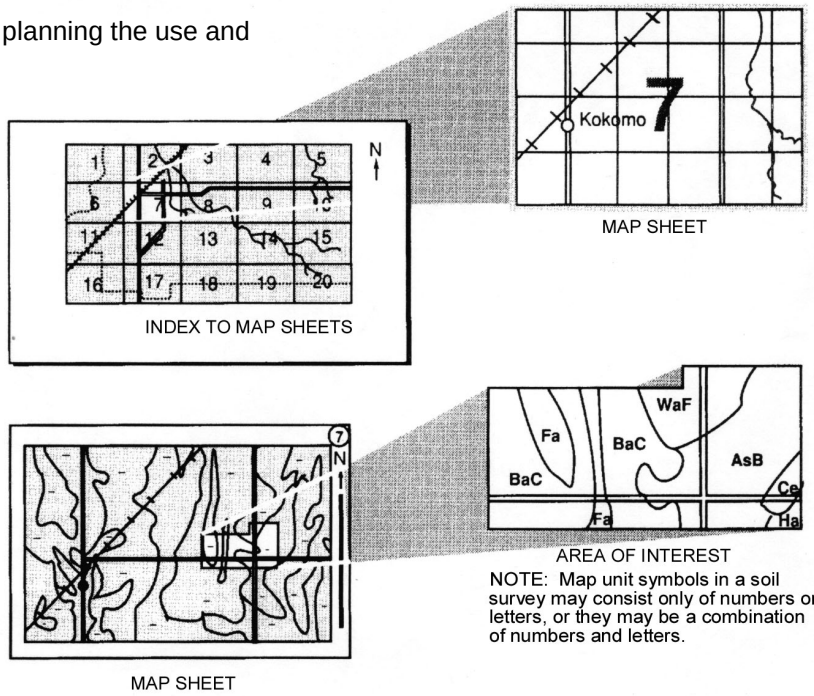
Detailed Soil Maps

The detailed soil maps can be useful in planning the use and management of small areas.

To find information about your area of interest, locate that area on the **Index to Map Sheets**. Note the number of the map sheet and turn to that sheet.

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Turn to the **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described.

The **Contents** shows which table has data on a specific land use for each detailed soil map unit. Also see the **Contents** for sections of this publication that may address your specific needs.



This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture (USDA) and other Federal agencies, State agencies and local agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey.

Major fieldwork for this soil survey was completed in 1997 and 1999. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 1999. This survey was made cooperatively by the Natural Resources Conservation Service, Fort Wainwright; Alaska Agricultural and Forestry Experiment Station; and the Alaska Soil and Water Conservation District. It is part of the technical assistance furnished to the Fairbanks Soil and Water Conservation District.

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

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Contents

How To Use This Soil Survey 3
Foreword 9
General Nature of the Survey Area 11
How This Survey Was Made 11
Detailed Soil Map Units 13
9—Histels 14
10—Bolio peat 14
11—Lemeta peat 15
13—Terric Cryofibrists-Liscum complex 15
14—Histels-Terric Cryofibrists complex 16
20—Mosquito peat 17
21A—Goldstream peat, 0 to 3 percent slopes .. 17
21B—Goldstream peat, 3 to 7 percent slopes .. 18
22—Tanacross peat 18
25—Tanana silt loam 19
26—Histels and Mosquito peat 20
31—Eielson-Piledriver complex, occasionally flooded 20
32—Salchaket very fine sandy loam 21
35—North Pole very fine sandy loam 22
36—Jarvis very fine sandy loam 22
37—Chena very fine sandy loam 23
39A—Nenana silt loam, 0 to 3 percent slopes 23
40A—Chatanika silt loam, 0 to 3 percent slopes 24
40B—Chatanika silt loam, 3 to 7 percent slopes 25
40C—Chatanika silt loam, 7 to 12 percent slopes 25
40D—Chatanika silt loam, 12 to 20 percent slopes 26
41A—Minto silt loam, 0 to 3 percent slopes 26
41B—Minto silt loam, 3 to 7 percent slopes 27
41C—Minto silt loam, 7 to 12 percent slopes ... 27
41D—Minto silt loam, 12 to 20 percent slopes 28
42B—Fairbanks silt loam, 3 to 7 percent slopes 29
42C—Fairbanks silt loam, 7 to 12 percent slopes 29
42CG—Fairbanks silt loam, strongly sloping and steep 30
42D—Fairbanks silt loam, 12 to 20 percent slopes 30
42E—Fairbanks silt loam, 20 to 30 percent slopes 31
42F—Fairbanks silt loam, 30 to 45 percent slopes 31
42G—Fairbanks silt loam, 45 to 70 percent slopes 32
44B—Steese silt loam, 3 to 7 percent slopes ... 32
44C—Steese silt loam, 7 to 12 percent slopes 33
44D—Steese silt loam, 12 to 20 percent slopes 33
44E—Steese silt loam, 20 to 30 percent slopes 34
44F—Steese silt loam, 30 to 45 percent slopes 35
44G—Steese silt loam, 45 to 70 percent slopes 35
45B—Gilmore silt loam, 3 to 7 percent slopes 36
45C—Gilmore silt loam, 7 to 12 percent slopes 36
45D—Gilmore silt loam, 12 to 20 percent slopes 37
45E—Gilmore silt loam, 20 to 30 percent slopes 38
45F—Gilmore silt loam, 30 to 45 percent slopes 38
45G—Gilmore silt loam, 45 to 70 percent slopes 39
46C—Eutrocryepts, 7 to 12 percent slopes 39
46D—Eutrocryepts, 12 to 20 percent slopes 40
48D—McCloud silt loam, 12 to 20 percent slopes 40
48E—McCloud silt loam, 20 to 30 percent slopes 41
48F—McCloud silt loam, 30 to 45 percent slopes 41
49D—Angel silt loam, 12 to 20 percent slopes 42
49E—Angel silt loam, 20 to 30 percent slopes 42

49F—Angel silt loam, 30 to 45 percent slopes 43
50G—Ester peat, 45 to 70 percent slopes 43
50X—Ester peat, 20 to 45 percent slopes 44
51B—Saulich peat, 3 to 7 percent slopes 45
51C—Saulich peat, 7 to 12 percent slopes 45
61—Piledriver very fine sandy loam 46
62—Peede-Mosquito complex 46
63—Typic Cryaquents-Tanana complex 47
64—Eielson-Tanana complex 48
65—Typic Cryaquents and Typic Aquorthels 49
66—Eielson fine sandy loam 49
69—Typic Cryaquents-Eielson complex 50
70A—Volkmar-Richardson complex, 0 to 3 percent slopes 51
70B—Volkmar-Richardson complex, 3 to 7 percent slopes 51
71—North Pole-Mosquito-Liscum complex 52
72F—Eutrocryepts, escarpments, 7 to 45 percent slopes 53
81V—Saulich peat and Chatanika silt loam, 3 to 15 percent slopes 54
81X—Saulich peat and Chatanika silt loam, 15 to 20 percent slopes 55
82V—Gilmore and Steese silt loams, 3 to 15 percent slopes 56
82X—Gilmore and Steese silt loams, 15 to 45 percent slopes 57
85—Eutrocryepts and Minto silt loam, 3 to 20 percent slopes 57
86G—Brigadier silt loam, 45 to 70 percent slopes 58
86V—Brigadier and Steese, cool silt loams, 3 to 15 percent slopes 59
86X—Brigadier and Steese, cool silt loams, 15 to 45 percent slopes 60
87V—Gilmore silt loam, subalpine and Steese silt loam, cool 61
87X—Gilmore silt loam, subalpine, 15 to 45 percent slopes 62
88—Dystrocryepts-Turbels complex, 0 to 30 percent slopes 62
89V—Fairbanks and Steese silt loams, 3 to 15 percent slopes 63
89X—Fairbanks and Steese silt loams, 15 to 45 percent slopes 64
90—Fubar-Tanana complex, 0 to 3 percent slopes 65
91—Cryofluvents-Typic Cryaquents-Typic Aquorthels complex, 2 to 10 percent slopes 65
211—Chatanika-Goldstream complex, 0 to 3 percent slopes 66
212—Goldstream-Histels complex, 0 to 3 percent slopes 67
251—Tanana-Mosquito complex 68
361—Jarvis-Chena complex 69
362—Piledriver-Fubar complex 70
363—Jarvis-Salchaket complex 71
411A—Minto-Chatanika complex, 0 to 3 percent slopes 71
411B—Minto-Chatanika complex, 3 to 7 percent slopes 72
411C—Minto-Chatanika complex, 7 to 12 percent slopes 73
411D—Minto-Chatanika complex, 12 to 20 percent slopes 74
421B—Fairbanks-Steese complex, 3 to 7 percent slopes 75
421C—Fairbanks-Steese complex, 7 to 12 percent slopes 76
421D—Fairbanks-Steese complex, 12 to 20 percent slopes 77
441D—Steese-Gilmore complex, 12 to 20 percent slopes 78
441E—Steese-Gilmore complex, 20 to 30 percent slopes 79
441F—Steese-Gilmore complex, 30 to 45 percent slopes 79
441G—Steese-Gilmore complex, 45 to 70 percent slopes 80
451G—Brigadier-Ester complex, 45 to 70 percent slopes 81
451X—Brigadier-Ester complex, 15 to 45 percent slopes 82
452—Gilmore-Steese complex, 3 to 15 percent slopes 83
492—Angel-McCloud complex, 3 to 15 percent slopes 84
611—Piledriver-Eielson complex 85
CL—Typic Cryorthents, pit spoil 86
Gv—Pits, gravel 86
Lf—Dumps, landfill 86
Qu—Pits, quarry 87
Rv—Riverwash 87

UC—Urban land-Typic Cryorthents complex, 0 to 1 percent slopes ... 87
W—Water ... 88
WAH—Typic Cryaquent, Terric Cryofibrist, and Histic Cryaquept soils ... 88
XC—Salchacket-Typic Cryorthents complex ... 89
Use and Management of the Soils ... 91
Interpretive Ratings ... 91
Rating Class Terms ... 91
Numerical Ratings ... 91
Forestland Management and Productivity ... 91
Recreation ... 92
Engineering ... 92
Building Site Development ... 93
Sanitary Facilities ... 94
Construction Materials ... 96
Soil Properties ... 99
Engineering Index Properties ... 99
Physical Properties ... 100
Chemical Properties ... 101
Water Features ... 102
Hydric Soils ... 103
Key To Hydric Soil Criteria ... 104
Soil Features ... 104
Classification of the Soils ... 107
Taxonomic Units and Their Morphology ... 107
Angel Series ... 108
Aquic Cryofluvents ... 109
Bolio Series ... 110
Bradway Series ... 110
Brigadier Series ... 111
Chatanika Series ... 112
Chena Series ... 113
Dystrocryepts ... 114
Eielson Series ... 115
Ester Series ... 116
Eutrocryepts ... 117
Fairbanks Series ... 118
Fubar Series ... 119
Gilmore Series ... 120
Goldstream Series ... 121
Histels ... 122
Histic Cryaquepts ... 123
Jarvis Series ... 124
Lemeta Series ... 125
Liscum Series ... 126
Manchu Series ... 127
McCloud Series ... 128
Minto Series ... 129
Mosquito Series ... 130
Nenana Series ... 131
Noonku Series ... 132
North Pole Series ... 133
Peede Series ... 133
Piledriver Series ... 134
Richardson Series ... 135
Salchaket Series ... 136
Saulich Series ... 138
Steese Series ... 139
Tanacross Series ... 140
Tanana Series ... 140
Terric Cryofibrists ... 142
Turbels ... 142
Typic Aquorthels ... 143
Typic Cryaquents ... 144
Typic Cryorthents ... 145
Volkmar Series ... 146
Formation of the Soils ... 149
References ... 151
Glossary ... 153
Tables ... 161
Table 1.—Temperature and Precipitation ... 162
Table 2.—Freeze Dates in Spring and Fall ... 163
Table 3.—Growing Season ... 163
Table 4.—Forest Productivity ... 164
Table 5.—Recreation: Foot and ATV Trails ... 176
Table 6.—Building Site Development: Site Improvements ... 197
Table 7.—Building Site Development: Structures ... 222
Table 8.—Sanitary Facilities: Landfill ... 243
Table 9.—Sanitary Facilities: Sewage Treatment ... 266
Table 10.—Construction Materials: Gravel and Sand ... 291
Table 11.—Construction Materials: Topsoil and Roadfill ... 309
Table 12.—Engineering Index Properties ... 336
Table 13.—Physical Properties of the Soils ... 359
Table 14.—Chemical Properties of the Soils ... 378
Table 15.—Water Features ... 394
Table 16.—Hydric Soils List ... 428
Table 17.—Soil Features ... 450
Table 18.—Classification of the Soils ... 462

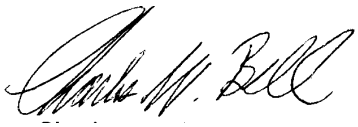
Foreword

This soil survey contains information that can be used in land-planning programs on Fort Wainwright, Alaska. It contains predictions of soil behavior for selected land uses and highlights limitations and hazards inherent in the soil, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

Many soil properties that affect land use are described in this soil survey. The location of each soil is shown on the soil maps. Each soil in the Survey Area is described. Information on specific uses is given for each soil. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Alaska Cooperative Extension.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. The information in this report is intended to identify soil properties that are used in making various land use or land treatment decisions. Statements made in this report are intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

This soil survey is part of a larger survey effort in-progress for the Fairbanks Area. As such, this publication represents an interim report—soil units and soil types may change. A comprehensive publication that will include the Fairbanks Area, Eielson Air Force Base, and Fort Wainwright will be released when the entire survey effort has been completed.



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Soil Survey of
Fort Wainwright, Alaska
(an interim report)

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Fieldwork by David K. Swanson, Michael Mungoven, Stephanie Ewing, William R. Loftis, and Thomas Champa, Natural Resources Conservation Service

United States Department of Agriculture, Natural Resources Conservation Service
In cooperation with the United States Army, Fort Wainwright, Alaska

General Nature of the Survey Area

Fort Wainwright lies on the Tanana lowland, a nearly flat alluvial plain located north of the Alaska Range, and the Yukon-Tanana upland (Wahrhaftig 1965). Elevations on the plain of the Tanana lowland range from about 400 to 475 feet (121 to 144 m). Geologic materials in the Tanana lowland are river deposits consisting of sand and gravel with a mantle of finer material. These river deposits are saturated with water, in most places below the depth of observation for this survey (6 feet, or 2 m), but occasionally within a foot or two of the surface. Permafrost is present in the lowland and covers approximately one-third to one-half of the area. In the Yukon-Tanana upland elevations range from about 450 feet (136 m) on lower slopes to 3,265 feet (995 m) on the highest hilltop in the Yukon Maneuver Area. Geologic materials consist of weathered bedrock with a mantle of windblown silt (loess). This mantle is only a foot or two thick (< 1 m) on most hilltops and upper slopes. It may be many feet thick on hills nearest the Tanana River and on the lower slopes of hills. Permafrost is present on lower slopes and north-facing slopes. Large bodies of ground ice are present in the thick silty deposits on the lower slopes of these uplands.

Fort Wainwright has a continental subarctic climate, with long, cold winters and short, warm summers. Summer (June, July, and August) temperatures average 58ºF (15ºC) and winter (November through March) temperatures average -2ºF (-19ºC). The average annual precipitation is 13 inches (33 cm), with July and August, on average, the wettest months and April the driest. Snow covers the ground continuously from October to late April or early May. A detailed climatic data summary is given in tables 1, 2 and 3.

How This Survey Was Made

This survey was made to provide information about the soils and miscellaneous areas on Fort Wainwright. The information includes a description of the soils and miscellaneous areas and their location and a discussion of their suitability, limitations, and management for specified uses. Soil scientists observed the steepness, length, and

shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to study the soil profile, which is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Before beginning the fieldwork for this survey, relevant information on the climate, geology, geomorphology, hydrology, and vegetation of the Survey Area was assembled. Aerial photography of the survey area was acquired and prepared for field use and mapping. The aerial photography used included 1996 USDA panchromatic (1:40,000 scale) for northwest Tanana Flats and the contonement area, and 1986 high-altitude color-infrared (scale 1:60,000) for Blair Lakes, and 1996 commercial true-color (scale 1:24,000). The former two photograph sets were enlarged to scales of approximately 1:25,000 for use during the survey.

The soils and miscellaneous areas in the survey area are in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept or model of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. *Soil Taxonomy* (USDA 1999), the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Detailed Soil Map Units

The map units delineated on the detailed soil maps in this survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this section, along with the maps, can be used to determine the suitability and potential of a unit for specific uses. They also can be used to plan the management needed for those uses.

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 includes general facts about the unit and gives the principal hazards and limitations to be considered in planning for specific uses.

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 or of the underlying layers. They also can differ in slope, stoniness, 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, “Fairbanks silt loam, 7 to 12 percent slopes” is a phase of the Fairbanks 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. Map unit 363 “Jarvis-Salchaket complex” is an example of a complex in this Survey Area.

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. There are no associations mapped on Fort Wainwright.

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. Map unit WAH “Typic Cryaquent, Terric Cryofibrist, and Histic Cryaquept soils” is an example of an undifferentiated group in this Survey Area.

This survey includes miscellaneous areas. Such areas have little or no soil material and support little or no vegetation. Map unit Lf “Landfills” is an example.

The tables give properties of the soils and the limitations, capabilities, and potentials for many uses. The glossary defines many of the terms used in describing the soils or miscellaneous areas.

9—Histels

Elevation: 423 to 1201 feet (129 to 366 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Histels and Similar Soils

Extent: 85 to 90 percent of the map unit
Landform: depressions on terraces, flats on terraces
Slope shape: concave downslope
Slope range: 0 to 3 percent
Slope length: not determined
Parent material: organic material over colluvium and/or loess
Depth to permafrost: 16 to 24 inches (40 to 60 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: very poorly drained
Flooding: none
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 6.5 inches (16 cm)
Vegetation: low shrubs, stunted black spruce, sedges, and moss
Typical profile:
Oi—0 to 8 inches (0 to 20 cm); very dark gray peat, rapid permeability
Oe—8 to 20 inches (20 to 50 cm); black mucky peat, moderate permeability
Oef—20 to 31 inches (50 to 80 cm); brown permanently frozen mucky peat, impermeable
Cgf—31 to 60 inches (80 to 152 cm); very dark gray permanently frozen silt loam, impermeable

Minor Components

- Goldstream and similar soils: 10 to 15 percent of the map unit

Management Considerations

Soil-related factors: low strength organic material, permafrost, subsidence due to thaw of ground ice, high water table

10—Bolio peat

Elevation: 423 to 1201 feet (129 to 366 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Bolio and Similar Soils

Extent: 70 to 85 percent of the map unit
Landform: depressions on terraces, flats on terraces
Slope shape: concave or linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: herbaceous organic material

Depth to permafrost: 14 to 28 inches (35 to 70 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: very high
Drainage class: very poorly drained
Flooding: rare
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 6.6 inches (17 cm)
Vegetation: sedges, low shrubs, stunted tamarack and black spruce, and moss
Typical profile:
Oi—0 to 5 inches (0 to 12 cm); brown peat, rapid permeability
Oe—5 to 18 inches (12 to 45 cm); very dark gray mucky peat, moderate permeability
Oef—18 to 60 inches (45 to 152 cm); very dark grayish brown permanently frozen mucky peat, impermeable

Minor Components

- Goldstream and similar soils: 0 to 10 percent of the map unit
- Lemeta and similar soils: 5 to 15 percent of the map unit
- Chatanika and similar soils: 0 to 5 percent of the map unit
- Ponds: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, high water table, ponding, low-strength organic soil material, subsidence due to thaw of ground ice

11—Lemeta peat

Elevation: 423 to 1201 feet (129 to 366 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Lemeta and Similar Soils

Extent: 70 to 80 percent of the map unit
Landform: fens on terraces
Slope shape: linear or concave downslope
Slope range: 0 to 1 percent
Slope length: not determined
Parent material: mossy organic material over herbaceous organic material
Depth to permafrost: 14 to 24 inches (35 to 60 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: very high
Drainage class: very poorly drained
Flooding: rare
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 2.7 inches (7 cm)
Vegetation: moss, sedges, low shrubs, and stunted black spruce
Typical profile:
Oi—0 to 18 inches (0 to 45 cm); yellowish brown peat, rapid permeability
Oaf—18 to 66 inches (45 to 168 cm); very dark brown permanently frozen mucky peat, permanently frozen muck, impermeable

Minor Components

- Bolio and similar soils: 0 to 10 percent of the map unit
- Goldstream and similar soils: 5 to 15 percent of the map unit
- Chatanika and similar soils: 0 to 5 percent of the map unit
- Ponds: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, high water table, ponding, subsidence due to thaw of ground ice, low-strength organic material

13—Terric Cryofibrists-Liscum complex

Elevation: 397 to 1201 feet (121 to 366 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Terric Cryofibrists and Similar Soils

Extent: 60 percent of the map unit
Landform: depressions on flood plains
Slope shape: concave downslope
Slope range: 0 to 1 percent
Slope length: not determined

Parent material: organic material over alluvium and/or lacustrine deposits
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: very poorly drained
Flooding: rare
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 20.9 inches (53 cm)
Vegetation: sedges and forbs
Typical profile:
Oi—0 to 12 inches (0 to 30 cm); very dark brown peat, rapid permeability
Oa—12 to 39 inches (30 to 100 cm); black muck, very slow permeability
Cg—39 to 66 inches (100 to 167 cm); very dark brown silty clay loam, moderately slow permeability

Liscum and Similar Soils

Extent: 30 percent of the map unit
Landform: alluvial flats
Slope shape: linear downslope
Slope range: 0 to 1 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: very low
Drainage class: very poorly drained
Flooding: rare
Depth to high water table (approximate): 6 inches (15 cm)
Ponding: frequent
Available water capacity (approximate): 15.1 inches (38 cm)
Vegetation: sedges and grasses
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); black peat, moderate permeability
Oa—3 to 10 inches (8 to 26 cm); dark brown muck, moderate permeability
Bg—10 to 60 inches (26 to 153 cm); olive brown and gray silty clay loam, silt loam, moderate permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over sand and gravel.

Minor Components

- Histels and similar soils: 5 percent of the map unit
- Typic Cryaquents and similar soils: 5 percent of the map unit

Management Considerations

Soil-related factors: high water table, flooding, low-strength organic soil material

14—Histels-Terric Cryofibrists complex

Elevation: 397 to 1201 feet (121 to 366 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Histels and Similar Soils

Extent: 55 to 65 percent of the map unit
Landform: peat plateaus
Slope shape: convex or linear downslope
Slope range: 0 to 5 percent
Slope length: not determined
Parent material: organic material over alluvium
Depth to permafrost: 14 to 35 inches (35 to 90 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: very poorly drained
Flooding: rare
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—4 inches (10 cm)
Ponding: frequent
Available water capacity (approximate): 8.9 inches (22 cm)
Vegetation: stunted black spruce, low shrubs, moss, and lichens; or paper birch forest
Typical profile:
Oi—0 to 20 inches (0 to 50 cm); very dark grayish brown peat, moderately rapid permeability
Oef—20 to 39 inches (50 to 100 cm); black permanently frozen mucky peat, impermeable
Cgf—39 to 72 inches (100 to 183 cm); very dark grayish brown permanently frozen silt loam, impermeable

Terric Cryofibrists and Similar Soils

Extent: 25 to 30 percent of the map unit
Landform: depressions on flood plains
Slope shape: concave downslope
Slope range: 0 to 1 percent
Slope length: not determined
Parent material: organic material over alluvium and/or lacustrine deposits
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: negligible
Drainage class: very poorly drained
Flooding: rare
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 20.9 inches (53 cm)
Vegetation: sedges and forbs
Typical profile:
Oi—0 to 12 inches (0 to 30 cm); very dark brown peat, rapid permeability
Oa—12 to 39 inches (30 to 100 cm); black muck, very slow permeability
Cg—39 to 66 inches (100 to 167 cm); very dark brown silty clay loam, moderately slow permeability

Minor Components

- Tanacross and similar soils: 10 percent of the map unit
- Water: 2 to 5 percent of the map unit

Management Considerations

Soil-related factors: high water table, subsidence due to thaw of ground ice in the Histel soils, low-strength organic soil material

20—Mosquito peat

Elevation: 397 to 1299 feet (121 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Mosquito and Similar Soils

Extent: 70 to 90 percent of the map unit
Landform: depressions, alluvial flats
Slope shape: concave or linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: organic material over alluvium
Depth to permafrost: 14 to 31 inches (35 to 80 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: very poorly drained
Flooding: rare
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: stunted black spruce, low shrubs, sedges, and moss
Typical profile:
Oi—0 to 9 inches (0 to 22 cm); dark grayish brown peat, mucky peat, rapid permeability
Bg—9 to 20 inches (22 to 50 cm); black very fine sandy loam, silt loam, moderate permeability
Bgf—20 to 66 inches (50 to 167 cm); dark grayish brown permanently frozen silt loam, impermeable

Minor Components

- Bolio and similar soils: 0 to 10 percent of the map unit
- Bradway and similar soils: 0 to 10 percent of the map unit
- Liscum and similar soils: 0 to 5 percent of the map unit
- Water: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, high water table, ponding, flooding, subsidence due to thaw of ground ice

21A—Goldstream peat, 0 to 3 percent slopes

Elevation: 397 to 1201 feet (121 to 366 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Goldstream and Similar Soils

Extent: 70 to 85 percent of the map unit

Landform: valley floors
Slope shape: linear or concave downslope
Slope range: 0 to 3 percent
Slope length: not determined
Parent material: organic material over loess
Depth to permafrost: 14 to 24 inches (35 to 60 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: very poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—6 inches (15 cm)
Ponding: frequent
Available water capacity (approximate): 3.6 inches (9 cm)
Vegetation: sparse stunted black spruce, low shrubs, cottonsedge, and moss
Typical profile:
Oi—0 to 9 inches (0 to 23 cm); dark brown peat, mucky peat, moderately rapid permeability
A—9 to 12 inches (23 to 30 cm); very dark grayish brown mucky silt loam, moderate permeability
Bjjg—12 to 20 inches (30 to 50 cm); gray silt loam, moderate permeability
Cf—20 to 60 inches (50 to 152 cm); dark brown permanently frozen silt loam, impermeable

Minor Components

- Chatanika and similar soils: 5 to 15 percent of the map unit
- Histels and similar soils: 0 to 5 percent of the map unit
- Goldstream (steeper) and similar soils: 0 to 5 percent of the map unit
- Typic Cryaquents and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, high water table, ponding, subsidence due to thaw of ground ice

21B—Goldstream peat, 3 to 7 percent slopes

Elevation: 397 to 1640 feet (121 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Goldstream and Similar Soils

Extent: 80 to 85 percent of the map unit
Landform: valley floors
Slope shape: concave or linear downslope
Slope range: 3 to 7 percent
Slope length: not determined
Parent material: organic material over loess
Depth to permafrost: 14 to 24 inches (35 to 60 cm)
Hazard of erosion (organic mat removed): by water—moderate; by wind—slight
Runoff: high
Drainage class: very poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—6 inches (15 cm)
Ponding: frequent
Available water capacity (approximate): 3.6 inches (9 cm)
Vegetation: sparse stunted black spruce, low shrubs, cottonsedge, and moss
Typical profile:
Oi—0 to 9 inches (0 to 23 cm); gray peat, mucky peat, moderately rapid permeability
A—9 to 12 inches (23 to 30 cm); dark brown mucky silt loam, moderate permeability
Bjjg—12 to 20 inches (30 to 50 cm); very dark grayish brown silt loam, moderate permeability
Cf—20 to 60 inches (50 to 152 cm); gray permanently frozen silt loam, impermeable

Minor Components

- Chatanika and similar soils: 0 to 15 percent of the map unit
- Histels and similar soils: 0 to 7 percent of the map unit
- Minto and similar soils: 0 to 5 percent of the map unit
- Typic Cryaquents and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, high water table, subsidence due to thaw of ground ice

22—Tanacross peat

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)

Frost-free period: 80 to 120 days

Tanacross and Similar Soils

Extent: 80 to 95 percent of the map unit
Landform: alluvial flats
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: organic material over alluvium
Depth to permafrost: 10 to 28 inches (25 to 70 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: very high
Drainage class: poorly drained
Flooding: rare
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—6 inches (15 cm)
Ponding: frequent
Available water capacity (approximate): 2.8 inches (7 cm)
Vegetation: stunted black spruce, low shrubs, and moss
Typical profile:
Oi—0 to 10 inches (0 to 25 cm); dark gray and dark yellowish brown peat, rapid permeability
A—10 to 12 inches (25 to 30 cm); black mucky silt loam, moderate permeability
Bg—12 to 16 inches (30 to 40 cm); dark brown stratified fine sandy loam to silt loam, moderate permeability
Bgf—16 to 72 inches (40 to 183 cm); dark gray and dark yellowish brown stratified permanently frozen fine sandy loam to permanently frozen silt loam, impermeable

Minor Components

- Tanana and similar soils: 5 to 15 percent of the map unit
- North Pole and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: permafrost, subsidence due to thaw of ground ice, high water table, ponding, flooding

25—Tanana silt loam

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Tanana and Similar Soils

Extent: 60 to 85 percent of the map unit
Landform: terraces
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium or loess over alluvium
Depth to permafrost: 16 to 47 inches (40 to 120 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: rare
Depth to high water table (approximate): 6 inches (15 cm)
Ponding: frequent
Available water capacity (approximate): 5.7 inches (15 cm)
Vegetation: black spruce forest
Typical profile:
Oi—0 to 5 inches (0 to 12 cm); very dark grayish brown peat, rapid permeability
A—5 to 8 inches (12 to 20 cm); dark grayish brown mucky silt loam, moderate permeability
Bg—8 to 28 inches (20 to 70 cm); very dark brown silt loam, moderate permeability
Cf—28 to 72 inches (70 to 183 cm); very dark grayish brown permanently frozen silt loam, impermeable

Minor Components

- Bolio and similar soils: 0 to 5 percent of the map unit
- Jarvis and similar soils: 0 to 5 percent of the map unit
- Noonku and similar soils: 0 to 5 percent of the map unit
- Salchaket and similar soils: 0 to 5 percent of the map unit
- Tanacross and similar soils: 5 to 15 percent of the map unit

- North Pole and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, high water table, flooding, variable substratum

26—Histels and Mosquito peat

Elevation: 397 to 1299 feet (121 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Histels and Similar Soils

Extent: 30 to 60 percent of the map unit
Landform: depressions on flood plains, flats on flood plains
Slope shape: concave or linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: organic material over alluvium
Depth to permafrost: 16 to 35 inches (40 to 90 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: very high
Drainage class: very poorly drained
Flooding: rare
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 4.7 inches (12 cm)
Vegetation: low shrubs (bog birch and Labrador tea) sedges, and moss
Typical profile:
Oi—0 to 8 inches (0 to 20 cm); brown peat, rapid permeability
Oe—8 to 16 inches (20 to 40 cm); very dark gray mucky peat, moderate permeability
Oef—16 to 24 inches (40 to 60 cm); black permanently frozen mucky peat, impermeable
Cgf—24 to 60 inches (60 to 152 cm); brown permanently frozen silt loam, impermeable

Mosquito and Similar Soils

Extent: 20 to 50 percent of the map unit
Landform: depressions, alluvial flats
Slope shape: linear or concave downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: organic material over alluvium
Depth to permafrost: 14 to 31 inches (35 to 80 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: very poorly drained
Flooding: rare
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: stunted black spruce, low shrubs, sedges, and moss
Typical profile:
Oi—0 to 9 inches (0 to 22 cm); black peat, mucky peat, rapid permeability
Bg—9 to 20 inches (22 to 50 cm); dark grayish brown very fine sandy loam, silt loam, moderate permeability
Bgf—20 to 66 inches (50 to 167 cm); black permanently frozen silt loam, impermeable

Minor Components

- Terric Cryofibrists and similar soils: 0 to 8 percent of the map unit
- Peede and similar soils: 0 to 5 percent of the map unit
- Salchaket and similar soils: 0 to 3 percent of the map unit

Management Considerations

Soil-related factors: permafrost, high water table, subsidence due to thaw of ground ice, low-strength organic soil material

31—Eielson-Piledriver complex, occasionally flooded

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Eielson and Similar Soils

Extent: 50 to 70 percent of the map unit
Landform: flood plains

Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: somewhat poorly drained
Flooding: occasional
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—47 inches (120 cm)
Ponding: frequent
Available water capacity (approximate): 12.2 inches (31 cm)
Vegetation: white spruce and balsam poplar forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); olive brown and dark gray peat, rapid permeability
BC—3 to 6 inches (8 to 16 cm); dark grayish brown very fine sandy loam, moderate permeability
C—6 to 71 inches (16 to 180 cm); very dark brown stratified silt loam to fine sand, moderate permeability
2C—71 to 77 inches (180 to 195 cm); olive brown and dark gray very gravelly sand, rapid permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over sand and gravel.

Piledriver and Similar Soils

Extent: 25 to 40 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: somewhat poorly drained
Flooding: occasional
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—47 inches (120 cm)
Ponding: frequent
Available water capacity (approximate): 6.5 inches (17 cm)
Vegetation: white spruce and balsam poplar forest
Typical profile:
Oi—0 to 2 inches (0 to 6 cm); light olive brown and grayish brown mucky peat, rapid permeability
BC—2 to 4 inches (6 to 10 cm); grayish brown very fine sandy loam, moderate permeability
C—4 to 30 inches (10 to 75 cm); dark olive brown stratified sand to fine sand to very fine sandy loam, moderate permeability
2C—30 to 72 inches (75 to 183 cm); dark brown sand, rapid permeability
Note: This soil has 10 to 40 inches (25 to 102 cm) of loamy material over sand and gravel.

Minor Components

- Fubar and similar soils: 0 to 5 percent of the map unit
- Noonku and similar soils: 0 to 5 percent of the map unit
- Salchaket and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: flooding, high water table, high permeability subsoil

32—Salchaket very fine sandy loam

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Salchaket and Similar Soils

Extent: 80 to 90 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: well drained
Flooding: rare
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)

Ponding: frequent
Available water capacity (approximate): 12.8 inches (32 cm)
Vegetation: white spruce, balsam poplar, and paper birch forest
Typical profile:
Oe—0 to 2 inches (0 to 4 cm); variegated mucky peat, moderate permeability
Bw—2 to 5 inches (4 to 12 cm); olive brown very fine sandy loam, moderate permeability
C—5 to 63 inches (12 to 160 cm); dark grayish brown stratified silt loam to fine sand, moderate permeability
2C—63 to 72 inches (160 to 183 cm); dark brown very gravelly sand, rapid permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over sand and gravel.

Minor Components

- Jarvis and similar soils: 5 to 10 percent of the map unit
- Tanana and similar soils: 0 to 5 percent of the map unit
- North Pole and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: flooding

35—North Pole very fine sandy loam

Elevation: 397 to 1299 feet (121 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

North Pole and Similar Soils

Extent: 75 to 90 percent of the map unit
Landform: alluvial flats
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: poorly drained
Flooding: rare
Depth to high water table (approximate): 6 inches (15 cm)
Ponding: frequent
Available water capacity (approximate): 6.1 inches (16 cm)
Vegetation: tamarack and black spruce forest, with bog birch and Labrador tea understory and moss ground cover
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); dark brown peat, moderate permeability
Oa—3 to 6 inches (8 to 14 cm); black muck, moderate permeability
Bg—6 to 22 inches (14 to 55 cm); dark yellowish brown and dark gray stratified fine sand to silt loam, moderate permeability
2C—22 to 72 inches (55 to 183 cm); grayish brown gravelly coarse sand, rapid permeability
Note: This soil has 10 to 40 inches (25 to 102 cm) of loamy material over sand and gravel.

Minor Components

- Mosquito and similar soils: 0 to 10 percent of the map unit
- Tanana and similar soils: 0 to 10 percent of the map unit
- Noonku and similar soils: 0 to 5 percent of the map unit
- Liscum and similar soils: 0 to 5 percent of the map unit
- Eielson and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: high water table, flooding, late thaw of soil frost, high permeability subsoil

36—Jarvis very fine sandy loam

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Jarvis and Similar Soils

Extent: 70 to 80 percent of the map unit
Landform: flood plains
Slope shape: linear downslope

Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: well drained
Flooding: rare
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: occasional
Available water capacity (approximate): 6.5 inches (17 cm)
Vegetation: white spruce, balsam poplar, and paper birch forest
Typical profile:
Oe—0 to 2 inches (0 to 6 cm); gray mucky peat, moderate permeability
Bw—2 to 6 inches (6 to 14 cm); grayish brown very fine sandy loam, moderate permeability
C1—6 to 24 inches (14 to 60 cm); olive brown stratified sand to fine sand to very fine sandy loam, moderate permeability
C2—24 to 59 inches (60 to 150 cm); black sand, rapid permeability
Note: This soil has 10 to 40 inches (25 to 102 cm) of loamy material over sand and gravel.

Minor Components

- Salchaket and similar soils: 5 to 15 percent of the map unit
- Chena and similar soils: 0 to 5 percent of the map unit
- Noonku and similar soils: 0 to 10 percent of the map unit
- Tanana and similar soils: 0 to 5 percent of the map unit

*Management Conideration*s

Soil-related factors: droughtiness, high-permeability subsoil, flooding

37—Chena very fine sandy loam

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Chena and Similar Soils

Extent: 80 to 95 percent of the map unit
Landform: stream terraces
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: negligible
Drainage class: excessively drained
Flooding: rare
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.6 inches (9 cm)
Vegetation: white spruce and balsam poplar forest
Typical profile:
Oe—0 to 2 inches (0 to 5 cm); very dark gray peat, mucky peat, moderately rapid permeability
B—2 to 7 inches (5 to 18 cm); grayish brown stratified fine sand to silt loam, moderately rapid permeability
C—7 to 60 inches (18 to 152 cm); olive brown very gravelly sand, rapid permeability
Note: This soil has 0 to 10 inches (0 to 25 cm) of loamy material over sand and gravel.

Minor Components

- Jarvis and similar soils: 0 to 10 percent of the map unit
- Noonku and similar soils: 0 to 5 percent of the map unit
- Tanana and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: droughtiness, high permeability, flooding

39A—Nenana silt loam, 0 to 3 percent slopes

Elevation: 400 to 1201 feet (122 to 366 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)

Frost-free period: 80 to 120 days

Nenana and Similar Soils

Extent: 95 percent of the map unit
Landform: stream terraces
Slope shape: linear downslope
Slope range: 0 to 3 percent
Slope length: not determined
Parent material: loess over alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: occasional
Available water capacity (approximate): 5.9 inches (15 cm)
Vegetation: white spruce, quaking aspen, and paper birch forest
Typical profile:
Oe—0 to 2 inches (0 to 4 cm); brown mucky peat, moderate permeability
Bw—2 to 15 inches (4 to 38 cm); dark brown silt loam, moderate permeability
BC—15 to 21 inches (38 to 54 cm); dark yellowish brown gravelly silt loam, moderate permeability
2C—21 to 72 inches (54 to 183 cm); strong brown very gravelly sand, rapid permeability
Note: This soil has 10 to 40 inches (25 to 102 cm) of loamy material over sand and gravel.

Minor Components

- Richardson and similar soils: 5 percent of the map unit
- Salchaket and similar soils: 5 percent of the map unit

Management Considerations

Soil-related factors: high-permeability subsoil

40A—Chatanika silt loam, 0 to 3 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Chatanika and Similar Soils

Extent: 70 to 80 percent of the map unit
Landform: hills
Position on slope: toeslopes, footslopes
Slope shape: linear or concave downslope
Slope range: 0 to 3 percent
Slope length: not determined
Parent material: colluvium loess
Depth to permafrost: 12 to 39 inches (30 to 100 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: none
Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: black spruce forest with low shrubs and moss
Typical profile:
Oi—0 to 4 inches (0 to 10 cm); grayish brown mottled peat, mucky peat, rapid permeability
A—4 to 6 inches (10 to 16 cm); very dark grayish brown mucky silt loam, moderate permeability
Bg—6 to 22 inches (16 to 55 cm); grayish brown mottled silt loam, moderate permeability
Cgf—22 to 60 inches (55 to 152 cm); grayish brown mottled permanently frozen silt loam, impermeable

Minor Components

- Goldstream and similar soils: 5 to 15 percent of the map unit
- Chatanika (steeper) and similar soils: 5 to 10 percent of the map unit
- Minto and similar soils: 3 to 7 percent of the map unit
- Saulich and similar soils: 0 to 5 percent of the map unit
- Histels and similar soils: 0 to 5 percent of the map unit
- Ponds: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, pitting and thaw subsidence, high water table

40B—Chatanika silt loam, 3 to 7 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Chatanika and Similar Soils

Extent: 70 to 80 percent of the map unit
Landform: hills
Position on slope: toeslopes, footslopes
Slope shape: linear or concave downslope
Slope range: 3 to 7 percent
Slope length: not determined
Parent material: colluvium loess
Depth to permafrost: 12 to 39 inches (30 to 100 cm)
Hazard of erosion (organic mat removed): by water—moderate; by wind—severe
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: none
Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: black spruce forest with low shrubs and moss
Typical profile:
Oi—0 to 4 inches (0 to 10 cm); grayish brown mottled peat, mucky peat, rapid permeability
A—4 to 6 inches (10 to 16 cm); very dark grayish brown mucky silt loam, moderate permeability
Bg—6 to 22 inches (16 to 55 cm); grayish brown mottled silt loam, moderate permeability
Cgf—22 to 60 inches (55 to 152 cm); grayish brown mottled permanently frozen silt loam, impermeable

Minor Components

- Chatanika (less steep) and similar soils: 0 to 5 percent of the map unit
- Chatanika (steeper) and similar soils: 0 to 5 percent of the map unit
- Goldstream and similar soils: 0 to 10 percent of the map unit
- Minto and similar soils: 0 to 5 percent of the map unit
- Saulich and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, pitting and thaw subsidence, high water table

40C—Chatanika silt loam, 7 to 12 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Chatanika and Similar Soils

Extent: 75 to 85 percent of the map unit
Landform: hills
Position on slope: footslopes, toeslopes
Slope shape: linear or concave downslope
Slope range: 7 to 12 percent
Slope length: not determined
Parent material: colluvium loess
Depth to permafrost: 12 to 39 inches (30 to 100 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: none
Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: black spruce forest with low shrubs and moss
Typical profile:
Oi—0 to 4 inches (0 to 10 cm); grayish brown mottled peat, mucky peat, rapid permeability
A—4 to 6 inches (10 to 16 cm); very dark grayish brown mucky silt loam, moderate permeability
Bg—6 to 22 inches (16 to 55 cm); grayish brown mottled silt loam, moderate permeability

Cgf—22 to 60 inches (55 to 152 cm); grayish brown mottled permanently frozen silt loam, impermeable

Minor Components

- Chatanika (less steep) and similar soils: 2 to 7 percent of the map unit
- Chatanika (steeper) and similar soils: 2 to 7 percent of the map unit
- Goldstream and similar soils: 2 to 7 percent of the map unit
- Minto and similar soils: 2 to 7 percent of the map unit

Management Considerations

Soil-related factors: permafrost, pitting and thaw subsidence, high water table

40D—Chatanika silt loam, 12 to 20 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Chatanika and Similar Soils

Extent: 85 to 95 percent of the map unit
Landform: hills
Position on slope: toeslopes, footslopes
Slope shape: linear or concave downslope
Slope range: 12 to 20 percent
Slope length: not determined
Parent material: colluvium loess
Depth to permafrost: 12 to 39 inches (30 to 100 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: none
Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: black spruce forest with low shrubs and moss

Typical profile:
Oi—0 to 4 inches (0 to 10 cm); very dark grayish brown peat, mucky peat, rapid permeability
A—4 to 6 inches (10 to 16 cm); grayish brown mottled mucky silt loam, moderate permeability
Bg—6 to 22 inches (16 to 55 cm); very dark grayish brown silt loam, moderate permeability
Cgf—22 to 60 inches (55 to 152 cm); very dark grayish brown permanently frozen silt loam, impermeable

Minor Components

- Chatanika (less steep) and similar soils: 0 to 10 percent of the map unit
- Minto and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: permafrost, wetness, subsidence due to thaw of ground ice

41A—Minto silt loam, 0 to 3 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Minto and Similar Soils

Extent: 75 to 85 percent of the map unit
Landform: hills
Position on slope: footslopes, toeslopes
Slope shape: linear or concave or convex downslope
Slope range: 0 to 3 percent
Slope length: not determined
Parent material: loess
Depth to permafrost: 80 to 199 inches (202 to 505 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)

Ponding: none
Available water capacity (approximate): 13.3 inches (34 cm)
Vegetation: paper birch and white spruce forest
Typical profile:
Oi—0 to 2 inches (0 to 6 cm); dark brown mucky peat, rapid permeability
A—2 to 9 inches (6 to 22 cm); very dark grayish brown silt loam, moderate permeability
Bw—9 to 16 inches (22 to 40 cm); light olive brown silt loam, moderate permeability
C—16 to 71 inches (40 to 180 cm); grayish brown silt loam, moderate permeability

Minor Components

- Chatanika and similar soils: 2 to 12 percent of the map unit
- Fairbanks and similar soils: 2 to 10 percent of the map unit
- Minto (steeper) and similar soils: 2 to 10 percent of the map unit

Management Considerations

Soil-related factors: permafrost deep in the soil profile, pitting and thaw subsidence

41B—Minto silt loam, 3 to 7 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Minto and Similar Soils

Extent: 60 to 80 percent of the map unit
Landform: hills
Position on slope: footslopes, toeslopes
Slope shape: linear or concave or convex downslope
Slope range: 3 to 7 percent
Slope length: not determined
Parent material: loess
Depth to permafrost: 80 to 199 inches (202 to 505 cm)
Hazard of erosion (organic mat removed): by water—moderate; by wind—severe
Runoff: low
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 13.3 inches (34 cm)
Vegetation: paper birch and white spruce forest
Typical profile:
Oi—0 to 2 inches (0 to 6 cm); light olive brown mucky peat, rapid permeability
A—2 to 9 inches (6 to 22 cm); very dark grayish brown silt loam, moderate permeability
Bw—9 to 16 inches (22 to 40 cm); grayish brown silt loam, moderate permeability
C—16 to 71 inches (40 to 180 cm); dark brown silt loam, moderate permeability

Minor Components

- Chatanika and similar soils: 10 to 15 percent of the map unit
- Minto (steeper) and similar soils: 5 to 10 percent of the map unit

Fairbanks and similar soils: 0 to 5 percent of the map unit
Minto (less steep) and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost deep in the soil profile, pitting and thaw subsidence

41C—Minto silt loam, 7 to 12 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Minto and Similar Soils

Extent: 50 to 70 percent of the map unit
Landform: hills
Position on slope: footslopes, toeslopes
Slope shape: linear or concave or convex downslope
Slope range: 7 to 12 percent
Slope length: not determined
Parent material: loess

Depth to permafrost: 80 to 199 inches (202 to 505 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 13.3 inches (34 cm)
Vegetation: paper birch and white spruce forest
Typical profile:
Oi—0 to 2 inches (0 to 6 cm); grayish brown mucky peat, rapid permeability
A—2 to 9 inches (6 to 22 cm); dark brown silt loam, moderate permeability
Bw—9 to 16 inches (22 to 40 cm); light olive brown silt loam, moderate permeability
C—16 to 71 inches (40 to 180 cm); very dark grayish brown silt loam, moderate permeability

Minor Components

- Chatanika and similar soils: 5 to 15 percent of the map unit
- Minto (less steep) and similar soils: 5 to 15 percent of the map unit
- Minto (steeper) and similar soils: 5 to 15 percent of the map unit
- Fairbanks and similar soils: 5 to 15 percent of the map unit
- Saulich and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost deep in the soil profile, pitting and thaw subsidence, erosion hazard

41D—Minto silt loam, 12 to 20 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Minto and Similar Soils

Extent: 80 to 90 percent of the map unit
Landform: hills
Position on slope: footslopes, toeslopes
Slope shape: linear or concave or convex downslope
Slope range: 12 to 20 percent
Slope length: not determined
Parent material: loess
Depth to permafrost: 80 to 199 inches (202 to 505 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 13.3 inches (34 cm)
Vegetation: paper birch and white spruce forest
Typical profile:
Oi—0 to 2 inches (0 to 6 cm); dark brown mucky peat, rapid permeability
A—2 to 9 inches (6 to 22 cm); very dark grayish brown silt loam, moderate permeability
Bw—9 to 16 inches (22 to 40 cm); light olive brown silt loam, moderate permeability
C—16 to 71 inches (40 to 180 cm); grayish brown silt loam, moderate permeability

Minor Components

- Chatanika and similar soils: 0 to 15 percent of the map unit
- Fairbanks and similar soils: 0 to 10 percent of the map unit
- Minto (less steep) and similar soils: 5 percent of the map unit
- Minto (steeper) and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost deep in the soil profile, pitting and thaw subsidence, erosion hazard, steep slopes

42B—Fairbanks silt loam, 3 to 7 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Fairbanks and Similar Soils

Extent: 75 to 85 percent of the map unit
Landform: hills
Slope shape: convex or linear downslope
Slope range: 3 to 7 percent
Slope length: not determined
Parent material: loess
Hazard of erosion (organic mat removed): by water—moderate; by wind—severe
Runoff: low
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 12.4 inches (31 cm)
Vegetation: white spruce, paper birch and quaking aspen forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); grayish brown or light olive brown peat, rapid permeability
Bw—3 to 30 inches (8 to 76 cm); light olive brown silt loam, moderate permeability
C—30 to 72 inches (76 to 183 cm); grayish brown or light olive brown silt loam, moderate permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over weathered bedrock.

Minor Components

- Minto and similar soils: 5 to 12 percent of the map unit
- Fairbanks (less steep) and similar soils: 2 to 10 percent of the map unit
- Fairbanks (steeper) and similar soils: 2 to 10 percent of the map unit

Management Considerations

Soil-related factors: none

42C—Fairbanks silt loam, 7 to 12 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Fairbanks and Similar Soils

Extent: 75 to 90 percent of the map unit
Landform: hills
Slope shape: convex or linear downslope
Slope range: 7 to 12 percent
Slope length: not determined
Parent material: loess
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 12.4 inches (31 cm)
Vegetation: white spruce, paper birch and quaking aspen forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); light olive brown peat, rapid permeability
Bw—3 to 30 inches (8 to 76 cm); grayish brown or light olive brown silt loam, moderate permeability
C—30 to 72 inches (76 to 183 cm); light olive brown silt loam, moderate permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over weathered bedrock.

Minor Components

- Fairbanks (steeper) and similar soils: 0 to 15 percent of the map unit
- Fairbanks (less steep) and similar soils: 0 to 5 percent of the map unit
- Minto and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: steep slopes

42CG—Fairbanks silt loam, strongly sloping and steep

Elevation: 400 to 2799 feet (122 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Fairbanks strongly sloping and Similar Soils

Extent: 55 to 65 percent of the map unit
Landform: hills
Slope shape: convex or linear downslope
Slope range: 7 to 15 percent
Slope length: not determined
Parent material: loess
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 12.4 inches (31 cm)
Vegetation: white spruce, paper birch and quaking aspen forest

Typical profile:
Oi—0 to 3 inches (0 to 8 cm); light olive brown peat, rapid permeability
Bw—3 to 30 inches (8 to 76 cm); grayish brown or light olive brown silt loam, moderate permeability
C—30 to 72 inches (76 to 183 cm); light olive brown silt loam, moderate permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over weathered bedrock.

Fairbanks steep and Similar Soils

Extent: 25 to 35 percent of the map unit
Landform: hills
Slope shape: convex or linear downslope
Slope range: 30 to 55 percent
Slope length: not determined
Parent material: loess
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 12.4 inches (31 cm)
Vegetation: white spruce, paper birch and quaking aspen forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); grayish brown or light olive brown peat, rapid permeability
Bw—3 to 30 inches (8 to 76 cm); light olive brown silt loam, moderate permeability
C—30 to 72 inches (76 to 183 cm); grayish brown or light olive brown silt loam, moderate permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over weathered bedrock.

Minor Components

- Minto and similar soils: 0 to 10 percent of the map unit
- Steese and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard

42D—Fairbanks silt loam, 12 to 20 percent slopes

Elevation: 400 to 2799 feet (122 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Fairbanks and Similar Soils

Extent: 65 to 80 percent of the map unit
Landform: hills
Slope shape: linear or convex downslope
Slope range: 20 to 30 percent
Slope length: not determined
Parent material: loess
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none

Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 12.4 inches (31 cm)
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); light olive brown peat, rapid permeability
Bw—3 to 30 inches (8 to 76 cm); grayish brown or light olive brown silt loam, moderate permeability
C—30 to 72 inches (76 to 183 cm); light olive brown silt loam, moderate permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over weathered bedrock.

Minor Components

- Fairbanks (less steep) and similar soils: 0 to 15 percent of the map unit
- Fairbanks (steeper) and similar soils: 0 to 15 percent of the map unit
- Minto and similar soils: 0 to 5 percent of the map unit
- Steese and similar soils: 0 to 10 percent of the map unit
- Gilmore and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard

42E—Fairbanks silt loam, 20 to 30 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Fairbanks and Similar Soils

Extent: 75 to 90 percent of the map unit
Landform: hills
Slope shape: convex or linear downslope
Slope range: 20 to 30 percent
Slope length: not determined
Parent material: loess
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 12.4 inches (31 cm)
Vegetation: white spruce, paper birch and quaking aspen forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); light olive brown peat, rapid permeability
Bw—3 to 30 inches (8 to 76 cm); grayish brown or light olive brown silt loam, moderate permeability
C—30 to 72 inches (76 to 183 cm); light olive brown silt loam, moderate permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over weathered bedrock.

Minor Components

- Fairbanks (less steep) and similar soils: 0 to 15 percent of the map unit
- Fairbanks (steeper) and similar soils: 0 to 10 percent of the map unit
- Steese and similar soils: 0 to 10 percent of the map unit
- Gilmore and similar soils: 0 to 2 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard

42F—Fairbanks silt loam, 30 to 45 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Fairbanks and Similar Soils

Extent: 80 to 90 percent of the map unit
Landform: hills
Slope shape: convex or linear downslope
Slope range: 30 to 45 percent
Slope length: not determined
Parent material: loess
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high

Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 12.4 inches (31 cm)
Vegetation: white spruce, paper birch and quaking aspen forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); grayish brown or light olive brown peat, rapid permeability
Bw—3 to 30 inches (8 to 76 cm); light olive brown silt loam, moderate permeability
C—30 to 72 inches (76 to 183 cm); grayish brown or light olive brown silt loam, moderate permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over weathered bedrock.

Minor Components

- Fairbanks (less steep) and similar soils: 0 to 5 percent of the map unit
- Fairbanks (steeper) and similar soils: 0 to 15 percent of the map unit
- Steese and similar soils: 0 to 15 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard

42G—Fairbanks silt loam, 45 to 70 percent slopes

Elevation: 499 to 1299 feet (152 to 396 m)
Mean annual precipitation: 12 to 14 inches (30 to 36 cm)
Frost-free period: 80 to 120 days

Fairbanks and Similar Soils

Extent: 85 to 95 percent of the map unit
Landform: hills
Slope shape: convex or linear downslope
Slope range: 45 to 70 percent
Slope length: not determined
Parent material: loess
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 12.4 inches (31 cm)
Vegetation: white spruce, paper birch and quaking aspen forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); light olive brown peat, rapid permeability
Bw—3 to 30 inches (8 to 76 cm); grayish brown or light olive brown silt loam, moderate permeability
C—30 to 72 inches (76 to 183 cm); light olive brown silt loam, moderate permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over weathered bedrock.

Minor Components

- Fairbanks (less steep) and similar soils: 5 to 15 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard

44B—Steese silt loam, 3 to 7 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)

Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Steese and Similar Soils

Extent: 75 to 85 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: linear or convex downslope
Slope range: 3 to 7 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—moderate; by wind—severe
Runoff: low

Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); dark brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); light olive brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); dark brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); dark brown weathered bedrock

Minor Components

- Steese (steeper) and similar soils: 2 to 13 percent of the map unit
- Fairbanks and similar soils: 2 to 10 percent of the map unit
- Gilmore and similar soils: 2 to 10 percent of the map unit

Management Considerations

Soil-related factors: bedrock substratum

44C—Steese silt loam, 7 to 12 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Steese and Similar Soils

Extent: 70 to 80 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: convex or linear downslope
Slope range: 7 to 12 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); light olive brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); dark brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); light olive brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); light olive brown weathered bedrock

Minor Components

- Steese (steeper) and similar soils: 2 to 13 percent of the map unit
- Fairbanks and similar soils: 2 to 10 percent of the map unit
- Gilmore and similar soils: 2 to 10 percent of the map unit

Management Considerations

Soil-related factors: bedrock substratum

44D—Steese silt loam, 12 to 20 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Steese and Similar Soils

Extent: 60 to 75 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: convex or linear downslope
Slope range: 12 to 20 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); light olive brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); dark brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); light olive brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); light olive brown weathered bedrock

Minor Components

- Steese (steeper) and similar soils: 2 to 12 percent of the map unit
- Fairbanks and similar soils: 2 to 10 percent of the map unit
- Gilmore and similar soils: 2 to 10 percent of the map unit
- Steese (less steep) and similar soils: 2 to 10 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

44E—Steese silt loam, 20 to 30 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Steese and Similar Soils

Extent: 70 to 85 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: convex or linear downslope
Slope range: 20 to 30 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); dark brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); light olive brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); dark brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); dark brown weathered bedrock

Minor Components

- Steese (steeper) and similar soils: 2 to 12 percent of the map unit
- Gilmore and similar soils: 2 to 10 percent of the map unit

- Steese (less steep) and similar soils: 2 to 10 percent of the map unit
- Fairbanks and similar soils: 2 to 10 percent of the map unit
- Ester and similar soils: 0 to 7 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

44F—Steese silt loam, 30 to 45 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Steese and Similar Soils

Extent: 80 to 95 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: convex or linear downslope
Slope range: 30 to 45 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); light olive brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); dark brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); light olive brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); light olive brown weathered bedrock

Minor Components

- Steese (less steep) and similar soils: 5 to 15 percent of the map unit
- Gilmore and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

44G—Steese silt loam, 45 to 70 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Steese and Similar Soils

Extent: 85 to 95 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: convex or linear downslope
Slope range: 45 to 70 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest

Typical profile:
Oi—0 to 2 inches (0 to 5 cm); dark brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); light olive brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); dark brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); dark brown weathered bedrock

Minor Components

- Gilmore and similar soils: 0 to 10 percent of the map unit
- Steese (less steep) and similar soils: 5 to 10 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

45B—Gilmore silt loam, 3 to 7 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Gilmore and Similar Soils

Extent: 70 to 90 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 3 to 7 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 13 to 24 inches (33 to 60 cm)
Hazard of erosion (organic mat removed): by water—moderate; by wind—severe
Runoff: low
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.0 inches (8 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 7 cm); olive brown peat, rapid permeability
A—3 to 6 inches (7 to 15 cm); yellowish brown silt loam, moderate permeability
Bw—6 to 12 inches (15 to 30 cm); dark brown silt loam, moderate permeability
2BC—12 to 19 inches (30 to 48 cm); olive brown very channery silt loam, moderately rapid permeability
2Cr—19 to 60 inches (48 to 152 cm); olive brown weathered bedrock

Minor Components

- Gilmore (less steep) and similar soils: 5 to 12 percent of the map unit
- Gilmore (steeper) and similar soils: 2 to 7 percent of the map unit
- Steese and similar soils: 2 to 7 percent of the map unit
- Ester and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: bedrock substratum

45C—Gilmore silt loam, 7 to 12 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Gilmore and Similar Soils

Extent: 65 to 75 percent of the map unit
Landform: hills
Position on slope: summits, backslopes
Slope shape: convex or linear downslope
Slope range: 7 to 12 percent

Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 13 to 24 inches (33 to 60 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.0 inches (8 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 7 cm); yellowish brown peat, rapid permeability
A—3 to 6 inches (7 to 15 cm); dark brown silt loam, moderate permeability
Bw—6 to 12 inches (15 to 30 cm); olive brown silt loam, moderate permeability
2BC—12 to 19 inches (30 to 48 cm); yellowish brown very channery silt loam, moderately rapid permeability
2Cr—19 to 60 inches (48 to 152 cm); yellowish brown weathered bedrock

Minor Components

- Gilmore (steeper) and similar soils: 10 to 15 percent of the map unit
- Gilmore (less steep) and similar soils: 7 to 13 percent of the map unit
- Steese and similar soils: 5 to 10 percent of the map unit

Management Considerations

Soil-related factors: bedrock substratum

45D—Gilmore silt loam, 12 to 20 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Gilmore and Similar Soils

Extent: 70 to 80 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 12 to 20 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 13 to 24 inches (33 to 60 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.0 inches (8 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 7 cm); dark brown peat, rapid permeability
A—3 to 6 inches (7 to 15 cm); yellowish brown silt loam, moderate permeability
Bw—6 to 12 inches (15 to 30 cm); olive brown silt loam, moderate permeability
2BC—12 to 19 inches (30 to 48 cm); dark brown very channery silt loam, moderately rapid permeability
2Cr—19 to 60 inches (48 to 152 cm); dark brown weathered bedrock

Minor Components

- Gilmore (less steep) and similar soils: 7 to 12 percent of the map unit
- Gilmore (steeper) and similar soils: 10 to 15 percent of the map unit
- Steese and similar soils: 3 to 10 percent of the map unit
- Fairbanks and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

45E—Gilmore silt loam, 20 to 30 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Gilmore and Similar Soils

Extent: 60 to 80 percent of the map unit
Landform: hills
Position on slope: summits, backslopes
Slope shape: convex or linear downslope
Slope range: 20 to 30 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 13 to 24 inches (33 to 60 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.0 inches (8 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 7 cm); yellowish brown peat, rapid permeability
A—3 to 6 inches (7 to 15 cm); olive brown silt loam, moderate permeability
Bw—6 to 12 inches (15 to 30 cm); dark brown silt loam, moderate permeability
2BC—12 to 19 inches (30 to 48 cm); yellowish brown very channery silt loam, moderately rapid permeability
2Cr—19 to 60 inches (48 to 152 cm); yellowish brown weathered bedrock

Minor Components

- Gilmore (less steep) and similar soils: 5 to 15 percent of the map unit
- Steese and similar soils: 5 to 15 percent of the map unit
- Gilmore (steeper) and similar soils: 3 to 5 percent of the map unit
- Ester and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

45F—Gilmore silt loam, 30 to 45 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Gilmore and Similar Soils

Extent: 80 to 90 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: convex or linear downslope
Slope range: 30 to 45 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 13 to 24 inches (33 to 60 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.0 inches (8 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 7 cm); dark brown peat, rapid permeability
A—3 to 6 inches (7 to 15 cm); olive brown silt loam, moderate permeability
Bw—6 to 12 inches (15 to 30 cm); yellowish brown silt loam, moderate permeability
2BC—12 to 19 inches (30 to 48 cm); dark brown very channery silt loam, moderately rapid permeability
2Cr—19 to 60 inches (48 to 152 cm); dark brown weathered bedrock

Minor Components

- Gilmore (less steep) and similar soils: 5 to 13 percent of the map unit
- Steese and similar soils: 2 to 7 percent of the map unit
- Rock outcrops: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

45G—Gilmore silt loam, 45 to 70 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Gilmore and Similar Soils

Extent: 80 to 90 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 45 to 70 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 13 to 24 inches (33 to 60 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.0 inches (8 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 7 cm); yellowish brown peat, rapid permeability
A—3 to 6 inches (7 to 15 cm); dark brown silt loam, moderate permeability
Bw—6 to 12 inches (15 to 30 cm); olive brown silt loam, moderate permeability
2BC—12 to 19 inches (30 to 48 cm); yellowish brown very channery silt loam, moderately rapid permeability
2Cr—19 to 60 inches (48 to 152 cm); yellowish brown weathered bedrock

Minor Components

- Ester and similar soils: 0 to 10 percent of the map unit
- Gilmore (less steep) and similar soils: 2 to 10 percent of the map unit
- Steese and similar soils: 2 to 10 percent of the map unit
- Rock outcrops: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

46C—Eutrocryepts, 7 to 12 percent slopes

Elevation: 696 to 1398 feet (212 to 426 m)
Mean annual precipitation: 12 to 14 inches (30 to 36 cm)
Frost-free period: 80 to 120 days

Eutrocryepts and Similar Soils

Extent: 85 to 95 percent of the map unit
Landform: hills
Slope shape: linear or concave or convex downslope
Slope range: 7 to 12 percent
Slope length: not determined
Parent material: loess over colluvium
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 9.8 inches (25 cm)

Vegetation: paper birch, quaking aspen, and white spruce forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); olive brown peat, rapid permeability
Bw—2 to 31 inches (5 to 80 cm); light olive brown silt loam, moderate permeability
2C—31 to 72 inches (80 to 183 cm); black stratified silt loam to fine sand, moderately slow permeability

Minor Components

- Eutrocryepts (less steep) and similar soils: 5 to 15 percent of the map unit

Management Considerations

Soil-related factors: erosion hazard

46D—Eutrocryepts, 12 to 20 percent slopes

Elevation: 696 to 1398 feet (212 to 426 m)
Mean annual precipitation: 12 to 14 inches (30 to 36 cm)
Frost-free period: 80 to 120 days

Eutrocryepts and Similar Soils

Extent: 85 to 95 percent of the map unit
Landform: hills
Slope shape: linear or concave or convex downslope
Slope range: 12 to 20 percent
Slope length: not determined
Parent material: loess over colluvium
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 9.8 inches (25 cm)
Vegetation: paper birch, quaking aspen, and white spruce forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); olive brown peat, rapid permeability
Bw—2 to 31 inches (5 to 80 cm); black silt loam, moderate permeability
2C—31 to 72 inches (80 to 183 cm); light olive brown stratified silt loam to fine sand, moderately slow permeability

Minor Components

- Eutrocryepts (steeper) and similar soils: 5 to 15 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard

48D—McCloud silt loam, 12 to 20 percent slopes

Elevation: 574 to 2500 feet (175 to 762 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

McCloud and Similar Soils

Extent: 85 percent of the map unit
Landform: hills
Position on slope: summits, backslopes
Slope shape: convex or linear downslope
Slope range: 12 to 20 percent
Slope length: not determined
Parent material: loess over residuum weathered from granite
Depth to bedrock (paralithic): 21 to 35 inches (54 to 90 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.3 inches (16 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); dark yellowish brown peat, rapid permeability
Bw—4 to 20 inches (9 to 50 cm); dark brown silt loam, moderate permeability

C—20 to 29 inches (50 to 74 cm); olive brown silt loam, moderate permeability
2Cr—29 to 39 inches (74 to 100 cm); dark yellowish brown weathered bedrock

Minor Components

- Angel and similar soils: 10 percent of the map unit
- McCloud (steeper) and similar soils: 3 percent of the map unit
- McCloud (less steep) and similar soils: 2 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

48E—McCloud silt loam, 20 to 30 percent slopes

Elevation: 574 to 2500 feet (175 to 762 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

McCloud and Similar Soils

Extent: 85 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 20 to 30 percent
Slope length: not determined
Parent material: loess over residuum weathered from granite
Depth to bedrock (paralithic): 21 to 35 inches (54 to 90 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.3 inches (16 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest

Typical profile:
Oi—0 to 3 inches (0 to 8 cm); dark brown peat, rapid permeability
Bw—4 to 20 inches (9 to 50 cm); olive brown silt loam, moderate permeability
C—20 to 29 inches (50 to 74 cm); dark yellowish brown silt loam, moderate permeability
2Cr—29 to 39 inches (74 to 100 cm); dark brown weathered bedrock

Minor Components

- Angel and similar soils: 10 percent of the map unit
- McCloud (less steep) and similar soils: 3 percent of the map unit
- McCloud (steeper) and similar soils: 2 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

48F—McCloud silt loam, 30 to 45 percent slopes

Elevation: 574 to 2500 feet (175 to 762 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

McCloud and Similar Soils

Extent: 80 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 30 to 45 percent
Slope length: not determined
Parent material: loess over residuum weathered from granite
Depth to bedrock (paralithic): 21 to 35 inches (54 to 90 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)

Ponding: none
Available water capacity (approximate): 6.3 inches (16 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); olive brown peat, rapid permeability
Bw—4 to 20 inches (9 to 50 cm); dark brown silt loam, moderate permeability
C—20 to 29 inches (50 to 74 cm); dark yellowish brown silt loam, moderate permeability
2Cr—29 to 39 inches (74 to 100 cm); olive brown weathered bedrock

Minor Components

- Angel and similar soils: 15 percent of the map unit
- McCloud (less steep) and similar soils: 3 percent of the map unit
- McCloud (steeper) and similar soils: 2 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

49D—Angel silt loam, 12 to 20 percent slopes

Elevation: 574 to 2500 feet (175 to 762 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Angel and Similar Soils

Extent: 78 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 12 to 20 percent
Slope length: not determined
Parent material: loess over residuum weathered from granite
Depth to bedrock (paralithic): 12 to 22 inches (30 to 55 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.6 inches (9 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 4 inches (0 to 9 cm); dark brown peat, rapid permeability
Bw—4 to 14 inches (9 to 36 cm); dark yellowish brown silt loam, moderate permeability
2BC—14 to 24 inches (36 to 62 cm); brown very gravelly sandy loam, moderately rapid permeability
2Cr—24 to 39 inches (62 to 100 cm); dark brown weathered bedrock

Minor Components

- McCloud and similar soils: 15 percent of the map unit
- Angel (less steep) and similar soils: 5 percent of the map unit
- Angel (steeper) and similar soils: 2 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

49E—Angel silt loam, 20 to 30 percent slopes

Elevation: 574 to 2500 feet (175 to 762 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Angel and Similar Soils

Extent: 78 percent of the map unit
Landform: hills
Position on slope: summits, backslopes
Slope shape: linear or convex downslope
Slope range: 12 to 20 percent
Slope length: not determined
Parent material: loess over residuum weathered from granite

Depth to bedrock (paralithic): 12 to 22 inches (30 to 55 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.6 inches (9 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 4 inches (0 to 9 cm); dark yellowish brown peat, rapid permeability
Bw—4 to 14 inches (9 to 36 cm); brown silt loam, moderate permeability
2BC—14 to 24 inches (36 to 62 cm); dark brown very gravelly sandy loam, moderately rapid permeability
2Cr—24 to 39 inches (62 to 100 cm); dark yellowish brown weathered bedrock

Minor Components

- McCloud and similar soils: 15 percent of the map unit
- Angel (steeper) and similar soils: 3 percent of the map unit
- Angel (less steep) and similar soils: 2 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

49F—Angel silt loam, 30 to 45 percent slopes

Elevation: 574 to 2500 feet (175 to 762 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Angel and Similar Soils

Extent: 78 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 12 to 20 percent
Slope length: not determined
Parent material: loess over residuum weathered from granite
Depth to bedrock (paralithic): 12 to 22 inches (30 to 55 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.6 inches (9 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 4 inches (0 to 9 cm); dark yellowish brown peat, rapid permeability
Bw—4 to 14 inches (9 to 36 cm); dark brown silt loam, moderate permeability
2BC—14 to 24 inches (36 to 62 cm); brown very gravelly sandy loam, moderately rapid permeability
2Cr—24 to 39 inches (62 to 100 cm); dark yellowish brown weathered bedrock

Minor Components

- McCloud and similar soils: 5 percent of the map unit
- Angel (less steep) and similar soils: 3 percent of the map unit
- Angel (steeper) and similar soils: 2 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

50G—Ester peat, 45 to 70 percent slopes

Elevation: 751 to 2799 feet (229 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Ester and Similar Soils

Extent: 95 percent of the map unit
Landform: hills
Position on slope: backslopes
Slope shape: linear downslope
Slope range: 45 to 70 percent
Slope length: not determined
Parent material: mossy organic material over loess over residuum weathered from schist
Depth to permafrost: 12 to 30 inches (30 to 75 cm)
Depth to bedrock (paralithic): 14 to 39 inches (35 to 100 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—8 inches (20 cm); other months—12 inches (30 cm)
Ponding: none
Available water capacity (approximate): 4.7 inches (12 cm)
Vegetation: sparse forest of black spruce, with low shrubs and moss
Typical profile:
Oi—0 to 13 inches (0 to 33 cm); black peat, moderately rapid permeability
A—13 to 17 inches (33 to 43 cm); dark brown silt loam, moderate permeability
Cgf—17 to 23 inches (43 to 58 cm); dark reddish brown very channery silt loam, moderately rapid permeability
2Crf—23 to 27 inches (58 to 69 cm); black weathered bedrock

Minor Components

- Brigadier and similar soils: 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, steep slopes, erosion hazard, bedrock substratum

50X—Ester peat, 20 to 45 percent slopes

Elevation: 751 to 2799 feet (229 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Ester and Similar Soils

Extent: 70 to 90 percent of the map unit
Landform: hills
Position on slope: backslopes
Slope shape: linear downslope
Slope range: 20 to 45 percent
Slope length: not determined
Parent material: mossy organic material over loess over residuum weathered from schist
Depth to permafrost: 12 to 30 inches (30 to 75 cm)
Depth to bedrock (paralithic): 14 to 39 inches (35 to 100 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—8 inches (20 cm); other months—12 inches (30 cm)
Ponding: none
Available water capacity (approximate): 4.7 inches (12 cm)
Vegetation: sparse forest of black spruce, with low shrubs and moss
Typical profile:
Oi—0 to 13 inches (0 to 33 cm); black peat, moderately rapid permeability
A—13 to 17 inches (33 to 43 cm); dark brown silt loam, moderate permeability
Cgf—17 to 23 inches (43 to 58 cm); dark reddish brown very channery silt loam, moderately rapid permeability
2Crf—23 to 27 inches (58 to 69 cm); black weathered bedrock

Minor Components

- Brigadier and similar soils: 5 to 15 percent of the map unit
- Ester (steeper) and similar soils: 5 to 15 percent of the map unit
- Saulich and similar soils: 5 to 15 percent of the map unit
- Steese and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, steep slopes, erosion hazard, bedrock substratum

51B—Saulich peat, 3 to 7 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Saulich and Similar Soils

Extent: 70 to 85 percent of the map unit
Landform: valley sides
Slope shape: concave or linear downslope
Slope range: 3 to 7 percent
Slope length: not determined
Parent material: colluviated loess
Depth to permafrost: 14 to 24 inches (35 to 60 cm)
Hazard of erosion (organic mat removed): by water—moderate; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: frequent
Available water capacity (approximate): 5.5 inches (14 cm)
Vegetation: black spruce forest with low shrubs and moss
Typical profile:
Oi—0 to 9 inches (0 to 23 cm); very dark brown peat, moderately rapid permeability
Bg/A—9 to 21 inches (23 to 54 cm); black and dark brown mucky silt loam, moderate permeability
Cf—21 to 72 inches (54 to 183 cm); dark grayish brown permanently frozen silt loam, impermeable

Minor Components

- Goldstream and similar soils: 3 to 10 percent of the map unit
- Saulich (less steep) and similar soils: 3 to 10 percent of the map unit
- Saulich (steeper) and similar soils: 3 to 10 percent of the map unit
- Chatanika and similar soils: 0 to 5 percent of the map unit
- Minto and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, high water table, subsidence due to thaw of ground ice

51C—Saulich peat, 7 to 12 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Saulich and Similar Soils

Extent: 75 to 85 percent of the map unit
Landform: valley sides
Slope shape: linear or concave downslope
Slope range: 7 to 12 percent
Slope length: not determined
Parent material: colluviated loess
Depth to permafrost: 14 to 24 inches (35 to 60 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: frequent
Available water capacity (approximate): 5.5 inches (14 cm)
Vegetation: black spruce forest with low shrubs and moss
Typical profile:
Oi—0 to 9 inches (0 to 23 cm); very dark brown peat, moderately rapid permeability
Bg/A—9 to 21 inches (23 to 54 cm); black and dark brown mucky silt loam, moderate permeability
Cf—21 to 72 inches (54 to 183 cm); dark grayish brown permanently frozen silt loam, impermeable

Minor Components

- Goldstream and similar soils: 3 to 10 percent of the map unit
- Saulich (less steep) and similar soils: 3 to 7 percent of the map unit
- Saulich (steeper) and similar soils: 3 to 7 percent of the map unit
- Chatanika and similar soils: 0 to 5 percent of the map unit
- Minto and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, high water table, subsidence due to thaw of ground ice, erosion hazard

61—Piledriver very fine sandy loam

Elevation: 400 to 1299 feet (122 to 396 m)

Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Piledriver and Similar Soils

Extent: 70 to 90 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: somewhat poorly drained
Flooding: rare
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—47 inches (120 cm)
Ponding: frequent
Available water capacity (approximate): 6.5 inches (17 cm)
Vegetation: white spruce and balsam poplar forest
Typical profile:
Oi—0 to 2 inches (0 to 6 cm); dark brown mucky peat, rapid permeability
BC—2 to 4 inches (6 to 10 cm); dark olive brown very fine sandy loam, moderate permeability
C—4 to 30 inches (10 to 75 cm); light olive brown and grayish brown stratified sand to fine sand to very fine sandy loam, moderate permeability
2C—30 to 72 inches (75 to 183 cm); grayish brown sand, rapid permeability
Note: This soil has 10 to 40 inches (25 to 102 cm) of loamy material over sand and gravel.

Minor Components

- Eielson and similar soils: 5 to 15 percent of the map unit
- Fubar and similar soils: 5 to 10 percent of the map unit
- North Pole and similar soils: 0 to 5 percent of the map unit
- Tanana and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: high water table, high permeability substratum, flooding

62—Peede-Mosquito complex

Elevation: 397 to 1299 feet (121 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Peede and Similar Soils

Extent: 60 to 80 percent of the map unit
Landform: depressions
Slope shape: concave downslope
Slope range: 0 to 1 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: negligible
Drainage class: poorly drained
Flooding: occasional
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 14.3 inches (36 cm)
Vegetation: grasses and sedges
Typical profile:
Oe—0 to 5 inches (0 to 12 cm); dark gray mucky peat, moderate permeability

Cg—5 to 55 inches (12 to 140 cm); very dark brown silt loam, moderate permeability
2Cg—55 to 75 inches (140 to 190 cm); grayish brown very gravelly sand, rapid permeability

Mosquito and Similar Soils

Extent: 20 to 30 percent of the map unit
Landform: depressions, alluvial flats
Slope shape: linear or concave downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: organic material over alluvium
Depth to permafrost: 14 to 31 inches (35 to 80 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: very poorly drained
Flooding: occasional
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: sparse stunted black spruce and tamarack, with birch shrub and cottonsedge.
Typical profile:
Oi—0 to 9 inches (0 to 22 cm); dark grayish brown peat, mucky peat, rapid permeability
Bg—9 to 20 inches (22 to 50 cm); black very fine sandy loam, silt loam, moderate permeability
Bgf—20 to 66 inches (50 to 167 cm); dark grayish brown permanently frozen silt loam, impermeable

Minor Components

- Liscum and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: flooding, high water table, ponding

63—Typic Cryaquents-Tanana complex

Elevation: 397 to 1299 feet (121 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Typic Cryaquents and Similar Soils

Extent: 45 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: low
Drainage class: poorly drained
Flooding: occasional
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 13.5 inches (34 cm)
Vegetation: paper birch and white spruce with alder understory, or alder scrub
Typical profile:
Oe—0 to 5 inches (0 to 12 cm); black mucky peat, moderate permeability
Cg—5 to 60 inches (12 to 153 cm); dark gray and olive brown stratified very fine sand to silt loam, moderate permeability

Tanana and Similar Soils

Extent: 35 percent of the map unit
Landform: terraces
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium or loess over alluvium
Depth to permafrost: 16 to 47 inches (40 to 120 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: occasional
Depth to high water table (approximate): 6 inches (15 cm)
Ponding: frequent
Available water capacity (approximate): 5.7 inches (15 cm)
Vegetation: white spruce, black spruce, paper birch, and willows
Typical profile:
Oi—0 to 5 inches (0 to 12 cm); very dark brown peat, rapid permeability
A—5 to 8 inches (12 to 20 cm); dark grayish brown mucky silt loam, moderate permeability

Bg—8 to 28 inches (20 to 70 cm); very dark grayish brown silt loam, moderate permeability
Cf—28 to 72 inches (70 to 183 cm); very dark brown permanently frozen silt loam, impermeable

Minor Components

- Eielson and similar soils: 10 percent of the map unit
- Histels and similar soils: 10 percent of the map unit

Management Considerations

Soil-related factors: wetness, flooding, permafrost and thaw subsidence in the Tanana soils

64—Eielson-Tanana complex

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Eielson and Similar Soils

Extent: 30 to 60 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: somewhat poorly drained
Flooding: occasional
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—47 inches (120 cm)
Ponding: frequent
Available water capacity (approximate): 12.2 inches (31 cm)
Vegetation: white spruce and balsam poplar forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); dark grayish brown peat, rapid permeability
BC—3 to 6 inches (8 to 16 cm); very dark brown very fine sandy loam, moderate permeability
C—6 to 71 inches (16 to 180 cm); olive brown and dark gray stratified silt loam to fine sand, moderate permeability
2C—71 to 77 inches (180 to 195 cm); dark grayish brown very gravelly sand, rapid permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over sand and gravel.

Tanana and Similar Soils

Extent: 20 to 50 percent of the map unit
Landform: terraces
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium or loess over alluvium
Depth to permafrost: 16 to 47 inches (40 to 120 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: occasional
Depth to high water table (approximate): 6 inches (15 cm)
Ponding: frequent
Available water capacity (approximate): 5.7 inches (15 cm)
Vegetation: white spruce, black spruce, paper birch, and willows
Typical profile:
Oi—0 to 5 inches (0 to 12 cm); dark grayish brown peat, rapid permeability
A—5 to 8 inches (12 to 20 cm); very dark grayish brown mucky silt loam, moderate permeability
Bg—8 to 28 inches (20 to 70 cm); very dark brown silt loam, moderate permeability
Cf—28 to 72 inches (70 to 183 cm); dark grayish brown permanently frozen silt loam, impermeable

Minor Components

- Peede and similar soils: 10 to 15 percent of the map unit
- Tanacross and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: flooding, permafrost in the Tanana soils, wetness

65—Typic Cryaquents and Typic Aquorthels

Elevation: 397 to 1299 feet (121 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Typic Aquorthels and Similar Soils

Extent: 15 to 85 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Depth to permafrost: 14 to 28 inches (35 to 70 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: occasional
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 5.9 inches (15 cm)
Vegetation: alder scrub
Typical profile:
Oe—0 to 4 inches (0 to 10 cm); very dark gray mucky peat, rapid permeability
Cg—4 to 24 inches (10 to 60 cm); olive gray and dark yellowish brown stratified silt loam to very fine sandy loam to muck, moderate permeability
Cgf—24 to 60 inches (60 to 153 cm); very dark gray stratified permanently frozen silt loam to permanently frozen very fine sandy loam to permanently frozen mucky peat, impermeable

Typic Cryaquents and Similar Soils

Extent: 15 to 85 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: low
Drainage class: poorly drained
Flooding: occasional
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 13.5 inches (34 cm)
Vegetation: paper birch and white spruce with alder understory, or alder scrub
Typical profile:
Oe—0 to 5 inches (0 to 12 cm); dark gray and olive brown mucky peat, moderate permeability
Cg—5 to 60 inches (12 to 153 cm); black stratified very fine sand to silt loam, moderate permeability

Minor Components

- Eielson and similar soils: 5 to 10 percent of the map unit
- Terric Cryofibrists and similar soils: 5 to 10 percent of the map unit

Management Considerations

Soil-related factors: high water table, flooding, permafrost

66—Eielson fine sandy loam

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Eielson and Similar Soils

Extent: 70 to 90 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: somewhat poorly drained
Flooding: occasional
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—47 inches (120 cm)
Ponding: frequent
Available water capacity (approximate): 12.2 inches (31 cm)

Vegetation: white spruce and balsam poplar forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); very dark brown peat, rapid permeability
BC—3 to 6 inches (8 to 16 cm); dark grayish brown very fine sandy loam, moderate permeability
C—6 to 71 inches (16 to 180 cm); olive brown and dark gray stratified silt loam to fine sand, moderate permeability
2C—71 to 77 inches (180 to 195 cm); very dark brown very gravelly sand, rapid permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over sand and gravel.

Minor Components

- Peede and similar soils: 10 to 15 percent of the map unit
- Tanana and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: water table in the lower part of the soil profile

69—Typic Cryaquents-Eielson complex

Elevation: 397 to 1299 feet (121 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Typic Cryaquents and Similar Soils

Extent: 0 to 50 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: low
Drainage class: poorly drained
Flooding: occasional
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 8.7 inches (22 cm)
Vegetation: white spruce and paper birch forest with alder understory
Typical profile:
Oe—0 to 3 inches (0 to 8 cm); grayish brown mucky peat, moderate permeability
Cg—3 to 31 inches (8 to 80 cm); dark gray and olive brown silt loam, moderate permeability
2C—31 to 75 inches (80 to 190 cm); black very gravelly sand, rapid permeability
Note: This soil has 20 inches to more than 60 inches (50 cm to more than 152 cm) of loamy material over sand and gravel.

Eielson and Similar Soils

Extent: 0 to 35 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: somewhat poorly drained
Flooding: occasional
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—47 inches (120 cm)
Ponding: frequent
Available water capacity (approximate): 12.2 inches (31 cm)
Vegetation: white spruce and balsam poplar forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); very dark brown peat, rapid permeability
BC—3 to 6 inches (8 to 16 cm); dark grayish brown very fine sandy loam, moderate permeability
C—6 to 71 inches (16 to 180 cm); olive brown and dark gray stratified silt loam to fine sand, moderate permeability
2C—71 to 77 inches (180 to 195 cm); very dark brown very gravelly sand, rapid permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over sand and gravel.

Minor Components

- Jarvis and similar soils: 0 to 10 percent of the map unit
- Riverwash: 5 to 10 percent of the map unit

- Tanana and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: high water table, flooding

70A—Volkmar-Richardson complex, 0 to 3 percent slopes

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Volkmar and Similar Soils

Extent: 45 percent of the map unit
Landform: stream terraces
Slope shape: linear downslope
Slope range: 0 to 3 percent
Slope length: not determined
Parent material: loess over alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)
Ponding: frequent
Available water capacity (approximate): 8.7 inches (22 cm)
Vegetation: white spruce, paper birch, or quaking aspen forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); brown with light gray mottles peat, moderately rapid permeability
Bw—3 to 10 inches (8 to 25 cm); light yellowish brown very fine sandy loam, moderate permeability
C—10 to 30 inches (25 to 76 cm); variegated very fine sandy loam, moderate permeability
2C—30 to 72 inches (76 to 183 cm); very dark gray very gravelly coarse sand, rapid permeability
Note: This soil has 15 to 40 inches (38 to 102 cm) of loamy material over sand and gravel.

Richardson and Similar Soils

Extent: 40 percent of the map unit
Landform: stream terraces
Slope shape: linear downslope
Slope range: 0 to 3 percent
Slope length: not determined
Parent material: loess over alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)
Ponding: frequent
Available water capacity (approximate): 12.5 inches (32 cm)
Vegetation: white spruce, black spruce, and paper birch forest
Typical profile:
Oe—0 to 1 inch (0 to 2 cm); very dark brown mucky peat, rapid permeability
Bw—1 to 20 inches (2 to 50 cm); olive brown and olive gray silt loam, moderate permeability
BC—20 to 59 inches (50 to 150 cm); gray silt loam, moderate permeability
2C—59 to 72 inches (150 to 183 cm); olive gray very gravelly coarse sand, very rapid permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over sand and gravel.

Minor Components

- Mosquito and similar soils: 0 to 10 percent of the map unit
- Tanacross and similar soils: 0 to 10 percent of the map unit
- Tanana and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: late thaw of soil in early summer and wetness above this frozen soil

70B—Volkmar-Richardson complex, 3 to 7 percent slopes

Elevation: 397 to 1299 feet (121 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Richardson and Similar Soils

Extent: 35 percent of the map unit
Landform: stream terraces
Slope shape: linear downslope
Slope range: 3 to 7 percent
Slope length: not determined
Parent material: loess over alluvium
Hazard of erosion (organic mat removed): by water—moderate; by wind—severe
Runoff: low
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)
Ponding: frequent
Available water capacity (approximate): 12.5 inches (32 cm)
Vegetation: white spruce, black spruce, and paper birch forest
Typical profile:
Oe—0 to 1 inch (0 to 2 cm); olive brown and olive gray mucky peat, rapid permeability
Bw—1 to 20 inches (2 to 50 cm); gray silt loam, moderate permeability
BC—20 to 59 inches (50 to 150 cm); olive gray silt loam, moderate permeability
2C—59 to 72 inches (150 to 183 cm); very dark brown very gravelly coarse sand, very rapid permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over sand and gravel.

Volkmar and Similar Soils

Extent: 35 percent of the map unit
Landform: stream terraces
Slope shape: linear downslope
Slope range: 3 to 7 percent
Slope length: not determined
Parent material: loess over alluvium
Hazard of erosion (organic mat removed): by water—moderate; by wind—severe
Runoff: low
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)
Ponding: frequent
Available water capacity (approximate): 8.7 inches (22 cm)
Vegetation: white spruce, paper birch, or quaking aspen forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); brown with light gray mottles peat, moderately rapid permeability
Bw—3 to 10 inches (8 to 25 cm); very dark gray very fine sandy loam, moderate permeability
C—10 to 30 inches (25 to 76 cm); variegated very fine sandy loam, moderate permeability
2C—30 to 72 inches (76 to 183 cm); light yellowish brown very gravelly coarse sand, rapid permeability
Note: This soil has 15 to 40 inches (38 to 102 cm) of loamy material over sand and gravel.

Minor Components

- Eutrocryepts and similar soils: 10 percent of the map unit
- Typic Cryaquents and similar soils: 10 percent of the map unit
- Tanana and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: late thaw of soil in early summer and wetness above this frozen soil

71—North Pole-Mosquito-Liscum complex

Elevation: 397 to 1299 feet (121 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

North Pole and Similar Soils

Extent: 50 percent of the map unit
Landform: alluvial flats
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: poorly drained
Flooding: rare
Depth to high water table (approximate): 6 inches (15 cm)

Ponding: frequent
Available water capacity (approximate): 6.1 inches (16 cm)
Vegetation: tamarack and black spruce forest, with bog birch and Labrador tea understory and moss ground cover
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); grayish brown peat, moderate permeability
Oa—3 to 6 inches (8 to 14 cm); dark yellowish brown and dark gray muck, moderate permeability
Bg—6 to 22 inches (14 to 55 cm); black stratified fine sand to silt loam, moderate permeability
2C—22 to 72 inches (55 to 183 cm); dark brown gravelly coarse sand, rapid permeability
Note: This soil has 10 to 40 inches (25 to 102 cm) of loamy material over sand and gravel.

Mosquito and Similar Soils

Extent: 30 percent of the map unit
Landform: alluvial flats, depressions
Slope shape: linear or concave downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: organic material over alluvium
Depth to permafrost: 14 to 31 inches (35 to 80 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: very poorly drained
Flooding: rare
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: stunted black spruce, low shrubs, sedges, and moss
Typical profile:
Oi—0 to 9 inches (0 to 22 cm); dark grayish brown peat, mucky peat, rapid permeability
Bg—9 to 20 inches (22 to 50 cm); black very fine sandy loam, silt loam, moderate permeability
Bgf—20 to 66 inches (50 to 167 cm); dark grayish brown permanently frozen silt loam, impermeable

Liscum and Similar Soils

Extent: 20 percent of the map unit
Landform: alluvial flats
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: very low
Drainage class: very poorly drained
Flooding: rare
Depth to high water table (approximate): 6 inches (15 cm)
Ponding: frequent
Available water capacity (approximate): 9.9 inches (25 cm)
Vegetation: sedges and grasses
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); olive brown peat, moderate permeability
Oa—3 to 10 inches (8 to 26 cm); black muck, moderate permeability
Bg—10 to 28 inches (26 to 70 cm); dark brown stratified silt loam to loamy fine sand, moderate permeability
C—28 to 59 inches (70 to 150 cm); olive brown gravelly sandy loam, moderately rapid permeability
2C—59 to 72 inches (150 to 183 cm); olive brown extremely gravelly sand, rapid permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over sand and gravel.

Minor Components

- Typic Cryaquents and similar soils: 0 to 5 percent of the map unit
- Histels and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: high water table, flooding, permafrost in the Mosquito soils, high permeability substratum in the North Pole soils

72F—Eutrocryepts, escarpments, 7 to 45 percent slopes

Elevation: 600 to 951 feet (183 to 290 m)
Mean annual precipitation: 12 to 14 inches (30 to 36 cm)

Frost-free period: 80 to 120 days

Eutrocryepts and Similar Soils

Extent: 85 to 95 percent of the map unit
Landform: escarpments on terraces
Slope shape: linear downslope
Slope range: 7 to 45 percent
Slope length: not determined
Parent material: colluvium
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 12.3 inches (31 cm)
Vegetation: white spruce, paper birch, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); black peat, rapid permeability
Bw—2 to 49 inches (5 to 125 cm); variegated silt loam, moderate permeability
2C—49 to 72 inches (125 to 183 cm); olive brown very gravelly coarse sand, moderate permeability
Note: This soil has 12 inches to more than 60 inches (30 cm to more than 152 cm) of loamy material over sand and gravel.

Minor Components

- Soils with permafrost on footslopes: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard

81V—Saulich peat and Chatanika silt loam, 3 to 15 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Saulich and Similar Soils

Extent: 90 to 95 percent of the map unit
Landform: valley sides
Slope shape: linear or concave downslope
Slope range: 7 to 12 percent
Slope length: not determined
Parent material: colluviated loess
Depth to permafrost: 14 to 24 inches (35 to 60 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: frequent
Available water capacity (approximate): 5.5 inches (14 cm)
Vegetation: black spruce forest with low shrubs and moss
Typical profile:
Oi—0 to 9 inches (0 to 23 cm); black and dark brown peat, moderately rapid permeability
Bg/A—9 to 21 inches (23 to 54 cm); dark grayish brown mucky silt loam, moderate permeability
Cf—21 to 72 inches (54 to 183 cm); very dark brown permanently frozen silt loam, impermeable

Chatanika and Similar Soils

Extent: 0 to 95 percent of the map unit
Landform: hills
Position on slope: footslopes, toeslopes
Slope shape: linear or concave downslope
Slope range: 3 to 15 percent
Slope length: not determined
Parent material: colluvium loess
Depth to permafrost: 12 to 39 inches (30 to 100 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: none

Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: black spruce forest with low shrubs and moss
Typical profile:
Oi—0 to 4 inches (0 to 10 cm); very dark grayish brown peat, mucky peat, rapid permeability
A—4 to 6 inches (10 to 16 cm); grayish brown mottled mucky silt loam, moderate permeability
Bg—6 to 22 inches (16 to 55 cm); very dark grayish brown silt loam, moderate permeability
Cgf—22 to 60 inches (55 to 152 cm); very dark grayish brown permanently frozen silt loam, impermeable

Minor Components

- Minto and similar soils: 0 to 2 percent of the map unit
- Saulich (steeper) and similar soils: 0 to 2 percent of the map unit

Management Considerations

Soil-related factors: permafrost, wetness, subsidence due to thaw of ground ice

81X—Saulich peat and Chatanika silt loam, 15 to 20 percent slopes

Elevation: 499 to 1299 feet (152 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Saulich and Similar Soils

Extent: 90 to 95 percent of the map unit
Landform: valley sides
Slope shape: linear or concave downslope
Slope range: 7 to 12 percent
Slope length: not determined
Parent material: colluviated loess
Depth to permafrost: 14 to 24 inches (35 to 60 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: frequent
Available water capacity (approximate): 5.5 inches (14 cm)
Vegetation: black spruce forest with low shrubs and moss
Typical profile:
Oi—0 to 9 inches (0 to 23 cm); very dark brown peat, moderately rapid permeability
Bg/A—9 to 21 inches (23 to 54 cm); dark grayish brown mucky silt loam, moderate permeability
Cf—21 to 72 inches (54 to 183 cm); black and dark brown permanently frozen silt loam, impermeable

Chatanika and Similar Soils

Extent: 0 to 95 percent of the map unit
Landform: hills
Position on slope: footslopes, toeslopes
Slope shape: linear or concave downslope
Slope range: 15 to 25 percent
Slope length: not determined
Parent material: colluvium loess
Depth to permafrost: 12 to 39 inches (30 to 100 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: none
Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: black spruce forest with low shrubs and moss
Typical profile:
Oi—0 to 4 inches (0 to 10 cm); very dark grayish brown peat, mucky peat, rapid permeability
A—4 to 6 inches (10 to 16 cm); grayish brown mottled mucky silt loam, moderate permeability
Bg—6 to 22 inches (16 to 55 cm); very dark grayish brown silt loam, moderate permeability
Cgf—22 to 60 inches (55 to 152 cm); very dark grayish brown permanently frozen silt loam, impermeable

Minor Components

- Chatanika and similar soils: 0 to 2 percent of the map unit

- Saulich (less steep) and similar soils: 0 to 2 percent of the map unit

Management Considerations

Soil-related factors: permafrost, wetness, subsidence due to thaw of ground ice, erosion hazard

82V—Gilmore and Steese silt loams, 3 to 15 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Gilmore and Similar Soils

Extent: 85 to 95 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 3 to 15 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 13 to 24 inches (33 to 60 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.0 inches (8 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 7 cm); dark brown peat, rapid permeability
A—3 to 6 inches (7 to 15 cm); olive brown silt loam, moderate permeability
Bw—6 to 12 inches (15 to 30 cm); yellowish brown silt loam, moderate permeability
2BC—12 to 19 inches (30 to 48 cm); dark brown very channery silt loam, moderately rapid permeability
2Cr—19 to 60 inches (48 to 152 cm); dark brown weathered bedrock

Steese and Similar Soils

Extent: 0 to 95 percent of the map unit
Landform: hills
Position on slope: backslopes, shoulders
Slope shape: convex or linear downslope
Slope range: 3 to 15 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); light olive brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); dark brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); brown weathered bedrock

Minor Components

- Gilmore (steeper) and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: bedrock substratum

82X—Gilmore and Steese silt loams, 15 to 45 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Steese and Similar Soils

Extent: 60 to 75 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: linear or convex downslope
Slope range: 15 to 45 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); light olive brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); dark brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); light olive brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); light olive brown weathered bedrock

Gilmore and Similar Soils

Extent: 0 to 90 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 15 to 45 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 13 to 24 inches (33 to 60 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.0 inches (8 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 7 cm); dark brown peat, rapid permeability
A—3 to 6 inches (7 to 15 cm); yellowish brown silt loam, moderate permeability
Bw—6 to 12 inches (15 to 30 cm); olive brown silt loam, moderate permeability
2BC—12 to 19 inches (30 to 48 cm); dark brown very channery silt loam, moderately rapid permeability
2Cr—19 to 60 inches (48 to 152 cm); dark brown weathered bedrock

Minor Components

- Steese (less steep) and similar soils: 0 to 5 percent of the map unit
- Angel and similar soils: 0 to 10 percent of the map unit
- Gilmore (steeper) and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

85—Eutrocryepts and Minto silt loam, 3 to 20 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Eutrocryepts and Similar Soils

Extent: 10 to 90 percent of the map unit
Landform: hills
Position on slope: footslopes, toeslopes
Slope shape: linear or concave downslope
Slope range: 3 to 20 percent
Slope length: not determined
Parent material: loess over colluvium derived from schist
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 7.0 inches (18 cm)
Vegetation: paper birch, white spruce, and black spruce forest
Typical profile:
Oi—0 to 4 inches (0 to 9 cm); very dark brown peat, rapid permeability
A—4 to 5 inches (9 to 12 cm); brown silt loam, moderate permeability
Bw—5 to 16 inches (12 to 40 cm); dark yellowish brown silt loam, moderate permeability
2C—16 to 60 inches (40 to 152 cm); very dark brown extremely gravelly sandy loam, moderately rapid permeability

Minto and Similar Soils

Extent: 10 to 90 percent of the map unit
Landform: hills
Position on slope: footslopes, toeslopes
Slope shape: linear or concave or convex downslope
Slope range: 3 to 20 percent
Slope length: not determined
Parent material: loess
Depth to permafrost: 80 to 199 inches (202 to 505 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 13.3 inches (34 cm)
Vegetation: paper birch and white spruce forest
Typical profile:
Oi—0 to 2 inches (0 to 6 cm); dark brown mucky peat, rapid permeability
A—2 to 9 inches (6 to 22 cm); very dark grayish brown silt loam, moderate permeability
Bw—9 to 16 inches (22 to 40 cm); light olive brown silt loam, moderate permeability
C—16 to 71 inches (40 to 180 cm); grayish brown silt loam, moderate permeability

Minor Components

- Aquic Cryofluvents and similar soils: 2 to 5 percent of the map unit
- Saulich and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: erosion hazard, possible flooding or debris flows

86G—Brigadier silt loam, 45 to 70 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Brigadier and Similar Soils

Extent: 60 to 90 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 45 to 70 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 12 to 35 inches (30 to 90 cm)

Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.7 inches (10 cm)
Vegetation: black spruce forest
Typical profile:
Oi—0 to 6 inches (0 to 16 cm); black peat, rapid permeability
A—6 to 11 inches (16 to 28 cm); brown silt loam, moderate permeability
Bw—11 to 16 inches (28 to 40 cm); olive brown silt loam, moderate permeability
2BC—16 to 24 inches (40 to 60 cm); black extremely channery sandy loam, moderately rapid permeability
2Cr—24 to 39 inches (60 to 100 cm); black weathered bedrock

Minor Components

- Brigadier (less steep) and similar soils: 0 to 15 percent of the map unit
- Gilmore and similar soils: 0 to 15 percent of the map unit
- Manchu and similar soils: 0 to 15 percent of the map unit

Management Considerations

Soil-related factors: bedrock substratum, late thaw

86V—Brigadier and Steese, cool silt loams, 3 to 15 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Brigadier and Similar Soils

Extent: 10 to 90 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 3 to 15 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 12 to 35 inches (30 to 90 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.7 inches (10 cm)
Vegetation: black spruce forest
Typical profile:
Oi—0 to 6 inches (0 to 16 cm); black peat, rapid permeability
A—6 to 11 inches (16 to 28 cm); olive brown silt loam, moderate permeability
Bw—11 to 16 inches (28 to 40 cm); brown silt loam, moderate permeability
2BC—16 to 24 inches (40 to 60 cm); black extremely channery sandy loam, moderately rapid permeability
2Cr—24 to 39 inches (60 to 100 cm); black weathered bedrock

Manchu and Similar Soils

Extent: 10 to 90 percent of the map unit
Landform: hills
Position on slope: backslopes, shoulders
Slope shape: linear or convex downslope
Slope range: 3 to 15 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 24 to 40 inches (60 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—7 inches (17 cm); other months—more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.1 inches (15 cm)
Vegetation: black spruce forest

Typical profile:
Oi—0 to 7 inches (0 to 17 cm); black peat, rapid permeability
A—7 to 9 inches (17 to 22 cm); dark yellowish brown silt loam, moderate permeability
Bw—9 to 28 inches (22 to 70 cm); very dark brown silt loam, moderate permeability
2BC—28 to 39 inches (70 to 100 cm); dark yellowish brown and dark gray very channery silt loam, moderately rapid permeability
2Cr—39 to 60 inches (100 to 152 cm); black weathered bedrock

Minor Components

- Gilmore and similar soils: 0 to 15 percent of the map unit
- Steese and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: bedrock substratum, late thaw

86X—Brigadier and Steese, cool silt loams, 15 to 45 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Brigadier and Similar Soils

Extent: 40 to 90 percent of the map unit
Landform: hills
Position on slope: summits, backslopes
Slope shape: convex or linear downslope
Slope range: 15 to 45 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 12 to 35 inches (30 to 90 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.7 inches (10 cm)
Vegetation: black spruce forest
Typical profile:
Oi—0 to 6 inches (0 to 16 cm); brown peat, rapid permeability
A—6 to 11 inches (16 to 28 cm); black silt loam, moderate permeability
Bw—11 to 16 inches (28 to 40 cm); olive brown silt loam, moderate permeability
2BC—16 to 24 inches (40 to 60 cm); brown extremely channery sandy loam, moderately rapid permeability
2Cr—24 to 39 inches (60 to 100 cm); brown weathered bedrock

Manchu and Similar Soils

Extent: 0 to 50 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: convex or linear downslope
Slope range: 3 to 15 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 24 to 40 inches (60 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—7 inches (17 cm); other months—more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.1 inches (15 cm)
Vegetation: black spruce forest
Typical profile:
Oi—0 to 7 inches (0 to 17 cm); dark yellowish brown peat, rapid permeability
A—7 to 9 inches (17 to 22 cm); very dark brown silt loam, moderate permeability
Bw—9 to 28 inches (22 to 70 cm); dark yellowish brown and dark gray silt loam, moderate permeability
2BC—28 to 39 inches (70 to 100 cm); black very channery silt loam, moderately rapid permeability
2Cr—39 to 60 inches (100 to 152 cm); dark yellowish brown weathered bedrock

Minor Components

- Gilmore and similar soils: 0 to 15 percent of the map unit
- Steese and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum, late thaw

87V—Gilmore silt loam, subalpine and Steese silt loam, cool

Elevation: 1001 to 2999 feet (305 to 914 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Gilmore and Similar Soils

Extent: 60 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 0 to 15 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 12 to 22 inches (30 to 55 cm)
Hazard of erosion (organic mat removed): by water—moderate; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 2.9 inches (7 cm)
Vegetation: bog birch, willow, and alder scrub
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); dark brown peat, rapid permeability
A—3 to 8 inches (8 to 20 cm); light olive brown silt loam, moderate permeability
Bw—8 to 12 inches (20 to 30 cm); dark brown very gravelly loam, moderate permeability
BC—12 to 18 inches (30 to 45 cm); dark brown extremely channery sandy loam, moderately rapid permeability
2C—18 to 60 inches (45 to 152 cm); dark brown weathered bedrock

Manchu and Similar Soils

Extent: 35 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: convex or linear downslope
Slope range: 3 to 15 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 24 to 40 inches (60 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—7 inches (17 cm); other months—more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.1 inches (15 cm)
Vegetation: black spruce forest
Typical profile:
Oi—0 to 7 inches (0 to 17 cm); dark yellowish brown peat, rapid permeability
A—7 to 9 inches (17 to 22 cm); dark yellowish brown and dark gray silt loam, moderate permeability
Bw—9 to 28 inches (22 to 70 cm); black silt loam, moderate permeability
2BC—28 to 39 inches (70 to 100 cm); very dark brown very channery silt loam, moderately rapid permeability
2Cr—39 to 60 inches (100 to 152 cm); dark yellowish brown weathered bedrock

Minor Components

- Soils with permafrost: 5 percent of the map unit

Management Considerations

Soil-related factors: bedrock substratum

87X—Gilmore silt loam, subalpine, 15 to 45 percent slopes

Elevation: 1001 to 2999 feet (305 to 914 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Gilmore and Similar Soils

Extent: 90 percent of the map unit
Landform: hills
Position on slope: summits, backslopes
Slope shape: linear or convex downslope
Slope range: 15 to 45 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 12 to 22 inches (30 to 55 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 2.9 inches (7 cm)
Vegetation: bog birch, willow, and alder scrub
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); dark brown peat, rapid permeability
A—3 to 8 inches (8 to 20 cm); light olive brown silt loam, moderate permeability
Bw—8 to 12 inches (20 to 30 cm); dark brown very gravelly loam, moderate permeability
BC—12 to 18 inches (30 to 45 cm); dark brown extremely channery sandy loam, moderately rapid permeability
2C—18 to 60 inches (45 to 152 cm); dark brown weathered bedrock

Minor Components

- Gilmore (less steep) and similar soils: 5 percent of the map unit
- Manchu and similar soils: 5 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

88—Dystrocryepts-Turbels complex, 0 to 30 percent slopes

Elevation: 2789 to 3281 feet (850 to 1000 m)
Mean annual precipitation: 14 to 18 inches (36 to 46 cm)
Frost-free period: 80 to 120 days

Dystrocryepts and Similar Soils

Extent: 60 percent of the map unit
Landform: hills
Position on slope: shoulders, summits
Slope shape: linear or convex downslope
Slope range: 8 to 30 percent
Slope length: not determined
Parent material: colluvium over residuum
Depth to bedrock (lithic): 14 to 79 inches (35 to 200 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 2.9 inches (7 cm)
Vegetation: cottonsedge and low shrub tundra
Typical profile:
Oe—0 to 2 inches (0 to 5 cm); black mucky peat, rapid permeability
A—2 to 7 inches (5 to 18 cm); brown gravelly loam, moderate permeability
Bw—7 to 14 inches (18 to 35 cm); dark brown very cobbly loam, moderate permeability
BC—14 to 24 inches (35 to 61 cm); black extremely channery silt loam, moderately rapid permeability
2R—24 to 28 inches (61 to 71 cm); black bedrock

Turbels and Similar Soils

Extent: 35 percent of the map unit

Landform: hills
Position on slope: backslopes
Slope shape: linear or convex or concave downslope
Slope range: 8 to 30 percent
Slope length: not determined
Parent material: organic material over colluvium over residuum
Depth to permafrost: 16 to 30 inches (40 to 75 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—6 inches (15 cm); other months—12 inches (30 cm)
Ponding: none
Available water capacity (approximate): 3.1 inches (8 cm)
Vegetation: cottonsedge, moss, and low shrub tundra
Typical profile:
Oi—0 to 8 inches (0 to 20 cm); dark reddish brown peat, rapid permeability
A—8 to 14 inches (20 to 35 cm); black gravelly silt loam, moderate permeability
BC—14 to 22 inches (35 to 55 cm); dark brown extremely cobbly loam, moderately rapid permeability
BCf—22 to 31 inches (55 to 80 cm); dark reddish brown extremely cobbly loam, impermeable
Note: Parts of this map unit have patterned ground consisting of unvegetated circles with little or no organic mat (O horizons).

Minor Components

- Rock outcrops: 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, steep slopes, erosion hazard, bedrock substratum

89V—Fairbanks and Steese silt loams, 3 to 15 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Steese and Similar Soils

Extent: 0 to 90 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: linear or convex downslope
Slope range: 3 to 15 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); light olive brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); dark brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); light olive brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); light olive brown weathered bedrock

Fairbanks and Similar Soils

Extent: 0 to 90 percent of the map unit
Landform: hills
Slope shape: convex or linear downslope
Slope range: 3 to 15 percent
Slope length: not determined
Parent material: loess
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none

Available water capacity (approximate): 12.4 inches (31 cm)
Vegetation: white spruce, paper birch and quaking aspen forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); light olive brown peat, rapid permeability
Bw—3 to 30 inches (8 to 76 cm); grayish brown or light olive brown silt loam, moderate permeability
C—30 to 72 inches (76 to 183 cm); light olive brown silt loam, moderate permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over weathered bedrock.

Minor Components

- Steese (steeper) and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: bedrock substratum

89X—Fairbanks and Steese silt loams, 15 to 45 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Fairbanks and Similar Soils

Extent: 0 to 90 percent of the map unit
Landform: hills
Slope shape: convex or linear downslope
Slope range: 15 to 45 percent
Slope length: not determined
Parent material: loess
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 12.4 inches (31 cm)
Vegetation: white spruce, paper birch and quaking aspen forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); grayish brown or light olive brown peat, rapid permeability
Bw—3 to 30 inches (8 to 76 cm); light olive brown silt loam, moderate permeability
C—30 to 72 inches (76 to 183 cm); grayish brown or light olive brown silt loam, moderate permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over weathered bedrock.

Steese and Similar Soils

Extent: 0 to 90 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: convex or linear downslope
Slope range: 15 to 45 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); light olive brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); dark brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); light olive brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); light olive brown weathered bedrock

Minor Components

- Steese (less steep) and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

90—Fubar-Tanana complex, 0 to 3 percent slopes

Elevation: 400 to 1299 feet (122 to 396 m)

Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Fubar and Similar Soils

Extent: 45 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: moderately well drained
Flooding: rare
Depth to high water table (approximate): April-May—more than 72 inches (176 cm); other months—54 inches (137 cm)
Ponding: none
Available water capacity (approximate): 2.7 inches (7 cm)
Vegetation: white spruce, balsam poplar, and paper birch forest
Typical profile:
Oi—0 to 2 inches (0 to 4 cm); dark grayish brown peat, rapid permeability
C—2 to 4 inches (4 to 10 cm); dark brown stratified fine sand to silt loam, moderate permeability
2C—4 to 60 inches (10 to 152 cm); dark gray very gravelly coarse sand, rapid permeability
Note: This soil has 1 to 10 inches (3 to 25 cm) of loamy material over sand and gravel.

Tanana and Similar Soils

Extent: 45 percent of the map unit
Landform: terraces
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium or loess over alluvium
Depth to permafrost: 16 to 47 inches (40 to 120 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: rare
Depth to high water table (approximate): 6 inches (15 cm)
Ponding: frequent
Available water capacity (approximate): 5.7 inches (15 cm)
Vegetation: black spruce forest
Typical profile:
Oi—0 to 5 inches (0 to 12 cm); very dark grayish brown peat, rapid permeability
A—5 to 8 inches (12 to 20 cm); dark grayish brown mucky silt loam, moderate permeability
Bg—8 to 28 inches (20 to 70 cm); very dark brown silt loam, moderate permeability
Cf—28 to 72 inches (70 to 183 cm); very dark grayish brown permanently frozen silt loam, impermeable

Minor Components

- Mosquito and similar soils: 5 percent of the map unit
- Piledriver and similar soils: 5 percent of the map unit

Management Considerations

Soil-related factors: flooding, permafrost

91—Cryofluvents-Typic Cryaquents-Typic Aquorthels complex, 2 to 10 percent slopes

Elevation: 499 to 1299 feet (152 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Aquic Cryofluvents and Similar Soils

Extent: 30 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 2 to 10 percent
Slope length: not determined

Parent material: alluvium
Hazard of erosion (organic mat removed): by water—moderate; by wind—moderate
Runoff: low
Drainage class: moderately well drained
Flooding: occasional
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—51 inches (130 cm)
Ponding: frequent
Available water capacity (approximate): 13.3 inches (34 cm)
Vegetation: willow and birch scrub
Typical profile:
Oe—0 to 3 inches (0 to 8 cm); dark yellowish brown mucky peat, moderate permeability
A—3 to 10 inches (8 to 25 cm); very dark grayish brown silt loam, moderate permeability
C—10 to 60 inches (25 to 152 cm); dark brown stratified silt loam to loamy sand to gravel, moderate permeability

Typic Aquorthels and Similar Soils

Extent: 30 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 2 to 10 percent
Slope length: not determined
Parent material: alluvium
Depth to permafrost: 12 to 30 inches (30 to 75 cm)
Hazard of erosion (organic mat removed): by water—moderate; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: occasional
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 5.0 inches (13 cm)
Vegetation: willow and birch scrub with sedge understory
Typical profile:
O—0 to 4 inches (0 to 10 cm); dark grayish brown mucky peat, rapid permeability
Cg—4 to 20 inches (10 to 50 cm); very dark brown stratified silt loam to loamy sand to coarse sand, moderate permeability
Cgf—20 to 60 inches (50 to 153 cm); dark grayish brown stratified silt loam to loamy sand to coarse sand, impermeable

Typic Cryaquents and Similar Soils

Extent: 30 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 2 to 10 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—moderate; by wind—slight
Runoff: medium
Drainage class: poorly drained
Flooding: frequent
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 9.5 inches (24 cm)
Vegetation: willow and birch scrub with sedge understory
Typical profile:
O—0 to 3 inches (0 to 8 cm); very dark brown mucky peat, rapid permeability
Cg—3 to 39 inches (8 to 100 cm); dark grayish brown stratified silt loam to loamy sand to gravel, moderate permeability
2C—39 to 75 inches (100 to 190 cm); variegated very gravelly coarse sand, rapid permeability
Note: This soil has 10 inches to more than 40 inches (25 cm to more than 102 cm) of loamy material over sand and gravel.

Minor Components

- Chatanika and similar soils: 5 percent of the map unit
- Saulich and similar soils: 5 percent of the map unit

Management Considerations

Soil-related factors: flooding, high water table, permafrost, and overflow ice formation

211—Chatanika-Goldstream complex, 0 to 3 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Chatanika and Similar Soils

Extent: 50 to 60 percent of the map unit
Landform: hills
Position on slope: footslopes, toeslopes
Slope shape: linear or concave downslope
Slope range: 0 to 5 percent
Slope length: not determined
Parent material: colluvium loess
Depth to permafrost: 12 to 39 inches (30 to 100 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: none
Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: black spruce forest with low shrubs and moss
Typical profile:
Oi—0 to 4 inches (0 to 10 cm); very dark grayish brown peat, mucky peat, rapid permeability
A—4 to 6 inches (10 to 16 cm); grayish brown mottled mucky silt loam, moderate permeability
Bg—6 to 22 inches (16 to 55 cm); very dark grayish brown silt loam, moderate permeability
Cgf—22 to 60 inches (55 to 152 cm); very dark grayish brown permanently frozen silt loam, impermeable

Goldstream and Similar Soils

Extent: 30 to 40 percent of the map unit
Landform: valley floors
Slope shape: concave or linear downslope
Slope range: 0 to 5 percent
Slope length: not determined
Parent material: organic material over loess
Depth to permafrost: 14 to 24 inches (35 to 60 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: very poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—6 inches (15 cm)
Ponding: frequent
Available water capacity (approximate): 3.6 inches (9 cm)
Vegetation: sparse stunted black spruce, low shrubs, cottonsedge, and moss
Typical profile:
Oi—0 to 9 inches (0 to 23 cm); dark brown peat, mucky peat, moderately rapid permeability
A—9 to 12 inches (23 to 30 cm); very dark grayish brown mucky silt loam, moderate permeability
Bjjg—12 to 20 inches (30 to 50 cm); gray silt loam, moderate permeability
Cf—20 to 60 inches (50 to 152 cm); dark brown permanently frozen silt loam, impermeable

Minor Components

- Minto and similar soils: 0 to 5 percent of the map unit
- Chatanika (steeper) and similar soils: 0 to 7 percent of the map unit
- Histels and similar soils: 0 to 5 percent of the map unit
- Ponds: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, pitting and thaw subsidence, high water table, ponding

212—Goldstream-Histels complex, 0 to 3 percent slopes

Elevation: 397 to 1201 feet (121 to 366 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Goldstream and Similar Soils

Extent: 50 percent of the map unit
Landform: valley floors
Slope shape: concave or linear downslope
Slope range: 0 to 3 percent
Slope length: not determined
Parent material: organic material over loess
Depth to permafrost: 14 to 24 inches (35 to 60 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: very poorly drained
Flooding: none

Depth to high water table (approximate): April-May—0 inches (0 cm); other months—6 inches (15 cm)
Ponding: frequent
Available water capacity (approximate): 3.6 inches (9 cm)
Typical profile:
Oi—0 to 9 inches (0 to 23 cm); dark brown peat, mucky peat, moderately rapid permeability
A—9 to 12 inches (23 to 30 cm); very dark grayish brown mucky silt loam, moderate permeability
Bjjg—12 to 20 inches (30 to 50 cm); gray silt loam, moderate permeability
Cf—20 to 60 inches (50 to 152 cm); dark brown permanently frozen silt loam, impermeable

Histels and Similar Soils

Extent: 45 to 50 percent of the map unit
Landform: depressions on terraces, flats on terraces
Slope shape: concave downslope
Slope range: 0 to 3 percent
Slope length: not determined
Parent material: organic material over colluvium and/or loess
Depth to permafrost: 16 to 24 inches (40 to 60 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: very poorly drained
Flooding: none
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 6.5 inches (16 cm)
Vegetation: low shrubs, stunted black spruce, sedges, and moss
Typical profile:
Oi—0 to 8 inches (0 to 20 cm); black peat, rapid permeability
Oe—8 to 20 inches (20 to 50 cm); brown mucky peat, moderate permeability
Oef—20 to 31 inches (50 to 80 cm); very dark gray permanently frozen mucky peat, impermeable
Cgf—31 to 60 inches (80 to 152 cm); black permanently frozen silt loam, impermeable

Minor Components

- Terric Cryofibrists and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, high water table, ponding, subsidence due to thaw of ground ice, low-strength organic soil material

251—Tanana-Mosquito complex

Elevation: 397 to 1299 feet (121 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Tanana and Similar Soils

Extent: 50 to 70 percent of the map unit
Landform: terraces
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium or loess over alluvium
Depth to permafrost: 16 to 47 inches (40 to 120 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: rare
Depth to high water table (approximate): 6 inches (15 cm)
Ponding: frequent
Available water capacity (approximate): 5.7 inches (15 cm)
Vegetation: black spruce forest
Typical profile:
Oi—0 to 5 inches (0 to 12 cm); very dark grayish brown peat, rapid permeability
A—5 to 8 inches (12 to 20 cm); dark grayish brown mucky silt loam, moderate permeability
Bg—8 to 28 inches (20 to 70 cm); very dark brown silt loam, moderate permeability
Cf—28 to 72 inches (70 to 183 cm); very dark grayish brown permanently frozen silt loam, impermeable

Mosquito and Similar Soils

Extent: 20 to 25 percent of the map unit
Landform: depressions, alluvial flats
Slope shape: linear or concave downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: organic material over alluvium

Depth to permafrost: 14 to 31 inches (35 to 80 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: high
Drainage class: very poorly drained
Flooding: rare
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: stunted black spruce, low shrubs, sedges, and moss
Typical profile:
Oi—0 to 9 inches (0 to 22 cm); dark grayish brown peat, mucky peat, rapid permeability
Bg—9 to 20 inches (22 to 50 cm); black very fine sandy loam, silt loam, moderate permeability
Bgf—20 to 66 inches (50 to 167 cm); dark grayish brown permanently frozen silt loam, impermeable

Minor Components

- Jarvis and similar soils: 5 to 15 percent of the map unit
- Liscum and similar soils: 0 to 5 percent of the map unit
- Noonku and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, high water table, flooding

361—Jarvis-Chena complex

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Jarvis and Similar Soils

Extent: 50 to 60 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: well drained
Flooding: rare
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: occasional
Available water capacity (approximate): 6.5 inches (17 cm)
Vegetation: white spruce, balsam poplar, and paper birch forest
Typical profile:
Oe—0 to 2 inches (0 to 6 cm); olive brown mucky peat, moderate permeability
Bw—2 to 6 inches (6 to 14 cm); black very fine sandy loam, moderate permeability
C1—6 to 24 inches (14 to 60 cm); gray stratified sand to fine sand to very fine sandy loam, moderate permeability
C2—24 to 59 inches (60 to 150 cm); grayish brown sand, rapid permeability
Note: This soil has 10 to 40 inches (25 to 102 cm) of loamy material over sand and gravel.

Chena and Similar Soils

Extent: 30 to 40 percent of the map unit
Landform: stream terraces
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: negligible
Drainage class: excessively drained
Flooding: rare
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.6 inches (9 cm)
Vegetation: white spruce and balsam poplar forest
Typical profile:
Oe—0 to 2 inches (0 to 5 cm); grayish brown peat, mucky peat, moderately rapid permeability
B—2 to 7 inches (5 to 18 cm); olive brown stratified fine sand to silt loam, moderately rapid permeability
C—7 to 60 inches (18 to 152 cm); very dark gray very gravelly sand, rapid permeability

Note: This soil has 0 to 10 inches (0 to 25 cm) of loamy material over sand and gravel.

Minor Components

- Noonku and similar soils: 0 to 10 percent of the map unit
- Salchaket and similar soils: 0 to 10 percent of the map unit
- Tanana and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: droughtiness, high-permeability subsoil, flooding

362—Piledriver-Fubar complex

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Fubar and Similar Soils

Extent: 40 to 50 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: moderately well drained
Flooding: rare
Depth to high water table (approximate): April-May—more than 72 inches (176 cm); other months—54 inches (137 cm)
Ponding: none
Available water capacity (approximate): 2.7 inches (7 cm)
Vegetation: white spruce, balsam poplar, and paper birch forest
Typical profile:
Oi—0 to 2 inches (0 to 4 cm); dark grayish brown peat, rapid permeability
C—2 to 4 inches (4 to 10 cm); dark gray stratified fine sand to silt loam, moderate permeability
2C—4 to 60 inches (10 to 152 cm); dark brown very gravelly coarse sand, rapid permeability
Note: This soil has 1 to 10 inches (3 to 25 cm) of loamy material over sand and gravel.

Piledriver and Similar Soils

Extent: 40 to 50 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: somewhat poorly drained
Flooding: rare
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—47 inches (120 cm)
Ponding: frequent
Available water capacity (approximate): 6.5 inches (17 cm)
Vegetation: white spruce and balsam poplar forest
Typical profile:
Oi—0 to 2 inches (0 to 6 cm); dark brown mucky peat, rapid permeability
BC—2 to 4 inches (6 to 10 cm); dark olive brown very fine sandy loam, moderate permeability
C—4 to 30 inches (10 to 75 cm); light olive brown and grayish brown stratified sand to fine sand to very fine sandy loam, moderate permeability
2C—30 to 72 inches (75 to 183 cm); grayish brown sand, rapid permeability
Note: This soil has 10 to 40 inches (25 to 102 cm) of loamy material over sand and gravel.

Minor Components

- Eielson and similar soils: 0 to 5 percent of the map unit
- Noonku and similar soils: 0 to 5 percent of the map unit
- North Pole and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: high water table, high permeability substratum, flooding

363—Jarvis-Salchaket complex

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Jarvis and Similar Soils

Extent: 40 to 50 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: well drained
Flooding: rare
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: occasional
Available water capacity (approximate): 6.5 inches (17 cm)
Vegetation: white spruce, balsam poplar, and paper birch forest
Typical profile:
Oe—0 to 2 inches (0 to 6 cm); gray mucky peat, moderate permeability
Bw—2 to 6 inches (6 to 14 cm); black very fine sandy loam, moderate permeability
C1—6 to 24 inches (14 to 60 cm); grayish brown stratified sand to fine sand to very fine sandy loam, moderate permeability
C2—24 to 59 inches (60 to 150 cm); olive brown sand, rapid permeability
Note: This soil has 10 to 40 inches (25 to 102 cm) of loamy material over sand and gravel.

Salchaket and Similar Soils

Extent: 40 to 50 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: well drained
Flooding: rare
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)
Ponding: frequent
Available water capacity (approximate): 12.8 inches (32 cm)
Vegetation: white spruce, balsam poplar, and paper birch forest
Typical profile:
Oe—0 to 2 inches (0 to 4 cm); dark grayish brown mucky peat, moderate permeability
Bw—2 to 5 inches (4 to 12 cm); variegated very fine sandy loam, moderate permeability
C—5 to 63 inches (12 to 160 cm); olive brown stratified silt loam to fine sand, moderate permeability
2C—63 to 72 inches (160 to 183 cm); dark brown very gravelly sand, rapid permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over sand and gravel.

Minor Components

- Tanana and similar soils: 0 to 5 percent of the map unit
- Chena and similar soils: 0 to 5 percent of the map unit
- Noonku and similar soils: 0 to 5 percent of the map unit
- North Pole and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: high-permeability subsoil in the Jarvis soils, flooding

411A—Minto-Chatanika complex, 0 to 3 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Minto and Similar Soils

Extent: 35 to 50 percent of the map unit
Landform: hills
Position on slope: footslopes, toeslopes

Slope shape: linear or concave or convex downslope
Slope range: 0 to 3 percent
Slope length: not determined
Parent material: loess
Depth to permafrost: 80 to 199 inches (202 to 505 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 13.3 inches (34 cm)
Vegetation: paper birch and white spruce forest
Typical profile:
Oi—0 to 2 inches (0 to 6 cm); grayish brown mucky peat, rapid permeability
A—2 to 9 inches (6 to 22 cm); light olive brown silt loam, moderate permeability
Bw—9 to 16 inches (22 to 40 cm); very dark grayish brown silt loam, moderate permeability
C—16 to 71 inches (40 to 180 cm); dark brown silt loam, moderate permeability

Chatanika and Similar Soils

Extent: 35 to 50 percent of the map unit
Landform: hills
Position on slope: toeslopes, footslopes
Slope shape: concave or linear downslope
Slope range: 0 to 3 percent
Slope length: not determined
Parent material: colluvium loess
Depth to permafrost: 12 to 39 inches (30 to 100 cm)
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: none
Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: black spruce forest with low shrubs and moss
Typical profile:
Oi—0 to 4 inches (0 to 10 cm); grayish brown mottled peat, mucky peat, rapid permeability
A—4 to 6 inches (10 to 16 cm); very dark grayish brown mucky silt loam, moderate permeability
Bg—6 to 22 inches (16 to 55 cm); grayish brown mottled silt loam, moderate permeability
Cgf—22 to 60 inches (55 to 152 cm); grayish brown mottled permanently frozen silt loam, impermeable

Minor Components

- Chatanika (steeper) and similar soils: 2 to 10 percent of the map unit
- Goldstream and similar soils: 2 to 10 percent of the map unit
- Minto (steeper) and similar soils: 2 to 10 percent of the map unit

Management Considerations

Soil-related factors: permafrost, pitting and thaw subsidence, high water table

411B—Minto-Chatanika complex, 3 to 7 percent slopes

Elevation: 400 to 1640 feet (122 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Minto and Similar Soils

Extent: 30 to 40 percent of the map unit
Landform: hills
Position on slope: footslopes, toeslopes
Slope shape: linear or concave or convex downslope
Slope range: 3 to 7 percent
Slope length: not determined
Parent material: loess
Depth to permafrost: 80 to 199 inches (202 to 505 cm)
Hazard of erosion (organic mat removed): by water—moderate; by wind—severe
Runoff: low
Drainage class: moderately well drained
Flooding: none

Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 13.3 inches (34 cm)
Vegetation: paper birch and white spruce forest
Typical profile:
Oi—0 to 2 inches (0 to 6 cm); grayish brown mucky peat, rapid permeability
A—2 to 9 inches (6 to 22 cm); light olive brown silt loam, moderate permeability
Bw—9 to 16 inches (22 to 40 cm); very dark grayish brown silt loam, moderate permeability
C—16 to 71 inches (40 to 180 cm); dark brown silt loam, moderate permeability

Chatanika and Similar Soils

Extent: 30 to 40 percent of the map unit
Landform: hills
Position on slope: toeslopes, footslopes
Slope shape: concave or linear downslope
Slope range: 3 to 7 percent
Slope length: not determined
Parent material: colluvium loess
Depth to permafrost: 12 to 39 inches (30 to 100 cm)
Hazard of erosion (organic mat removed): by water—moderate; by wind—severe
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: none
Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: black spruce forest with low shrubs and moss
Typical profile:
Oi—0 to 4 inches (0 to 10 cm); very dark grayish brown peat, mucky peat, rapid permeability
A—4 to 6 inches (10 to 16 cm); grayish brown mottled mucky silt loam, moderate permeability
Bg—6 to 22 inches (16 to 55 cm); very dark grayish brown silt loam, moderate permeability
Cgf—22 to 60 inches (55 to 152 cm); very dark grayish brown permanently frozen silt loam, impermeable

Minor Components

- Minto (less steep) and similar soils: 5 to 10 percent of the map unit
- Minto (steeper) and similar soils: 5 to 10 percent of the map unit
- Saulich and similar soils: 0 to 10 percent of the map unit
- Chatanika (less steep) and similar soils: 0 to 5 percent of the map unit
- Chatanika (steeper) and similar soils: 0 to 5 percent of the map unit
- Goldstream and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, pitting and thaw subsidence, high water table

411C—Minto-Chatanika complex, 7 to 12 percent slopes

Elevation: 397 to 1640 feet (121 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Minto and Similar Soils

Extent: 40 to 50 percent of the map unit
Landform: hills
Position on slope: footslopes, toeslopes
Slope shape: linear or concave or convex downslope
Slope range: 7 to 12 percent
Slope length: not determined
Parent material: loess
Depth to permafrost: 80 to 199 inches (202 to 505 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)

Ponding: none

Available water capacity (approximate): 13.3 inches (34 cm)
Vegetation: paper birch and white spruce forest
Typical profile:
Oi—0 to 2 inches (0 to 6 cm); light olive brown mucky peat, rapid permeability
A—2 to 9 inches (6 to 22 cm); grayish brown silt loam, moderate permeability
Bw—9 to 16 inches (22 to 40 cm); dark brown silt loam, moderate permeability
C—16 to 71 inches (40 to 180 cm); very dark grayish brown silt loam, moderate permeability

Chatanika and Similar Soils

Extent: 40 to 50 percent of the map unit
Landform: hills
Position on slope: toeslopes, footslopes
Slope shape: linear or concave downslope
Slope range: 7 to 12 percent
Slope length: not determined
Parent material: colluvium loess
Depth to permafrost: 12 to 39 inches (30 to 100 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: none
Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: black spruce forest with low shrubs and moss
Typical profile:
Oi—0 to 4 inches (0 to 10 cm); very dark grayish brown peat, mucky peat, rapid permeability
A—4 to 6 inches (10 to 16 cm); grayish brown mottled mucky silt loam, moderate permeability
Bg—6 to 22 inches (16 to 55 cm); very dark grayish brown silt loam, moderate permeability
Cgf—22 to 60 inches (55 to 152 cm); very dark grayish brown permanently frozen silt loam, impermeable

Minor Components

- Minto (steeper) and similar soils: 5 to 15 percent of the map unit
- Chatanika (less steep) and similar soils: 2 to 10 percent of the map unit
- Saulich and similar soils: 0 to 5 percent of the map unit
- Typic Cryaquents and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, pitting and thaw subsidence, high water table, erosion hazard

411D—Minto-Chatanika complex, 12 to 20 percent slopes

Elevation: 397 to 1640 feet (121 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Minto and Similar Soils

Extent: 50 percent of the map unit
Landform: hills
Position on slope: toeslopes, footslopes
Slope shape: convex or linear or concave downslope
Slope range: 12 to 20 percent
Slope length: not determined
Parent material: loess
Depth to permafrost: 80 to 199 inches (202 to 505 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: moderately well drained
Flooding: none
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 13.3 inches (34 cm)
Vegetation: paper birch and white spruce forest
Typical profile:
Oi—0 to 2 inches (0 to 6 cm); grayish brown mucky peat, rapid permeability
A—2 to 9 inches (6 to 22 cm); light olive brown silt loam, moderate permeability
Bw—9 to 16 inches (22 to 40 cm); dark brown silt loam, moderate permeability
C—16 to 71 inches (40 to 180 cm); very dark grayish brown silt loam, moderate permeability

Chatanika and Similar Soils

Extent: 25 percent of the map unit
Landform: hills
Position on slope: toeslopes, footslopes
Slope shape: concave or linear downslope
Slope range: 12 to 20 percent
Slope length: not determined
Parent material: colluvium loess
Depth to permafrost: 12 to 39 inches (30 to 100 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: none
Available water capacity (approximate): 5.3 inches (13 cm)
Vegetation: black spruce forest with low shrubs and moss
Typical profile:
Oi—0 to 4 inches (0 to 10 cm); very dark grayish brown peat, mucky peat, rapid permeability
A—4 to 6 inches (10 to 16 cm); grayish brown mottled mucky silt loam, moderate permeability
Bg—6 to 22 inches (16 to 55 cm); very dark grayish brown silt loam, moderate permeability
Cgf—22 to 60 inches (55 to 152 cm); very dark grayish brown permanently frozen silt loam, impermeable

Minor Components

- Minto (steeper) and similar soils: 5 to 20 percent of the map unit
- Saulich and similar soils: 0 to 10 percent of the map unit
- Typic Cryaquents and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: permafrost, pitting and thaw subsidence, wetness, steep slopes, erosion hazard

421B—Fairbanks-Steese complex, 3 to 7 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Fairbanks and Similar Soils

Extent: 45 percent of the map unit
Landform: hills
Slope shape: linear or convex downslope
Slope range: 3 to 7 percent
Slope length: not determined
Parent material: loess
Hazard of erosion (organic mat removed): by water—moderate; by wind—severe
Runoff: low
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 12.4 inches (31 cm)
Vegetation: white spruce, paper birch and quaking aspen forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); grayish brown or light olive brown peat, rapid permeability
Bw—3 to 30 inches (8 to 76 cm); light olive brown silt loam, moderate permeability
C—30 to 72 inches (76 to 183 cm); grayish brown or light olive brown silt loam, moderate permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over weathered bedrock.

Steese and Similar Soils

Extent: 45 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: convex or linear downslope
Slope range: 3 to 7 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—moderate; by wind—severe
Runoff: low
Drainage class: well drained
Flooding: none

Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); light olive brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); dark brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); light olive brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); light olive brown weathered bedrock

Minor Components

- Gilmore and similar soils: 10 percent of the map unit

Management Considerations

Soil-related factors: bedrock substratum

421C—Fairbanks-Steese complex, 7 to 12 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Fairbanks and Similar Soils

Extent: 45 percent of the map unit
Landform: hills
Slope shape: linear or convex downslope
Slope range: 7 to 12 percent
Slope length: not determined
Parent material: loess
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 12.4 inches (31 cm)
Vegetation: white spruce, paper birch and quaking aspen forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); light olive brown peat, rapid permeability
Bw—3 to 30 inches (8 to 76 cm); grayish brown or light olive brown silt loam, moderate permeability
C—30 to 72 inches (76 to 183 cm); light olive brown silt loam, moderate permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over weathered bedrock.

Steese and Similar Soils

Extent: 45 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: linear or convex downslope
Slope range: 7 to 12 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); dark brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); light olive brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); dark brown very channery silt loam, moderately rapid permeability

2C—33 to 40 inches (84 to 102 cm); dark brown weathered bedrock

Minor Components

- Gilmore and similar soils: 10 percent of the map unit

Management Considerations

Soil-related factors: erosion hazard

421D—Fairbanks-Steese complex, 12 to 20 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Fairbanks and Similar Soils

Extent: 50 to 60 percent of the map unit
Landform: hills
Slope shape: linear or convex downslope
Slope range: 12 to 20 percent
Slope length: not determined
Parent material: loess
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 12.4 inches (31 cm)
Vegetation: white spruce, paper birch and quaking aspen forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); grayish brown or light olive brown peat, rapid permeability
Bw—3 to 30 inches (8 to 76 cm); light olive brown silt loam, moderate permeability
C—30 to 72 inches (76 to 183 cm); grayish brown or light olive brown silt loam, moderate permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over weathered bedrock.

Steese and Similar Soils

Extent: 25 to 40 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: convex or linear downslope
Slope range: 12 to 20 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); light olive brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); dark brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); light olive brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); light olive brown weathered bedrock

Minor Components

- Fairbanks (less steep) and similar soils: 2 to 7 percent of the map unit
- Fairbanks (steeper) and similar soils: 2 to 7 percent of the map unit
- Steese (steeper) and similar soils: 2 to 5 percent of the map unit
- Steese (less steep) and similar soils: 2 to 5 percent of the map unit
- Gilmore and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

441D—Steese-Gilmore complex, 12 to 20 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Gilmore and Similar Soils

Extent: 45 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 12 to 20 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 13 to 24 inches (33 to 60 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.0 inches (8 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 7 cm); dark brown peat, rapid permeability
A—3 to 6 inches (7 to 15 cm); yellowish brown silt loam, moderate permeability
Bw—6 to 12 inches (15 to 30 cm); olive brown silt loam, moderate permeability
2BC—12 to 19 inches (30 to 48 cm); dark brown very channery silt loam, moderately rapid permeability
2Cr—19 to 60 inches (48 to 152 cm); dark brown weathered bedrock

Steese and Similar Soils

Extent: 45 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: convex or linear downslope
Slope range: 12 to 20 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); dark brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); light olive brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); dark brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); dark brown weathered bedrock

Minor Components

- Gilmore (steeper or less steep) and similar soils: 5 percent of the map unit
- Steese (steeper or less steep) and similar soils: 5 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

441E—Steese-Gilmore complex, 20 to 30 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Gilmore and Similar Soils

Extent: 45 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: convex or linear downslope
Slope range: 20 to 30 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 13 to 24 inches (33 to 60 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.0 inches (8 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 7 cm); dark brown peat, rapid permeability
A—3 to 6 inches (7 to 15 cm); olive brown silt loam, moderate permeability
Bw—6 to 12 inches (15 to 30 cm); yellowish brown silt loam, moderate permeability
2BC—12 to 19 inches (30 to 48 cm); dark brown very channery silt loam, moderately rapid permeability
2Cr—19 to 60 inches (48 to 152 cm); dark brown weathered bedrock

Steese and Similar Soils

Extent: 45 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: linear or convex downslope
Slope range: 20 to 30 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); light olive brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); dark brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); light olive brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); light olive brown weathered bedrock

Minor Components

- Gilmore (steeper or less steep) and similar soils: 5 percent of the map unit
- Steese (steeper or less steep) and similar soils: 5 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

441F—Steese-Gilmore complex, 30 to 45 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Gilmore and Similar Soils

Extent: 45 percent of the map unit

Landform: hills
Position on slope: backslopes, summits
Slope shape: convex or linear downslope
Slope range: 30 to 45 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 13 to 24 inches (33 to 60 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.0 inches (8 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 7 cm); dark brown peat, rapid permeability
A—3 to 6 inches (7 to 15 cm); yellowish brown silt loam, moderate permeability
Bw—6 to 12 inches (15 to 30 cm); olive brown silt loam, moderate permeability
2BC—12 to 19 inches (30 to 48 cm); dark brown very channery silt loam, moderately rapid permeability
2Cr—19 to 60 inches (48 to 152 cm); dark brown weathered bedrock

Steese and Similar Soils

Extent: 45 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: linear or convex downslope
Slope range: 30 to 45 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); light olive brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); dark brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); light olive brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); light olive brown weathered bedrock

Minor Components

- Gilmore (steeper or less steep) and similar soils: 5 percent of the map unit
- Steese (steeper or less steep) and similar soils: 5 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

441G—Steese-Gilmore complex, 45 to 70 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Gilmore and Similar Soils

Extent: 45 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: convex or linear downslope
Slope range: 45 to 70 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 13 to 24 inches (33 to 60 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe

Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.0 inches (8 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 7 cm); dark brown peat, rapid permeability
A—3 to 6 inches (7 to 15 cm); yellowish brown silt loam, moderate permeability
Bw—6 to 12 inches (15 to 30 cm); olive brown silt loam, moderate permeability
2BC—12 to 19 inches (30 to 48 cm); dark brown very channery silt loam, moderately rapid permeability
2Cr—19 to 60 inches (48 to 152 cm); dark brown weathered bedrock

Steese and Similar Soils

Extent: 45 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: linear or convex downslope
Slope range: 45 to 70 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); dark brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); light olive brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); dark brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); dark brown weathered bedrock

Minor Components

- Gilmore (less steep) and similar soils: 5 percent of the map unit
- Steese (less steep) and similar soils: 5 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, bedrock substratum

451G—Brigadier-Ester complex, 45 to 70 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Brigadier and Similar Soils

Extent: 30 to 50 percent of the map unit
Landform: hills
Position on slope: summits, backslopes
Slope shape: linear or convex downslope
Slope range: 45 to 70 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 12 to 35 inches (30 to 90 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.7 inches (10 cm)
Vegetation: black spruce forest

Typical profile:
Oi—0 to 6 inches (0 to 16 cm); black peat, rapid permeability
A—6 to 11 inches (16 to 28 cm); brown silt loam, moderate permeability
Bw—11 to 16 inches (28 to 40 cm); olive brown silt loam, moderate permeability
2BC—16 to 24 inches (40 to 60 cm); black extremely channery sandy loam, moderately rapid permeability
2Cr—24 to 39 inches (60 to 100 cm); black weathered bedrock

Ester and Similar Soils

Extent: 25 to 35 percent of the map unit
Landform: hills
Position on slope: backslopes
Slope shape: linear downslope
Slope range: 45 to 70 percent
Slope length: not determined
Parent material: mossy organic material over loess over residuum weathered from schist
Depth to permafrost: 12 to 30 inches (30 to 75 cm)
Depth to bedrock (paralithic): 14 to 39 inches (35 to 100 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—8 inches (20 cm); other months—12 inches (30 cm)
Ponding: none
Available water capacity (approximate): 4.7 inches (12 cm)
Vegetation: sparse forest of black spruce, with low shrubs and moss
Typical profile:
Oi—0 to 13 inches (0 to 33 cm); dark reddish brown peat, moderately rapid permeability
A—13 to 17 inches (33 to 43 cm); dark brown silt loam, moderate permeability
Cgf—17 to 23 inches (43 to 58 cm); black very channery silt loam, moderately rapid permeability
2Crf—23 to 27 inches (58 to 69 cm); dark reddish brown weathered bedrock

Minor Components

- Ester (less steep) and similar soils: 5 to 15 percent of the map unit
- Gilmore and similar soils: 10 to 15 percent of the map unit
- Steese and similar soils: 5 to 15 percent of the map unit
- Saulich and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: steep slopes, erosion hazard, permafrost in the Ester soils, bedrock substratum

451X—Brigadier-Ester complex, 15 to 45 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Brigadier and Similar Soils

Extent: 45 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 15 to 45 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 12 to 35 inches (30 to 90 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: high
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.7 inches (10 cm)
Vegetation: black spruce forest
Typical profile:
Oi—0 to 6 inches (0 to 16 cm); olive brown peat, rapid permeability
A—6 to 11 inches (16 to 28 cm); black silt loam, moderate permeability
Bw—11 to 16 inches (28 to 40 cm); brown silt loam, moderate permeability
2BC—16 to 24 inches (40 to 60 cm); olive brown extremely channery sandy loam, moderately rapid permeability

2Cr—24 to 39 inches (60 to 100 cm); olive brown weathered bedrock

Ester and Similar Soils

Extent: 40 percent of the map unit
Landform: hills
Position on slope: backslopes
Slope shape: linear downslope
Slope range: 15 to 45 percent
Slope length: not determined
Parent material: mossy organic material over loess over residuum weathered from schist
Depth to permafrost: 12 to 30 inches (30 to 75 cm)
Depth to bedrock (paralithic): 14 to 39 inches (35 to 100 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—slight
Runoff: high
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—8 inches (20 cm); other months—12 inches (30 cm)
Ponding: none
Available water capacity (approximate): 4.7 inches (12 cm)
Vegetation: sparse forest of black spruce, with low shrubs and moss
Typical profile:
Oi—0 to 13 inches (0 to 33 cm); dark reddish brown peat, moderately rapid permeability
A—13 to 17 inches (33 to 43 cm); black silt loam, moderate permeability
Cgf—17 to 23 inches (43 to 58 cm); dark brown very channery silt loam, moderately rapid permeability
2Crf—23 to 27 inches (58 to 69 cm); dark reddish brown weathered bedrock

Minor Components

- Gilmore and similar soils: 5 percent of the map unit
- Steese and similar soils: 5 percent of the map unit
- Ester (steeper) and similar soils: 3 percent of the map unit
- Saulich and similar soils: 2 percent of the map unit

Management Considerations

Soil-related factors: permafrost, steep slopes, erosion hazard, bedrock substratum

452—Gilmore-Steese complex, 3 to 15 percent slopes

Elevation: 499 to 2799 feet (152 to 853 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Gilmore and Similar Soils

Extent: 60 to 70 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 3 to 15 percent
Slope length: not determined
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 13 to 24 inches (33 to 60 cm)
Hazard of erosion (organic mat removed): by water—moderate; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.0 inches (8 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 7 cm); olive brown peat, rapid permeability
A—3 to 6 inches (7 to 15 cm); yellowish brown silt loam, moderate permeability
Bw—6 to 12 inches (15 to 30 cm); dark brown silt loam, moderate permeability
2BC—12 to 19 inches (30 to 48 cm); olive brown very channery silt loam, moderately rapid permeability
2Cr—19 to 60 inches (48 to 152 cm); olive brown weathered bedrock

Steese and Similar Soils

Extent: 30 to 40 percent of the map unit
Landform: hills
Position on slope: shoulders, backslopes
Slope shape: convex or linear downslope
Slope range: 3 to 15 percent
Slope length: 164 to 656 feet (50 to 200 m)
Parent material: loess over residuum weathered from schist
Depth to bedrock (paralithic): 20 to 40 inches (51 to 102 cm)
Hazard of erosion (organic mat removed): by water—moderate; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.0 inches (15 cm)
Vegetation: paper birch, white spruce, and quaking aspen forest
Typical profile:
Oi—0 to 2 inches (0 to 5 cm); light olive brown peat, rapid permeability
A—2 to 5 inches (5 to 12 cm); dark brown silt loam, moderate permeability
Bw—5 to 27 inches (12 to 69 cm); brown silt loam, moderate permeability
2BC—27 to 33 inches (69 to 84 cm); light olive brown very channery silt loam, moderately rapid permeability
2C—33 to 40 inches (84 to 102 cm); light olive brown weathered bedrock

Minor Components

- Steese (steeper) and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: bedrock substratum

492—Angel-McCloud complex, 3 to 15 percent slopes

Elevation: 574 to 2500 feet (175 to 762 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Angel and Similar Soils

Extent: 55 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 3 to 15 percent
Slope length: not determined
Parent material: loess over residuum weathered from granite
Depth to bedrock (paralithic): 12 to 22 inches (30 to 55 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained
Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 3.6 inches (9 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 4 inches (0 to 9 cm); brown peat, rapid permeability
Bw—4 to 14 inches (9 to 36 cm); dark yellowish brown silt loam, moderate permeability
2BC—14 to 24 inches (36 to 62 cm); dark brown very gravelly sandy loam, moderately rapid permeability
2Cr—24 to 39 inches (62 to 100 cm); brown weathered bedrock

McCloud and Similar Soils

Extent: 40 percent of the map unit
Landform: hills
Position on slope: backslopes, summits
Slope shape: linear or convex downslope
Slope range: 3 to 15 percent
Slope length: not determined
Parent material: loess over residuum weathered from granite
Depth to bedrock (paralithic): 21 to 35 inches (54 to 90 cm)
Hazard of erosion (organic mat removed): by water—severe; by wind—severe
Runoff: medium
Drainage class: well drained

Flooding: none
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 6.3 inches (16 cm)
Vegetation: black spruce, paper birch, quaking aspen and white spruce forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); dark brown peat, rapid permeability
Bw—4 to 20 inches (9 to 50 cm); dark yellowish brown silt loam, moderate permeability
C—20 to 29 inches (50 to 74 cm); olive brown silt loam, moderate permeability
2Cr—29 to 39 inches (74 to 100 cm); dark brown weathered bedrock

Minor Components

- Angel (steeper) and similar soils: 3 percent of the map unit
- McCloud (steeper) and similar soils: 2 percent of the map unit

Management Considerations

Soil-related factors: bedrock substratum

611—Piledriver-Eielson complex

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Piledriver and Similar Soils

Extent: 45 to 60 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: somewhat poorly drained
Flooding: rare
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—47 inches (120 cm)
Ponding: frequent
Available water capacity (approximate): 6.5 inches (17 cm)
Vegetation: white spruce and balsam poplar forest
Typical profile:
Oi—0 to 2 inches (0 to 6 cm); dark brown mucky peat, rapid permeability
BC—2 to 4 inches (6 to 10 cm); dark olive brown very fine sandy loam, moderate permeability
C—4 to 30 inches (10 to 75 cm); light olive brown and grayish brown stratified sand to fine sand to very fine sandy loam, moderate permeability
2C—30 to 72 inches (75 to 183 cm); grayish brown sand, rapid permeability
Note: This soil has 10 to 40 inches (25 to 102 cm) of loamy material over sand and gravel.

Eielson and Similar Soils

Extent: 30 to 40 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: somewhat poorly drained
Flooding: rare
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—47 inches (120 cm)
Ponding: frequent
Available water capacity (approximate): 12.2 inches (31 cm)
Vegetation: white spruce and balsam poplar forest
Typical profile:
Oi—0 to 3 inches (0 to 8 cm); dark grayish brown peat, rapid permeability
BC—3 to 6 inches (8 to 16 cm); very dark brown very fine sandy loam, moderate permeability
C—6 to 71 inches (16 to 180 cm); olive brown and dark gray stratified silt loam to fine sand, moderate permeability
2C—71 to 77 inches (180 to 195 cm); dark grayish brown very gravelly sand, rapid permeability

Note: This soil has more than 40 inches (102 cm) of loamy material over sand and gravel.

Minor Components

- Fubar and similar soils: 0 to 10 percent of the map unit
- Noonku and similar soils: 0 to 10 percent of the map unit
- Riverwash: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: high water table, high permeability substratum, flooding

CL—Typic Cryorthents, pit spoil

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Typic Cryorthents and Similar Soils

Extent: 80 percent of the map unit
Landform: flood plains, terraces
Slope shape: linear downslope
Slope range: 0 to 70 percent
Slope length: not determined
Parent material: mine spoil over alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: well drained
Flooding: rare
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 10.9 inches (28 cm)
Vegetation: paper birch and balsam poplar forest or alder scrub
Typical profile:
Oi—0 to 1 inch (0 to 2 cm); grayish brown slightly decomposed plant material, rapid permeability
C—1 to 49 inches (2 to 125 cm); light olive brown mottled stratified fine sand to silt loam, moderate permeability
2C—49 to 75 inches (125 to 190 cm); dark brown very gravelly sand, rapid permeability
Note: This soil occurs on highly irregular topography consisting of small (3 to 15 feet, or 1 to 5 m high), man-made hills with steep slopes.

Minor Components

- Fubar and similar soils: 0 to 10 percent of the map unit
- Jarvis and similar soils: 0 to 10 percent of the map unit
- Piledriver and similar soils: 0 to 10 percent of the map unit
- Salchaket and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: irregular surface with short, steep slopes

Gv—Pits, gravel

Elevation: 1312 to 2133 feet (400 to 650 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Gravel pits

Extent: 100 percent of the map unit
Landform: gravel pits
Slope shape: concave or linear or convex downslope
Slope range: 0 to 2 percent
Vegetation: none, or very sparse herbaceous vegetation and willows

Management Considerations

Soil-related factors: high-permeability gravelly material, high water table

Lf—Dumps, landfill

Elevation: 1312 to 2133 feet (400 to 650 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)

Frost-free period: 80 to 120 days

Landfill areas

Extent: 100 percent of the map unit
Landform: dumps
Slope shape: linear or convex or concave downslope
Slope range: 0 to 5 percent
Vegetation: none, or very sparse herbaceous vegetation and willows

Management Considerations

Soil-related factors: loamy fill material overlies solid waste

Qu—Pits, quarry

Elevation: 1476 to 3264 feet (450 to 995 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Quarry pits

Extent: 100 percent of the map unit
Landform: quarries
Slope shape: concave or convex or linear downslope
Slope range: 0 to 100 percent
Vegetation: none, or sparse herbaceous vegetation and willows

Management Considerations

Soil-related factors:

Rv—Riverwash

Elevation: 1312 to 1640 feet (400 to 500 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Riverwash

Extent: 100 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Vegetation: none, or very sparse herbaceous vegetation and willows

Management Considerations

Soil-related factors: flooding, abrasion by floating ice, high water table

UC—Urban land-Typic Cryorthents complex, 0 to 1 percent slopes

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Typic Cryorthents and Similar Soils

Extent: 40 to 60 percent of the map unit
Landform: terraces, flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: gravelly fill over alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: well drained
Flooding: rare
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 7.7 inches (19 cm)
Vegetation: seeded or planted grasses, shrubs, or trees
Typical profile:
C—0 to 30 inches (0 to 76 cm); light olive brown stratified gravelly loamy sand to gravelly fine sandy loam to gravelly silt loam, moderate permeability
2C1—30 to 67 inches (76 to 170 cm); light brownish gray stratified fine sand to silt loam, moderate permeability
2C2—67 to 75 inches (170 to 190 cm); light olive brown very gravelly sand, rapid permeability
Note: Urban land is mostly covered by streets, parking lots, buildings, and other structures.

Urban Land

Extent: 30 to 60 percent of the map unit

Landform: alluvial flats
Slope shape: linear downslope
Slope range: 0 to 2 percent
Vegetation: none

Minor Components

- Salchaket and similar soils: 0 to 15 percent of the map unit
- Jarvis and similar soils: 0 to 10 percent of the map unit
- Fubar and similar soils: 0 to 10 percent of the map unit

Management Considerations

Soil-related factors: variable thickness of gravelly surface, high-permeability gravelly substratum, flooding

W—Water

Water

Extent: 100 percent of the map unit
Landform: depressions

WAH—Typic Cryaquent, Terric Cryofibrist, and Histic Cryaquept soils

Elevation: 397 to 1201 feet (121 to 366 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Typic Cryaquents and Similar Soils

Extent: 0 to 90 percent of the map unit
Landform: depressions
Slope shape: concave downslope
Slope range: 0 to 5 percent
Slope length: not determined
Parent material: lacustrine silt or loess
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: negligible
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 13.3 inches (34 cm)
Vegetation: sedges, grasses, and low shrubs
Typical profile:
Oe—0 to 4 inches (0 to 9 cm); dark yellowish brown mucky peat, moderate permeability
Cg—4 to 72 inches (9 to 183 cm); dark gray and dark grayish brown silt loam, moderate permeability

Histic Cryaquepts and Similar Soils

Extent: 20 to 50 percent of the map unit
Landform: depressions
Slope shape: concave downslope
Slope range: 0 to 3 percent
Slope length: not determined
Parent material: organic material over loess
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: negligible
Drainage class: poorly drained
Flooding: none
Depth to high water table (approximate): April-May—0 inches (0 cm); other months—8 inches (20 cm)
Ponding: frequent
Available water capacity (approximate): 15.6 inches (40 cm)
Vegetation: sedges, grasses, and low shrubs
Typical profile:
Oi—0 to 13 inches (0 to 32 cm); dark grayish brown muck, moderate permeability
C—13 to 30 inches (32 to 75 cm); very dark brown silt loam, moderate permeability
Cg—30 to 72 inches (75 to 183 cm); olive brown silt loam, moderate permeability

Terric Cryofibrists and Similar Soils

Extent: 0 to 80 percent of the map unit
Landform: thermokarst depressions
Slope shape: concave downslope
Slope range: 0 to 1 percent
Slope length: not determined
Parent material: organic material over lacustrine deposits and/or loess
Hazard of erosion (organic mat removed): by water—slight; by wind—slight
Runoff: negligible
Drainage class: very poorly drained

Flooding: none
Depth to high water table (approximate): 0 inches (0 cm)
Ponding: frequent
Available water capacity (approximate): 20.9 inches (53 cm)
Vegetation: sedges
Typical profile:
Oi—0 to 12 inches (0 to 30 cm); very dark brown peat, rapid permeability
Oa—12 to 39 inches (30 to 100 cm); black muck, very slow permeability
Cg—39 to 66 inches (100 to 167 cm); very dark brown silty clay loam, moderately slow permeability

Minor Components

- Histels and similar soils: 0 to 50 percent of the map unit
- Water: 0 to 20 percent of the map unit

Management Considerations

Soil-related factors: high water table, ponding

XC—Salchacket-Typic Cryorthents complex

Elevation: 400 to 1299 feet (122 to 396 m)
Mean annual precipitation: 10 to 14 inches (25 to 36 cm)
Frost-free period: 80 to 120 days

Salchaket and Similar Soils

Extent: 40 to 50 percent of the map unit
Landform: flood plains
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: well drained
Flooding: rare
Depth to high water table (approximate): April-May—4 inches (10 cm); other months—more than 72 inches (176 cm)
Ponding: frequent
Available water capacity (approximate): 12.8 inches (32 cm)
Vegetation: white spruce, balsam poplar, and paper birch forest
Typical profile:
Oe—0 to 2 inches (0 to 4 cm); olive brown mucky peat, moderate permeability
Bw—2 to 5 inches (4 to 12 cm); dark brown very fine sandy loam, moderate permeability
C—5 to 63 inches (12 to 160 cm); dark grayish brown stratified silt loam to fine sand, moderate permeability
2C—63 to 72 inches (160 to 183 cm); variegated very gravelly sand, rapid permeability
Note: This soil has more than 40 inches (102 cm) of loamy material over sand and gravel.

Typic Cryorthents and Similar Soils

Extent: 30 to 40 percent of the map unit
Landform: flood plains, terraces
Slope shape: linear downslope
Slope range: 0 to 2 percent
Slope length: not determined
Parent material: gravelly fill over alluvium
Hazard of erosion (organic mat removed): by water—slight; by wind—severe
Runoff: very low
Drainage class: well drained
Flooding: rare
Depth to high water table (approximate): more than 72 inches (176 cm)
Ponding: none
Available water capacity (approximate): 7.7 inches (19 cm)
Vegetation: seeded or planted grasses, shrubs, or trees
Typical profile:
C—0 to 30 inches (0 to 76 cm); light brownish gray stratified gravelly loamy sand to gravelly fine sandy loam to gravelly silt loam, moderate permeability
2C1—30 to 67 inches (76 to 170 cm); light olive brown stratified fine sand to silt loam, moderate permeability
2C2—67 to 75 inches (170 to 190 cm); light brownish gray very gravelly sand, rapid permeability
Note: Urban land is mostly covered by streets, parking lots, buildings, and other structures.

Minor Components

- Jarvis and similar soils: 0 to 15 percent of the map unit
- Fubar and similar soils: 0 to 5 percent of the map unit

Management Considerations

Soil-related factors: gravelly surface in the Cryorthents, flooding

Use and Management of the Soils

This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, foresters, botanists, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis in predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as rangeland and forestland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreation facilities; and for wildlife habitat. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of sand and gravel, roadfill, and topsoil. They can use it to identify areas where bedrock, wetness, permafrost, or unstable soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, and trails.

Interpretive Ratings

The interpretive tables in this survey rate the soils in the survey area for various uses. Many of the tables identify the limitations that affect specified uses and indicate the severity of those limitations. Other tables indicate the suitability of the soils for use as source materials. The ratings in these tables are both verbal and numerical.

Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited by all of the soil features that affect a specified use or in terms that indicate the suitability of the soils for the use. Thus, the tables may show limitation classes or suitability classes. Terms for the limitation classes are *not limited, slightly limited, somewhat limited,* and *very limited*. The suitability ratings are expressed as *source, probable source*, and *improbable source* or as *good, fair,* and *poor*.

Numerical Ratings

Numerical ratings in the tables indicate the relative severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. The numerical ratings, as they relate to each specific interpretation, are explained in the sections that follow.

Forestland Management and Productivity

In table 4, the *potential productivity* of *common trees* on a soil is expressed as a site index. The *site index* is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. Site index is determined from height and age measurements of selected trees from stands throughout the Survey Area and in nearby areas with similar soils and climate. Tables and equations for determining site index are given in the appropriate publication for each major tree species—Farr (1967) for white spruce, Gregory and Haack (1965) for aspen and birch, and Quenet and Manning (1990) for black spruce. Site index should

be used as a comparative index between soils and an approximate measure of height growth, not an absolute or expected value. The most rapid tree growth and greatest yields of a particular tree species can be expected on soils with the highest site indices.

Recreation

The soils of the survey area are rated in table 5 according to limitations that affect their suitability for foot and ATV trails. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical values in the table indicate the severity of individual limitations. The values are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00). If the soil is not limited (value = 0.00), no entry appears for the numerical value.

The ratings in the table are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality and vegetation.

The information in table 5 can be supplemented by other information in this survey, for example, interpretations for building site development, construction materials, sanitary facilities, and water management.

Foot and ATV trails for hiking, horseback riding, and ATV use should require little or no slope modification and site preparation through cutting and filling. These trails are not covered with surfacing material or vegetation. The ratings are based on the soil properties that affect trafficability, erodibility, dustiness, and the ease of revegetation. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

Engineering

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for building site development, sanitary facilities, construction materials, and water management. The ratings are based on observed performance of the soils and on the estimates given under the heading "Soil Properties".

Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet (1.5 to 2.1 m). Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about particle-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 to 7 feet (1.5 to 2.1 m) of the surface, soil wetness, depth to a water table, ponding, slope,

likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, permeability, corrosivity, shrink-swell potential, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; evaluate alternative sites for sanitary landfills, septic tank absorption fields, and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, earthfill, and topsoil; plan drainage systems, irrigation systems, ponds, terraces, and other structures for soil and water conservation; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Tables 6 and 7 show the degree and kind of soil limitations that affect structures and site improvements, including dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Slightly limited* indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical values in the tables indicate the severity of individual limitations. The values are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00). If the soil is *not limited* (value = 0.00), no entry appears for the numerical value.

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet (0.6 m) or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet (2.1 m). The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock, permafrost, or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet (0.6 m) or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect

excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock, permafrost, or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet (1.5 or 1.8 m) for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock, permafrost, or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches (101 cm); the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

Sanitary Facilities

Tables 8 and 9 show the degree and kind of soil limitations that affect septic tank absorption fields, sewage lagoons, sanitary landfills, and daily cover for landfill. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Slightly limited* indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical values in the tables indicate the severity of individual limitations. The values are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00). If the soil is *not limited* (value = 0.00), no entry appears for the numerical value.

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 4 and 6 feet (1.2 and 1.8 m) is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Permeability, depth to a water table, ponding, depth to bedrock, permafrost,

or a cemented pan, and flooding affect absorption of the effluent. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet (1.2 m) below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may become contaminated.

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, permeability, depth to a water table, ponding, depth to bedrock, permafrost, or a cemented pan, flooding, large stones, and content of organic matter.

Soil permeability is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a permeability rate of more than 2 inches (5 cm) per hour are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches (101 cm), if the water table is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, the slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

A *trench sanitary landfill* is an area where solid waste is placed in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil excavated at the site. When the trench is full, a final cover of soil material at least 2 feet (0.6 m) thick is placed over the landfill. The ratings in the table are based on the soil properties that affect the risk of pollution, the ease of excavation, trafficability, and revegetation. These properties include permeability, depth to bedrock, permafrost, or a cemented pan, depth to a water table, ponding, slope, flooding, texture, stones and boulders, highly organic layers, soil reaction, and content of salts and sodium. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet (1.8 m). For deeper trenches, onsite investigation may be needed.

Hard, nonrippable bedrock, creviced bedrock, or highly permeable strata in or directly below the proposed trench bottom can affect the ease of excavation and the hazard of ground-water pollution. Slope affects construction of the trenches and the movement of surface water around the landfill. It also affects the construction and performance of roads in areas of the landfill.

Soil texture and consistence affect the ease with which the trench is dug and the ease with which the soil can be used as daily or final cover. They determine the workability of the soil when dry and when wet. Soils that are plastic and sticky when wet are difficult to excavate, grade, or compact and are difficult to place as a uniformly thick cover over a layer of refuse.

The soil material used as the final cover for a trench landfill should be suitable for plants. It should not have excess sodium or salts and should not be too acid. The surface layer generally has the best workability, the highest content of organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

In an *area sanitary landfill*, solid waste is placed in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil from a source away from the site. A final cover of soil material at least 2 feet (0.6 m) thick is placed over the completed landfill. The ratings in the table are based on the soil properties that affect trafficability and the risk of pollution. These properties include flooding, permeability, depth to a water table, ponding, slope, and depth to bedrock, permafrost, or a cemented pan.

Flooding is a serious problem because it can result in pollution in areas downstream from the landfill. If permeability is too rapid or if fractured bedrock, a fractured cemented pan, or the water table is close to the surface, the leachate can contaminate the water supply. Slope is a

consideration because of the extra grading required to maintain roads in the steeper areas of the landfill. Also, leachate may flow along the surface of the soils in the steeper areas and cause difficult seepage problems.

Daily cover for landfill is the soil material that is used to cover compacted solid waste in an area sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste. The ratings in the table also apply to the final cover for a landfill. They are based on the soil properties that affect workability, the ease of digging, and the ease of moving and spreading the material over the refuse daily during wet and dry periods. These properties include soil texture, depth to a water table, ponding, rock fragments, slope, depth to bedrock or a cemented pan, reaction, and content of salts, sodium, or lime.

Loamy or silty soils that are free of large stones and excess gravel are the best cover for a landfill. Clayey soils may be sticky and difficult to spread; sandy soils are subject to wind erosion.

Slope affects the ease of excavation and of moving the cover material. Also, it can influence runoff, erosion, and reclamation of the borrow area.

After soil material has been removed, the soil material remaining in the borrow area must be thick enough over bedrock, a cemented pan, or the water table to permit revegetation. The soil material used as the final cover for a landfill should be suitable for plants. It should not have excess sodium, salts, or lime and should not be too acid.

Construction Materials

Tables 10 and 11 give information about the soils as potential sources of gravel, sand, topsoil, and roadfill. Normal compaction, minor processing, and other standard construction practices are assumed.

The soils are rated *good, fair,* or *poor* as potential sources of topsoil, and roadfill. The features that limit the soils as sources of these materials are specified in the tables. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of topsoil or roadfill. The lower the number, the greater the limitation.

The soils are rated as a *probable* or *improbable* source of sand and gravel. A rating of *probable* means that the source material is likely to be in or below the soil. The numerical ratings in these columns indicate the degree of probability. The number 0.00 indicates that the soil is an improbable source. A number between 0.00 and 1.00 indicates the degree to which the soil is a probable source of sand or gravel.

Sand and *gravel* are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In table 10, only the probability of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of sand or gravel are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material, and the content of rock fragments. If the lowest layer of the soil contains sand or gravel, the soil is rated as a probable source regardless of thickness. The assumption is that the sand or gravel layer below the depth of observation exceeds the minimum thickness.

In table 11, only material in suitable quantity is evaluated. *Topsoil* is used to cover an area so that vegetation can be established and maintained. The upper 40 inches (102 cm) of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet (1.8 m) high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet (1.5 m). It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential). Susceptibility to frost action is also considered. The soils are rated based on the most limiting layers. Often a soil will have finer textured upper layers that are affected by frost action, while coarser textured lower layers in the same soil may not be affected.

Soil Properties

Data relating to soil properties are collected during the course of the soil survey.

Soil properties are ascertained by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine particle-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties are shown in tables. They include engineering index properties, physical and chemical properties, and pertinent soil and water features.

Engineering Index Properties

Table 12 gives the engineering classifications and the range of index properties for the layers of each soil in the survey area.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the USDA. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly." Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (ASTM, 1998) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 1998).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches (75 mm) in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, SP-SM.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches (75 mm) in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

Rock fragments larger than 10 inches (250 mm) in diameter and 3 to 10 inches (75 to 250 mm) in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches (75 mm) in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

The estimates of particle-size distribution, liquid limit, and plasticity index are generally rounded to the nearest 5 percent. Thus, if the ranges of gradation and Atterberg limits extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is generally omitted in the table.

Physical Properties

Table 13 shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In table 13, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In table 13, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In table 13, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3- or 1/10-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Permeability (K_{sat}) refers to the ability of a soil to transmit water or air. The term "permeability," as used in soil surveys, indicates saturated hydraulic conductivity (K_{sat}). The estimates in the table indicate the rate of water movement, in inches per hour, when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at 1/3- or 1/10-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In table 13, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in table 13 as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of several factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are as follows:

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. Soils are grouped according to the amount of stable aggregates more than 0.84 millimeter in size. Soils containing rock fragments can occur in any group. The groups are as follows:

1. 1 to 9 percent dry soil aggregates. These soils are very highly erodible. Crops can be grown if intensive measures to control wind erosion are used.
2. 10 to 24 percent dry soil aggregates. These soils are highly erodible. Crops can be grown if intensive measures to control wind erosion are used.
3. 25 to 39 percent dry soil aggregates. These soils are erodible. Crops can be grown if intensive measures to control wind erosion are used.
4. 25 to 39 percent dry soil aggregates with > 35 percent clay or > 5 percent calcium carbonate. These soils are moderately erodible. Crops can be grown if measures to control wind erosion are used.
5. 40 to 44 percent dry soil aggregates. These soils are slightly erodible. Crops can be grown if measures to control wind erosion are used.
6. 45 to 49 percent dry soil aggregates. These soils are very slightly erodible. Crops can easily be grown.
7. 50 percent or more dry soil aggregates. These soils are very slightly erodible. Crops can easily be grown.
8. Stony, gravelly, or wet soils and other soils not subject to wind erosion.

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Chemical Properties

Table 14 shows estimates of some chemical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field

observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Cation-exchange capacity is the total amount of extractable bases that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

Effective cation-exchange capacity refers to the sum of extractable bases plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

Soil reaction is a measure of acidity or alkalinity. The pH of each soil horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Water Features

Table 15 gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

The *months* in the table indicate the portion of the year in which the feature is most likely to be a concern.

Wet soil refers to a saturated zone in the soil. Table 15 indicates, by month, depth to the top (*upper limit*) and base (*lower limit*) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. Table 15 indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than

30 days. Frequency is expressed as *none, very rare, rare, occasional, frequent*, and *very frequent*. *None* means that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Hydric Soils

In this section, hydric soils are defined and described and the hydric soils in the survey area are listed.

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others 1979; U.S. Army Corps of Engineers 1987; National Research Council 1995; Tiner 1985). Criteria for each of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register 1995). These criteria are used to identify a phase of a soil series that normally is associated with wetlands. The criteria used are selected estimated soil properties that are described in *Soil Taxonomy* (USDA 1999) and *Keys to Soil Taxonomy* (USDA 1998) and in the *Soil Survey Manual* (USDA 1993).

If soils are wet enough for a long enough period to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils in this survey area are specified in *Field Indicators of Hydric Soils in the United States* (USDA 1996).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches (50 centimeters). This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Those soils that meet the definition of hydric soils and, in addition, have at least one of the hydric soil indicators, are listed in table 16. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council 1995; USDA 1996).

Some map units consist almost entirely of hydric soils, such as map unit (insert symbol and name) (in which all listed components are hydric). Other map units consist primarily of nonhydric soils, such as map unit (insert symbol and name) (in which all listed components are nonhydric), or map unit (insert symbol and name) (in which hydric soils are

present only as minor components). Hydric soils may occur as minor inclusions even in map units listed without any hydric soils in table 16.

Table 16 also lists the local landform on which each soil occurs, the hydric criteria code, and whether or not each soil meets the saturation, flooding, or ponding criteria for hydric soils. Codes for hydric soil criteria are explained in the following key:

Key To Hydric Soil Criteria

1. All Histosols except Folists, or

2. Soils in Aquic suborders, Aquic subgroups, Albolls suborder, Salorthids great group, Pell great groups of Vertisols, Pachic subgroups, or cumulic subgroups that are:

a. Somewhat poorly drained and have a frequently occurring water table at less than 0.5 foot (ft) from the surface for a significant period (usually more than 2 weeks) during the growing season, or

b. poorly drained or very poorly drained and have either:

(1) a frequently occurring water table at less than 0.5 ft from the surface for a significant period (usually more than 2 weeks) during the growing season if textures are coarse sand, sand, or fine sand in all layers within 20 inches (in), or for other soils

(2) a frequently occurring water table at less than 1.0 ft from the surface for a significant period (usually more than 2 weeks) during the growing season if permeability is equal to or greater than 6.0 in/hour (h) in all layers within 20 in, or

(3) a frequently occurring water table at less than 1.5 ft from the surface for a significant period (usually more than 2 weeks) during the growing season if permeability is less than 6.0 in/h in any layer within 20 in, or

3. Soils that are frequently ponded for long duration or very long duration during the growing season, or

4. Soils that are frequently flooded for long duration or very long duration during the growing season.

Soil Features

Table 17 gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the hardness and thickness of the restrictive layer, both of which significantly affect the ease of excavation.

Depth to top is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Subsidence is the settlement of organic soils or of saturated mineral soils of very low density. Subsidence generally results from either desiccation and shrinkage or oxidation of organic material, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. The table shows the expected initial subsidence, which usually is a result of drainage, and total subsidence, which results from a combination of factors.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more

susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low, moderate,* or *high,* is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low, moderate,* or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (USDA 1998 and 1999). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. Table 18 shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Inceptisol.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Cryept (*Cry*, meaning cold, plus *ept*, from Inceptisol).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Eutrocryepts (*Eutro* meaning high base saturation, plus cryept, the suborder of the Inceptisols that has a cryic temperature regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Eutrocryepts.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle size, mineral content, soil temperature regime, soil depth, and reaction. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is coarse-silty, mixed, superactive, Typic Eutrocryepts.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile. An example from this survey area is the Fairbanks series.

Taxonomic Units and Their Morphology

In this section, the taxonomic units recognized in the survey area are described. Characteristics of the soil and the material in which it formed are identified for each taxonomic unit. A pedon, a small three-dimensional area of soil, that is typical of the taxonomic unit in the survey area is described. The detailed description of each soil horizon follows standards in the *Soil Survey Manual* (USDA 1993). Many of the technical terms used in the descriptions are defined in *Soil Taxonomy* (USDA 1999) and in *Keys to Soil Taxonomy* (USDA 1998). Unless otherwise indicated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

The map units of each soil series are described in the section “Detailed Soil Map Units.”

Angel Series

Taxonomic Classification

- Loamy-skeletal, mixed, superactive, shallow, Typic Dystrocryepts

Setting

Depth class: very shallow and shallow over weathered bedrock
Drainage class: well drained
Permeability: moderate
Landforms and positions: hill crests and slopes.
Parent material: loess over weathered granite.
Slope range: 0 to 60 percent
Elevation: 575 to 2700 feet (175 to 823 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Angel silt loam—on a 15 percent slope at 1300 feet (396 m) elevation, under quaking aspen and black spruce forest

Oi—0 to 2 inches (0 to 6 cm); dark brown (7.5YR 3/3) fibric material; slightly decomposed leaves, twigs, and moss; many very fine and fine roots; very strongly acid (pH 5.0); abrupt smooth boundary
AE—2 to 4 inches (6 to 9 cm); brown (7.5YR 4/2) silt loam; structureless; friable, slightly sticky and slightly plastic; few fine and medium roots; extremely acid (pH 4.4); clear wavy boundary
Bw—4 to 8 inches (9 to 20 cm); dark yellowish brown (10YR 4/4) loam; structureless; friable; slightly sticky and slightly plastic; common fine and medium roots; common medium distinct grayish brown (10YR 4/6) redoximorphic concentrations; 5 percent gravel; moderately acid (pH 5.6); clear wavy boundary.
2BCr—8 to 22 inches (20 to 55 cm); brown (10YR 4/3) very gravelly sandy loam; structureless; very friable, nonsticky and nonplastic; few fine roots; 20 percent gravel and 20 percent cobbles; moderately acid (pH 5.6); gradual wavy boundary.
2Cr—22 to 31 inches (55 to 80 cm); olive brown (2.5Y 4/4) extremely cobbly loamy sand (weathered granite bedrock); structureless; loose; nonsticky and nonplastic; 30 percent gravel, 40 percent cobbles, and 10 percent stones; moderately acid (pH 5.8).

Typical Pedon Location

Map unit in which located: 48D—Angel silt loam, 12 to 20 percent slopes.
Location in survey area: Fort Wainwright Area, Alaska; UTM zone 6, 507857E 7173521N; north of Manchu Road in the Yukon Maneuver Area; transect 99DS074 stop 4)

Range in Characteristics

Thickness of silty loess mantle: 20 inches or less (51 cm or less)
Organic layer thickness: 2 to 6 inches (4 to 14 cm)
Depth to unconsolidated bedrock: 20 inches or less (51 cm or less).
Coarse fragment content: 35 to 60 percent; coarse fragments are dominantly angular granitic pebbles

O horizon:
Color—hue of 5YR, 7.5YR or 10YR; value moist from 2 to 3; chroma moist from 2 to 3
Decomposition class—fibric or hemic
Reaction—very strongly acid

A horizon:
Color—hue of 7.5YR or 10YR; value moist from 3 to 4; chroma moist from 1 to 2
Texture—silt loam
Reaction—very strongly acid

Bw horizon:
Color—value moist from 3 to 5; chroma moist from 3 to 6
Texture—silt loam, loam or sandy loam
Coarse fragments—0 to 20 percent, mostly pebbles
Reaction—strongly acid to moderately acid

2BCr horizon:
Color—hue of 5Y or 2.5Y; value moist from 4 to 5; chroma moist from 3 to 6
Texture—sandy loam or loamy coarse sand in the fine earth fraction
Coarse fragments— 35 to 75 percent
Reaction—strongly acid to moderately acid

2Cr horizon:
Color—hues from 10YR or 2.5Y; value moist from 4 or 5; chroma moist from 3 to 6
Texture—loamy coarse sand or coarse sand in the fine earth fraction
Coarse fragments—50 to 90 percent
Reaction—strongly to moderately acid

Aquic Cryofluvents

Taxonomic Classification

- Aquic Cryofluvents

Setting

Depth class: very deep—more than 60 inches (more than 152 cm)
Drainage class: moderately well drained
Permeability: moderate
Landforms and positions: floodplains in narrow mountain valleys
Parent material: alluvium
Slope range: 0 to 10 percent
Elevation: 400 to 1800 feet (122 to 549 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Representative Pedon Description

Aquic Cryofluvent—on a level slope at 1100 feet (335 m) elevation, under bog birch scrub

Oe—0 to 2 inches (0 to 6 cm); dark brown (7.5YR 3/2) partially decomposed forest litter; common very fine and few fine roots; very strongly acid (pH 4.6); clear smooth boundary

A—2 to 9 inches (6 to 22 cm); very dark grayish brown (10YR 3/2) silt loam; weak fine platy structure; friable, nonsticky and nonplastic; few very fine and fine roots; 15 percent gravel; strongly acid (pH 5.2); clear smooth boundary

C1—9 to 15 inches (22 to 39 cm); dark olive brown (2.5Y 3/3) and dark brown (10YR 3/3) silt loam; few medium distinct dark grayish brown (10YR 4/2) mottles; structureless; friable, nonsticky and nonplastic; few very fine roots; 10 percent gravel; strongly acid (pH 5.2); clear smooth boundary

C2—15 to 30 inches (39 to 75 cm); dark yellowish brown (10YR 4/4) stratified gravelly loam and gravelly sandy loam; structureless; very friable, nonsticky and nonplastic; 30 percent gravel and 3 percent cobbles; moderately acid (pH 5.8)

Representative Pedon Location

Map unit in which located: 91—Aquic Cryofluvents, Typic Cryaquents, Typic Aquorthels complex
Location in survey area: Ft. Wainwright Soil Survey Area, UTM zone 6, 514600N, 7160650E; south of Johnson Road in the Yukon Maneuver Area; transect 97MM177, stop 5

Range in Characteristics

Organic layer thickness: 2 to 5 inches (4 to 12 cm)
Note: particle size class is coarse-loamy

O Horizon:
Color—hue of 7.5YR or 10YR; value moist of 2 or 3; chroma moist from 1 to 3
Texture—peat, or mucky peat
Coarse fragments—0 percent
Reaction—very strongly acid to strongly acid

A horizon:
Color— hue of 7.5YR or 10YR; value moist of 2 or 3; chroma moist from 1 to 3
Texture—silt loam, or stratified silt loam, loamy sand, and gravel
Coarse fragments—0 to 30 percent
Reaction—strongly acid to slightly acid

C horizon:
Color—hue of 5Y, 2.5Y, or 10YR; value moist of 3 or 4; chroma moist of 1 to 4
Texture—stratified silt loam, loam, sandy loam, loamy sand, and gravel

Coarse fragments—10 to 30 percent
Gravel content—10 to 30 percent
Reaction—strongly acid to slightly acid

Bolio Series

Taxonomic Classification

- Dysic, Typic Hemistels

Setting

Depth class: shallow to moderately deep over permafrost
Drainage class: very poorly drained
Permeability: rapid in the slightly decomposed organic matter; moderate to low in the more highly decomposed organic matter; impermeable in the permafrost
Landforms and positions: alluvial terraces
Parent material: organic matter
Slope range: 0 to 2 percent
Elevation: 400 to 900 feet (122 to 274 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Bolio peat—on a level slope at 845 feet (258 m) elevation, under dwarf birch scrub and sedge vegetation

Oi—0 to 6 inches (0 to 15 cm); strong brown (7.5YR 4/6) slightly decomposed organic matter; many very fine to coarse roots; strongly acid (pH 5.4); abrupt smooth boundary
Oe—6 to 11 inches (15 to 28 cm); black (10YR 2/1) moderately decomposed herbaceous organic matter; few very fine and fine roots; strongly acid (pH 5.4); abrupt smooth boundary
Oef1—11 to 23 inches (28 to 58 cm); very dark gray (10YR 3/1) moderately decomposed herbaceous organic matter; moderately acid (pH 5.6); abrupt smooth boundary
Oef2—23 to 26 inches (58 to 66 cm); very dark grayish brown (10YR 3/2) moderately decomposed herbaceous organic matter; slightly acid (pH 6.2)

Typical Pedon Location

Map unit in which located: 11—Lemeta peat, in the Ft. Wainwright Soil Survey Area
Location in survey area: UTM zone 6, 482866 m E, 7135882 m N; approximately 35 miles south of Fairbanks, Alaska near Blair lakes; transect 97WRL048A, hole 1

Range in Characteristics

Depth to frozen soil (July-August): 14 to 28 inches (36 to 71 cm)
Organic layer thickness: more than 40 inches (more than 102 cm)

Oi horizon:
Color—hue of 7.5YR or 10YR; value moist from 2.5 to 4; chroma moist from 2 to 6
Texture—fibric peat
Reaction—extremely acid to neutral

Oe horizon:
Color—hue of 5YR, 7.5YR, or 10YR; value moist of 2 or 3; chroma moist of 1 or 2
Texture—hemic peat
Reaction—extremely acid to moderately acid

Oef horizon:
Color—hue of 10YR or 7.5YR; value moist of 2 or 3; chroma moist of 1 or 2
Texture—hemic peat or stratified hemic and sapric peat
Reaction—moderately to slightly acid

Cgf horizon (where present):
Color—hues from 10YR to 2.5Y; value moist of 3, 4, or 5; chroma moist of 1 or 2
Texture—silt loam, mucky silt loam, or peaty silty clay loam
Reaction—moderately acid to neutral

Bradway Series

Taxonomic Classification

- Coarse-loamy, mixed, nonacid Pergelic Cryaquepts

Setting

Depth class: deep
Drainage class: poorly drained
Permeability: rapid in the slightly decomposed organic matter; moderate in the mineral soil above the permafrost; impermeable in the permafrost
Landforms and positions: depressions on floodplains and terraces
Parent material: alluvium
Slope range: 0 to 3 percent
Elevation: 400 to 650 feet (122 to 198 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Bradway very fine sandy loam—on a 2 percent slope under forest (burned over) vegetation. (All colors are for moist soil, water table at 18 inches (46 cm) on 8/30/59)

Oi—0 to 4 inches (0 to 10 cm); black (5YR 2/1) mat of roots, slightly decomposed organic materials and charcoal; slight admixture of silt; moderately acid. (2 to 5 inches thick)
A—4 to 6 inches (10 to 15 cm); black (5YR 2/1) mucky silt loam; weak fine granular structure; very friable, nonsticky and nonplastic; common fine roots; slightly acid; abrupt wavy boundary. (1 to 3 inches thick (3 to 8 cm))
Cg—6 to 40 inches (15 to 102 cm); dark gray (N 4/) very fine sandy loam; weak thin platy structure; very friable, nonsticky and nonplastic; many large prominent mottles of dark brown; thin lenses of silt loam and fine sand, mostly below 24 inches; few roots; mildly alkaline. (23 to 37 inches thick (58 to 94 cm))
Cf—40 to 64 inches(102 to 163 cm); permafrost (frozen at 40 inches (102 cm) on 8/30/59).

Typical Pedon Location

Map unit in which located: Br—Bradway silt loam, in the Fairbanks Soil Survey Area
Location in survey area: Fairbanks Area, Alaska; SW1/4, SW 1/4, Section 23, T1S, R1E, Fairbanks Meridian.

Range in Characteristics

Organic layer thickness: 2 to 5 inches (5 to 13 cm)

A horizon:
Color—hue of 5YR to 10YR; value moist of 2 or 3

Cg horizon:
Color—hue of N, 5GY, or 5Y and chroma moist of 0 or 1
Texture—very fine sandy loam; Lenses of silt loam and fine sand are present in some pedons

Brigadier Series

Taxonomic Classification

- Loamy-skeletal, mixed, superactive, shallow, Typic Dystrocryepts

Setting

Depth class: very shallow and shallow over weathered bedrock
Drainage class: well drained
Permeability: moderate
Landforms and positions: hill crests and slopes.
Parent material: loess over weathered schist bedrock.
Slope range: 0 to 70 percent
Slope aspect: east, north, or west
Elevation: 700 to 2700 feet (213 to 823 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Brigadier silt loam—on a 44 percent slope at 1700 feet (518 m) elevation, under black spruce forest

Oe—0 to 6 inches (0 to 16 cm); black (7.5YR 2.5/1) moderately decomposed organic matter; many very fine to coarse roots; extremely acid (pH 3.8); clear smooth boundary .
A—6 to 8 inches (16 to 20 cm); black (7.5YR 2.5/1) silt loam; weak medium granular structure;

friable, slightly sticky and slightly plastic; few very fine roots; very strongly acid (pH 4.6); abrupt wavy boundary.

Bw—8 to 20 inches (20 to 50 cm); brown (10YR 4/3) extremely channery sandy loam; structureless; loose; slightly sticky and slightly plastic; few fine roots; 40 percent channers, 10 percent flags, and 20 percent stones; strongly acid (pH 5.4); gradual smooth boundary.

2Cr—20 to 24 inches (56 to 60 cm); variegated channers (weathered schist bedrock); structureless; loose; nonsticky and nonplastic; 65 percent channers, 10 percent flags, and 20 percent stones; moderately acid (pH 5.8).

Typical Pedon Location

Map unit in which located: 86X—Brigadier and Gilmore, cool silt loams, 15 to 45 percent slopes

Location in survey area: Ft. Wainwright Soil Survey Area, UTM zone 6, 515720E 7161229N; south of Manchu Road in the Yukon Maneuver Area; transect 99DS178 stop 10

Range in Characteristics

Thickness of silty loess mantle: 2 to 16 inches (5 to 40 cm)

Organic layer thickness: 4 to 9 inches (11 to 24 cm)

Depth to unconsolidated bedrock: 10 to 20 inches (25 to 50 cm) from the mineral soil surface

Coarse fragment content: 35 to 75 percent; coarse fragments are dominantly schist channers

O horizon:

Color—hue of 7.5YR or 5YR; value moist from 2 to 4; chroma moist from 1 to 3

Decomposition class—fibric or hemic

Reaction—extremely acid to very strongly acid

A horizon:

Color—hue of 7.5YR or 10YR; value moist from 2 to 4; chroma moist from 1 to 3

Texture—silt loam or mucky silt loam

Reaction—extremely acid to strongly acid

Bw horizon:

Color—value moist from 3 to 4; chroma moist from 3 to 4

Texture—silt loam, loam, or sandy loam in the fine earth fraction

Coarse fragments— 0 to 70 percent

Reaction—strongly acid to moderately acid

2Cr horizon:

Color—variegated or hues from 10YR to 5Y; value moist from 4 to 6; chroma moist from 3 to 6

Texture—loam, sandy loam, or loamy coarse sand in the fine earth fraction

Coarse fragments—50 to 90 percent

Reaction—strongly acid to moderately acid

Chatanika Series

Taxonomic Classification

- Coarse-silty, mixed, superactive, subgelic, Typic Aquiturbels

Setting

Depth class: deep or very deep

Drainage class: poorly drained

Permeability: rapid in the slightly decomposed organic matter; moderate in the mineral soil above the permafrost; impermeable in the permafrost

Landforms and positions: terraces and lower slopes of hills

Parent material: colluviated silty loess

Slope range: 0 to 20 percent

Elevation: 500 to 1000 feet (152 to 305 m)

Climatic data (average annual):

Precipitation—10 to 14 inches (25 to 36 cm)

Air temperature—24º to 28ºF (-4º to -2ºC)

Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Chatanika silt loam—on a 1 percent slope at 550 feet (180 m) elevation, under paper birch and black spruce forest with alder shrubs

Oi—0 to 4 inches (0 to 10 cm); very dark grayish brown (10YR 3/2) fibric material; slightly decomposed moss, leaves, twigs, and other woody debris; common fine to medium roots; extremely acid; clear wavy boundary

A—4 to 6 inches (10 to 15 cm); very dark grayish brown (10YR 3/2) mucky silt loam; structureless; friable, nonsticky and nonplastic; common fine

and few medium roots; slightly acid; clear irregular boundary

Cg/A—6 to 9 inches (15 to 23 cm); grayish brown (2.5Y 5/2) silt loam (Cg) and very dark grayish brown (10YR 3/2) mucky silt loam (A); structureless; friable, nonsticky and nonplastic; common fine and few medium roots; slightly acid; clear irregular boundary

Cg—9 to 21 inches (23 to 53 cm); grayish brown (2.5Y 5/2) silt loam; weak medium platy structure; very friable, nonsticky and nonplastic; few fine roots; common medium prominent brown (7.5YR 4/4) redoximorphic concentrations; few dark brown (10YR 3/3) organic stained material; slightly acid; clear smooth boundary

Cgfm—21 to 24 inches (53 to 61 cm); grayish brown (2.5Y 5/2) silt loam; massive structure; extremely firm; few medium prominent brown (7.5YR 4/4) redoximorphic concentrations, and common medium faint gray (2.5Y 5/1) redoximorphic depletions; slightly acid

Typical Pedon Location

Map unit in which located: 40A—Chatanika silt loam, 0 to 3 percent slopes, in the adjacent Fairbanks Soil Survey Area

Location in survey area: UTM zone 6, 495400 m E, 7167350 m N; near intersection of Nordale and Chena Hot Springs Roads, east of Fairbanks, Alaska; transect 97DM022, hole 3

Range in Characteristics

Organic layer thickness: 2 to 8 inches (5 to 20 cm)

Depth to frozen soil (July-August): 12 to 40 inches (30 to 102 cm)

O horizon:

Color—hue of 10YR or 7.5YR; value moist of 2, 2.5 or 3; chroma moist from 1 to 3

Texture—peat or mucky peat

Reaction—extremely to slightly acid

A horizon:

Color—hue of 10YR or 2.5Y; value moist from 2 to 4; chroma moist from 1 to 3

Texture—silt loam

Reaction—very strongly to strongly acid

Cg/A horizon:

Color—Cg material: hue of 10YR or 2.5Y; value moist from 4 to 6; chroma moist from 1 to 4—A material: hue of 10YR or 2.5Y; value moist from 2 to 4; chroma moist from 1 to 3

Texture—silt loam

Reaction—very strongly to slightly acid

Cg horizon:

Color—hue of 10YR or 2.5Y; value moist from 4 to 6; chroma moist from 1 to 4

Texture—silt loam or very fine sandy loam

Reaction—moderately acid to neutral

Cgfm horizon:

Color—hue of 10YR or 2.5Y; value moist of 5 or 6; chroma moist of 1 or 2

Texture—frozen silt loam or very fine sandy loam

Reaction—moderately acid to neutral

Chena Series

Taxonomic Classification

- Sandy-skeletal, mixed, Typic Cryorthents

Setting

Depth class: very shallow over sand and gravel

Drainage class: excessively drained

Permeability: moderate in the loamy surface soil; rapid in the sand and gravel

Landforms and positions: stream terraces

Parent material: alluvium

Slope range: 0 to 2 percent

Elevation: 400 to 600 feet (122 to 183 m)

Climatic data (average annual):

Precipitation—10 to 14 inches (25 to 36 cm)

Air temperature—24º to 28ºF (-4º to -2ºC)

Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Chena very fine sandy loam—on a level plain at 545 feet (166 m) elevation, under paper birch and white spruce forest

Oe—0 to 3 inches (0 to 8 cm); very dark gray (7.5YR 3/1) partially decomposed forest litter; many very fine to coarse roots; moderately acid (pH 5.6); clear wavy boundary

Bw—3 to 6 inches (8 to 15 cm); olive brown (2.5Y 4/4) and olive gray (5Y 4/2) very fine sandy loam; structureless; friable, slightly sticky and slightly plastic; few very fine to coarse roots; common medium prominent dark yellowish brown (10YR 4/6) redoximorphic concentrations; slightly acid (pH 6.4); gradual smooth boundary

BC—6 to 10 inches (15 to 25 cm); dark grayish brown (2.5Y 4/2) stratified very fine sandy loam and fine sand; structureless; friable, slightly sticky and slightly plastic; few medium distinct dark gray (5Y 4/1) redoximorphic depletions; neutral (pH 7.0); abrupt smooth boundary

C1—10 to 23 inches (25 to 58 cm); grayish brown (2.5Y 5/2) sand; structureless; loose, nonsticky and nonplastic; neutral; gradual smooth boundary

C2—23 to 32 inches (58 to 81 cm); grayish brown (2.5Y 5/2) stratified sand and loamy fine sand; structureless; loose, nonsticky and nonplastic; slightly alkaline (pH 7.4); gradual smooth boundary

C3—32 to 41 inches (81 to 104 cm); grayish brown (2.5Y 5/2) sand; structureless; loose, nonsticky and nonplastic; 5 percent gravel; slightly alkaline

Typical Pedon Location

Map unit in which located: 361—Jarvis-Chena complex

Location in survey area: UTM zone 6, 495850 m E, 7167750 m N; between the Richardson Highway and Piledriver on Eielson Air Force Base, Alaska; transect 97DS020, hole 6

Range in Characteristics

Organic layer thickness: 0 to 6 inches (0 to 15 cm)

Depth to sand and gravel: 0 to 9 inches (0 to 23 cm)

O horizon:

Color—hue of 7.5YR or 5YR; value moist of 2 or 3; chroma moist of 1 or 2

Texture—moderately or slightly decomposed organic matter

Reaction—strongly to moderately acid

B horizon (where present):

Color—hue of 2.5Y or 5Y; value moist of 3 or 4; chroma moist from 2 to 4

Texture—very fine sandy loam or silt loam

Reaction—moderate to slightly acid

BC horizon (where present):

Color—hue of 2.5Y or 5Y; value moist of 3 or 4; chroma moist from 2 to 4

Texture—stratified, with textures including very fine sandy loam, fine sandy loam, fine sand, and very fine sand

Reaction—moderate to slightly acid

C horizon:

Color—hue of 2.5Y or 5Y; value moist from 3 to 5; chroma moist from 2 to 4

Texture—sand, fine sand, or coarse sand; or very to extremely gravelly sand or coarse sand

Gravel content—0 to 85 percent

Reaction—slightly acid to slightly alkaline

Dystrocryepts

Taxonomic Classification

- Dystrocryepts

Setting

Depth class: shallow over fragmental material

Drainage class: well drained

Permeability: moderate

Landforms and positions: summits, shoulders and upper slopes of bedrock-cored hills, above tree line

Parent material: colluvium over bedrock.

Slope range: 0 to 30 percent

Elevation: 2500 to 3300 feet (762 to 1006 m)

Climatic data (average annual):

Precipitation—12 to 16 inches (30 to 40 cm)

Air temperature—24º to 28ºF (-4º to -2ºC)

Growing degree days—1000ºF (40ºF base temperature) (500ºC, 4ºC base temperature)

Representative Pedon Description

Dystrocryept—on a 15 percent slope at 2700 feet (823 m) elevation under alpine tundra

Oe—0 to 3 inches (0 to 7 cm); slightly decomposed organic matter; common fine roots; 25 percent cobbles; strongly acid (pH 5.4); clear smooth boundary.

A—3 to 7 inches (7 to 17 cm); black (7.5YR 2.5/1) cobbly silt loam; weak fine subangular blocky structure; friable, slightly sticky and slightly plastic; few fine roots; 10 percent gravel and 35

percent cobbles; strongly acid (pH 5.4); clear smooth boundary.
AB—7 to 14 inches (17 to 35 cm); dark brown (7.5YR 3/2) very cobbly silt loam; weak medium subangular blocky structure; friable, slightly sticky and slightly plastic; 10 percent gravel and 50 percent cobbles; strongly acid (pH 5.4); gradual wavy boundary.
BC—14 to 19 inches (35 to 48 cm); brown (10YR 4/3) extremely cobbly silt loam; weak fine granular structure; very friable, slightly sticky and nonplastic; 5 percent gravel and 60 percent cobbles; strongly acid (pH 5.4); gradual wavy boundary.
R—19 inches (48 cm); gneiss bedrock.

Representative Pedon Location

Map unit in which located: 88, Dystrocryepts-Turbels complex, 0 to 30 percent slopes
Location in survey area: Fort Wainwright Soil Survey Area, UTM zone 6, 538030E, 7172847N; near the east end of Brigadier Road, Yukon Maneuver Area; Transect 99MM147, stop 2.

Range in Characteristics

Depth to skeletal material: 6 to 24 inches (15 to 60 cm)
Organic layer thickness: 1 to 5 inches (2 to 12 cm)

O horizon:
Color—hue of 2.5YR to 10YR, value moist of 2 or 3, and chroma moist from 1 to 3
Texture—peat or mucky peat
Reaction—extremely acid to slightly acid

A horizon:
Color—hue 7.5YR or 10YR, value moist of 2 or 3, and chroma moist from 1 to 3
Texture—silt loam or loam in the fine earth fraction
Coarse fragments – 5 to 30 percent
Reaction – very strongly acid to slightly acid

Bw horizon (where present):
Color—hue 10YR, 7.5YR, or 2.5Y, value moist from 3 to 5, and chroma moist 2 or 3
Texture— silt loam or loam in the fine earth fraction
Coarse fragments—10 to 60 percent
Reaction—very strongly acid to moderately acid

BC horizon:
Color—hue 10YR, 7.5YR, or 2.5Y, value moist from 3 to 5, and chroma moist 2 or 3
Texture—silt loam or loam in the fine earth fraction
Coarse fragments—60 to 80 percent
Reaction—very strongly acid to moderately acid

Eielson Series

Taxonomic Classification

- Coarse-loamy, mixed, superactive, nonacid, Aquic Cryofluvents

Setting

Depth class: very deep
Drainage class: somewhat poorly drained
Permeability: moderate
Landforms and positions: floodplains with a high regional groundwater table
Parent material: alluvium.
Slope range: 0 to 1 percent
Elevation: 500 to 650 feet (152 to 198 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Eielson very fine sandy loam—on a 1 percent slope at 420 feet (128 m) elevation, under white spruce forest

Oi—0 to 3 inches (0 to 8 cm); very dark brown (10YR 2/2) fibric material; slightly decomposed moss, leaves, twigs, and other woody debris; common very fine to coarse roots; slightly acid (pH 6.4); abrupt smooth boundary
C—3 to 5 inches (8 to 13 cm); dark grayish brown (2.5Y 4/2) silt loam; structureless; very friable, slightly sticky and slightly plastic; few very fine and fine roots; slightly acid (pH 6.4); clear smooth boundary
Oeb—5 to 7 inches (13 to 18 cm); very dark brown (10YR 2/2) hemic material; partially decomposed moss and leaves; many very fine to coarse roots; slightly acid (pH 6.4); clear smooth boundary
Bw—7 to 9 inches (18 to 23 cm); dark brown (10YR 3/3) very fine sandy loam; weak coarse platy structure; friable, slightly sticky and slightly plastic; common very fine and fine roots;

common medium distinct dark grayish brown (2.5Y 4/2) redoximorphic depletions; slightly acid (pH 6.4); gradual smooth boundary

BC—9 to 28 inches (23 to 71 cm); dark olive brown (2.5Y 3/3) very fine sandy loam; weak medium platy structure; friable, slightly sticky and slightly plastic; few very fine and fine roots; common medium distinct dark gray (2.5Y 4/1) redoximorphic depletions; neutral (pH 6.8); horizon contains thin (less than 0.5 inch (1 cm)) buried O horizons at 13 and 24 inches (32 and 60 cm) depth; diffuse smooth boundary

C'—28 to 65 inches (71 to 165 cm); olive brown (2.5Y 4/4) and dark gray (2.5Y 4/1) stratified very fine sandy loam and sand; massive; firm, slightly sticky and slightly plastic; common fine prominent dark yellowish brown (10YR 4/6) redoximorphic concentrations; neutral (pH 7.0); abrupt smooth boundary

Cg—65 to 69 inches (165 to 175 cm); very dark gray (10YR 3/1) silt loam; massive; firm, slightly sticky and slightly plastic; neutral (pH 6.8)

Typical Pedon Location

Map unit in which located: 64—Eielson-Tanana complex, in the Ft. Wainwright Soil Survey Area

Location in survey area: UTM zone 6, 452704 m N, 7179644 m E; near the western end of Salchaket Slough, southeast of Fairbanks, Alaska; transect 97DS096, hole 4

Range in Characteristics

Organic layer thickness: 1 to 6 inches (3 to 15 cm)

Note: thin buried organic horizons may occur throughout the profile

O horizon:

Color—hue of 10YR or 7.5YR; value moist from 2 to 5; chroma moist from 1 to 4

Texture—slightly decomposed

Reaction—strongly acid to neutral

C horizon:

Color—hue of 2.5Y or 5Y; value moist from 3 to 6; chroma moist of 2 or 3

Texture—stratified, with textures including very fine sandy loam, silt loam, and fine sandy loam

Reaction—slightly acid to neutral

Buried O horizon:

Color—hue of 10YR; value moist of 2; chroma moist of 1 or 2

Texture—slightly to strongly decomposed

Reaction—slightly acid to neutral

Bw horizon:

Color—hue of 10YR or 2.5Y; value moist from 3 to 6; chroma moist from 2 to 4

Texture—stratified, with textures including silt loam, very fine sandy loam, and fine sandy loam

Reaction—slightly acid to slightly alkaline

C' horizon:

Color—hue of 2.5Y or 5Y; value moist from 3 to 6; chroma moist of 2 or 3

Texture—stratified, with textures including very fine sandy loam, silt loam, fine sandy loam, loamy fine sand, fine sand, loamy sand, and coarse sand

Coarse fragments—0 to 35 percent

Reaction—slightly acid to slightly alkaline

Cg horizon:

Color—hues of 10YR, 2.5Y, and N; value moist from 3 to 6; chroma moist of 1 or 2

Texture—stratified, with textures including very fine sandy loam, silt loam, fine sandy loam, loamy fine sand, fine sand, loamy sand, and coarse sand

Coarse fragments—0 to 35 percent

Reaction—slightly acid to slightly alkaline

Ester Series

Taxonomic Classification

- Loamy-skeletal, shallow, mixed, superactive, subgelic, Typic Histoturbel

Setting

Depth class: Shallow to moderately deep

Drainage class: poorly

Permeability: moderately rapid in the organic mat and moderate in the mineral soil above the permafrost

Landforms and positions: steep, dominantly north facing hill slopes

Parent material: organic matter over colluvium from loess and bedrock, over weathered bedrock.

Slope range: 15 to 75 percent

Slope aspect: northeast, north, or northwest

Elevation: 750 to 2800 feet (229 to 853 m)

Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Ester peat—at 1200 feet (366 m) elevation under sparse black spruce forest with low shrubs and moss. (All colors are for moist soil)

Oi—0 to 6 inches (0 to 15 cm); peat consisting of raw sphagnum moss; clear smooth boundary.
Oe—6 to 12 inches (15 to 30 cm); yellowish brown (10YR 5/4) partially decomposed sphagnum moss; many twigs, leaves, and roots; extremely acid; abrupt smooth boundary.
A—12 to 14 inches (30 to 36 cm); very dark grayish brown (10YR 3/2) silt loam; weak thin platy structure; very friable, nonsticky and nonplastic; black (10YR 2/1) irregular streaks; common roots; very strongly acid; clear wavy boundary. (1 to 8 inches thick)
Bgf—14 to 24 inches (36 to 61 cm); dark gray (5Y 4/1) silt loam; weak thin platy structure; many very dark grayish brown (2.5Y 3/2) streaks; frozen with clear ice lenses; 5 percent angular gravel; strongly acid; clear wavy boundary. (0 to 15 inches thick)
2Cf—24 to 28 inches (61 to 71 cm); very dark grayish brown (2.5Y 3/2) extremely gravelly silt loam; 70 percent gravel size weathered schist fragments; frozen; strongly acid; gradual wavy boundary. (4 to 10 inches thick)
2Crf—28 inches (71 cm); weathered schist bedrock.

Typical Pedon Location

Map unit in which located: EsF Ester peat, 30 to 45 percent slopes
Location in survey area: Salch_Big Delta Soil Survey Area; NE 1/4 of the SE 1/4 of Section 15, T7S, R6E, Fairbanks Meridian.

Range in Characteristics

Thickness of silty loess mantle: 12 to 20 inches (30 to 51 cm)
Organic layer thickness: 8 to 16 inches (20 to 40 cm)
Depth to frozen soil (July-Aug): 10 to 30 inches (25 to 75cm)
Texture of the control section: silt loam
Coarse fragment content: 10 to 35 percent

O horizon:
Color—hue of 5YR, 7.5YR,or 10YR; value moist from 2 to 6; and chroma moist from 1 to 8
Degree of decomposition – fibric or hemic
Reaction—extremely acid to very strongly acid

A horizon:
Color—hue of 7.5YR,10YR or 2.5Y; value moist of 2 or 3; and chroma moist of 1 or 2
Texture—silt loam or mucky silt loam
Reaction—extremely acid to strongly acid

ABfm or Bg horizon:
Color—10YR, 2.5Y or 5Y; value moist of 2, 3 or 4; and chroma moist from 1 to 4
Texture—silt loam
Coarse fragments—0 to 35 percent
Channer content—0 to 35 percent
Flagstone content—0 to 5 percent
Reaction—extremely acid to slightly acid

Eutrocryepts

Taxonomic Classification

- Eutrocryepts

Setting

Depth class: deep and very deep
Drainage class: well drained
Permeability: moderate
Landforms and positions: loess mantled hills in unglaciated uplands; and terrace escarpments
Parent material: loess over eolian sand, weathered bedrock, or colluvium
Slope range: 0 to 70 percent
Elevation: 700 to 1400 feet (213 to 426 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF (40ºF base temperature) (1000ºC, 4ºC base temperature)

Representative Pedon Description

Eutrocryept—on a 10 percent slope at 950 feet (290 m) elevation under white spruce and paper birch forest.

Oi—0 to 2 inches (0 to 5 cm); slightly decomposed forest litter; very strongly acid (pH 5.0); clear smooth boundary.
Bw1—2 to 24 inches (5 to 60 cm); olive brown (2.5Y 4/4) silt loam; weak thin platy structure; friable, slightly sticky and slightly plastic; few fine to coarse roots; moderately acid (pH 5.8); clear smooth boundary.
Bw2—24 to 31 inches (60 to 80 cm); olive brown (2.5Y 4/4) silt loam; common medium distinct olive gray (5Y 5/2) mottles; structureless; friable, slightly sticky and slightly plastic; few fine to coarse roots; neutral (pH 6.8); gradual smooth boundary.
2Bw—31 to 51 inches (80 to 130 cm); olive brown (2.5Y 4/4) loamy very fine sand; common medium distinct gray (5Y 5/1) mottles; structureless; friable, slightly sticky and slightly plastic; few fine to coarse roots; neutral (pH 6.8); diffuse smooth boundary.
2C1—51 to 63 inches (130 to 160 cm); light olive brown (2.5Y 5/3) loamy fine sand; structureless; loose; nonsticky and nonplastic; neutral (pH 7.0); diffuse smooth boundary.
2C2—63 to 71 inches (160 to 180 cm); light olive brown (2.5Y 5/3) fine sand; structureless; loose; nonsticky and nonplastic; moderately alkaline (pH 8.2).

Representative Pedon Location

Map unit in which located: 46C, Eutrocryepts, 7 to 12 percent slopes
Location in survey area: SE1/4, Section 29, T6S, R2E, Fairbanks Meridian; near Blair Lakes, approximately 35 miles south of Fairbanks, Alaska. Transect 97DS058, hole 14.

Range in Characteristics

Thickness of loamy surface mantle: 8 to more than 60 inches (20 to more than 150 cm)
Organic layer thickness: 1 to 7 inches (2 to 18 cm)
O horizon:
Color—hue of 7.5YR or 10YR, value moist of 2 or 3, and chroma moist from 1 to 3
Texture—peat or mucky peat
Reaction—extremely acid to slightly acid

Bw horizon:
Color—hue from 7.5YR to 2.5Y, value moist from 3 to 5, and chroma moist 3 or 4
Texture—silt loam, very fine sandy loam, find sandy loam, stratified silt loam and loamy fine sand, or gravelly loam
Reaction—strongly acid to neutral

2Bw horizon (where present):
Color—hue 10YR or 2.5Y, value moist from 3 to 5, and chroma moist 3 or 4
Texture—loamy fine sand or stratified silt loam and fine sand
Reaction—moderately acid to neutral

2C horizon (where present):
Color—hue 2.5Y, value moist of 4 or 5, and chroma moist of 3 or 4
Texture—fine sand, loamy fine sand, gravelly loamy sand, gravelly sandy loam, very gravelly loam, or extremely gravelly sandy loam
Coarse fragments—0 to 75 percent
Gravel content—0 to 40 percent
Cobble content—0 to 30 percent
Stone content—0 to 20 percent
Reaction—moderately acid to moderately alkaline

Fairbanks Series

Taxonomic Classification

- Coarse-silty, mixed, superactive, Typic Eutrocryepts

Setting

Depth class: deep and very deep
Drainage class: well drained
Permeability: moderate
Landforms and positions: loess mantled hills in unglaciated uplands
Parent material: loess
Slope range: 0 to 50 percent
Elevation: 575 to 1060 feet (175 to 323 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)

Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Fairbanks silt loam—on a 14 percent slope at 985 feet (300 m) elevation, under white spruce, paper birch, and quaking aspen forest

Oi—0 to 3 inches (0 to 8 cm); slightly decomposed forest litter
A—3 to 9 inches (8 to 23 cm); very dark grayish brown (2.5Y 3/2) silt loam; weak medium platy structure parting to weak medium granular; very friable, nonsticky and nonplastic; many fine and very fine, and common medium and coarse roots; moderately acid (pH 5.8); clear wavy boundary
Bw—9 to 30 inches (23 to 76 cm); light olive brown (2.5Y 5/4) silt loam; moderate medium platy structure; very friable, nonsticky and nonplastic; few fine and very fine roots; few fine prominent brown (7.5YR 4/4) redoximorphic concentrations; slightly acid (pH 5.8); clear smooth boundary
BC—30 to 60 inches (76 to 152 cm); grayish brown (2.5Y 5/2) silt loam; weak medium platy structure; very friable, nonsticky and nonplastic; few fine and medium roots; few fine prominent brown (7.5YR 5/4) redoximorphic concentrations; slightly acid (pH 6.4); gradual smooth boundary
C—60 to 71 inches (152 to 180 cm); light olive brown (2.5Y 5/3) silt loam; structureless; very friable, nonsticky and nonplastic; common coarse prominent yellowish brown (10YR 5/6) redoximorphic concentrations; slightly acid (pH 6.7)

Typical Pedon Location

Map unit in which located: 42E—Fairbanks silt loam, 12 to 20 percent slopes, in the adjacent Fairbanks Soil Survey Area
Location in survey area: W ½, Section 28, T1N, R3E, Fairbanks Meridian; northwest of Two Rivers, Alaska; transect 97DM107, hole 8

Range in Characteristics

Thickness of silty loess mantle: 40 inches to many feet (102 cm to many meters)
Organic layer thickness: 1 to 6 inches (3 to 15 cm)

A horizon:
Color—hue of 7.5YR or 10YR; value moist of 3 or 4; chroma moist from 2 to 4
Texture—silt loam
Reaction—moderately acid to neutral

Bw horizon:
Color—hues from 7.5YR to 2.5Y; value moist from 3 to 5; chroma moist from 2 to 4
Texture—silt loam
Reaction—moderately acid to neutral

C horizon:
Color—hues from 10YR to 5Y; value moist from 4 to 6; chroma moist from 2 to 4
Texture—silt loam
Reaction—moderately acid to neutral

Fubar Series

Taxonomic Classification

- Sandy-skeletal, mixed, Typic Cryofluvents

Setting

Depth class: very shallow over sand and gravel
Drainage class: moderately well drained
Permeability: moderate in the loamy surface soil; rapid in the sand and gravel
Landforms and positions: floodplains and stream terraces
Parent material: alluvium
Slope range: 0 to 2 percent

Elevation: 400 to 600 feet (122 to 183 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Fubar silt loam—on a level plain at 460 feet (140 m) elevation, under white spruce forest with alder understory

Oi—0 to 2 inches (0 to 5 cm); black (7.5YR 2.5/1) slightly decomposed forest litter; abrupt smooth boundary
Oe—2 to 4 inches (5 to 10 cm); dark brown (7.5YR 3/2) partially decomposed forest litter; common fine to medium roots; abrupt smooth boundary
C1—4 to 8 inches (10 to 20 cm); grayish brown (2.5Y 5/2) silt loam, few fine distinct light yellowish brown (10YR 6/4); common medium granular structure; very friable, slightly sticky and slightly plastic; common medium and fine roots; slightly alkaline (pH 7.6); abrupt smooth boundary
Oeb—8 to 10 inches (20 to 25 cm); black (7.5YR 2.5/1) mucky peat; common medium and few fine roots; slightly alkaline (pH 7.6); abrupt smooth boundary
2C1—10 to 52 inches (25 to 132 cm); dark grayish brown (2.5Y 4/2) stratified sand and fine sand; structureless; loose, nonsticky and nonplastic; slightly alkaline (pH 7.4); abrupt smooth boundary
2Oeb—52 to 55 inches (132 to 140 cm); very dark brown (7.5YR 2.5/2) mucky peat; slightly acid (pH 6.4); abrupt smooth boundary
2C2—55 to 71 inches (140 to 180 cm); very dark gray (2.5Y 3/1) very gravelly loamy fine sand; structureless; loose, nonsticky and nonplastic; neutral (pH 7.0)

Typical Pedon Location

Map unit in which located: 31—Eielson-Piledriver complex, occasionally flooded, in the Ft. Wainwright Soil Survey Area
Location in survey area: S1/2, Section 32, T1S, R2E, Fairbanks Meridian; near the Tanana River on Ft. Wainwright contonement area, Alaska; transect 97MM046, hole 1

Range in Characteristics

Organic layer thickness: 0 to 4 inches (0 to 10 cm)
Thickness of the loamy surface layer: 1 to 10 inches (3 to 25 cm)

O horizon:
Color—hue of 10YR, 7.5YR, or 5YR; value moist of 2 or 3; chroma moist of 1 or 2
Texture—moderately or slightly decomposed organic matter
Reaction—strongly to slightly acid

C horizon:
Color—hue of 2.5Y or 5Y; value moist from 3 to 5; chroma moist of 2 or 3
Texture—silt loam or very fine sandy loam; or stratified, with textures including silt loam, very fine sandy loam, loamy fine sand, and fine sand
Gravel content—0 to 15 percent
Reaction—slightly acid to slightly alkaline

2C horizon:
Color—variegated, or hue of 2.5Y or 5Y; value moist from 3 to 5; chroma moist from 1 to 3
Texture—sand, fine sand, coarse sand or very to extremely gravelly sand or coarse sand
Gravel content—0 to 85 percent
Reaction—slightly acid to slightly alkaline

Gilmore Series

Taxonomic Classification

- Loamy-skeletal, mixed, superactive, shallow, Typic Dystrocryepts

Setting

Depth class: very shallow and shallow over weathered bedrock
Drainage class: well drained
Permeability: moderate
Landforms and positions: hill crests and slopes
Parent material: loess over weathered bedrock
Slope range: 0 to 60 percent
Elevation: 575 to 2700 feet (175 to 823 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Gilmore silt loam—on a 15 percent slope at 1082 feet (330 m) elevation, under white spruce, paper birch, and quaking aspen forest

Oi—0 to 3 inches (0 to 8 cm); partially decomposed forest litter and moss; many roots; mycelia; medium acid (pH 5.8); abrupt smooth boundary;

thickness of the O horizon—2 to 4 inches (5 to 11 cm)
A—3 to 6 inches (8 to 15 cm); dark brown (10YR 3/3) silt loam; weak fine granular structure; very friable, nonsticky and nonplastic; many roots; medium acid (pH 5.8); abrupt wavy boundary
Bw—6 to 13 inches (15 to 33 cm); dark yellowish brown (10YR 4/3) silt loam; moderate medium platy structure; very friable, nonsticky and nonplastic; few roots; medium acid (pH 5.8); clear smooth boundary
BC—13 to 16 inches (33 to 41 cm); olive brown (2.5Y 4/3) channery silt loam; structureless; 20 percent schist channers, 2 percent schist flags; slightly acid (pH 6.3); gradual wavy boundary
2Cr—16 inches (41 cm); weathered fractured schist bedrock

Typical Pedon Location

Map unit in which located: 45D—Gilmore silt loam, 12 to 20 percent slopes, in the adjacent Fairbanks Soil Survey Area
Location in survey area: SW1/4, NW1/4, Section 24, T1N, R3E, Fairbanks Meridian; northwest of Two Rivers, Alaska; transect 97DM004, hole 2

Range in Characteristics

Thickness of silty loess mantle: 20 inches or less (51 cm or less)
Organic layer thickness: 2 to 4 inches (5 to 11 cm)
Depth to unconsolidated bedrock: 20 inches or less (51 cm or less).
Coarse fragment content: 35 to 75 percent; coarse fragments are dominantly schist channers
O horizon:
Color—hue of 7.5YR or 10YR; value moist from 2 to 3; chroma moist from 1 to 3
Decomposition class—fibric or hemic
Reaction—extremely acid to strongly acid

A horizon:
Color—hue of 7.5YR or 10YR; value moist from 2 to 4; chroma moist from 1 to 4
Texture—silt loam
Reaction—strongly acid to slightly acid

Bw horizon:
Color—hues from 7.5YR to 2.5Y; value moist from 3 to 5; chroma moist from 3 to 6
Texture—silt loam
Reaction—strongly acid to slightly acid

BC horizon (where present):
Color—hue of 10YR or 2.5Y; value moist from 3 to 5; chroma moist from 3 to 6
Texture—channery to extremely channery silt loam to sandy loam
Coarse fragments— 35 to 75 percent
Channer content—35 to 75 percent
Flagstone content—0 to 15 percent
Reaction—strongly acid to slightly acid

2Cr horizon:
Color—hues from 10YR to 5Y; value moist from 4 to 6; chroma moist from 3 to 6
Texture—extremely channery loam to weathered fractured bedrock
Coarse fragments—60 to 100 percent
Channer content—60 to 100 percent
Flagstone content—10 to 15 percent

Goldstream Series

Taxonomic Classification

- Coarse-silty, mixed, superactive, subgelic, Typic Histoturbels

Setting

Depth class: shallow to moderately deep over permafrost
Drainage class: very poorly drained
Permeability: moderately rapid in the organic mat; moderate in the mineral layers above the permafrost; impermeable in the permafrost
Landforms and positions: bottoms and footslopes of upland drainageways
Parent material: organic matter over loess or colluviated loess
Slope range: 0 to 7 percent
Elevation: 400 to 1000 feet (122 to 3048 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Goldstream peat—on a 4 percent slope at 625 feet (191 m) elevation, under stunted black spruce with low shrubs, sedge tussocks, and moss

Oi—0 to 3 inches (0 to 8 cm); dark brown (7.5YR 3/2) peat consisting of decomposing plant matter and living roots; extremely acid (pH 4.4); clear smooth boundary

Oe—3 to 9 inches (8 to 23 cm); black (10YR 2/1) moderately decomposed organic matter; extremely acid (pH 4.4); clear smooth boundary

A—9 to 11 inches (23 to 28 cm); very dark grayish brown (2.5Y 3/2) mucky silt loam; massive; friable, nonsticky and nonplastic; many roots; very strongly acid (pH 4.7); gradual irregular boundary

Bjjg/A—11 to 20 inches (28 to 51 cm); gray (5Y 5/1) silt loam (Bjjg), and very dark grayish brown (2.5Y 3/2) mucky silt loam (A); structureless; friable, nonsticky and nonplastic; very strongly acid (pH 4.9); clear irregular boundary

Cfm—20 to 27 inches (51 to 69 cm); gray (5Y 5/1) silt loam; frozen

Typical Pedon Location

Map unit in which located: 21B—Goldstream peat, 3 to 7 percent slopes, in the adjacent Fairbanks Soil Survey Area

Location in survey area: NE1/4, NW1/4, Section 11, T1N, R3E, Fairbanks Meridian; Little Chena River valley north of Chena Hot Springs Road; transect 97DM108, hole 2

Range in Characteristics

Organic layer thickness: 8 to 16 inches (20 to 41 cm)

Depth to frozen soil (July-August): 10 to 24 inches (25 to 61 cm)

O horizon:

Color—hues from 10YR to 5Y; value moist from 2 to 4; chroma moist from 1 to 3

Texture—peat or mucky peat

Reaction—extremely to very strongly acid

A horizon:

Color—hues from 10YR to 5Y; value moist from 2 to 4; chroma moist from 1 to 3

Texture—silt loam or mucky silt loam

Reaction—very strongly to strongly acid

Bjjg/A horizon:

Color—hues from 10YR to 5Y and N; value moist from 4 to 6; chroma moist from 0 to 2

Texture—silt loam

Reaction—very strongly to strongly acid

Cfm horizon:

Color—hues from 10YR to 5Y and N; value moist from 3 to 6; chroma moist from 0 to 3

Texture—silt loam

Reaction—very strongly to strongly acid

Histels

Taxonomic Classification

- Histels

Setting

Depth class: shallow to moderately deep over permafrost

Drainage class: very poorly drained

Permeability: rapid in the fibric organic materials; slow in the sapric organic materials; impermeable in the frozen soil

Landforms and positions: floodplains, terraces, and toeslopes of hills

Parent material: organic matter over alluvium or loess

Slope range: 0 to 2 percent

Elevation: 400 to 1200 feet (122 to 366 m)

Climatic data (average annual):

Precipitation—10 to 14 inches (25 to 36 cm)

Air temperature—24º to 28ºF (-4º to -2ºC)

Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Representative Pedon Description

Histel—on a level slope at 426 feet (130 m) elevation, under birch scrub

Oe—0 to 17 inches (0 to 43 cm); black (10YR 2/1) mucky peat; many very fine and fine roots; moderately acid (pH 5.8); gradual smooth boundary

Oa—17 to 25 inches (43 to 64 cm); very dark brown (10YR 2/2) muck; moderately acid (pH 6.0); abrupt smooth boundary
Oaf—25 to 29 inches (64 to 74 cm); very dark brown (10YR 2/2) muck; slightly acid (pH 6.4); clear broken boundary
Cgf—29 to 39 inches (74 to 99 cm); very dark gray (10YR 3/1) silt loam; slightly acid (pH 6.4)

Representative Pedon Location

Map unit in which located: 26—Histels, Terric and Mosquito peat, in the Ft. Wainwright Soil Survey Area.
Location in survey area: UTM zone 6, 461983 m N, 7183017 m E; between the Tanana River and Salchaket Slough south of Fairbanks, Alaska; transect 97DS220B, hole 5

Range in Characteristics

Depth to frozen soil (July-August): 12 to 35 inches (30 to 89 cm)
Organic layer thickness: 16 to more than 40 inches (40 to more than 100 cm)
Note: particle-size class of mineral layers, where present, is coarse-silty

O horizon:
Color—hue of 5YR, 7.5YR, or 10YR; value moist from 2 to 5; chroma moist from 1 to 6
Texture—peat, mucky peat, or muck
Coarse fragments—0 percent
Reaction—extremely acid to moderately acid

Cg horizon (where present):
Color—hue of 2.5Y or 10YR; value moist of 3 or 4; chroma moist of 1 or 2
Texture—silt loam, mucky silt loam, silty clay loam, or stratified silt loam and loamy fine sand
Coarse fragments—0 percent
Reaction—moderately acid to slightly acid

Histic Cryaquepts

Taxonomic Classification

- Histic Cryaquepts

Setting

Depth class: very deep—more than 60 inches (more than 152 cm)
Drainage class: poorly drained
Permeability: moderate in the loamy surface materials
Landforms and positions: depressions on terraces
Parent material: organic matter over loess or loess reworked by water
Slope range: 0 to 2 percent
Elevation: 500 to 650 feet (152 to 198 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Representative Pedon Description

Histic Cryaquept—on a level slope at 585 feet (178 m) elevation, under sedges

Oa—0 to 13 inches (0 to 33 cm); very dark brown (7.5YR 2.5/2) muck; many very fine and fine roots; very strongly acid (pH 5.0); abrupt smooth boundary
C—13 to 30 inches (33 to 76 cm); olive brown (2.5Y 4/3) silt loam; common medium distinct grayish brown (2.5Y 5/2) mottles; structureless; friable, slightly sticky and slightly plastic; strongly acid (pH 5.4); gradual smooth boundary
Cg—30 to 59 inches (76 to 150 cm); dark grayish brown (2.5Y 4/2) silt loam; many medium prominent strong brown (7.5YR 4/6) mottles; structureless; friable, slightly sticky and slightly plastic; moderately acid (pH 5.6)

Representative Pedon Location

Map unit in which located: WAH—Typic Cryaquent, Terric Cryofibrist, and Histic Cryaquept soils
Location in survey area: UTM zone 6, 498818 m N, 7173649 m E; northeast corner of Eielson Air Force Base; transect 97DS258, hole 2

Range in Characteristics

Organic layer thickness: 8 to 16 inches (20 to 41 cm)

Note: particle-size class is coarse-silty

O Horizon:
Color—hue of 7.5YR or 10YR; value moist of 2 or 3; chroma moist from 1 to 3
Texture—mucky peat or muck
Coarse fragments—0 percent
Reaction—very strongly acid to moderately acid
C horizon:
Color—hue of 2.5Y; value moist of 3 or 4; chroma moist from 2 to 4
Texture—silt loam or very fine sandy loam
Coarse fragments—0 percent
Reaction—strongly acid to moderately acid

Cg horizon:
Color—hue of 5Y or 2.5Y; value moist of 3 or 4; chroma moist of 1 or 2
Texture—silt loam or stratified silt loam and very fine sand
Coarse fragments—0 percent
Reaction—strongly acid to slightly acid

Jarvis Series

Classification

Taxonomic class: coarse loamy over sandy or sandy skeletal, mixed, superactive, nonacid, Typic Cryofluvents

Setting

Depth class: moderately deep to sand and gravel
Drainage class: well drained
Permeability: moderate in the loamy upper part; rapid to excessive in the underlying sand and gravel
Landforms and positions: floodplains
Parent material: alluvium
Slope range: 0 to1 percent
Elevation: 400 to 600 feet (122 to 183 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Jarvis very fine sandy loam—on a 0 percent slope at 545 feet (166 m) elevation, under paper birch and white spruce forest

Oe/C—0 to 3 inches (0 to 8 cm); black (10YR 2/1) and dark grayish brown (2.5Y 4/2) peat; common very fine to coarse roots; moderately acid (pH 5.6); clear wavy boundary
Bw—3 to 6 inches (8 to 15 cm); olive brown (2.5Y 4/3) and olive gray (5Y 5/2) very fine sandy loam; structureless; very friable, nonsticky and nonplastic; few very fine to medium roots; common medium distinct dark yellowish brown (10YR 4/6) redoximorphic concentrations; slightly acid (pH 6.4); clear wavy boundary
BC—6 to 16 inches (15 to 41 cm); grayish brown (2.5Y 5/2) and dark yellowish brown (10YR 4/6) stratified fine sand and very fine sand; structureless; very friable, nonsticky and nonplastic; few very fine to medium roots; few medium prominent gray (5Y 6/1) redoximorphic depletions; neutral (pH 7.2); gradual smooth boundary
C1—16 to 24 inches (41 to 61 cm); grayish brown (2.5Y 5/2) stratified very fine sandy loam and fine sand; structureless; very friable, nonsticky and nonplastic; few very fine to fine roots; slightly alkaline (pH 7.4); abrupt smooth boundary
C2—24 to 51 inches (61 to 130 cm); gray (5Y 5/1) sand; structureless; loose, nonsticky and nonplastic; 10 percent gravel; slightly acid (pH 6.4)

Typical Pedon Location

Map unit in which located: 361—Jarvis-Chena complex, 0 to 1 percent slopes
Location in survey area: UTM zone 6, 495247 m E, 7168290 m N; between the Richardson Highway and Piledriver Slough, near the southwest boundary of Eielson Air Force Base, Alaska; transect 97DS026, hole 17

Range in Characteristics

Organic layer thickness: 1 to 4 inches (3 to 10 cm)
Depth to sand and gravel: 13 to 40 inches (33 to 102 cm)

Note: organic carbon decreases irregularly with depth; thin buried organic horizons may occur throughout the profile

Oe/C horizon (C material may not be present):
Color—O material: hue of 7.5YR or 10YR; value moist of 2, 2.5, or 3; chroma moist of 1 or 2—C material: hue of 2.5Y or 5Y; value moist from 3 to 5; chroma moist of 1 or 2
Texture—moderately decomposed and slightly decomposed forest litter, mixed in some pedons with very fine sandy loam or silt loam
Reaction—very strongly acid to neutral

Bw horizon:
Color—hue of 10YR, 2.5Y, or 5Y; value moist of 4 or 5; chroma moist of 2 or 3
Texture—very fine sandy loam; or stratified, with textures from fine sand to silt loam
Reaction—slightly acid to neutral

BC horizon:
Color—hue of 2.5Y; value moist of 4 or 5; chroma moist of 2 or 3
Texture—stratified, with textures including very fine sand, fine sand, gravelly sand, very fine sandy loam, and silt loam
Reaction—neutral to slightly alkaline

C horizon:
Color—hue of 2.5Y or 5Y; value moist of 4 or 5; chroma moist of 1 or 2
Texture—sand, fine sand, or loamy sand; or stratified, with textures including loamy fine sand, fine sand, sand, gravelly sand, very gravelly sand, or extremely gravelly sand
Gravel content—0 to 70 percent
Reaction—slightly acid to slightly alkaline

Lemeta Series

Taxonomic Classification

- Dysic, Typic Fibristels

Setting

Depth class: Shallow to moderately deep over permafrost
Drainage class: very poorly drained
Permeability: moderate in the upper part, impermeable in the permafrost
Landforms and positions: flood plains and terraces
Parent materials: organic matter
Slope range: 0 to 1 percent
Elevation: 400 to 900 feet (122 to 274 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF (40ºF base temperature) (1000ºC, 4ºC base temperature)

Typical Pedon Description

Lemeta peat on a level slope at 420 feet (128 m) elevation under black spruce and sedge vegetation.

Oi1—0 to 3 inches (0 to 7 cm); dark brown (7.5YR 3/2) slightly decomposed organic matter; many very fine to coarse roots; extremely acid (pH 3.8); clear wavy boundary.
Oi2—3 to 6 inches (7 to 16 cm); dark reddish brown (5YR 3/3) partially decomposed moss peat; few very fine to coarse roots; extremely acid (pH 4.2); clear smooth boundary.
Oi3—6 to 12 inches (16 to 30 cm); yellowish brown (10YR 5/6) herbaceous organic matter; very strongly acid (pH 5.0); abrupt wavy boundary.
Oaf—12 to 24 inches (30 to 60 cm); very dark brown (7.5YR 2.5/2) well decomposed woody and herbaceous organic matter; strongly acid (pH 5.4).

Typical Pedon Location

Map unit in which located: (14) Histels—Terric Cryofibrists complex
Location in survey area: UTM zone 6 456342 m E, 7178795 m N; approximately 1 mile south of Salchaket slough, south of Fairbanks, Alaska (transect 97DS093 hole 10)

Range In Characteristics

Depth to frozen soil (July-August): 14 to 24 inches (35 to 60 cm)
Organic layer thickness: greater than 40 inches (102 cm)

Oi horizons:
Color—hues of 10YR to 7.5YR; values moist from 2 to 3; chroma moist of 2 or 3

Texture—fibric organic material
Reaction—extremely acid to moderately acid

Oe horizons:
Color—hues of 10YR; values moist of 3; chroma moist of 2 or 3
Texture—hemic organic matter
Reaction—extremely acid to moderately acid

Oa horizons:
Color—hue of 7.5Y or 10YR; value moist from 1 to 3; chroma moist of 2 or 3
Texture—sapric organic material
Reaction—extremely acid to moderately acid

Cgf horizons (where present):
Color—hues of 2.5Y or 5Y; value moist from 3 to 5; chroma moist of 1 or 2
Texture—silt loam
Reaction—very strongly acid to slightly acid

Liscum Series

Taxonomic Classification

- Coarse-loamy, mixed, superactive, nonacid Histic Cryaquepts

Setting

Depth class: deep to very deep (more than 40 inches (102 cm)) over sand and gravel
Drainage class: very poorly drained
Permeability: rapid in the slightly decomposed surface peat, moderate to low in the subsurface peat and loamy mineral soil, rapid in the sand and gravel
Landforms and positions: terraces
Parent material: organic matter over loess or alluvium
Slope range: 0 to 2 percent
Elevation: 400 to 850 feet (122 to 259 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF (40ºF base temperature) (1000ºC, 4ºC base temperature)

Typical Pedon Description

Liscum peat—on a level slope at 790 feet (241 m) elevation under black spruce scrub (post-fire regeneration)

Oi—0 to 3 inches (0 to 8 cm); dark brown (7.5YR 3/3) peat; common very fine to medium roots; strongly acid (pH 5.4); clear wavy boundary.
Oa—3 to 10 inches (8 to 26 cm); black (5YR 2.5/1) muck; many very fine and fine roots; moderately acid (pH 5.6); clear irregular boundary.
Bg—10 to 28 inches (26 to 70 cm); 60% olive brown (2.5Y 4/3) and 40% gray (5Y 5/1) silt loam; few fine prominent strong brown (7.5YR 4/6) mottles; structureless; friable; slightly sticky and slightly plastic; 5 percent gravel; few very fine and fine roots; neutral (pH 6.6); gradual irregular boundary.
C—28 to 47 inches (70 to 120 cm); olive brown (2.5Y 4/3) gravelly sandy loam; structureless; friable; slightly sticky and slightly plastic; 25 percent gravel; neutral (pH 7.2); gradual irregular boundary.
2C—47 to 59 inches (120 to 150 cm); olive brown (2.5Y 4/3) gravelly coarse sand; structureless; loose; nonsticky and nonplastic; 30 percent gravel; neutral (pH 7.0).

Typical Pedon Location

Map unit in which located: (71) North Pole-Mosquito-Liscum complex.
Location in survey area: UTM zone 6, 478002 m N, 7139089 m E; approximately 35 miles south of Fairbanks, Alaska. 97DS052B hole 5.

Range In Characteristics

Organic layer thickness: 8 to 16 inches (20 to 40 cm),
O horizon:
Color—hue of 5YR, 7.5YR or 10YR; value moist of 2 to 4; chroma moist of 1 or 2
Texture—peat, mucky peat or muck
Coarse fragments—0 percent
Reaction—strongly acid to slightly acid

Bg horizon:
Color—hue of 5Y, 2.5Y, or 5GY; value moist of 4 or 5; chroma moist of 1 or 2
Texture—silt loam or sandy loam
Coarse fragments—0 to 10 percent
Reaction—slightly acid to neutral

C horizon (where present):
Color—hue of 2.5Y, value moist of 3 or 4; chroma moist of 2 to 4
Texture—sandy loam or gravelly sandy loam

Coarse fragments—0 to 30 percent
Reaction—slightly acid to neutral

2C horizon (where present):
Color—variegated or hue of 2.5Y, value moist of 3 or 4; chroma moist of 2 or 3
Texture—gravelly or very gravelly sand or coarse sand
Coarse fragments—15 to 50 percent
Gravel content—15 to 50 percent
Cobble content—0 to 10 percent
Stone content—0 percent
Reaction—slightly acid to neutral

Manchu Series

Taxonomic Classification

- Coarse-loamy, mixed, superactive, shallow, Aquic Eutrocryepts

Setting

Depth class: moderately deep over weathered bedrock
Drainage class: moderately well drained
Permeability: moderate
Landforms and positions: slopes and crests of hills
Parent material: loess over weathered schist bedrock
Slope range: 0 to 45 percent
Elevation: 500 to 2800 feet (152 to 853 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Manchu silt loam—on a 2 percent slope under black spruce forest (All colors are for moist soil.)

Oi—0 to 6 inches (0 to 16 cm); very dark brown (7.5YR 2.5/3) slightly decomposed organic matter; many very fine to coarse roots; extremely acid (pH 4.2); clear smooth boundary . (Thickness of the O horizon is 4 to 11 inches (9 to 28 cm)).

A—6 to 8 inches (16 to 19 cm); black (10YR 2/1) silt loam; structureless; friable, slightly sticky and slightly plastic; few very fine and fine roots; strongly acid (pH 5.2); clear wavy boundary. (Thickness of the A horizon is 1 to 8 inches (3 to 21 cm)).

Bw—8 to 17 inches (19 to 42 cm); 80% dark yellowish brown (10YR 4/4) and 20% dark gray (2.5Y4/1) silt loam; common fine prominent yellowish red (5YR 4/6) mottles; structureless; friable; slightly sticky and slightly plastic; few fine and very fine roots; moderately acid (pH 5.6); clear wavy boundary. (8 to24 inches thick (20 to 60 cm)).

BC—17 to 28 inches (42 to 70 cm); 60% light olive brown (2.5Y 5/4) and 40% dark yellowish brown (10YR4/6) silt loam; structureless; friable; slightly sticky and slightly plastic; 5 percent channers; slightly acid (pH 6.4); gradual smooth boundary. (4 to 8 inches thick where present (10 to 20 cm)).

2BCr—28 to 39 inches (70 to 100 cm); dark yellowish brown (10YR 4/4) extremely channery silt loam; structureless; friable; slightly sticky and slightly plastic; 50 percent channers and 20 percent flags; neutral (pH 6.6).

2Cr—39 to 47 inches (100 to 120 cm); dark yellowish brown (10YR 4/4) extremely channery sandy loam (weathered schist bedrock); structureless; friable; nonsticky and nonplastic; 50 percent channers and 20 percent flags; slightly acid (pH 6.4); diffuse smooth boundary.

Typical Pedon Location

Map unit in which located: 86V—Brigadier and Manchu silt loams, 3 to 15 percent slopes
Location in survey area: UTM zone 6, 514477E 7164398N; just north of Johnson Road (description taken from transect 00DS021 stop 4)

Range in Characteristics

Thickness of silty loess mantle: 20 to 39 inches (50 to 100 cm)
Organic layer thickness: 4 to 11 inches (9 to 28 cm)
Depth to unconsolidated bedrock: 20 to 39 inches (50 to 100 cm)
Texture of the control section: silt loam, loam, or sandy loam

O horizon:
Color—hue of 5YR, 7.5YR, or 10YR; value moist from 2 to 4; chroma moist from 1 to 3
Decomposition class—fibric to hemic
Reaction—extremely acid to very strongly acid

A horizon:
Color—hue of 7.5YR or 10YR; value moist from 2 to 4; chroma moist from 1 to 3
Texture—silt loam or mucky silt loam
Reaction—very strongly acid to strongly acid

Bw horizon:
Color—hue of 10YR, or 2.5Y; value moist from 3 to 4; chroma moist from 1 to 4
Texture—silt loam
Coarse fragments—0 to 10 percent
Reaction—strongly acid to moderately acid

2Cr horizon:
Color—variegated, or hue of 10YR, 2.5Y, or 5Y; value moist from 4 to 6; chroma moist from 3 to 6
Texture—loam or sandy loam
Coarse fragments—50 to 90 percent
Reaction—slightly acid to neutral

McCloud Series

Taxonomic Classification

- Coarse-loamy, mixed, superactive, Typic Dystrocryepts

Setting

Depth class: moderately deep over weathered bedrock
Drainage class: well drained
Permeability: moderate
Landforms and positions: slopes and crests of hills
Parent material: loess over weathered granite
Slope range: 0 to 45 percent
Elevation: 700 to 2700 feet (213 to 823 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

McCloud silt loam—on an 13 percent slope at 1250 feet (381 m) elevation, under paper birch, white spruce, and quaking aspen forest (All colors are for moist soil.)

Oe—0 to 2 inches (0 to 4 cm); dark brown (7.5YR 3/2) partially decomposed organic matter; common ver fine and fine, and few coarse roots; strongly acid (pH 5.2); clear smooth boundary
E—2 to 3 inches (4 to 8 cm); dark gray (7.5YR 4/1) silt loam; weak fine granular structure; friable, slightly sticky and nonplastic; few fine, medium, and coarse roots; strongly acid (pH 5.5); clear wavy boundary
Bw—3 to 5 inches (8 to 13 cm); dark yellowish brown (10YR 4/4) silt loam; weak medium platy structure; friable, slightly sticky and nonplastic; few medium and fine roots; 5 percent gravel; moderately acid (pH 5.7); gradual wavy boundary
BC—5 to 20 inches (13 to 50 cm); olive brown (2.5Y 4/4) and dark yellowish brown (10YR 4/4) silt loam; weak medium platy structure; friable, slightly sticky and nonplastic; 10 percent gravel; moderately acid (pH 5.7); gradual wavy boundary
C—20 to 29 inches (50 to 74 cm); olive brown (2.5Y 4/4) silt loam; weak medium platy structure; friable; 10 percent gravel; moderately acid (pH 5.7); gradual smooth boundary
2Cr—29 to 35 inches (74 to 89 cm); olive brown (2.5Y 4/4) extremely gravelly loamy sand (highly weathered granite bedrock); structureless; loose; nonsticky and nonplastic; 75 percent gravel; moderately acid (pH 5.9).

Typical Pedon Location

Map unit in which located: 492—Angel-McCloud complex, 3 to 15 percent slopes
Location in survey area: Ft. Wainwright Soil Survey Area, UTM zone 6, 507211E, 7170652N; south of Quarry Road in the Yukon Maneuver Area; transect 99MM025, hole 8

Range in Characteristics

Thickness of silty loess mantle: 16 to 30 inches (40 to 76 cm)

Organic layer thickness: 1 to 6 inches (3 to 14 cm)
Depth to unconsolidated bedrock: 20 to 30 inches (51 to 76 cm)

O horizon:
Color—hue of 5YR, 7.5YR or 10YR; value moist from 2 to 3; chroma moist from 2 to 3
Decomposition class—fibric or hemic
Reaction—very strongly or strongly acid

E horizon:
Color—hue of 7.5YR or 10YR; value moist from 3 to 4; chroma moist from 1 to 2
Texture—silt loam
Reaction—strongly acid to moderately acid

Bw horizon:
Color—hue of 7.5YR or 10YR; value moist from 3 to 5; chroma moist from 3 to 6
Texture—silt loam
Coarse fragments—0 to 10 percent
Reaction—strongly acid to moderately acid

BC horizon:
Color—hue of 2.5Y or 10YR; value moist of 3 or 4; chroma moist of 3 or 4
Texture—silt loam
Coarse fragments—0 to 10 percent
Reaction—strongly acid to moderately acid

C horizon:
Color—hue of 10YR, 2.5Y, or 5Y; value moist of 3 or 4; chroma moist of 3 or 4
Texture—silt loam, loam, and gravelly loam
Coarse fragments—0 to 20 percent
Reaction—strongly acid to moderately acid

2Cr horizon:
Color—hues from 10YR or 2.5Y; value moist of 4 or 5; chroma moist from 3 to 6
Texture—loamy coarse sand or coarse sand in the fine earth fraction
Coarse fragments—50 to 90 percent
Reaction—strongly acid to moderately acid

Minto Series

Taxonomic Classification

- *Coarse-silty, mixed, superactive, Aquic Eutrocryepts*

Setting

Depth class: very deep
Drainage class: moderately well drained
Permeability: moderate
Landforms and positions: footslopes of hills
Parent material: loess or colluviated loess
Slope range: 0 to 20 percent
Elevation: 575 to 1060 feet (175 to 323 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Minto silt loam—on a 7 percent slope at 820 feet (250 m) elevation, under paper birch and white spruce forest

Oi—0 to 5 inches (0 to 13 cm); dark brown (7.5YR 3/2) fibric material; slightly decomposed leaves, twigs, and moss; few fine and medium roots; strongly to very strongly acid; abrupt smooth boundary
A—5 to 9 inches (13 to 23 cm); very dark grayish brown (10YR 3/2) silt loam; moderate medium platy structure; friable, nonsticky and nonplastic; few fine and medium roots; moderately to slightly acid; clear smooth boundary
Bw—9 to 16 inches (23 to 41 cm); light olive brown (2.5Y 5/3) silt loam; moderate medium platy structure; friable, nonsticky and nonplastic; few fine roots; common medium faint grayish brown (2.5Y 5/2) redoximorphic depletions; moderately acid; diffuse wavy boundary
C—16 to 70 inches (41 to 178 cm); grayish brown (2.5Y 5/2) silt loam; massive; friable, nonsticky and nonplastic; common medium prominent brown (7.5YR 4/4) redoximorphic concentrations; slightly acid to neutral

Typical Pedon Location

Map unit in which located: 41B—Minto silt loam, 3 to 7 percent slopes
Location in survey area: *UTM zone 6, 496550 m E, 7196300 m N; near Two Rivers, Alaska; transect 97DM002, hole 2*

Range in Characteristics

Thickness of the silty surface layer: more than 60 inches (more than 152 cm)
Organic layer thickness: 2 to 6 inches (5 to 15 cm)
Depth to frozen soil (July-August): more than 32 inches (more than 80 cm)

O horizon:
Color—hue of 10YR or 7.5YR; value moist of 2 or 3; chroma moist of 1 or 2
Texture—peat or mucky peat
Reaction—very strongly acid to strongly acid

A horizon:
Color—hue of 10YR; value moist of 2 or 3; chroma moist of 1 or 2
Texture—silt loam or very fine sandy loam
Reaction—moderately acid to slightly acid

B horizon:
Color—hue of 10YR, 7.5YR, or 2.5Y; value moist from 3 to 5; chroma moist from 2 to 5
Texture—silt loam or very fine sandy loam
Reaction—slightly acid to slightly alkaline

C horizon:
Color—hue of 2.5Y or 5Y; value moist from 3 to 6; chroma moist of 2 or 3
Texture—silt loam or very fine sandy loam
Reaction—slightly acid to neutral

Mosquito Series

Taxonomic Classification

- Coarse-loamy, mixed, superactive, subgelic, Ruptic Histoturbels

Setting

Depth class: shallow to moderately deep over permafrost
Drainage class: very poorly drained
Permeability: rapid in the surface peat; moderate in the loamy mineral soils; impermeable in the frozen soil
Landforms and positions: floodplains and terraces
Parent material: organic matter over alluvium
Slope range: 0 to 2 percent
Elevation: 400 to 500 feet (122 to 152 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Mosquito peat—on a level plain at 432 feet (132 m) elevation, under dwarf birch and sedge vegetation

Oi—0 to 6 inches (0 to 15 cm); black (7.5YR 2.5/1) peat; common very fine and few fine and medium roots; moderately acid (pH 6.0); clear wavy boundary; thickness of horizon varies from 6 to 12 inches (15 to 30 cm)
Oe—6 to 10 inches (15 to 25 cm); black (7.5YR 2.5/1) mucky peat; common very fine and few fine roots; moderately acid (pH 6.0); clear wavy boundary; thickness of horizon varies from 3 to 10 inches (8 to 25 cm)
Bg1—10 to 13 inches (25 to 33 cm); dark gray (5Y 4/1) silt loam; structureless; friable, nonsticky and nonplastic; few fine roots; few fine distinct yellowish brown (10YR 5/6) mottles; slightly acid (pH 6.4); clear wavy boundary
Bg2—13 to 19 inches (33 to 48 cm); dark grayish brown (10YR 4/2) silt loam; structureless; friable, nonsticky and nonplastic; few very fine roots; moderately acid (pH 6.0); abrupt wavy boundary
Bgfm—19 to 29 inches (48 to 74 cm); dark grayish brown (10YR 4/2) frozen silt loam; structureless; extremely firm, nonsticky and nonplastic; moderately acid (pH 6.0)

Typical Pedon Location

Map unit in which located: 26—Mosquito peat and Histels, Terric, in the Ft. Wainwright Soil Survey Area
Location in survey area: UTM zone 6, 461954 m E, 7179720 m N; south of the Tanana River and south of Salchaket Slough, about 4 miles south of Fairbanks, Alaska; transect 97MM088, hole 5

Range in Characteristics

Organic layer thickness: 9 to 22 inches (23 to 56 cm)
Depth to frozen soil (July-August): 14 to 32 inches (36 to 81 cm)

O horizon:
Color—hue of 5YR, 7.5YR, or 10YR; value moist from 2 to 5; chroma moist from 1 to 3
Texture—peat, mucky peat, or muck
Reaction—strongly to slightly acid

Bg horizon:
Color—hue from 10YR to 5Y; value moist of 4 or 5; chroma moist of 1 or 2
Texture—silt loam or very fine sandy loam; or stratified silt loam to loamy fine sand
Reaction—slightly acid to neutral

Bgfm horizon:
Color—hue of 10YR or 2.5Y; value moist of 4 or 5; chroma moist from 1 to 3
Texture—silt loam or very fine sandy loam; or stratified silt loam to loamy fine sand
Reaction—moderately acid to neutral

Nenana Series

Taxonomic Classification

- Coarse-silty over sandy or sandy-skeletal, mixed, superactive, Typic Cryochrepts

Setting

Depth class: shallow to moderately deep over sand and gravel
Drainage class: well drained
Permeability: moderate in the upper part, rapid in the sand and gravel
Landforms and positions: stream terraces
Parent material: loess over alluvium
Slope range: 0 to 2 percent
Elevation: 500 to 900 feet (122 to 274 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF (40ºF base temperature) (1000ºC, 4ºC base temperature)

Typical Pedon Description

Nenana silt loam—on a 2 percent slope at 800 feet (243 m) elevation under paper birch and white spruce forest.

Oe—0 to 2 inches (0 to 4 cm); dark brown (7.5YR 3/2) partially decomposed forest litter; many very fine to medium roots; strongly acid (pH 5.2); clear smooth boundary.
Bw1—2 to 4 inches (4 to 10 cm); strong brown (7.5YR 4/6) silt loam; structureless; very friable; slightly sticky and slightly plastic; common very fine and fine roots; moderately acid (pH 5.8); gradual broken boundary.
Bw2—4 to 26 inches (10 to 65 cm); dark yellowish brown (10YR 4/4) silt loam; structureless; very friable; slightly sticky and slightly plastic; few very fine and fine roots; moderately acid (pH 5.8); gradual smooth boundary.
2C—26 to 43 inches (65 to 110 cm); brown (10YR 4/3) very gravelly coarse sand; structureless; loose; nonsticky and nonplastic; 40 percent gravel; moderately acid (pH 5.8).

Typical Pedon Location

Map unit in which located: (39A) Nenana silt loam, 0—3 percent slopes
Location in survey area: UTM zone 6, 484215 m E, 7139596 m N, approximately 35 miles south of Fairbanks Alaska (transect 97DS047B hole 11)

Range in Characteristics

Organic layer thickness: 1 to 4 inches (3 to 10 cm)
Depth to sand and gravel substratum: 17 to 34 inches (42 to 86 cm)

O horizon:
Color—hues of 10YR or 7.5YR; value moist of 2 or 3; chroma moist of 1 or 2
Texture—slightly to moderately decomposed organic matter
Reaction—strongly acid to slightly acid

Bw horizon:
Color—hues of 10YR or 7.5YR; value moist of 4 or 5; chroma moist of 4 or 6
Texture—silt loam or very dine sandy loam
Reaction—moderately acid to slightly acid

BC horizons (where present):
Color—hue of 2.5Y or 10YR; value moist of 4 or 5; chroma moist of 3 or 4
Texture—silt loam or gravelly silt loam
Reaction—slightly acid to neutral

2C horizons:
Color—hue of 2.5Y or 10YR; value moist of 4 or 5; chroma moist of 3 or 4

Texture—very gravelly loamy sand to extremely gravelly sand
Gravel content—20 to 75 percent
Reaction—moderately acid to neutral

Noonku Series

Taxonomic Classification

- Coarse-loamy, mixed, superactive, nonacid, Typic Cryaquents

Setting

Depth class: deep
Drainage class: very poorly drained
Permeability: moderate
Landforms and positions: sloughs and depressions on floodplains
Slope range: 0 to 2 percent
Elevation: 465 to 650 feet (142 to 198 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Noonku silt loam—in a slough at 465 feet (142 m) elevation, under grass and sedge vegetation with some willow and birch shrubs

Oe—0 to 2 inches (0 to 4 cm); very dark brown (7.5YR 2.5/2) hemic material; moderately decomposed sedge, moss and grass blades; many very fine to medium and common coarse roots; neutral; abrupt smooth boundary. (1 to 5 inches thick (3 to 12 cm))

A—2 to 6 inches (4 to 16 cm); dark brown (7.5YR 3/2) silt loam; structureless; friable, nonsticky and nonplastic; common very fine and fine roots; slightly acid; gradual smooth boundary. (1 to 12 inches thick (2 to 30 cm))

Cg1—6 to 20 inches (16 to 50 cm); dark gray (2.5Y 4/1) stratified very fine sandy loam and silt loam; structureless; friable; nonsticky and nonplastic; few very fine and fine roots; few coarse prominent dark brown (7.5Y 3/3) redoximorphic concentrations; neutral; diffuse smooth boundary.

Cg2—20 to 28 inches (50 to 72 cm); greenish gray (5G 5/1) stratified loamy fine sand; very friable; nonsticky and nonplastic; few fine prominent strong brown (7.5YR 5/8) redoximorphic concentrations; neutral; diffuse smooth boundary.

Cg3—28 to 47 inches (72 to 120 cm); dark gray (N 4/) stratified loamy fine sand; very friable; nonsticky and nonplastic; common medium prominent reddish yellow (7.5YR 7/8) redoximorphic concentrations; neutral; diffuse smooth boundary. The combined thickness of the Cg horizon is 40 to 70 inches thick (100 to 180 cm).

2C—47 to 70 inches (120 to 180 cm); gray (N5/) very gravelly loamy sand; structureless; loose, nonsticky and nonplastic; few medium prominent grayish green (5G 5/2) redoximorphic depletions; neutral.

Typical Pedon Location

Map unit in which located: 352—North Pole-Noonku complex, in the Fairbanks Soil Survey Area
Location in survey area: NE1/4, SW1/4, Section 28, T1S, R1E, Fairbanks Meridian. (description taken from 99DM116 hole 2)

Range in Characteristics

Organic layer thickness: 1 to 5 inches (3 to 13 cm)
Note: buried organic layers may occur at any depth

O horizon:
Color—hue of 10YR or 7.5YR; value moist of 2 or 3; chroma moist from 1 to 3
Texture— fibric or hemic material
Reaction—slightly acid to neutral

A horizon:
Color— has hue of 7.5YR, 10YR or 2.5Y, value of 2.5 to 4, and chroma of 1 to 2
Texture— silt loam or very fine sandy loam
Reaction— slightly acid to neutral
Cg horizon:
Color—hue of 2.5Y, 5Y, 10Y, or 5GY; value moist from 3 to 5; chroma moist of 1 or 2
Texture—silt loam or very fine sandy loam; thin layers of coarser material are occasionally present
Reaction—slightly acid to slightly alkaline

North Pole Series

Taxonomic Classification

- Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, nonacid, Aeric Cryaquepts

Setting

Depth class: moderately deep over sand and gravel
Drainage class: poorly drained
Permeability: permeability is restricted by seasonally frozen soil in early summer; when thawed, permeability is moderate in the upper part and rapid in underlying sand and gravel
Landforms and positions: river terraces with high regional groundwater table
Parent material: alluvium
Slope range: 0 to 2 percent
Elevation: 500 to 650 feet (152 to 198 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF(-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

North Pole very fine sandy loam—on a level plain at 540 feet (165 m) elevation, under tamarack and black spruce forest with Labrador tea understory and moss ground cover

Oi—0 to 4 inches (0 to 10 cm); dark brown (7.5YR 3/2) fibric material; slightly decomposed moss and sedge; common very fine to coarse roots; very strongly acid (pH 4.6); clear smooth boundary
Oa—4 to 7 inches (10 to 18 cm); black (10YR 2/1) sapric material; highly decomposed moss; common fine and very fine roots; moderately acid (pH 5.6); abrupt irregular boundary
Bg1—7 to 23 inches (18 to 58 cm); 60 percent dark yellowish brown (10YR 4/6) and 40 percent dark gray (5Y 4/1) stratified fine sand and very fine sand; structureless; friable, nonsticky and nonplastic; few fine and very fine roots; slightly acid (pH 6.4); gradual smooth boundary
Bg2—23 to 32 inches (58 to 81 cm); very dark gray (5Y 3/1) silt loam; structureless; firm, slightly sticky and slightly plastic; neutral (pH 7.2); gradual smooth boundary
2C—32 to 51 inches (81 to 130 cm); grayish brown (2.5Y 5/2) very gravelly sand; single grain; loose, nonsticky and nonplastic; 60 percent rounded gravel; slightly alkaline (pH 7.4)

Typical Pedon Location

Map unit in which located: 35—North Pole very fine sandy loam
Location in survey area: UTM zone 6, 497896 m E, 7169850 m N; on Eielson Air force Base; transect 97DS060, hole 8

Range in Characteristics

Thickness of the loamy surface layer: 10 to 40 inches (25 to 102 cm)
Organic layer thickness: 2 to 9 inches (5 to 23 cm)

O horizon:
Color—hue of 10YR or 7.5YR; value moist of 2 or 3; chroma moist of 1 or 2
Texture—material is slightly to strongly decomposed
Reaction—very strongly acid to slightly acid

Bg horizon:
Color—hue of 10YR, 2.5Y or 5Y; value moist from 3 to 5; chroma moist of 1 or 2
Texture—stratified, with textures including very fine sandy loam, silt loam, loamy very fine sand, and loamy fine sand
Reaction—slightly acid to neutral

2C horizon:
Color—variegated, or hues of 2.5Y and 5Y; value moist from 3 to 5; chroma moist of 2 or 3
Texture—sand or loamy sand; or gravelly to extremely gravelly sand
Coarse fragments—0 to 70 percent
Gravel content—0 to 70 percent
Cobble content— 0 to 15 percent
Reaction—neutral to slightly alkaline

Peede Series

Taxonomic Classification

- Coarse-silty, mixed, superactive, nonacid, Typic Cryaquents

Setting

Depth class: deep
Drainage class: very poorly drained
Permeability: moderate
Landforms and positions: depressions on floodplains
Parent material: alluvium and lake sediment
Slope range: 0 to 2 percent
Elevation: 500 to 650 feet (152 to 198 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Peede silt loam—in a level depression at 420 feet (128 m) elevation, under grass and sedge vegetation with some willow shrubs

Oe—0 to 5 inches (0 to 13 cm); very dark brown (7.5YR 2.5/2) hemic material; moderately decomposed sedge and grass blades; few fine and very fine roots; slightly acid (pH 6.1); abrupt smooth boundary
Cg1—5 to 40 inches (13 to 102 cm); dark gray (2.5Y 4/1) silt loam; structureless; friable, slightly sticky and slightly plastic; common very fine and fine roots; common fine distinct light olive brown (2.5Y 5/6) redoximorphic concentrations; neutral (pH 6.6); diffuse smooth boundary
Cg2—40 to 55 inches (102 to 140 cm); dark greenish gray (4/5GY) very fine sandy loam; structureless; friable, nonsticky and nonplastic; few very fine roots; common medium distinct olive (5Y 4/4) redoximorphic concentrations; neutral (pH 6.6); abrupt smooth boundary
Oeb—55 to 59 inches (140 to 150 cm); black (10YR 2/1) hemic material; moderately decomposed organic material; very friable, nonsticky and nonplastic; neutral (pH 7.0); abrupt smooth boundary
Ab—59 to 70 inches (150 to 178 cm); dark olive gray (5Y 3/2) fine sand; structureless; loose, nonsticky and nonplastic; slightly alkaline (pH 7.6)

Typical Pedon Location

Map unit in which located: 62—Peede-Mosquito complex, in the Ft. Wainwright Soil Survey Area
Location in survey area: UTM zone 6, 454481 m E, 7180007 m N; near the east end of Salchaket Slough, southeast of Fairbanks, Alaska; transect 97MM040, hole 3

Range in Characteristics

Organic layer thickness: 1 to 5 inches (3 to 13 cm)
Note: buried organic layers may occur at any depth

O horizon:
Color—hue of 10YR or 7.5YR; value moist of 2 or 3; chroma moist from 1 to 3
Texture—hemic or sapric material
Reaction—slightly acid to neutral

Cg horizon:
Color—hue of 2.5Y, 5Y, 10Y, or 5GY; value moist from 3 to 5; chroma moist of 1 or 2
Texture—silt loam or very fine sandy loam; thin layers of coarser material are occasionally present
Reaction—slightly acid to slightly alkaline

Piledriver Series

Taxonomic Classification

- Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, nonacid, Aquic Cryofluvents

Setting

Depth class: shallow to moderately deep over sand and gravel
Drainage class: somewhat poorly drained
Permeability: moderate in the upper part; rapid in underlying material
Landforms and positions: floodplains and low terraces
Parent material: alluvium
Slope range: 0 to 1 percent
Elevation: 400 to 700 feet (122 to 213 m)

Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Piledriver very fine sandy loam—on a level plain at 545 feet (166 m) elevation, under paper birch and white spruce forest

Oi—0 to 3 inches (0 to 8 cm); dark brown (7.5YR 3/3) and very dark brown (7.5YR 2.5/2) fibric material; slightly decomposed moss, leaves, twigs, and other woody debris; common fine and few medium roots; extremely acid (pH 4.1); clear wavy boundary

C1—3 to 10 inches (8 to 25 cm); light olive brown (2.5Y 5/3) silt loam; weak medium platy structure parting to weak medium granular; friable, nonsticky and nonplastic; few fine roots; many medium, distinct gray redoximorphic depletions; slightly acid (pH 6.5); abrupt smooth boundary

C2—10 to 15 inches (25 to 38 cm); light olive brown (2.5Y 5/3) silt loam; weak medium platy structure parting to weak medium granular; very friable, nonsticky and nonplastic; few fine roots; common medium distinct dark gray (5Y 4/1) redoximorphic depletions; common black (7.5YR 2.5/1) strata of organic material up to 1 inch (up to 3 cm) thick; neutral (pH 7.2); clear smooth boundary

C3—15 to 33 inches (38 to 84 cm); grayish brown (2.5Y 5/2) loamy fine sand; weak fine platy structure; very friable, nonsticky and nonplastic; common medium faint gray (2.5Y 5/1) redoximorphic depletions; neutral (pH 7.3); clear smooth boundary

2C—33 to 45 inches (84 to 114 cm); grayish brown (2.5Y 5/2) extremely gravelly sand; single grain; loose, nonsticky and nonplastic; 70 percent rounded gravel; neutral (pH 7.3)

Typical Pedon Location

Map unit in which located: 31—Eielson-Piledriver complex, occasionally flooded
Location in survey area: SW¼, SW¼, Section 23, T3S, R3E, Fairbanks Meridian; near the southeastern border of Eielson Air Force Base; transect 97MM141, hole 5

Range in Characteristics

Thickness of the loamy surface layer: 10 to 40 inches (25 to 102 cm)
Organic layer thickness: 1 to 6 inches (3 to 15 cm)
Note: organic matter content decreases irregularly with depth

O horizon:
Color—hue of 10YR or 7.5YR; value moist of 2, 2.5 or 3; chroma moist from 1 to 3
Reaction—extremely acid to slightly acid

C horizon:
Color—hues of 10YR, 2.5Y, and 5Y; value moist from 3 to 5; chroma moist of 2 or 3
Texture—stratified, with textures including very fine sandy loam, silt loam, loamy very fine sand, and loamy fine sand
Reaction—slightly acid to neutral

2C horizon:
Color—hues of 2.5Y and 5Y; value moist from 3 to 5; chroma moist of 2 or 3
Texture—sand, very gravelly sand, or extremely gravelly sand
Coarse fragments—15 to 70 percent
Gravel content—15 to 70 percent
Cobble content—0 to 10 percent
Stone content—0 percent
Reaction—slightly acid to neutral

Richardson Series

Taxonomic Classification

- Coarse-silty, mixed, superactive, Aquic Cryochrepts

Setting

Depth class: moderately to very deep over sand and gravel
Drainage class: moderately well drained
Permeability: rapid in the organic mat, moderate in the loamy mineral soil, rapid in the sand and gravel
Landforms and positions: stream terraces
Parent material: loess over alluvium
Slope range: 0 to 2 percent

Elevation: 600 to 800 feet (183 to 244 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF (40ºF base temperature) (1000ºC, 4ºC base temperature)

Typical Pedon Description

Richardson silt loam—on a level slope at 880 feet (268 m) elevation under paper birch and black spruce scrub (post-fire regeneration).

A—0 to 3 inches (0 to 8 cm); dark gray (10YR 4/1) silt loam; common medium prominent dark yellowish brown (10YR 4/6) mottles; weak fine platy structure; friable; slightly sticky and slightly plastic; common very fine and fine roots; moderately acid (pH 5.6); abrupt wavy boundary.
Bw—3 to 20 inches (8 to 50 cm); 80% olive brown (2.5YR 4/4) and 10% dark grayish brown (2.5Y 4/2) silt loam; common large prominent dark yellowish brown (10YR 4/6) mottles; weak fine platy structure; friable; slightly sticky and slightly plastic; few very fine and fine roots; moderately acid (pH 5.6); gradual wavy boundary.
Bg—20 to 40 inches (50 to 102 cm); 50% olive gray (5Y 5/2) and 50% dark yellowish brown (10YR 4/4) stratified silt loam and very fine sandy loam; common medium prominent dark yellowish brown (10YR 4/6) mottles; weak fine platy structure; friable; slightly sticky and slightly plastic; few very fine and fine roots; slightly acid (pH 6.4); gradual wavy boundary.
BC—40 to 59 inches (102 to 150 cm); dark yellowish brown (10YR 4/4) stratified silt loam and sandy loam; common medium prominent dark grayish brown (2.5Y 4/2) mottles; weak angular blocky structure; friable; slightly sticky and slightly plastic; few very fine and fine roots; 10 percent gravel; slightly acid (pH 6.4); gradual wavy boundary.
2C—59 to 75 inches (150 to 190 cm); olive brown (2.5Y 4/4) loamy sand; structureless; loose; nonsticky and nonplastic; 5 percent gravel; slightly acid (pH 6.4).

Typical Pedon Location

Map unit in which located: (70) Volkmar—Richardson complex
Location in survey area: UTM zone 6, 488920 m E, 7137721 m N, approximately 35 miles south of Fairbanks Alaska (transect 97DS080 hole 11)

Range in Characteristics

Thickness of silty loess mantle: more than 40 inches (102 cm)
Organic layer thickness: 0 to 8 inches (0 to 20 cm)

O horizon (where present):
Color—hue of 10YR or 7.5YR; value moist of 2 or 3; chroma moist of 1 or 2
Texture—peat or mucky peat
Reaction—extremely acid to strongly acid

A horizon (where present):
Color—hue of 10YR or 7.5YR; value moist of 2 to 4; chroma moist of 1 or 2
Texture—silt loam or mucky silt loam
Reaction—strongly acid to slightly acid

B horizon:
Color—hue of 10YR, 2.5Y, or 5Y; value moist of 3 to 5, chroma moist of 2 to 4
Texture—silt loam or very fine sandy loam
Reaction—moderately acid to slightly acid

BC horizon (where present):
Color—hue of 10YR, 2.5Y or 5Y; value moist of 3 to 6, chroma moist of 2 to 4
Texture—silt loam, sandy loam, or loam
Coarse fragments—0 to 25 percent
Gravel content—0 to 25 percent
Cobble content—0 to 5 percent
Stone content—0 percent
Reaction—moderately acid to slightly acid

2C horizon:
Color—variegated; or hue of 2.5Y; value moist of 3 to 5; and value moist of 2 to 4.
Texture—sand, loamy sand, very gravelly sand, extremely gravelly sand, or very gravelly loamy sand
Coarse fragments—35 to 60 percent
Gravel content—35 to 60 percent
Cobble content—0 to 10 percent
Stone content—0 percent
Reaction—moderately acid to neutral

Salchaket Series

Taxonomic Classification

- Coarse-loamy, mixed, superactive, nonacid, Typic Cryofluvents

Setting

Depth class: very deep—more than 60 inches (more than 152 cm)
Drainage class: well drained
Permeability: moderate in the loamy soil; rapid in the sand and gravel substratum
Landforms and positions: alluvial flats and natural levees on floodplains
Parent material: alluvium
Slope range: 0 to 1 percent
Elevation: 400 to 700 feet (122 to 213 meters)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Salchaket very fine sandy loam—on a level plain at 545 feet (166 m) elevation, under paper birch and white spruce forest

Oe—0 to 2 inches (0 to 5 cm); dark brown (7.5YR 3/2) mat of partially decomposed forest litter and moss; many very fine to coarse roots; strongly acid (pH 5.2); abrupt wavy boundary
Bw—2 to 10 inches (5 to 25 cm); olive brown (2.5Y 4/3) stratified very fine sandy loam and very fine sand; structureless; very friable, nonsticky and nonplastic; common very fine to coarse roots; common medium faint dark grayish brown (2.5Y 4/2) redoximorphic depletions; slightly alkaline (pH 7.4); gradual smooth boundary
BC—10 to 29 inches (25 to 74 cm); dark grayish brown (2.5Y 4/2) stratified loamy very fine sand and loamy fine sand; structureless; very friable, nonsticky and nonplastic; few fine roots; common medium prominent dark yellowish brown (10YR 4/6) redoximorphic concentrations; slightly alkaline (pH 7.4); gradual smooth boundary
C1—29 to 43 inches (74 to 109 cm); dark grayish brown (2.5Y 4/2) stratified very fine sandy loam and fine sand; structureless; very friable, nonsticky and nonplastic; slightly alkaline (pH 7.4); gradual smooth boundary
C2—43 to 51 inches (109 to 130 cm); dark grayish brown (2.5Y 4/2) stratified fine sand and sand; structureless; very friable, nonsticky and nonplastic; slightly alkaline (pH 7.4); clear smooth boundary
C3—51 to 55 inches (130 to 140 cm); dark grayish brown (2.5Y 4/2) loamy very fine sand; structureless; very friable, nonsticky and nonplastic; common medium prominent dark yellowish brown (10YR 4/6) redoximorphic concentrations; slightly alkaline (pH 7.4); clear smooth boundary
C4—55 to 75 inches (140 to 191 cm); dark grayish brown (2.5Y 4/2) sand; structureless; loose, nonsticky and nonplastic; slightly alkaline (pH 7.4)

Typical Pedon Location

Map unit in which located: 32—Salchaket very fine sandy loam
Location in survey area: SW¼, SW ¼, Section 14, T3S, R3E, Fairbanks Meridian; on Eielson Air Force Base between the Richardson Highway and Piledriver Slough; transect 97DS027, hole 2

Range in Characteristics

Thickness of organic mat: 1 to 7 inches (3 to 18 cm)
Note: organic carbon decreases irregularly with depth; thin buried organic horizons may occur throughout the profile

Oe horizon:
Color—hue of 10YR or 7.5YR; value moist of 2 or 3; chroma moist from 2 to 4
Texture—slightly decomposed to moderately decomposed organic matter
Reaction—strongly to slightly acid

Bw horizon:
Color—hue of 2.5Y or 10YR; value moist from 3 to 5; chroma moist of 3 or 4
Texture—stratified, with textures including loamy very fine sand, very fine sand, very fine sandy loam, and silt loam
Reaction—slightly acid to slightly alkaline

BC horizon (where present):
Color—hue of 2.5Y; value moist of 3 or 4; chroma moist from 2 to 4
Texture—stratified, with textures including loamy very fine sand, loamy fine sand, very fine sandy loam, and silt loam

Reaction—slightly acid to slightly alkaline

C horizon:
Color—hue of 5Y or 2.5Y; value moist of 4 or 5; chroma moist of 2 or 3
Texture—stratified, with textures including silt loam, loamy very fine sand, loamy fine sand, and fine sand
Reaction—slightly acid to slightly alkaline

2C horizon:
Color—variegated, or hue of 5Y or 2.5Y; value moist of 4 or 5; chroma moist of 2 or 3
Texture—sand, gravelly sand, very gravelly sand, or extremely gravelly sand
Gravel content—0 to 65 percent
Reaction—slightly acid to slightly alkaline

Saulich Series

Taxonomic Classification

- Coarse silty, mixed, superactive, subgelic, Typic Histoturbels

Setting

Depth class: shallow to moderately deep over permafrost
Drainage class: poorly drained
Permeability: rapid in the fibric organic matter; moderate in the thawed mineral soil; impermeable in the frozen soil
Landforms and positions: middle and lower portions of north-facing slopes
Parent material: organic matter over loess or colluviated loess
Slope range: 0 to 20 percent
Elevation: 450 to 1400 feet (137 to 427 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Saulich peat—on a 4 percent slope at 510 feet (155 m) elevation, under sparse forest of black spruce with an understory of low shrubs

Oi—0 to 9 inches (0 to 23 cm); very dark brown (7.5YR 2.5/3) mat of undecomposed sphagnum moss and roots; strongly acid (pH 5.2); clear smooth boundary
Oe—9 to 16 inches (23 to 41 cm); black (7.5YR 2.5/1) and dark brown (7.5YR 3/2) mat of moderately decomposed moss; many roots; slightly acid (pH 6.4); abrupt smooth boundary
Bg/Afm—16 to 21 inches (41 to 53 cm); very dark grayish brown (2.5Y 3/2) and black (7.5YR 2.5/1) silt loam; structureless; friable, nonsticky and nonplastic; few roots; few medium prominent light brownish gray (10YR 6/2) redoximorphic depletions; neutral (pH 6.6); gradual boundary
Cfm—21 to 39 inches (53 to 99 cm); dark grayish brown (2.5Y 4/2) silt loam; structureless; many clear ice lenses; few medium prominent light brownish gray (10YR 6/2) redoximorphic depletions; neutral (pH 6.6)

Typical Pedon Location

Map unit in which located: 51B—Saulich peat, 3 to 7 percent slopes, in the Ft. Wainwright Soil Survey Area
Location in survey area: UTM zone 6, 472550 m E, 7192900 m N; Ft. Wainwright contonement area, Alaska; transect 97MM017, hole 1

Range in Characteristics

Thickness of silty loess mantle: more than 40 inches (more than 102 cm)
Organic layer thickness: 8 to 16 inches (20 to 41 cm)
Depth to the frozen soil (July-August): 10 to 20 inches (25 to 50 cm)

O horizon:
Color—hue of 10YR or 7.5YR; value moist from 2 to 4; chroma moist from 1 to 3
Texture—peat or mucky peat
Reaction—extremely acid to slightly acid

A horizon:
Color—hue of 10YR or 7.5YR; value moist of 2 or 3; chroma moist from 1 to 3
Texture—silt loam or mucky silt loam
Reaction—moderately acid to neutral

B horizon:
Color—hue from 10YR to 5Y; value moist from 3 to 5; chroma moist from 1 to 3

Texture—silt loam or very fine sandy loam
Reaction—moderately acid to neutral

C horizon:
Color—hue of 2.5Y or 5Y; value moist from 3 to 5; chroma moist from 1 to 3
Texture—silt loam or very fine sandy loam
Reaction—slightly acid to neutral

Steese Series

Taxonomic Classification

- Coarse-loamy, mixed, superactive, Typic Eutrocryepts

Setting

Depth class: moderately deep over weathered bedrock
Drainage class: well drained
Permeability: moderate
Landforms and positions: slopes and crests of hills
Parent material: loess over weathered schist bedrock, or colluvium from loess and weathered schist bedrock
Slope range: 3 to 45 percent
Elevation: 450 to 2700 feet (137 to 823 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Steese silt loam—on an 8 percent slope at 885 feet (270 m) elevation, under paper birch, white spruce, and quaking aspen forest with alder shrubs (All colors are for moist soil.)

Oi—0 to 2 inches (0 to 5 cm); dark brown (7.5YR 3/2) forest litter and moss; many roots; mycelia at base of horizon; charcoal fragments; slightly acid; abrupt smooth boundary
A—2 to 5 inches (5 to 13 cm); brown (10YR 4/3) silt loam; weak fine granular structure; very friable, nonsticky and nonplastic; many roots; common mica flakes; strongly acid (pH 5.3); abrupt wavy boundary
Bw—5 to 20 inches (13 to 51 cm); light olive brown (2.5Y 5/4) silt loam; moderate medium platy structure; very friable, nonsticky and nonplastic; common medium and fine roots; few medium distinct yellowish brown (10YR 5/6) redoximorphic concentrations; few charcoal fragments; many mica flakes; moderately acid (pH 5.8); abrupt wavy boundary
BC—20 to 27 inches (51 to 69 cm); light olive brown (10YR 5/3) silt loam; weak thin platy structure; very friable, nonsticky and nonplastic; common medium prominent yellowish brown (10YR 5/6) redoximorphic concentrations; moderately acid (pH 5.8); clear wavy boundary
2C—27 to 33 inches (69 to 84 cm); light olive brown (2.5Y 5/3) channery silt loam; structureless; very friable; 20 percent schist channers; slightly acid (pH 6.3); clear wavy boundary
2Cr—33 to 35 inches (84 to 89 cm); highly weathered schist bedrock

Typical Pedon Location

Map unit in which located: 44C—Steese silt loam, 7 to 12 percent slopes, in the adjacent Fairbanks Soil Survey Area
Location in survey area: NW¼, NW¼, Section 14, T1N, R3E, Fairbanks Meridian; Northwest of Two Rivers, Alaska; transect 97DM018, hole 2

Range in Characteristics

Thickness of silty loess mantle: 20 to 40 inches (51 to 102 cm)
Organic layer thickness: 1 to 6 inches (3 to 15 cm)
Depth to unconsolidated bedrock: 20 to 40 inches (51 to 102 cm)
Texture of the control section: silt loam

A horizon:
Color—hue of 7.5YR, 10YR, or 2.5Y; value moist from 2 to 4; chroma moist from 1 to 4
Texture—silt loam
Reaction—strongly acid to slightly acid

Bw horizon:
Color—hue of 7.5YR, 10YR, or 2.5Y; value moist from 3 to 5; chroma moist from 3 to 6
Texture—silt loam
Redoximorphic features—few to common, in shades of yellow and brown
Reaction—strongly acid to slightly acid

C horizon:
Color—hue of 10YR, 2.5Y, or 5Y; value moist from 3 to 6; chroma moist from 1 to 4
Texture—silt loam, very fine sandy loam, and loamy fine sand
Coarse fragments—0 to 40 percent
Gravel content—0 to 40 percent
Flag content—0 to 5 percent
Reaction—strongly acid to slightly acid

Cr horizon:
Fragmental or highly weathered and fractured schist, grading to consolidated bedrock

Tanacross Series

Taxonomic Classification

- Coarse-loamy, mixed, superactive, subgelic, Typic Histoturbels

Setting

Depth class: shallow to moderately deep over permafrost
Drainage class: poorly drained
Permeability: rapid in the slightly decomposed organic matter; moderate in the mineral soil above the permafrost; impermeable in the permafrost
Landforms and positions: alluvial terraces
Parent material: organic matter over alluvium
Slope range: 0 to 2 percent
Elevation: 400 to 900 feet (122 to 274 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Tanacross peat—on a level plain at 825 feet (251 m) elevation, under black spruce forest

Oi—0 to 9 inches (0 to 23 cm); dark brown (7.5YR 3/2) peat; many very fine to coarse roots; very strongly acid (pH 4.8); clear smooth boundary
OaA—9 to 12 inches (23 to 30 cm); black (7.5YR 2/1) mucky silt loam; few very fine to medium roots; moderately acid (pH 6.0); abrupt irregular boundary
Bg—12 to 20 inches (30 to 51 cm); dark gray (5Y 4/1) and dark yellowish brown (10YR 4/6) stratified sand and silt loam; structureless; friable, slightly sticky and slightly plastic; slightly acid (pH 6.2); abrupt smooth boundary
Bgf—20 to 40 inches (51 to 102 cm); dark gray (5Y 4/1) and dark yellowish brown (10YR 4/6) frozen, stratified sand and silt loam; structureless; extremely firm, slightly sticky and slightly plastic; slightly acid (pH 6.2)

Typical Pedon Location

Map unit in which located: 22—Tanacross peat, in the Ft. Wainwright Soil Survey Area
Location in survey area: UTM zone 6, 485171 m E, 7141080 m N; approximately 35 miles south of Fairbanks, Alaska; transect 97DS049C, hole 7

Range in Characteristics

Organic layer thickness: 8 to 16 inches (20 to 41 cm)
Depth to frozen soil (July-August): 10 to 28 inches (25 to 71 cm)

O horizon:
Color—hue of 5YR, 7.5YR, or 10YR; value moist from 2 to 5; chroma moist from 1 to 6
Texture—peat, mucky peat, or muck
Reaction—extremely to strongly acid

Bg horizon:
Color—hue of 2.5Y, 5Y, or 10YR; value moist of 4 or 5; chroma moist from 1 to 6
Texture—silt loam or stratified silt loam and fine sand or sand.
Reaction—strongly acid to slightly acid

Tanana Series

Taxonomic Classification

- Coarse-loamy, mixed, superactive, subgelic, Typic Aquiturbels

Setting

Depth class: shallow to moderately deep over

permafrost
Drainage class: poorly drained
Permeability: rapid in the fibric organic matter; moderate in the mineral soil above the permafrost; impermeable in the frozen soil
Landforms and positions: floodplains and terraces
Parent material: alluvium, or loess over alluvium
Slope range: 0 to 2 percent
Elevation: 400 to 900 feet (122 to 274 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Typical Pedon Description

Tanana silt loam—on a 4 percent slope at 459 feet (140 m) elevation, under paper birch and white spruce forest

Oi—0 to 5 inches (0 to 13 cm); very dark brown (10YR 2/2) mat of moss and forest litter; many roots; mycelia; strongly acid; abrupt smooth boundary
A—5 to 8 inches (13 to 20 cm); mixed very dark grayish brown (10YR 3/2) and dark gray (5Y 4/1) silt loam; weak very thin platy structure parting to weak very fine granular; friable, nonsticky and nonplastic; many roots; few small charcoal particles; medium acid; clear smooth boundary
Bg1—8 to 16 inches (20 to 41 cm); dark gray (5Y 4/1) silt loam; weak very thin platy structure parting to weak very fine subangular blocky; friable, nonsticky and nonplastic; many medium distinct mottles of dark brown (7.5YR 4/4); common roots; few small charcoal particles; neutral; clear smooth boundary
Bg2—16 to 26 inches (41 to 66 cm); dark grayish brown (2.5Y 4/2) silt loam; weak very thin platy structure; friable, nonsticky and nonplastic; common medium faint mottles of olive brown (2.5Y 4/4); few roots; mildly alkaline; gradual boundary
C—26 to 29 inches (66 to 74 cm); dark grayish brown (2.5Y 4/2) silt loam, slightly coarser than horizon above; weak very thin platy structure; very friable, nonsticky and nonplastic; few roots; mildly alkaline; abrupt smooth boundary
Cf—29 to 39 inches (74 to 99 cm); dark grayish brown (2.5Y 4/2) silt loam; frozen

Typical Pedon Location

Map unit in which located: 25—Tanana silt loam, 0 to 3 percent slopes, in the adjacent Fairbanks Soil Survey Area
Location in survey area: NE¼, SW¼, Section 1, T1S, R2W, Fairbanks Meridian; near the intersection of Geist Road and the Parks Highway west of Fairbanks, Alaska

Range in Characteristics

Thickness of the loamy surface layer: more than 40 inches (more than 102 cm)
Organic layer thickness: 2 to 8 inches (5 to 20 cm)
Depth to frozen soil (July-August): 16 to 47 inches (41 to 119 cm)
Note: buried A and O horizons may occur throughout the profile

O horizon:
Color—hue from 5YR to 2.5Y; value moist from 2 to 4; chroma moist of 1 or 2
Texture—organic material is slightly to moderately decomposed
Reaction—strongly acid to slightly acid

A horizon:
Color—hues from 5YR to 2.5Y; value moist from 2 to 4; chroma moist from 1 to 3
Texture—silt loam and very fine sandy loam
Reaction—slightly acid to neutral

Bg or Cg horizon:
Color—hues from 7.5YR to N; value moist from 3 to 5; chroma moist from 0 to 4
Texture—silt loam and very fine sandy loam, with occasional thin lenses of fine sandy loam and fine sand
Reaction—slightly acid to neutral
C horizon:
Color—hues from 10YR to 5Y; value moist from 3 to 5; chroma moist from 1 to 4
Texture—silt loam and very fine sandy loam, with occasional thin lenses of fine sandy loam and fine sand
Coarse fragments—0 to 5 percent
Reaction—slightly acid to neutral

Terric Cryofibrists

Taxonomic Classification

- Terric Cryofibrists

Setting

Depth class: very deep—more than 60 inches (more than 152 cm)
Drainage class: very poorly drained
Permeability: very rapid in the organic surface materials; moderate in the loamy substratum
Landforms and positions: depressions on floodplains and terraces
Parent material: organic matter over alluvium
Slope range: 0 to 1 percent
Elevation: 400 to 500 feet (122 to 152 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Representative Pedon Description

Terric Cryofibrist—in a level depression at 426 feet (130 m) elevation, under sedges

Oi1—0 to 10 inches (0 to 25 cm); very dark brown (10YR 2/2) peat; many very fine to medium roots; moderately acid (pH 5.8); gradual smooth boundary
COi—10 to 12 inches (25 to 30 cm); very dark gray (10YR 3/1) peaty silt loam; structureless; slightly sticky and slightly plastic; many very fine to medium roots; slightly acid (pH 6.2); gradual smooth boundary
Oi2—12 to 28 inches (30 to 71 cm); very dark brown (10YR 2/2) peat; many very fine to medium roots; slightly acid (pH 6.2); clear smooth boundary
Oa—28 to 40 inches (71 to 102 cm); black (10YR 2/1) muck; slightly acid (pH 6.2); clear smooth boundary
CgOa—40 to 51 inches (102 to 130 cm); black (5Y 2.5/1) mucky silty clay loam; structureless; sticky and plastic; neutral (pH 6.6)

Representative Pedon Location

Map unit in which located: 14—Histels-Terric Cryofibrists complex, in the Ft. Wainwright Soil Survey Area
Location in survey area: UTM zone 6, 456439 m N, 717151 m E; south of Salchaket Slough, south of Fairbanks, Alaska; transect 97DS093, hole 3

Range in Characteristics

Organic layer thickness: 16 to 51 inches (41 to 130 cm)
Note: particle size class of mineral layers is coarse-silty or fine-silty

Oi horizon:
Color—hue of 10YR; value moist of 2 or 3; chroma moist from 1 to 3
Texture—peat
Coarse fragments—0 percent
Reaction—very strongly acid to slightly acid

Oa horizon (where present):
Color—hue of 10YR; value moist of 2 or 3; chroma moist from 1 to 3
Texture—muck
Coarse fragments—0 percent
Reaction—moderately acid to neutral

Cg horizon:
Color—hue of 10Y, 5Y, 2.5Y, 5GY, or N; value moist from 2 to 4; chroma moist from 0 to 2
Texture—silt loam, very fine sandy loam, silty clay loam, or mucky; or peat variants of these textures
Coarse fragments—0 percent
Reaction—moderately acid to neutral

Turbels

Taxonomic Classification

- Turbels

Setting

Depth class: Very shallow to moderately deep over skeletal material
Drainage class: poorly
Permeability: moderately rapid in the organic mat and moderate in the mineral soil above the permafrost
Landforms and positions: steep, dominantly north facing hill slopes

Parent material: colluvium over weathered bedrock
Slope range: 0 to 30 percent
Elevation: 2500 to 3300 feet (762 to 1006 m)
Climatic data (average annual):
Precipitation—12 to 16 inches (30 to 40 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1000ºF (40ºF base temperature) (500ºC, 4ºC base temperature)

Representative Pedon Description

Turbel—on a 20 percent slope at 2900 feet (884 m) elevation under alpine tundra.

Oi—0 to 3 inches (0 to 6 cm); slightly decomposed organic matter; common very fine, fine, and coarse roots; extremely acid (pH 4.4); clear smooth boundary.
A/Ejj—2 to 13 inches (6 to 33 cm); (A) very dark brown (7.5YR 2.5/2) and (E) dark gray (7.5YR 4/1) gravelly silt loam; common large distinct very dark gray (10YR 3/1) mottles; weak medium subangular blocky structure; friable, slightly sticky and slightly plastic; few very fine and fine roots; 15 percent gravel and 10 percent cobbles; very strongly acid (pH 4.8); clear wavy boundary.
BCjj—13 to 24 inches (33 to 62 cm); dark brown (10YR 3/3) very gravelly silt loam; weak medium subangular blocky structure; friable; slightly sticky and slightly plastic; 35 percent gravel and 10 percent cobbles; very strongly acid (pH 4.8); abrupt wavy boundary.
BCfm—24 to 32 inches (62 to 80 cm); dark brown (10YR 3/3) very gravelly silt loam; structureless; extremely firm; 35 percent gravel and 10 percent channers; very strongly acid (pH 4.8).

Representative Pedon Location

Map unit in which located: 88 Dystrocryepts-Turbels complex, 0 to 30 percent slopes
Location in survey area: Ft. Wainwright Soil Survey Area; UTM zone 6, 538164E, 7172014N; near the end of Brigadier Road in the Yukon Maneuver Area; transect 99MM147, stop 6.

Range in Characteristics

Depth to skeletal material: 0 to 30 inches
Organic layer thickness: 0 to 16 inches (0 to 40 cm)
Depth to frozen soil (July-Aug): 14 to 26 inches (36 to 65cm)

O horizon:
Color—hue of 5YR, 7.5YR,or 10YR; value moist of 2 to 6; and chroma moist of 1 to 8
Degree of decomposition—fibric or hemic
Reaction—extremely acid to very strongly acid

A or A/E horizon:
Color—hue of 7.5YR,10YR or 2.5Y; value moist of 2 or 3; and chroma moist of 1 or 2
Texture—silt loam or mucky silt loam in the fine earth fraction
Coarse fragments—0 to 50 percent
Reaction—extremely acid to strongly acid

BC horizon:
Color—10YR or 2.5Y; value moist of 3 or 4; and chroma moist from 2 to 4
Texture—silt loam or loam in the fine earth fraction
Coarse fragments—30 to 70 percent
Reaction—very strongly acid to moderately acid

Typic Aquorthels

Taxonomic Classification

- Typic Aquorthels

Setting

Depth class: very deep (more than 60 inches (152 cm))
Drainage class: poorly drained
Permeability: rapid in the fibric organic matter, moderate in the loamy mineral soil and impermeable in the frozen soil
Landforms and positions: floodplains
Parent material: alluvium
Slope range: 0 to 10 percent
Elevation: 400 to 1800 feet (122 to 549 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF (40ºF base temperature) (1000ºC, 4ºC base temperature)

Representative Pedon Description

Typic Aquorthel—on a level slope at 426 feet (130 m) elevation under alder scrub

Oi—0 to 4 inches (0 to 9 cm); very dark gray (10YR 3/1) slightly decomposed organic matter; many

very fine to coarse roots; slightly acid (pH 6.4); abrupt wavy boundary.
Cg1—4 to 8 inches (9 to 20 cm); 50 percent dark gray (2.5Y 4/2) and 50 percent dark yellowish brown (10YR 4/6) silt loam; structureless; friable; slightly sticky and slightly plastic; few very fine and fine roots; slightly acid (pH 6.4); abrupt wavy boundary.
Oab—8 to 9 inches (20 to 23 cm); black (7.5YR 2.5/1) muck; few very fine and fine roots; neutral (pH 6.8); abrupt wavy boundary.
Cg2—9 to 18 inches (23 to 46 cm); olive gray (5Y 4/2) and dark yellowish brown (10YR 4/4) very fine sandy loam; structureless; friable; nonsticky and nonplastic; few very fine and fine roots; neutral (pH 6.8); abrupt smooth boundary.
Oeb—18 to 26 inches (46 to 65 cm); dark brown (7.5YR 3/3) mucky peat; moderately acid (pH 6.6); abrupt smooth boundary.
Cg/Oef— 26 to 152 inches (65 to 100 cm); stratified, frozen, 60 percent dark gray (2.5Y 4/2) and dark yellowish brown (10YR 4/4) very fine sandy loam and 40 percent dark brown (7.5YR 3/3) mucky peat; structureless; extremely firm; nonsticky and nonplastic; neutral (pH 6.6).

Representative Pedon Location

Map unit in which located: (65) Typic Cryaquents and Typic Aquorthels.
Location in survey area: 461425 m N, 7184649 m E, UTM zone 6; between Salchaket Slough and the Tanana River south of Fairbanks, Alaska. 97DS037 hole 2.

Range in Characteristics

Depth to frozen soil (July-Aug): 14 to 28 inches (35 to 70 cm)
Organic layer thickness: 2 to 8 inches (4 to 24 cm),
Notes: particle size class is coarse-silty or coarse-loamy

O horizons
Color—hue of 7.5YR or 10YR; value moist of 2 or 3; chroma moist of 1 to 3
Texture—peat, mucky peat, or muck
Coarse fragments—0 percent
Reaction—strongly acid to neutral

Cg horizons:
Color—hue of 5Y, 2.5Y or 10Y/R, value moist of 3 to 5; chroma moist of 1 to 4
Texture—silt loam, very fine sandy loam, or stratified silt loam, loamy sand, and coarse sand
Coarse fragments—0 percent
Reaction—moderately acid to neutral

Typic Cryaquents

Taxonomic Classification

- Typic Cryaquents

Setting

Depth class: very deep—more than 60 inches (more than 152 cm)
Drainage class: poorly drained
Permeability: moderate in the loamy surface materials; rapid in the sand and gravel
Landforms and positions: floodplains and depressions on terraces and in narrow mountain valleys
Parent material: alluvium or lake sediment
Slope range: 0 to 10 percent
Elevation: 400 to 1800 feet (122 to 549 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Representative Pedon Description

Typic Cryaquent—on a level slope at 417 feet (127 m) elevation, under alder scrub

Oe—0 to 4 inches (0 to 10 cm); black (10YR 2/1) partially decomposed forest litter; many very fine and fine roots; neutral (pH 6.8); abrupt wavy boundary
Cg1—4 to 5 inches (10 to 13 cm); dark gray (2.5Y 4/2 and 2.5Y 4/1) silt loam; many medium distinct olive brown (2.5Y 4/4) mottles; structureless; friable, slightly sticky and slightly plastic; few very fine to medium roots; neutral (pH 7.0); abrupt smooth boundary
Oab—5 to 6 inches (13 to 15 cm); black (7.5YR 2.5/1) muck; few very fine roots; neutral (pH 7.0); abrupt smooth boundary
Cg2—6 to 21 inches (15 to 53 cm); dark gray (2.5Y 4/2 and 2.5Y 4/1) silt loam; many medium

distinct olive brown (2.5Y 4/4) mottles; structureless; friable, slightly sticky and slightly plastic; few very fine and fine roots; neutral (pH 7.0); gradual wavy boundary

Cg3—21 to 30 inches (53 to 76 cm); dark gray (5Y 4/1) and olive brown (2.5Y 4/3) silt loam; many medium prominent olive brown (2.5Y 4/4) mottles; structureless; friable, slightly sticky and slightly plastic; neutral (pH 7.0); clear irregular boundary

Oeb—30 to 40 inches (76 to 102 cm); black (10YR 2/1) mucky peat; moderately acid (pH 6.0); abrupt irregular boundary

Cg4—40 to 75 inches (102 to 191 cm); dark gray (5Y 4/1) stratified loamy very fine sand and silt loam; structureless; very friable, nonsticky and nonplastic; slightly acid (pH 6.4)

Representative Pedon Location

Map unit in which located: 65—Typic Cryaquents and Typic Aquorthels, in the Ft. Wainwright Soil Survey Area

Location in survey area: UTM zone 6, 456828 m N, 7180951 m E; between Salchaket Slough and the Tanana River south of Fairbanks, Alaska; transect 97DS102, hole 4

Range in Characteristics

Thickness of loamy surface layer: 14 to more than 60 inches (35 to more than 152 cm)

Organic layer thickness: 1 to 8 inches (3 to 20 cm)

Note: particle size class is coarse-silty or coarse-loamy

O Horizon:

Color—hue of 7.5YR or 10YR; value moist of 2 or 3; chroma moist from 1 to 3

Texture—peat, mucky peat or muck

Coarse fragments—0 percent

Reaction—moderately acid to neutral

Cg horizon:

Color—hue of 5Y, 2.5Y, or N; value moist of 3 or 4; chroma moist of 1 or 2

Texture—silt loam, silty clay loam, or stratified silt loam, very fine sand, loamy sand, or gravel

Coarse fragments—0 to 30 percent

Reaction—moderately acid to neutral

2C horizon (where present):

Color—variegated

Texture—sand, very gravelly sand, or fine sand

Coarse fragments—0 to 50 percent

Gravel content—0 to 50 percent

Reaction—slightly acid to neutral

Typic Cryorthents

Taxonomic Classification

- Typic Cryorthents

Setting

Depth class: deep and very deep

Drainage class: moderately well drained to well drained

Permeability: moderate in the loamy surface horizons; rapid in the coarse-textured substratum

Landforms and positions: floodplains and hills and man-made features

Parent material: loamy fill over alluvium

Slope range: 0 to 70 percent

Elevation: 400 to 600 feet (122 to 183 m)

Climatic data (average annual):

Precipitation—10 to 14 inches (25 to 36 cm)

Air temperature—24º to 28ºF (-4º to -2ºC)

Growing degree days—1800ºF-days, 40ºF base temperature (1000ºC-days, 4ºC base temperature)

Representative Pedon Description

Typic Cryorthent—on a level floodplain at 450 feet (137 m) elevation, under grass lawn

A—0 to 3 inches (0 to 8 cm); very dark grayish brown (10YR 3/2) gravelly loamy very fine sand; weak fine granular structure; very friable, nonsticky and nonplastic; common very fine and fine roots; 25 percent gravel; neutral; clear smooth boundary

C1—3 to 30 inches (8 to 76 cm); light olive brown (2.5Y 5/3) stratified gravelly silt loam, gravelly very fine sandy loam, and gravelly sand; weak fine platy structure; very friable, nonsticky and nonplastic; few very fine roots; 15 percent gravel; neutral; gradual smooth boundary

2C2—30 to 63 inches (76 to 160 cm); light olive brown (2.5Y 5/3) stratified very fine sandy loam and silt loam; weak fine platy structure; friable, nonsticky and nonplastic; few fine faint gray (2.5Y 6/1) redoximorphic depletions; slightly alkaline; abrupt smooth boundary
2C3—63 to 75 inches (160 to 191 cm); light brownish gray (2.5Y 6/2) sand; structureless; loose, nonsticky and nonplastic; slightly alkaline

Representative Pedon Location

Map unit in which located: UC—Urban land-Typic Cryorthents complex, 0 to 1 percent slopes, in the Ft. Wainwright Soil Survey Area
Location in survey area: UTM zone 6, 469107 m E, 7189193 m N; on Ft. Wainwright Army Base, contonement area, Fairbanks, Alaska; transect 97MM098, hole 1

Range in Characteristics

Depth to alluvial material: 20 to more than 60 inches (51 to more than 152 cm)
Note: particle size class is coarse-loamy, loamy-skeletal, or sandy

O horizon (when present):
Color—hue of 7.5YR; value moist of 3; chroma moist of 2
Texture—slightly decomposed organic matter
Reaction—neutral

A horizon (when present):
Color—hue of 10YR; value moist from 2 to 4; chroma moist of 2
Texture—very fine sandy loam, gravelly loamy very fine sand, and very fine sandy loam
Gravel content—0 to 35 percent
Reaction—neutral

C horizon:
Color—hue of 2.5Y; value moist from 3 to 5; chroma moist from 2 to 4
Texture—loamy very fine sand, very fine sandy loam, gravelly and very gravelly loamy sand, and sandy loam
Gravel content—0 to 40 percent
Reaction—neutral to slightly alkaline

2C2 horizon:
Color—hue of 2.5Y; value moist from 3 to 5; chroma moist from 2 to 4
Texture—silt loam and sand; stratified, with textures including very fine sandy loam, loamy very fine sand, very fine sand, fine sand, and silt loam
Gravel content—0 to 10 percent
Reaction—neutral to slightly alkaline

2C3 horizon (when present):
Color—hue of 2.5Y; value moist of 4; chroma moist of 2
Texture—sand, gravelly sand, very gravelly loamy fine sand, or very gravelly sand
Gravel content—0 to 50 percent
Reaction—neutral to slightly alkaline

Volkmar Series

Taxonomic Classification

- Coarse-silty over sandy or sandy-skeletal, mixed, superactive, Aquic Cryochrepts

Setting

Depth class: shallow to moderately deep over sand and gravel
Drainage class: moderately well drained
Permeability: rapid in the organic mat, moderate in the loamy mineral soil, rapid in the sand and gravel
Landforms and positions: stream terraces
Parent material: loess over alluvium
Slope range: 0 to 2 percent
Elevation: 600 to 800 feet (183 to 244 m)
Climatic data (average annual):
Precipitation—10 to 14 inches (25 to 36 cm)
Air temperature—24º to 28ºF (-4º to -2ºC)
Growing degree days—1800ºF (40ºF base temperature) (1000ºC, 4ºC base temperature)

Typical Pedon Description

Volkmar silt loam—on a level slope at 690 feet (210 m) elevation under paper birch scrub (post-fire regeneration).
Oi—0 to 3 inches (0 to 8 cm); very dark gray (10YR 3/1) peat; many very fine to medium roots; strongly acid (pH 5.2); abrupt smooth boundary.
Bw—3 to 10 inches (8 to 25 cm); brown (7.5YR 4/4) very fine sandy loam; common medium prominent light gray (10YR 7/2) mottles; weak fine platy structure; very friable; nonsticky and nonplastic; common very fine and fine roots; moderately acid (pH 5.8); abrupt irregular boundary.

C—10 to 18 inches (25 to 45 cm); light yellowish brown (2.5YR 6/3) very fine sandy loam; moderate fine play structure; very friable; nonsticky and nonplastic; few very fine and fine roots; slightly acid (pH 6.4); abrupt smooth boundary.

2C—18 to 39 inches (45 to 100 cm); variegated very gravelly loamy sand; structureless; loose; nonsticky and nonplastic; 40 percent gravel; neutral (pH 6.6).

Typical Pedon Location

*Map unit in which located: (*70) Volkmar—Richardson complex

Location in survey area: (UTM zone 6, 476978 m E, 7143866 m N, approximately 35 miles south of Fairbanks Alaska. Transect 97WRL059 hole 5.

Range in Characteristics

Thickness of silty loess mantle: 15 to 40 inches (38 to 100 cm)

Organic layer thickness: 1 to 6 inches (3 to 15 cm)

O horizon:

Color—hue of 10YR or 7.5YR; value moist of 2 or 3; chroma moist of 1 or 2

Texture—peat or mucky peat

Reaction—extremely acid to strongly acid

Bw horizon:

Color—hue of 7.5YR, 10YR, or 2.5Y; value moist of 3 to 5, chroma moist of 2 to 4

Texture—silt loam or very fine sandy loam

Reaction—moderately acid to slightly acid

C horizon:

Color—hue of 2.5Y or 5Y; value moist of 3 to 6, chroma moist of 2 to 4

Texture—silt loam or very fine sandy loam

Reaction—moderately acid to slightly acid

2C horizon:

Color—variegated

Texture—very gravelly sand, extremely gravelly sand, or very gravelly loamy sand

Coarse fragments—35 to 60 percent

Gravel content—35 to 60 percent

Cobble content—0 to 10 percent

Stone content—0 percent

Reaction—moderately acid to neutral

Formation of the Soils

Soil is the unconsolidated mineral and organic material on the surface of the earth that serves as a natural medium for the growth of land plants (USDA 1999). Soil formation is controlled by genetic and environmental factors of climate (including temperature and moisture effects), topography, parent material, and living organisms—all acting over a period of time. The influence of any one of these factors varies from place to place, and the interaction of all of them determines the kind of soil that forms (Jenny 1941).

The soils of Fort Wainwright are weakly developed as a result of the cold climate and youth of the parent materials. Thus, soil properties such as particle size, composition, and clay mineralogy are largely determined by the properties of the parent material. Parent materials in this area include alluvium, bedrock, and loess. Alluvium consists of stratified fine sand and silt, or in some areas mostly silt, underlain at some depth by sand and gravel. The surface alluvium is Holocene in age and flood deposition still occurs. Loess covers most unflooded surfaces and is many feet thick in the unflooded lowlands. Loess is Pleistocene and Holocene in age and, at present, loess deposition continues. On lower hillslopes, loess has probably been transported and redeposited by slope processes. Metamorphic rocks (mostly schist), bedrock of Precambrian age, and granitic rocks of Teriary age underly the loess on upper hillslopes (Péwé et al. 1966; Weber et al., 1978). The bedrock is highly weathered in some places, which is probably the result of hydrothermal activity rather than soil formation.

The major soil-forming processes in the Fort Wainwright area are organic matter accumulation at the surface, oxidation and reduction of iron, and cryoturbation. Organic matter accumulates on the surface because decomposition cannot keep pace with the annual addition of dead plant material. Decomposition is inhibited by cold temperatures and, in many places, by soil wetness and the lack of soil oxygen. Nearly all areas have some organic layer, except where floods or humans frequently disturb the surface. The thickest accumulations of surface organic matter, several feet (1 m) or more, occur on the coldest and wettest soils. For example, wet soils in depressions and in areas with permafrost have thick organic surface layers. The warmest and driest soils, which occur on hilltops and on sandy and gravelly alluvium, may have only an inch or two of surface organic matter. Surface organic layers that were buried by flood deposits are frequently observed in flood plain soils.

Iron weathers from primary minerals in the soil and may be either oxidized or reduced, depending on soil wetness and the consequent availability of oxygen. In dry, well-aerated soils, weathered iron oxidizes to form a reddish Bw horizon. Bw horizons are best developed in the soils of hillslopes, such as Angel and Steese soils, and are weak or absent in the young soils of flood plains, such as Salchaket and Jarvis soils. As a result of the rather dry climate, very little vertical movement of iron occurs in the soil, and thus E horizons are rare. In the very wettest soils iron is reduced due to a lack of oxygen, which results in grayish soil colors. More commonly, alternating wet and dry conditions result in mottled reduced (grayish) and oxidized (reddish) zones in the soil.

Cryoturbation, which is the mixing of soil due to freezing and thawing, results in contorted and broken horizons. Cryoturbation occurs mainly in soils with permafrost.

In addition to facilitating cryoturbation, permafrost has other important impacts on soils. Since permafrost is nearly impermeable, water perches near the surface causing permafrost soils to be wet; and runoff is rapid from sloping soils with permafrost. Some permafrost soils contain large amounts of ground ice, and subsidence of the surface can occur if the ground ice melts. Permafrost soils on thick Pleistocene loess deposits (Bolio, Lemeta, Goldstream, Chatanika, Minto, and Histel soils) have the greatest amount of ground ice and, thus, the greatest risk of thaw subsidence.

The gravel deposits underlying the alluvial plain on Fort Wainwright are saturated with groundwater. In soils such as Piledriver, Eielson, North Pole, and Fubar, this groundwater is high enough to occur in the middle or lower part of the soil profile.

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Glossary

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate, soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alluvial fan. A body of alluvium, with overflow of water and debris flow deposits, whose surface forms a segment of a cone that radiates downslope from the point where the stream emerges from a narrow valley onto a less sloping surface. Source uplands range in relief and areal extent from mountains to gullied terrains on hillslopes.

Alluvium. Material, such as sand, silt, or clay, deposited on land by streams.

Area reclaim. An area difficult to reclaim after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

Aspect, slope. Direction of maximum pitch on a slope.

Association, soil. A group of soils or miscellaneous areas geographically associated in a characteristic repeating pattern and defined and delineated as a single map unit.

Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:

Very low	0 to 3
Low	3 to 6
Moderate	6 to 9
High	9 to 12
Very high	More than 12

Backslope. The geomorphic component that forms the steepest inclined surface and principal element of many hillslopes. Backslopes in profile are commonly steep and linear and descend to a footslope. In terms of gradational process, backslopes are erosional forms produced mainly by mass wasting and running water.

Bedrock. The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

Bedrock-controlled topography. A landscape where the configuration and relief of the landforms are determined or strongly influenced by underlying bedrock.

Capillary water. Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds the capillary water in the soil.

Cation. An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.

Cation exchange capacity. The total amount of exchangeable cations that can be held in the soil, expressed in terms of milliequivalents per hundred grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.

Channery soil material. Soil material that is by volume, 15 to 35 percent thin, flat fragments of schist, sandstone, shale, slate, or limestone as much as 6 inches (15 cm) along the longest axis. A single piece is called a channer.

Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Closed depression. A low area completely surrounded by higher ground and having no natural outlet.

Coarse fragments. Mineral or rock particles larger than 2 millimeters in diameter.

Coarse textured soil. Sand or loamy sand.

Cobble (or cobblestone). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 cm) in diameter.

Cobbly soil material. Material that is 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 cm) in diameter. Very cobbly soil material is 35 to 60 percent of these rock fragments, and extremely cobbly soil material is more than 60 percent.

Colluvium. Soil material, rock fragments, or both, moved by creep, slide, or local wash and deposited at the base of steep slopes.

Complex, soil. A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.

Consistence, soil. The feel of the soil and the ease with which a lump can be crushed by the fingers. Terms commonly used to describe consistence are:

Loose—Noncoherent when dry or moist; does not hold together in a mass.

Friable—When moist, crushes easily under gentle pressure between thumb and forefinger and can be pressed together into a lump.

Firm—When moist, crushes under moderate pressure between thumb and forefinger, but resistance is distinctly noticeable.

Plastic—Readily deformed by moderate pressure but can be pressed into a lump; will form a "wire" when rolled between thumb and forefinger.

Sticky—Adheres to other material and tends to stretch somewhat and pull apart rather than to pull free from other material.

Hard—When dry, moderately resistant to pressure; can be broken with difficulty between thumb and forefinger.

Soft—When dry, breaks into powder or individual grains under very slight pressure.

Cemented—Hard; little affected by moistening.

Control section. The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches (25 cm) and 40 or 80 inches (102 or 203 cm).

Corrosive. High risk of corrosion to uncoated steel or deterioration of concrete.

Cryoturbation (frost churning). The mixing of the soil resulting in irregular or broken horizons, organic matter accumulation on the permafrost table, and oriented rock fragments due to frost action.

Cutbanks cave (in tables)**.** The walls of excavations tend to cave in or slough.

Deep soil. A soil that is 40 to 60 inches (102 to 152 cm) deep over bedrock or other material that restricts the penetration of plant roots.

Depth, soil. Generally, the thickness of soil over bedrock. Very deep soils are more than 60 inches (more than 152 cm) deep over bedrock; deep soils, 40 to 60 inches (102 to 152 cm); moderately deep, 20 to 40 inches (51 to 102 cm); shallow, 10 to 20 inches (25 to 51 cm); and very shallow, less than 10 inches (less than 25 cm).

Depth to rock (in tables)**.** Bedrock is too near the surface for the specified use.

Drainage class (natural). Refers to the frequency and duration of periods of saturation or partial saturation during soil formation, as opposed to altered drainage, which is commonly the result of artificial drainage or irrigation but may be caused by the sudden deepening of channels or the blocking of drainage outlets. Seven classes of natural soil drainage are recognized:

Excessively drained—These soils have very high and high hydraulic conductivity and a low water-holding capacity. They are not suited to crop production unless irrigated.

Somewhat excessively drained—These soils have high hydraulic conductivity and a low water-holding capacity. Without irrigation, only a narrow range of crops can be grown and yields are low.

Well drained—These soils have an intermediate water-holding capacity. They retain optimum amounts of moisture, but they are not wet close enough to the surface or long enough during the growing season to adversely affect yields.

Moderately well drained—These soils are wet close enough to the surface or long enough that planting or harvesting operations or yields of some field crops are adversely

affected unless a drainage system is installed. Moderately well drained soils commonly have a layer with low hydraulic conductivity, a wet layer relatively high in the profile, additions of water by seepage, or some combination of these.

Somewhat poorly drained—These soils are wet close enough to the surface or long enough that planting or harvesting operations or crop growth is markedly restricted unless a drainage system is installed. Somewhat poorly drained soils commonly have a layer with low hydraulic conductivity, a wet layer high in the profile, additions of water through seepage, or a combination of these.

Poorly drained—These soils commonly are so wet at or near the surface during a considerable part of the year that field crops cannot be grown under natural conditions. Poorly drained conditions are caused by a saturated zone, a layer with low hydraulic conductivity, seepage, or a combination of these.

Very poorly drained—These soils are wet to the surface most of the time. The wetness prevents the growth of important crops (except rice) unless a drainage system is installed.

Drainage, surface. Runoff, or surface flow of water, from an area.

Effluent. Solid, liquid, or gas wastes which enter the environment as a by-product of man-made processes. The discharge or outflow of water from ground or sub-surface storage.

Eolian. Of or pertaining to wind.

Eolian soil material. Earthy parent material accumulated through wind action; commonly refers to sandy material in dunes or to loess in blankets on the surface.

Erosion. The wearing away of the land surface by water, wind, ice, or other geologic agents, and by such processes as gravitational creep.

Escarpment. A relatively continuous and steep slope or cliff, breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. The term is more often applied to cliffs resulting from differential erosion.

Excess fines (in tables)**.** Excess silt and clay in the soil. The soil does not provide a source of gravel or sand for construction purposes.

Fast intake (in tables)**.** The rapid movement of water into the soil.

Fertility, soil. The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

Fibric soil material (peat). The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.

Field moisture capacity. The moisture content of a soil, expressed as a percentage of the ovendry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity, normal moisture capacity,* or *capillary capacity.*

Floodplain. A nearly level alluvial plain that borders a stream and is subject to inundation under flood-stage conditions unless protected artificially. It is usually a constructional landform built of sediment deposited during overflow and lateral migration of the stream.

Forb. An herbaceous plant with broad leaves, in contrast to narrow-leafed grasses and sedges.

Footslope. The inclined surface at the base of a hill.

Frost action (in tables)**.** Freezing and thawing of soil moisture. Frost action can damage roads, buildings and other structures, and plant roots.

Genesis, soil. The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

Gleyed soil. Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors and mottles.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from the cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 cm) in diameter. An individual piece is a pebble.

Gravelly soil material. Material that is 15 to 50 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 cm) in diameter.

Ground water (geology). Water filling all the unblocked pores of underlying material below the water table.

Hard bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.

Hill. A natural elevation of the land surface, rising as much as 1,000 feet (305 m) above surrounding lowlands, commonly of limited summit area and having a well-defined outline; hillsides generally have slopes of more than 15 percent. The distinction between a hill and a mountain is arbitrary and dependent on local usage.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. The major horizons of mineral soil are as follows:

O horizon—An organic layer of fresh and decaying plant residue.

A horizon—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

B horizon—The mineral horizon below an A horizon. The B horizon is, in part, a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

E horizon—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

C horizon—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, the number 2 precedes the letter C.

Cr horizon—Sedimentary beds of consolidated sandstone and semiconsolidated and consolidated shale. Generally, roots can penetrate this horizon only along fracture plains.

R layer—Hard, consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon but can be directly below an A or a B horizon.

Humus. The well decomposed, more or less stable, part of the organic matter in mineral soils.

Hydrologic soil groups. Refers to soils grouped according to their runoff-producing characteristics. The chief consideration is the inherent capacity of soil bare of vegetation to permit infiltration. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff. Soils are assigned to four groups. Soils having a high infiltration rate when thoroughly wet and having a low runoff potential are in group A. They are mainly deep, well drained, and sandy or gravelly. At the other extreme, soils having a very slow infiltration rate and thus a high runoff potential are in group D. They have a claypan or clay layer at or near the surface, have a permanent high water table, or are shallow over nearly impervious bedrock or other material. A soil is assigned to two hydrologic groups if part of the acreage is artificially drained and part is undrained.

Illuviation. The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

Impervious soil. A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all of the time.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Large stones (in tables)**.** Rock fragments 3 inches (7.6 cm) or more across. Large stones adversely affect the specified use of the soil.

Leaching. The removal of soluble material from soil or other material by percolating water.

Light textured soil. Sand and loamy sand.

Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Loess. Fine-grained material, dominantly of silt-sized particles, deposited by wind.

Low strength. The soil is not strong enough to support loads.

Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.

Metamorphic rock. Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement.

Mineral soil. Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.

Minor component. A component of limited extent that may or may not be present.

Miscellaneous area. An area that has little or no natural soil and supports little or no vegetation.

Moderately coarse textured soil. Coarse sandy loam, sandy loam, or fine sandy loam.

Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.

Morphology, soil. The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.

Mottling, soil. Irregular spots of different colors that vary in number and size. Mottling generally indicates poor aeration and impeded drainage. Descriptive terms are as follows: abundance—*few, common,* and *many*; size—*fine, medium,* and *coarse*; and contrast—*faint, distinct,* and *prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium*, from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse*, more than 15 millimeters (about 0.6 inch).

Mountain. A natural elevation of the land surface, rising more than 1,000 feet (305 m) above the surrounding lowlands, commonly of limited summit area, and generally having steep sides (slopes greater than 25 percent) and considerable bare rock surface. A mountain can occur as an isolated mass or in a group forming a range or chain. Mountains are primarily formed by deep-seated earth movements or volcanic action and secondarily by differential erosion.

Muck. Dark, finely divided, well decomposed organic soil material. (See Sapric soil material.)

Munsell notation. A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

Muskeg. Wetland in boreal regions dominated by Sphagnum moss, stunted black spruce, and low shrubs.

Organic matter. Plant and animal residue in the soil in various stages of decomposition.

Outwash, glacial. Stratified sand and gravel produced by glaciers and carried, sorted, and deposited by glacial melt water.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Peat. Unconsolidated material, largely undecomposed organic matter, that has accumulated under excess moisture. (See Fibric soil material.)

Pedon. The smallest volume that can be called "a soil." A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square m to 10 square m), depending on the variability of the soil.

Percolation. The downward movement of water through the soil.

Percs slowly (in tables)**.** The slow movement of water through the soil, adversely affecting the specified use.

Permafrost. Layers of soil or even bedrock, occurring in arctic or subarctic regions, in which a temperature below freezing has existed for a long time.

Permeability. The quality of the soil that enables water to move downward through the profile. Permeability is measured as the number of inches per hour that water moves downward through the saturated soil. Terms describing permeability are:

Very slow	Less than 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	More than 20 inches

Phase, soil. A subdivision of a soil series based on features that affect its use and management. For example, slope, stoniness, and thickness.

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Piping (in tables)**.** Formation of subsurface tunnels or pipe-like cavities by water moving through the soil.

Pitting (in tables)**.** Pits caused by the melting of ground ice. They form in the soil after plant cover is removed.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Ponding. Standing water on soils in closed depressions. The water can be removed only by percolation or by evapotranspiration.

Poor filter (in tables)**.** Because of rapid permeability or an impermeable layer near the surface, the soil may not adequately filter effluent from a waste disposal system.

Poorly graded. Refers to a coarse-grained soil or soil material consisting mainly of particles of nearly the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

Poor outlets (in tables)**.** Refers to areas where surface or subsurface drainage outlets are difficult or expensive to install.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed in pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity expressed as pH values, are:

Ultra acid	Below 3.5
Extremely acid	3.5 to 4.5
Very strongly acid	4.6 to 5.0
Strongly acid	5.1 to 5.5
Medium acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Mildly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Riser. The relatively short, steeply sloping area below a terrace tread that grades to a lower terrace tread or base level.

Riverwash. Unstable areas of sandy, silty, clayey, or gravelly sediments. These areas are flooded, washed, and reworked by rivers so frequently that they support little or no vegetation.

Relief. The elevations or inequalities of a land surface, considered collectively.

Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

Rock outcrop. Exposures of bare bedrock other than lava flows and rock-lined pits.

Root zone. The part of the soil that can be penetrated by plant roots.

Rooting depth (in tables)**.** Shallow root zone. The soil is shallow over a layer that greatly restricts roots.

Runoff. The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.

Sand. As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.

Sapric soil material (muck). The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.

Saturation. Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the matrix into an unlined auger hole.

Sedimentary rock. Rock made up of particles deposited from suspension in water. The chief kinds of sedimentary rock are conglomerate, formed from gravel; sandstone, formed from sand; shale, formed from clay; and limestone, formed from soft masses of calcium carbonate. There are many intermediate types. Some wind-deposited sand is consolidated into sandstone.

Seepage (in tables)**.** The movement of water through the soil. Seepage adversely affects the specified use.

Series, soil. A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer or of the underlying material. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

Shallow soil. A soil that is 10 to 20 inches (25 to 51 cm) deep over bedrock or other material that restricts the penetration of plant roots.

Shoulder slope. The upper most inclined surface at the top of a hillside. It is the transition zone from the backslope to the summit of a hill or mountain. The surface is dominantly convex in profile and erosional in origin.

Shrink-swell (in tables)**.** The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.

Silt. As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.

Similar soils. Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance.

Slope (in tables)**.** Slope is great enough that special practices are required to ensure satisfactory performance of the soil for a specific use.

Slow intake (in tables)**.** The slow movement of water into the soil.

Slow refill (in tables)**.** The slow filling of ponds, resulting from restricted permeability in the soil.

Small stones (in tables)**.** Rock fragments less than 3 inches (7.6 cm) in diameter. Small stones adversely affect the specified use of the soil.

Soil. A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief over periods of time.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	Less than 0.002

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the underlying material. The living roots and plant and animal activities are largely confined to the solum.

Stones. Rock fragments 10 to 24 inches (25 to 61 cm) in diameter if rounded, or 6 to 15 inches (15 to 38 cm) in length if flat.

Stream terrace. One of a series of platforms on a stream valley, flanking and more or less parallel to the stream channel. It originally formed near the level of the stream and is the dissected remnants of an abandoned floodplain, streambed, or valley floor that was produced during a former stage of erosion or deposition.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are: *platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grain* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Substratum. The part of the soil below the solum.

Summit. A general term for the top or highest level of an upland feature, such as a hill or mountain. It commonly refers to a higher area that has a gentle slope and is flanked by steeper slopes.

Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 cm). Frequently designated as the "plow layer" or the "Ap horizon."

Surface soil. The A, E, AB, and EB horizons. It includes all subdivisions of these horizons.

Terrace (geologic). An old alluvial plain, ordinarily flat or undulating, bordering a river, lake, or sea.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay,* and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."

Thin layer (in tables)**.** Otherwise suitable soil material too thin for the specified use.

Toeslope. The outermost inclined surface at the base of a hill. Toeslopes are commonly gentle and linear in profile.

Topsoil. The upper part of the soil that is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.

Tread. The relatively flat terrace surface that was cut or built by stream or wave action.

Tussock. A small mound, typically 0.5 to 1 foot (15 to 30 cm) high, consisting of densely packed dead parts of sedges or grasses.

Unstable fill (in tables)**.** Risk of caving or sloughing on banks of fill material.

Variegation. Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.

Weathering. All physical and chemical changes produced in rocks or other deposits at or near the earth's surface by atmospheric agents. These changes result in disintegration and decomposition of the material.

Well graded. Refers to soil material consisting of coarse grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.

Tables

Table 1.—Temperature and Precipitation

TAPS Station : EIELSON FIELD, AK2707
Start yr.—1949 End yr. – 1996

Month	Temperature (Degrees F.) avg daily max	avg daily min	avg	2 yrs in 10 will have max temp. >than	2 yrs in 10 will have min temp. <than	avg # of grow deg days*	Precipitation (Inches) avg	2 yrs in 10 will have less than	2 yrs in 10 will have more than	avg # of days w/.1 or more	avg total snow fall
January	-2.0	-18.2	-10.1	41	-54	0	0.71	0.20	1.12	2	11.5
February	5.7	-15.2	-4.8	43	-49	0	0.55	0.10	0.90	1	8.9
March	23.3	-2.8	10.3	48	-38	0	0.52	0.15	0.82	1	7.8
April	41.1	19.6	30.4	65	-13	0	0.34	0.08	0.57	1	4.3
May	58.4	37.1	47.8	78	20	90	0.72	0.24	1.11	2	1.0
June	68.9	48.1	58.5	87	35	555	1.78	0.88	2.56	4	0.0
July	70.7	51.1	60.9	87	40	646	2.40	1.45	3.25	6	0.0
August	65.6	46.3	56.0	84	30	420	2.24	1.28	3.10	6	0.0
September	54.0	35.1	44.5	74	16	0	1.37	0.53	2.07	3	2.3
October	31.6	16.6	24.1	59	-16	0	0.96	0.42	1.43	3	12.3
November	10.3	-5.3	2.5	44	-38	0	0.81	0.34	1.20	2	15.4
December	-0.2	-15.9	-8.0	41	-48	0	0.72	0.19	1.15	2	12.4
Yearly :											
Average	35.6	16.4	26.0	---	---	---	----	----	----	---	---
Extreme	93	-64	---	89	-56	---	----	----	----	---	---
Total	---	---	---	---	---	1711	13.13	8.44	15.73	33	75.8

Average # of days per year with at least 1 inch of snow on the ground: 155

*A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minumum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (Threshold : 40.0 deg. F, 4 deg C). It is determined for the average growing season (32 deg F, 0 deg C base) that occurs on the average in 8 years out of 10.

Table 2.—Freeze Dates in Spring and Fall

FROST Station : EIELSON FIELD, AK2707
Start yr.—1949 End yr.—1996
Requested years of data: 48 Available years of data: 48

Probability	Temperature: 24F or lower	28F or lower	32F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	May 7	May 14	May 24
2 year in 10 later than--	May 3	May 11	May 21
5 year in 10 later than--	April 25	May 4	May 15
First freezing temperature in fall:			
1 yr in 10 earlier than--	September 13	August 29	August 22
2 yr in 10 earlier than--	September 18	September 3	August 26
5 yr in 10 earlier than--	September 26	September 13	September 2

Table 3.—Growing Season

GROWTH Station : EIELSON FIELD, AK2707
Start yr.—1949 End yr.—1996
Requested years of data: 48 Available years of data: 48

Probability	Daily Minimum Temperature: # days > 24F	# days > 28F	# days > 32F
9 years in 10	133	112	91
8 years in 10	140	119	98
5 years in 10	153	132	110
2 years in 10	167	145	122
1 year in 10	173	152	128

Table 4.—Forest Productivity

(Age basis of site index varies by species: white spruce - 100 years, all other species—50 years. Absence of an entry indicates that the data were not estimated)

Map symbol and soil name	Potential productivity	
	Common trees	Site index
		feet
9:		
Histels	black spruce	---
10:		
Bolio	black spruce	---
11:		
Lemeta	black spruce	---
13:		
Terric Cryofibrists	---	---
Liscum	black spruce	---
	tamarack	---
14:		
Histels	black spruce	---
Terric Cryofibrists	---	---
20:		
Mosquito	black spruce	---
	tamarack	---
21A:		
Goldstream	black spruce	---
21B:		
Goldstream	black spruce	---
22:		
Tanacross	black spruce	---
25:		
Tanana	black spruce	22
	white spruce	55
26:		
Histels	black spruce	---
	tamarack	---
Mosquito	black spruce	---
	tamarack	---
31:		
Eielson	white spruce	90
	balsam poplar	---
Piledriver	white spruce	43
	balsam poplar	---
32:		
Salchaket	white spruce	94
	balsam poplar	---

Table 4.—Forest Productivity--Continued

Map symbol and soil name	Potential productivity	
	Common trees	Site index
		feet
35:		
North Pole	tamarack	37
	black spruce	---
36:		
Jarvis	quaking aspen	60
	paper birch	50
	white spruce	80
37:		
Chena	white spruce	80
	balsam poplar	---
39A:		
Nenana	paper birch	50
	white spruce	83
	quaking aspen	57
40A:		
Chatanika	black spruce	42
	white spruce	67
40B:		
Chatanika	black spruce	42
	white spruce	67
40C:		
Chatanika	black spruce	42
	white spruce	67
40D:		
Chatanika	black spruce	42
	white spruce	67
41A:		
Minto	white spruce	83
41B:		
Minto	white spruce	83
41C:		
Minto	white spruce	83
41D:		
Minto	white spruce	83
42B:		
Fairbanks	white spruce	83
	paper birch	60
	quaking aspen	65
42C:		
Fairbanks	white spruce	83
	paper birch	60
	quaking aspen	65

Table 4.—Forest Productivity--Continued

Map symbol and soil name	Potential productivity	
	Common trees	Site index
		feet
42CG:		
Fairbanks strongly sloping	white spruce	83
	paper birch	60
	quaking aspen	65
Fairbanks steep	white spruce	83
	paper birch	60
	quaking aspen	65
42D:		
Fairbanks	white spruce	83
	paper birch	60
	quaking aspen	65
42E:		
Fairbanks	white spruce	83
	paper birch	60
	quaking aspen	65
42F:		
Fairbanks	white spruce	83
	paper birch	60
	quaking aspen	65
42G:		
Fairbanks	white spruce	83
	paper birch	60
	quaking aspen	65
44B:		
Steese	paper birch	65
	quaking aspen	70
	white spruce	72
	black spruce	40
44C:		
Steese	paper birch	65
	quaking aspen	70
	white spruce	72
	black spruce	40
44D:		
Steese	paper birch	65
	quaking aspen	70
	white spruce	72
	black spruce	40
44E:		
Steese	quaking aspen	70
	white spruce	72
	paper birch	65
	black spruce	40
44F:		
Steese	paper birch	65
	quaking aspen	70
	white spruce	72
	black spruce	40

Table 4.—Forest Productivity--Continued

Map symbol and soil name	Potential productivity	
	Common trees	Site index
		feet
44G:		
Steese	paper birch	65
	quaking aspen	70
	white spruce	72
	black spruce	40
45B:		
Gilmore	quaking aspen	44
	white spruce	68
	black spruce	30
	paper birch	38
45C:		
Gilmore	white spruce	68
	black spruce	30
	paper birch	38
	quaking aspen	44
45D:		
Gilmore	white spruce	68
	black spruce	30
	paper birch	38
	quaking aspen	44
45E:		
Gilmore	white spruce	68
	black spruce	30
	paper birch	38
	quaking aspen	44
45F:		
Gilmore	white spruce	68
	black spruce	30
	paper birch	38
	quaking aspen	44
45G:		
Gilmore	white spruce	68
	black spruce	30
	paper birch	38
	quaking aspen	44
46C:		
Eutrocryepts	white spruce	64
46D:		
Eutrocryepts	white spruce	64
48D:		
McCloud	white spruce	68
	black spruce	---
	paper birch	38
	quaking aspen	44

Table 4.—Forest Productivity--Continued

Map symbol and soil name	Potential productivity	
	Common trees	Site index
		feet
48E:		
McCloud	white spruce	68
	black spruce	---
	paper birch	38
	quaking aspen	44
48F:		
McCloud	white spruce	68
	black spruce	---
	paper birch	38
	quaking aspen	44
49D:		
Angel	paper birch	38
	quaking aspen	44
	white spruce	68
	black spruce	---
49E:		
Angel	white spruce	68
	paper birch	38
	quaking aspen	44
	black spruce	---
49F:		
Angel	white spruce	68
	paper birch	38
	quaking aspen	44
	black spruce	---
50G:		
Ester	----------	---
50X:		
Ester	----------	---
51B:		
Saulich	black spruce	---
51C:		
Saulich	black spruce	---
61:		
Piledriver	white spruce	74
	balsam poplar	---
62:		
Peede	----------	---
Mosquito	tamarack	---
	black spruce	---
63:		
Tanana	black spruce	22
	white spruce	55

Table 4.—Forest Productivity--Continued

Map symbol and soil name	Potential productivity	
	Common trees	Site index
		feet
Typic Cryaquents	white spruce	---
	paper birch	---
	black spruce	---
64:		
Eielson	white spruce	90
	balsam poplar	---
Tanana	black spruce	22
	white spruce	55
65:		
Typic Aquorthels	---	---
Typic Cryaquents	white spruce	---
	paper birch	---
	black spruce	---
66:		
Eielson	white spruce	90
	balsam poplar	---
69:		
Typic Cryaquents	paper birch	---
	white spruce	---
	black spruce	---
Eielson	white spruce	90
	balsam poplar	---
70A:		
Volkmar	quaking aspen	---
	black spruce	---
	white spruce	---
Richardson	black spruce	---
	paper birch	61
	white spruce	87
70B:		
Richardson	paper birch	61
	white spruce	87
	black spruce	---
Volkmar	quaking aspen	---
	white spruce	---
	black spruce	---
71:		
Mosquito	black spruce	---
	tamarack	---
Liscum	black spruce	---
	tamarack	---
North Pole	tamarack	37
	black spruce	---

Table 4.—Forest Productivity--Continued

Map symbol and soil name	Potential productivity	
	Common trees	Site index
		feet
72F:		
Eutrocryepts	white spruce	64
81V:		
Saulich	black spruce	---
Chatanika	black spruce	42
	white spruce	67
81X:		
Saulich	black spruce	---
Chatanika	black spruce	42
	white spruce	67
82V:		
Gilmore	paper birch	38
	white spruce	68
	black spruce	30
	quaking aspen	44
Steese	paper birch	65
	quaking aspen	70
	white spruce	72
	black spruce	40
82X:		
Steese	paper birch	65
	quaking aspen	70
	white spruce	72
	black spruce	40
Gilmore	black spruce	30
	paper birch	38
	quaking aspen	44
	white spruce	68
85:		
(data insuffucient 10/99)	---	---
86V:		
Brigadier	black spruce	25
	white spruce	---
	paper birch	---
	quaking aspen	---
Steese	black spruce	---
	white spruce	---
	paper birch	---
	quaking aspen	---
86X:		
Brigadier	black spruce	25
	white spruce	---
	paper birch	---
	quaking aspen	---

Table 4.—Forest Productivity--Continued

Map symbol and soil name	Potential productivity	
	Common trees	Site index
		feet
Steese	black spruce	---
	white spruce	---
	paper birch	---
	quaking aspen	---
87V:		
Gilmore	black spruce	---
	paper birch	---
	white spruce	---
Steese	black spruce	---
	quaking aspen	---
	white spruce	---
	paper birch	---
87X:		
Gilmore	white spruce	---
	black spruce	---
	paper birch	---
88:		
Dystrocryepts	----------	---
Turbels	----------	---
89V:		
Steese	paper birch	65
	quaking aspen	70
	white spruce	72
	black spruce	40
Fairbanks	white spruce	83
	paper birch	60
	quaking aspen	65
89X:		
Fairbanks	white spruce	83
	paper birch	60
	quaking aspen	65
Steese	paper birch	65
	quaking aspen	70
	white spruce	72
	black spruce	40
90:		
Fubar	white spruce	79
	balsam poplar	---
	quaking aspen	---
	paper birch	---
Tanana	black spruce	22
	white spruce	55
91:		
Aquic Cryofluvents	----------	---

Table 4.—Forest Productivity--Continued

Map symbol and soil name	Potential productivity	
	Common trees	Site index
		feet
Typic Aquorthels	---	---
Typic Cryaquents	black spruce	---
	white spruce	---
	paper birch	---
211:		
Chatanika	black spruce	42
	white spruce	67
Goldstream	black spruce	---
212:		
Goldstream	black spruce	---
Histels	black spruce	---
251:		
Mosquito	black spruce	---
	tamarack	---
Tanana	black spruce	22
	white spruce	55
361:		
Jarvis	paper birch	50
	white spruce	80
	quaking aspen	60
Chena	white spruce	80
	balsam poplar	---
362:		
Fubar	paper birch	---
	quaking aspen	---
	white spruce	79
	balsam poplar	---
Piledriver	white spruce	74
	balsam poplar	---
363:		
Jarvis	paper birch	50
	white spruce	80
	quaking aspen	60
Salchaket	white spruce	94
	balsam poplar	---
411A:		
Minto	white spruce	83
Chatanika	black spruce	42
	white spruce	67
411B:		
Minto	white spruce	83

Table 4.—Forest Productivity--Continued

Map symbol and soil name	Potential productivity	
	Common trees	Site index
		feet
Chatanika	black spruce	42
	white spruce	67
411C:		
Minto	white spruce	83
Chatanika	black spruce	42
	white spruce	67
411D:		
Minto	white spruce	83
Chatanika	black spruce	42
	white spruce	67
421B:		
Fairbanks	white spruce	83
	paper birch	60
	quaking aspen	65
Steese	paper birch	65
	quaking aspen	70
	white spruce	72
	black spruce	40
421C:		
Fairbanks	white spruce	83
	paper birch	60
	quaking aspen	65
Steese	paper birch	65
	quaking aspen	70
	white spruce	72
	black spruce	40
421D:		
Fairbanks	white spruce	83
	paper birch	60
	quaking aspen	65
Steese	paper birch	65
	quaking aspen	70
	white spruce	72
	black spruce	40
441D:		
Gilmore	white spruce	68
	black spruce	30
	paper birch	38
	quaking aspen	44
Steese	paper birch	65
	quaking aspen	70
	white spruce	72
	black spruce	40

Table 4.—Forest Productivity--Continued

Map symbol and soil name	Potential productivity	
	Common trees	Site index
		feet
441E:		
Gilmore	white spruce	68
	black spruce	30
	paper birch	38
	quaking aspen	44
Steese	white spruce	72
	paper birch	65
	quaking aspen	70
	black spruce	40
441F:		
Gilmore	black spruce	30
	paper birch	38
	quaking aspen	44
	white spruce	68
Steese	paper birch	65
	quaking aspen	70
	white spruce	72
	black spruce	40
441G:		
Gilmore	black spruce	30
	paper birch	38
	quaking aspen	44
	white spruce	68
Steese	paper birch	65
	quaking aspen	70
	white spruce	72
	black spruce	40
451G:		
Brigadier	black spruce	25
	white spruce	---
	quaking aspen	---
	paper birch	---
Ester	---	---
451X:		
Gilmore	black spruce	30
	paper birch	38
	quaking aspen	44
	white spruce	68
Ester	---	---
452:		
Gilmore	white spruce	68
	black spruce	30
	paper birch	38
	quaking aspen	44
Steese	white spruce	72
	quaking aspen	70
	paper birch	65
	black spruce	40

Table 4.—Forest Productivity--Continued

Map symbol and soil name	Potential productivity	
	Common trees	Site index
		feet
492:		
Angel	white spruce	68
	paper birch	38
	quaking aspen	44
	black spruce	---
McCloud	white spruce	68
	black spruce	---
	paper birch	38
	quaking aspen	44
611:		
Piledriver	white spruce	74
	balsam poplar	---
Eielson	white spruce	90
	balsam poplar	---
CL:		
Typic Cryorthents	---	---
Gv:		
Gravel pits	---	---
Lf:		
dump areas	---	---
Qu:		
Pits, quarry	---	---
Rv:		
Riverwash	---	---
UC:		
Typic Cryorthents	---	---
Urban Land	---	---
W:		
Water	---	---
WAH:		
Typic Cryaquents	---	---
Histic Cryaquepts	---	---
Terric Cryofibrists	---	---
XC:		
Typic Cryorthents	---	---
Salchaket	white spruce	94
	balsam poplar	---

Table 5.—Recreation: Foot and ATV Trails

(This table gives soil limitation ratings and the primary limiting factors associated with the ratings. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
9:			
Histels	90	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
10:			
Bolio	75	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
11:			
Lemeta	75	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
13:			
Terric Cryofibrists	60	Very limited	
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Liscum	30	Very limited	
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
14:			
Histels	60	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
Terric Cryofibrists	27	Very limited	
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
20:			
Mosquito	85	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
21A:			
Goldstream	80	Very limited	
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Depth to permafrost	1.00
21B:			
Goldstream	80	Very limited	
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Depth to permafrost	1.00
22:			
Tanacross	90	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
25:			
Tanana	75	Very limited	
		Depth to permafrost	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
26:			
Histels	40	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Mosquito	40	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
31:			
Eielson	60	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
Piledriver	30	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
32:			
Salchaket	87	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
35:			
North Pole	85	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
36:			
Jarvis	75	Very limited	
		Ponding	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
37:			
Chena	90	Somewhat limited	
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
39A:			
Nenana	95	Very limited	
		Ponding	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
40A:			
Chatanika	75	Very limited	
		Depth to permafrost	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
40B:			
Chatanika	75	Very limited	
		Depth to permafrost	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
40C:			
Chatanika	80	Very limited	
		Depth to permafrost	1.00
		Depth to saturated zone	1.00
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
40D:			
Chatanika	90	Very limited	
		Depth to permafrost	1.00
		Water erosion hazard	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
41A:			
Minto	80	Very limited	
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
41B:			
Minto	70	Very limited	
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
41C:			
Minto	60	Very limited	
		Depth to saturated zone	1.00
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
41D:			
Minto	85	Very limited	
		Water erosion hazard	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
42B:			
Fairbanks	80	Somewhat limited	
		Silty surface layer dusty when dry and slippery when wet	0.50
42C:			
Fairbanks	80	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
42CG:			
Fairbanks strongly sloping	60	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Fairbanks steep	30	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
42D:			
Fairbanks	70	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
42E:			
Fairbanks	80	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
42F:			
Fairbanks	85	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
42G:			
Fairbanks	90	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
44B:			
Steese	80	Somewhat limited	
		Silty surface layer dusty when dry and slippery when wet	0.50
44C:			
Steese	80	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
44D:			
Steese	70	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
44E:			
Steese	75	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
44F:			
Steese	85	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
44G:			
Steese	90	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
45B:			
Gilmore	80	Somewhat limited	
		Silty surface layer dusty when dry and slippery when wet	0.50
45C:			
Gilmore	70	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
45D:			
Gilmore	75	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
45E:			
Gilmore	70	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
45F:			
Gilmore	85	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
45G:			
Gilmore	85	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
46C:			
Eutrocryepts	90	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
46D:			
Eutrocryepts	90	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
48D:			
McCloud	85	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
48E:			
McCloud	85	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
48F:			
McCloud	80	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
49D:			
Angel	78	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
49E:			
Angel	78	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
49F:			
Angel	78	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
50G:			
Ester	95	Very limited	
		Excess surface organic matter	1.00
		Water erosion hazard	1.00
		Depth to saturated zone	1.00
		Depth to permafrost	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
50X:			
Ester	80	Very limited	
		Excess surface organic matter	1.00
		Water erosion hazard	1.00
		Depth to saturated zone	1.00
		Depth to permafrost	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
51B:			
Saulich	80	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
51C:			
Saulich	80	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Water erosion hazard	1.00

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
61:			
Piledriver	75	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
62:			
Peede	70	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Mosquito	25	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
63:			
Tanana	35	Very limited	
		Depth to permafrost	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Typic Cryaquents	45	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
64:			
Eielson	50	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
Tanana	35	Very limited	
		Depth to permafrost	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
65:			
Typic Aquorthels	45	Very limited	
		Depth to permafrost	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Sandy surface layer easily displaced	0.50
		Clayey surface layer slippery when wet	0.50
Typic Cryaquents	45	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
66:			
Eielson	80	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
69:			
Typic Cryaquents	50	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Eielson	35	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
70A:			
Volkmar	45	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Richardson	40	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
70B:			
Richardson	35	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
Volkmar	35	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
71:			
Mosquito	30	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Liscum	20	Very limited	
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
North Pole	50	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
72F:			
Eutrocryepts	90	Very limited	
		Water erosion hazard	1.00
		Sandy surface layer easily displaced	0.50
		Silty surface layer dusty when dry and slippery when wet	0.50
81V:			
Saulich	90	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Water erosion hazard	1.00
Chatanika	48	Very limited	
		Depth to permafrost	1.00
		Depth to saturated zone	1.00
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
81X:			
Saulich	90	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Water erosion hazard	1.00
Chatanika	48	Very limited	
		Depth to permafrost	1.00
		Water erosion hazard	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
82V:			
Gilmore	90	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Steese	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
82X:			
Steese	70	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Gilmore	60	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
85:			
Eutrocryepts	45	Very limited	
		Depth to saturated zone	1.00
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Minto	45	Very limited	
		Depth to saturated zone	1.00
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
86G:			
Brigadier	75	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
86V:			
Brigadier	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Manchu	40	Very limited	
		Depth to saturated zone	1.00
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
86X:			
Brigadier	60	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Manchu	25	Very limited	
		Depth to saturated zone	1.00
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
87V:			
Gilmore	60	Somewhat limited	
		Silty surface layer dusty when dry and slippery when wet	0.50
Manchu	35	Very limited	
		Depth to saturated zone	1.00
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
87X:			
Gilmore	90	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
88:			
Dystrocryepts	60	Somewhat limited	
		Silty surface layer dusty when dry and slippery when wet	0.50
Turbels	35	Very limited	
		Depth to saturated zone	1.00
		Depth to permafrost	0.98
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
89V:			
Steese	50	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Fairbanks	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
89X:			
Fairbanks	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Steese	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
90:			
Fubar	45	Somewhat limited	
		Silty surface layer dusty when dry and slippery when wet	0.50
Tanana	45	Very limited	
		Depth to permafrost	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
91:			
Aquic Cryofluvents	30	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Typic Aquorthels	30	Very limited	
		Depth to permafrost	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Sandy surface layer easily displaced	0.50
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
Typic Cryaquents	30	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Sandy surface layer easily displaced	0.50
		Clayey surface layer slippery when wet	0.50
		Silty surface layer dusty when dry and slippery when wet	0.50
211:			
Chatanika	55	Very limited	
		Depth to permafrost	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Goldstream	35	Very limited	
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Depth to permafrost	1.00
212:			
Goldstream	50	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Histels	45	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
251:			
Mosquito	20	Very limited	
		Depth to permafrost	1.00
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Tanana	60	Very limited	
		Depth to permafrost	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
361:			
Jarvis	55	Very limited	
		Ponding	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Chena	35	Somewhat limited	
		Silty surface layer dusty when dry and slippery when wet	0.50
362:			
Fubar	50	Somewhat limited	
		Silty surface layer dusty when dry and slippery when wet	0.50
Piledriver	40	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
363:			
Jarvis	45	Very limited	
		Ponding	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Salchaket	45	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
411A:			
Minto	45	Very limited	
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Chatanika	40	Very limited	
		Depth to permafrost	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
411B:			
Minto	40	Very limited	
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
Chatanika	35	Very limited	
		Depth to permafrost	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
411C:			
Minto	45	Very limited	
		Depth to saturated zone	1.00
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Chatanika	40	Very limited	
		Depth to permafrost	1.00
		Depth to saturated zone	1.00
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
411D:			
Minto	50	Very limited	
		Water erosion hazard	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Chatanika	25	Very limited	
		Depth to permafrost	1.00
		Water erosion hazard	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
421B:			
Fairbanks	45	Somewhat limited	
		Silty surface layer dusty when dry and slippery when wet	0.50
Steese	45	Somewhat limited	
		Silty surface layer dusty when dry and slippery when wet	0.50
421C:			
Fairbanks	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Steese	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
421D:			
Fairbanks	55	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Steese	30	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
441D:			
Gilmore	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Steese	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
441E:			
Gilmore	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Steese	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
441F:			
Gilmore	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Steese	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
441G:			
Gilmore	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Steese	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
451G:			
Brigadier	40	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Ester	30	Very limited	
		Gravel content	1.00
		Excess surface organic matter	1.00
		Water erosion hazard	1.00
		Depth to saturated zone	1.00
		Depth to permafrost	1.00
451X:			
Brigadier	45	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Ester	40	Very limited	
		Excess surface organic matter	1.00
		Water erosion hazard	1.00
		Depth to saturated zone	1.00
		Depth to permafrost	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
452:			
Gilmore	65	Somewhat limited	
		Silty surface layer dusty when dry and slippery when wet	0.50
Steese	33	Somewhat limited	
		Silty surface layer dusty when dry and slippery when wet	0.50
492:			
Angel	55	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
McCloud	40	Very limited	
		Water erosion hazard	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
611:			
Piledriver	50	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
Eielson	35	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
CL:			
Typic Cryorthents	80	Somewhat limited	
		Silty surface layer dusty when dry and slippery when wet	0.50
Gv:			
Gravel pits	100	Not rated	
Lf:			
dump areas	100	Not rated	
Qu:			
Pits, quarry	100	Not rated	
Rv:			
Riverwash	100	Not rated	
UC:			
Typic Cryorthents, Fill	45	Somewhat limited	
		Sandy surface layer easily displaced	0.50
		Silty surface layer dusty when dry and slippery when wet	0.50
Urban Land, Urban Land	45	Not rated	
W:			
Water	100	Not rated	
WAH:			
Typic Cryaquents	30	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
Histic Cryaquepts	25	Very limited	
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50

Table 5.—Recreation: Foot and ATV Trails--Continued

Map symbol and soil name	Pct of map unit	Foot and ATV trails (Alaska criteria)	
		Rating class and limiting features	Value
Terric Cryofibrists----------	20	Very limited	
		Excess surface organic matter	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
		Silty surface layer dusty when dry and slippery when wet	0.50
XC:			
Typic Cryorthents----------	40	Somewhat limited	
		Sandy surface layer easily displaced	0.50
		Silty surface layer dusty when dry and slippery when wet	0.50
Salchaket----------	45	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00

Table 6.—Building Site Development: Site Improvements

(This table gives soil limitation ratings and the primary limiting factors associated with the ratings. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9:							
Histels	90	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Subsidence	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Frost action	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Cutbanks cave	0.10		
10:							
Bolio	75	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Subsidence	1.00	Content of organic matter	1.00	Excess surface organic matter	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Cutbanks cave	0.10		
11:							
Lemeta	75	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Subsidence	1.00	Content of organic matter	1.00	Excess surface organic matter	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Cutbanks cave	0.10	Droughty	0.76
13:							
Terric Cryofibrists	60	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Frost action	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Depth to saturated zone	1.00				
Liscum	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10	Depth to saturated zone	1.00
		Flooding	0.40				

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
14:							
Histels	60	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Subsidence	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Frost action	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Cutbanks cave	0.10		
Terric Cryofibrists	27	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Frost action	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Depth to saturated zone	1.00				
20:							
Mosquito	85	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Cutbanks cave	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40				
21A:							
Goldstream	80	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Low strength	1.00	Depth to permafrost	1.00	Droughty	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10	Depth to saturated zone	1.00
		Depth to permafrost	1.00			Depth to permafrost	1.00
21B:							
Goldstream	80	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Low strength	1.00	Depth to permafrost	1.00	Droughty	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10	Depth to saturated zone	1.00
		Depth to permafrost	1.00			Depth to permafrost	1.00

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
22:							
Tanacross	90	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10	Depth to saturated zone	1.00
		Subsidence	1.00			Droughty	0.66
25:							
Tanana	75	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Flooding	0.40				
26:							
Histels	40	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Subsidence	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Frost action	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Cutbanks cave	0.10		
Mosquito	40	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Cutbanks cave	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40				
31:							
Eielson	60	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Depth to saturated zone	1.00	Flooding	0.60		

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Piledriver----------	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Depth to saturated zone	1.00	Flooding	0.60		
32:							
Salchaket----------	87	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Depth to saturated zone	1.00		
		Flooding	0.40				
35:							
North Pole----------	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Flooding	0.40				
36:							
Jarvis----------	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	0.50	Cutbanks cave	1.00		
		Flooding	0.40				
37:							
Chena----------	90	Somewhat limited		Very limited		Somewhat limited	
		Flooding	0.40	Cutbanks cave	1.00	Droughty	0.61
39A:							
Nenana----------	95	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00		
40A:							
Chatanika----------	75	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10		
40B:							
Chatanika----------	75	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10		

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
40C:							
Chatanika----------	80	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Moderately limiting slope	0.16	Slope	0.16
		Moderately limiting slope	0.16	Cutbanks cave	0.10		
40D:							
Chatanika----------	90	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Frost action	1.00	Very limiting slope	1.00	Slope	1.00
		Very limiting slope	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10		
41A:							
Minto----------	80	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Massive ice possible below 6 feet, high subsidence potential	1.00	Cutbanks cave	0.50	Massive ice possible below 6 feet, moderate subsidence potential	0.50
		Depth to saturated zone	1.00				
41B:							
Minto----------	70	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Massive ice possible below 6 feet, high subsidence potential	1.00	Cutbanks cave	0.50	Massive ice possible below 6 feet, moderate subsidence potential	0.50
		Depth to saturated zone	1.00				
41C:							
Minto----------	60	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Massive ice possible below 6 feet, high subsidence potential	1.00	Cutbanks cave	0.50	Massive ice possible below 6 feet, moderate subsidence potential	0.50
		Depth to saturated zone	1.00	Moderately limiting slope	0.04	Slope	0.04
		Moderately limiting slope	0.04				

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
41D:							
Minto	85	Very limited		Very limited		Very limited	
		Frost action	1.00	Very limiting slope	1.00	Slope	1.00
		Massive ice possible below 6 feet, high subsidence potential	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Very limiting slope	1.00	Cutbanks cave	0.50	Massive ice possible below 6 feet, moderate subsidence potential	0.50
		Depth to saturated zone	1.00				
42B:							
Fairbanks	80	Very limited		Somewhat limited		Not limited	
		Frost action	1.00	Cutbanks cave	0.50		
42C:							
Fairbanks	80	Very limited		Somewhat limited		Somewhat limited	
		Frost action	1.00	Cutbanks cave	0.50	Slope	0.16
		Moderately limiting slope	0.16	Moderately limiting slope	0.16		
42CG:							
Fairbanks strongly sloping	60	Very limited		Somewhat limited		Somewhat limited	
		Frost action	1.00	Cutbanks cave	0.50	Slope	0.16
		Moderately limiting slope	0.16	Moderately limiting slope	0.16		
Fairbanks steep	30	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	1.00	Cutbanks cave	0.50		
42D:							
Fairbanks	70	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	1.00	Cutbanks cave	0.50		
42E:							
Fairbanks	80	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	1.00	Cutbanks cave	0.50		
42F:							
Fairbanks	85	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	1.00	Cutbanks cave	0.50		
42G:							
Fairbanks	90	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	1.00	Cutbanks cave	0.50		

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
44B:							
Steese	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
				Depth to soft bedrock	0.42		
44C:							
Steese	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
		Moderately limiting slope	0.16	Depth to soft bedrock	0.42	Slope	0.16
				Moderately limiting slope	0.16		
44D:							
Steese	70	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
				Depth to soft bedrock	0.42		
44E:							
Steese	75	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
				Depth to soft bedrock	0.42		
44F:							
Steese	85	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
				Depth to soft bedrock	0.42		
44G:							
Steese	90	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
				Depth to soft bedrock	0.42		
45B:							
Gilmore	80	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.50	Droughty	0.51
45C:							
Gilmore	70	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.50	Droughty	0.51
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Slope	0.16

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
45D:							
Gilmore	75	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Depth to soft bedrock	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.50	Droughty	0.51
45E:							
Gilmore	70	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.50	Droughty	0.51
45F:							
Gilmore	85	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.50	Droughty	0.51
45G:							
Gilmore	85	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.50	Droughty	0.51
46C:							
Eutrocryepts	90	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Cutbanks cave	1.00	Slope	0.16
		Moderately limiting slope	0.16	Moderately limiting slope	0.16		
46D:							
Eutrocryepts	90	Very limited		Very limited		Very limited	
		Frost action	1.00	Cutbanks cave	1.00	Slope	1.00
		Very limiting slope	1.00	Very limiting slope	1.00		
48D:							
McCloud	85	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Depth to soft bedrock	0.50	Depth to bedrock	0.50
				Cutbanks cave	0.10		
48E:							
McCloud	85	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Depth to soft bedrock	0.50	Depth to bedrock	0.50
				Cutbanks cave	0.10		

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
48F:							
McCloud	80	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Depth to soft bedrock	0.50	Depth to bedrock	0.50
				Cutbanks cave	0.10		
49D:							
Angel	78	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Cutbanks cave	1.00	Depth to bedrock	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Frost action	0.50	Very limiting slope	1.00	Droughty	0.08
49E:							
Angel	78	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Cutbanks cave	1.00	Depth to bedrock	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Frost action	0.50	Very limiting slope	1.00	Droughty	0.08
49F:							
Angel	78	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Cutbanks cave	1.00	Depth to bedrock	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Frost action	0.50	Very limiting slope	1.00	Droughty	0.08
50G:							
Ester	95	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to permafrost	1.00	Depth to bedrock	1.00
		Depth to permafrost	1.00	Depth to soft bedrock	1.00	Depth to saturated zone	1.00
				Cutbanks cave	0.10	Depth to permafrost	1.00
50X:							
Ester	80	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to permafrost	1.00	Depth to bedrock	1.00
		Depth to permafrost	1.00	Depth to soft bedrock	1.00	Depth to saturated zone	1.00
				Cutbanks cave	0.10	Depth to permafrost	1.00

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
51B:							
Saulich	80	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
				Cutbanks cave	0.10		
51C:							
Saulich	80	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Slope	0.16
61:							
Piledriver	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Flooding	0.40				
62:							
Peede	70	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Depth to saturated zone	1.00	Flooding	0.60		
Mosquito	25	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Cutbanks cave	1.00	Excess surface organic matter	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Flooding	0.60	Flooding	0.60

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
63:							
Tanana	35	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Depth to saturated zone	1.00	Flooding	0.60		
Typic Cryaquents	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Depth to saturated zone	1.00	Flooding	0.60		
64:							
Eielson	50	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Depth to saturated zone	1.00	Flooding	0.60		
Tanana	35	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Depth to saturated zone	1.00	Flooding	0.60		
65:							
Typic Aquorthels	45	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.60	Flooding	0.60
		Depth to saturated zone	1.00	Cutbanks cave	0.10		

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Typic Cryaquents----	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Depth to saturated zone	1.00	Flooding	0.60		
66:							
Eielson----------	80	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Depth to saturated zone	1.00	Flooding	0.60		
69:							
Typic Cryaquents----	50	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Depth to saturated zone	1.00	Flooding	0.60		
Eielson----------	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Depth to saturated zone	1.00	Flooding	0.60		
70A:							
Volkmar----------	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
Richardson----------	40	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
70B:							
Richardson----------	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Volkmar	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
71:							
Mosquito	30	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Cutbanks cave	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40				
Liscum	20	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40				
North Pole	50	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Flooding	0.40				
72F:							
Eutrocryepts	90	Very limited		Very limited		Very limited	
		Frost action	1.00	Cutbanks cave	1.00	Slope	1.00
		Very limiting slope	1.00	Very limiting slope	1.00		
81V:							
Saulich	90	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Slope	0.16
Chatanika	48	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Moderately limiting slope	0.16	Slope	0.16
		Moderately limiting slope	0.16	Cutbanks cave	0.10		

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
81X:							
Saulich	90	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Slope	0.16
Chatanika	48	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Slope	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10		
82V:							
Gilmore	90	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.50	Droughty	0.51
		Moderately limiting slope	0.04	Moderately limiting slope	0.04	Slope	0.04
Steese	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
		Moderately limiting slope	0.16	Depth to soft bedrock	0.42	Slope	0.16
				Moderately limiting slope	0.16		
82X:							
Steese	70	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
				Depth to soft bedrock	0.42		
Gilmore	60	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.50	Droughty	0.51
85:							
Eutrocryepts	45	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Moderately limiting slope	0.16	Slope	0.16
		Moderately limiting slope	0.16	Cutbanks cave	0.10		

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Minto	45	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Massive ice possible below 6 feet, high subsidence potential	1.00	Cutbanks cave	0.50	Massive ice possible below 6 feet, moderate subsidence potential	0.50
		Depth to saturated zone	1.00	Moderately limiting slope	0.16	Slope	0.16
		Moderately limiting slope	0.16				
86G:							
Brigadier	75	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Depth to soft bedrock	0.92	Depth to bedrock	0.92
				Cutbanks cave	0.10	Droughty	0.03
86V:							
Brigadier	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to soft bedrock	0.92	Depth to bedrock	0.92
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Slope	0.16
				Cutbanks cave	0.10	Droughty	0.03
Manchu	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.32
		Moderately limiting slope	0.16	Depth to soft bedrock	0.32	Slope	0.16
				Moderately limiting slope	0.16		
86X:							
Brigadier	60	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Depth to soft bedrock	0.92	Depth to bedrock	0.92
				Cutbanks cave	0.10	Droughty	0.03
Manchu	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.32
		Moderately limiting slope	0.16	Depth to soft bedrock	0.32	Slope	0.16
				Moderately limiting slope	0.16		
87V:							
Gilmore	60	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.61

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Manchu	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.32
		Moderately limiting slope	0.16	Depth to soft bedrock	0.32	Slope	0.16
				Moderately limiting slope	0.16		
87X:							
Gilmore	90	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.61
88:							
Dystrocryepts	60	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Depth to hard bedrock	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Content of large stones	0.14	Droughty	0.61
		Content of large stones	0.14	Cutbanks cave	0.10		
Turbels	35	Very limited		Very limited		Very limited	
		Frost action	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Very limiting slope	1.00	Depth to permafrost	0.98	Depth to permafrost	0.98
		Depth to permafrost	0.98	Cutbanks cave	0.10	Droughty	0.42
89V:							
Steese	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
		Moderately limiting slope	0.16	Depth to soft bedrock	0.42	Slope	0.16
				Moderately limiting slope	0.16		
Fairbanks	45	Very limited		Somewhat limited		Somewhat limited	
		Frost action	1.00	Cutbanks cave	0.50	Slope	0.16
		Moderately limiting slope	0.16	Moderately limiting slope	0.16		
89X:							
Fairbanks	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	1.00	Cutbanks cave	0.50		

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Steese----------	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
				Depth to soft bedrock	0.42		
90:							
Fubar----------	45	Somewhat limited		Very limited		Somewhat limited	
		Flooding	0.40	Cutbanks cave	1.00	Droughty	0.99
		Content of large stones	0.02	Depth to saturated zone	0.35		
				Content of large stones	0.02		
Tanana----------	45	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Flooding	0.40				
91:							
Aquic Cryofluvents--	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Depth to saturated zone	1.00	Flooding	0.60		
Typic Aquorthels----	30	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Depth to saturated zone	1.00	Flooding	0.60		
Typic Cryaquents----	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Flooding	1.00	Flooding	1.00
		Flooding	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
211:							
Chatanika	55	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10		
Goldstream	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Low strength	1.00	Depth to permafrost	1.00	Droughty	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10	Depth to saturated zone	1.00
		Depth to permafrost	1.00			Depth to permafrost	1.00
212:							
Goldstream	50	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10	Depth to saturated zone	1.00
						Droughty	0.07
Histels	45	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Subsidence	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Frost action	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Cutbanks cave	0.10		
251:							
Mosquito	20	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Cutbanks cave	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40				

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Tanana	60	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to permafrost	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Flooding	0.40				
361:							
Jarvis	55	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	0.50	Cutbanks cave	1.00		
		Flooding	0.40				
Chena	35	Somewhat limited		Very limited		Somewhat limited	
		Flooding	0.40	Cutbanks cave	1.00	Droughty	0.61
362:							
Fubar	50	Somewhat limited		Very limited		Somewhat limited	
		Flooding	0.40	Cutbanks cave	1.00	Droughty	0.99
		Content of large stones	0.02	Depth to saturated zone	0.35		
				Content of large stones	0.02		
Piledriver	40	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Flooding	0.40				
363:							
Jarvis	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	0.50	Cutbanks cave	1.00		
		Flooding	0.40				
Salchaket	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Depth to saturated zone	1.00		
		Flooding	0.40				
411A:							
Minto	45	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Massive ice possible below 6 feet, high subsidence potential	1.00	Cutbanks cave	0.50	Massive ice possible below 6 feet, moderate subsidence potential	0.50
		Depth to saturated zone	1.00				

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Chatanika----------	40	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10		
411B:							
Minto----------	40	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Massive ice possible below 6 feet, high subsidence potential	1.00	Cutbanks cave	0.50	Massive ice possible below 6 feet, moderate subsidence potential	0.50
		Depth to saturated zone	1.00				
Chatanika----------	35	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10		
411C:							
Minto----------	45	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Massive ice possible below 6 feet, high subsidence potential	1.00	Cutbanks cave	0.50	Massive ice possible below 6 feet, moderate subsidence potential	0.50
		Depth to saturated zone	1.00	Moderately limiting slope	0.04	Slope	0.04
		Moderately limiting slope	0.04				
Chatanika----------	40	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10	Slope	0.04
		Moderately limiting slope	0.04	Moderately limiting slope	0.04		

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
411D:							
Minto	50	Very limited		Very limited		Very limited	
		Frost action	1.00	Very limiting slope	1.00	Slope	1.00
		Massive ice possible below 6 feet, high subsidence potential	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Very limiting slope	1.00	Cutbanks cave	0.50	Massive ice possible below 6 feet, moderate subsidence potential	0.50
		Depth to saturated zone	1.00				
Chatanika	25	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Frost action	1.00	Very limiting slope	1.00	Slope	1.00
		Very limiting slope	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10		
421B:							
Fairbanks	45	Very limited		Somewhat limited		Not limited	
		Frost action	1.00	Cutbanks cave	0.50		
Steese	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
				Depth to soft bedrock	0.42		
421C:							
Fairbanks	45	Very limited		Somewhat limited		Somewhat limited	
		Frost action	1.00	Cutbanks cave	0.50	Slope	0.04
		Moderately limiting slope	0.04	Moderately limiting slope	0.04		
Steese	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
		Moderately limiting slope	0.16	Depth to soft bedrock	0.42	Slope	0.16
				Moderately limiting slope	0.16		
421D:							
Fairbanks	55	Very limited		Very limited		Very limited	
		Frost action	1.00	Very limiting slope	1.00	Slope	1.00
		Very limiting slope	1.00	Cutbanks cave	0.50		
Steese	30	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
				Depth to soft bedrock	0.42		

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
441D:							
Gilmore	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Depth to soft bedrock	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.50	Droughty	0.51
Steese	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
				Depth to soft bedrock	0.42		
441E:							
Gilmore	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.50	Droughty	0.51
Steese	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
				Depth to soft bedrock	0.42		
441F:							
Gilmore	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.50	Droughty	0.51
Steese	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
				Depth to soft bedrock	0.42		
441G:							
Gilmore	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.50	Droughty	0.51
Steese	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
				Depth to soft bedrock	0.42		

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
451G:							
Brigadier	40	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Depth to soft bedrock	0.92	Depth to bedrock	0.92
				Cutbanks cave	0.10	Droughty	0.03
Ester	30	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to permafrost	1.00	Gravel content	1.00
		Depth to permafrost	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
				Cutbanks cave	0.10	Depth to saturated zone	1.00
451X:							
Brigadier	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	0.50	Depth to soft bedrock	0.92	Depth to bedrock	0.92
				Cutbanks cave	0.10	Droughty	0.03
Ester	40	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to permafrost	1.00	Depth to bedrock	1.00
		Depth to permafrost	1.00	Depth to soft bedrock	1.00	Depth to saturated zone	1.00
				Cutbanks cave	0.10	Depth to permafrost	1.00
452:							
Gilmore	65	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.50	Droughty	0.51
Steese	33	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.50	Depth to bedrock	0.42
				Depth to soft bedrock	0.42		
492:							
Angel	55	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Cutbanks cave	1.00	Depth to bedrock	1.00
		Frost action	0.50	Depth to soft bedrock	1.00	Slope	0.16
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Droughty	0.08

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
McCloud----------	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to soft bedrock	0.50	Depth to bedrock	0.50
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Slope	0.16
				Cutbanks cave	0.10		
611:							
Piledriver----------	50	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Flooding	0.40				
Eielson----------	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Flooding	0.40				
CL:							
Typic Cryorthents---	80	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
		Flooding	0.40				
Gv:							
Gravel pits---------	100	Not rated		Not rated		Not rated	
Lf:							
dump areas----------	100	Not rated		Not rated		Not rated	
Qu:							
Pits, quarry--------	100	Not rated		Not rated		Not rated	
Rv:							
Riverwash----------	100	Not rated		Not rated		Not rated	
UC:							
Typic Cryorthents---	45	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Gravel content	0.08
		Flooding	0.40				
Urban Land----------	45	Not rated		Not rated		Not rated	
W:							
Water----------	100	Not rated		Not rated		Not rated	

Table 6.—Building Site Development: Site Improvements—Continued

Map symbol and soil name	Pct of map unit	Local roads and streets (Alaska criteria)		Shallow excavations (Alaska criteria)		Lawns and landscaping (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WAH:							
Typic Cryaquents----	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10		
Histic Cryaquepts---	25	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10	Depth to saturated zone	1.00
Terric Cryofibrists-	20	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Frost action	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Depth to saturated zone	1.00				
XC:							
Typic Cryorthents---	40	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Gravel content	0.08
		Flooding	0.40				
Salchaket----------	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Depth to saturated zone	1.00		
		Flooding	0.40				

Table 7.—Building Site Development: Structures

(This table gives soil limitation ratings and the primary limiting factors associated with the ratings. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9:							
Histels	90	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Content of organic matter	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
		Depth to saturated zone	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
10:							
Bolio	75	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
11:							
Lemeta	75	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
13:							
Terric Cryofibrists	60	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Content of organic matter	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
		Depth to saturated zone	1.00			Depth to saturated zone	1.00
Liscum	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
14:							
Histels	60	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Content of organic matter	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
Terric Cryofibrists	27	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Content of organic matter	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
		Depth to saturated zone	1.00			Depth to saturated zone	1.00
20:							
Mosquito	85	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
21A:							
Goldstream	80	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
21B:							
Goldstream	80	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
						Slope	0.12
22:							
Tanacross	90	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
25:							
Tanana	75	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
26:							
Histels	40	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Mosquito	40	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
31:							
Eielson	60	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Piledriver	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
32:							
Salchaket	87	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
35:							
North Pole	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
36:							
Jarvis	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
37:							
Chena	90	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
39A:							
Nenana	95	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
40A:							
Chatanika	75	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
40B:							
Chatanika	75	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
40C:							
Chatanika	80	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Depth to saturated zone	1.00
40D:							
Chatanika	90	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
41A:							
Minto	80	Very limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
41B:							
Minto	70	Very limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
41C:							
Minto	60	Very limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Moderately limiting slope	0.04	Moderately limiting slope	0.04	Depth to saturated zone	1.00
41D:							
Minto	85	Very limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Slope	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
42B:							
Fairbanks	80	Not limited		Not limited		Somewhat limited	
						Slope	0.12
42C:							
Fairbanks	80	Somewhat limited		Somewhat limited		Very limited	
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Slope	1.00
42CG:							
Fairbanks strongly sloping	60	Somewhat limited		Somewhat limited		Very limited	
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Slope	1.00
Fairbanks steep	30	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
42D:							
Fairbanks	70	Very limited Very limiting slope	1.00	Very limited Very limiting slope	1.00	Very limited Slope	1.00
42E:							
Fairbanks	80	Very limited Very limiting slope	1.00	Very limited Very limiting slope	1.00	Very limited Slope	1.00
42F:							
Fairbanks	85	Very limited Very limiting slope	1.00	Very limited Very limiting slope	1.00	Very limited Slope	1.00
42G:							
Fairbanks	90	Very limited Very limiting slope	1.00	Very limited Very limiting slope	1.00	Very limited Slope	1.00
44B:							
Steese	80	Not limited		Somewhat limited Depth to soft bedrock	0.42	Somewhat limited Slope	0.12
44C:							
Steese	80	Somewhat limited Moderately limiting slope	0.16	Somewhat limited Depth to soft bedrock Moderately limiting slope	0.42 0.16	Very limited Slope	1.00
44D:							
Steese	70	Very limited Very limiting slope	1.00	Very limited Very limiting slope Depth to soft bedrock	1.00 0.42	Very limited Slope	1.00
44E:							
Steese	75	Very limited Very limiting slope	1.00	Very limited Very limiting slope Depth to soft bedrock	1.00 0.42	Very limited Slope	1.00
44F:							
Steese	85	Very limited Very limiting slope	1.00	Very limited Very limiting slope Depth to soft bedrock	1.00 0.42	Very limited Slope	1.00
44G:							
Steese	90	Very limited Very limiting slope	1.00	Very limited Very limiting slope Depth to soft bedrock	1.00 0.42	Very limited Slope	1.00

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
45B:							
Gilmore	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
						Slope	0.12
45C:							
Gilmore	70	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Depth to soft bedrock	1.00
45D:							
Gilmore	75	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Very limiting slope	1.00	Depth to soft bedrock	1.00
45E:							
Gilmore	70	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
45F:							
Gilmore	85	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
45G:							
Gilmore	85	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
46C:							
Eutrocryepts	90	Somewhat limited		Somewhat limited		Very limited	
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Slope	1.00
46D:							
Eutrocryepts	90	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
48D:							
McCloud	85	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
				Depth to soft bedrock	0.50		

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
48E:							
McCloud	85	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
				Depth to soft bedrock	0.50		
48F:							
McCloud	80	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
				Depth to soft bedrock	0.50		
49D:							
Angel	78	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Very limiting slope	1.00	Depth to soft bedrock	1.00
49E:							
Angel	78	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Very limiting slope	1.00	Depth to soft bedrock	1.00
49F:							
Angel	78	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Very limiting slope	1.00	Depth to soft bedrock	1.00
50G:							
Ester	95	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
				Depth to soft bedrock	1.00		
50X:							
Ester	80	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
				Depth to soft bedrock	1.00		

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
51B:							
Saulich	80	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
51C:							
Saulich	80	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Depth to saturated zone	1.00
61:							
Piledriver	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
62:							
Peede	70	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Mosquito	25	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
63:							
Tanana	35	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Typic Cryaquents	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
64:							
Eielson	50	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Tanana	35	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
65:							
Typic Aquorthels	45	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Typic Cryaquents	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
66:							
Eielson	80	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
69:							
Typic Cryaquents	50	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Eielson	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
70A:							
Volkmar	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Richardson	40	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
70B:							
Richardson	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
Volkmar	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
71:							
Mosquito	30	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Liscum	20	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
North Pole	50	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
72F:							
Eutrocryepts	90	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
81V:							
Saulich	90	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Depth to saturated zone	1.00

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Chatanika----------	48	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Depth to saturated zone	1.00
81X:							
Saulich----------	90	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Depth to saturated zone	1.00
Chatanika----------	48	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
82V:							
Gilmore----------	90	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Moderately limiting slope	0.04	Moderately limiting slope	0.04	Depth to soft bedrock	1.00
Steese----------	45	Somewhat limited		Somewhat limited		Very limited	
		Moderately limiting slope	0.16	Depth to soft bedrock	0.42	Slope	1.00
				Moderately limiting slope	0.16		
82X:							
Steese----------	70	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
				Depth to soft bedrock	0.42		
Gilmore----------	60	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
85:							
Eutrocryepts--------	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Depth to saturated zone	1.00

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Minto	45	Very limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Depth to saturated zone	1.00
86G:							
Brigadier	75	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
				Depth to soft bedrock	0.92		
86V:							
Brigadier	45	Somewhat limited		Somewhat limited		Very limited	
		Moderately limiting slope	0.16	Depth to soft bedrock	0.92	Slope	1.00
				Moderately limiting slope	0.16		
Manchu	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Moderately limiting slope	0.16	Depth to soft bedrock	0.32	Depth to saturated zone	1.00
				Moderately limiting slope	0.16		
86X:							
Brigadier	60	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
				Depth to soft bedrock	0.92		
Manchu	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Moderately limiting slope	0.16	Depth to soft bedrock	0.32	Depth to saturated zone	1.00
				Moderately limiting slope	0.16		
87V:							
Gilmore	60	Somewhat limited		Very limited		Somewhat limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
						Slope	0.86

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Manchu	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Moderately limiting slope	0.16	Depth to soft bedrock	0.32	Depth to saturated zone	1.00
				Moderately limiting slope	0.16		
87X:							
Gilmore	90	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
88:							
Dystrocryepts	60	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Content of large stones	0.14	Content of large stones	0.14	Content of large stones	0.14
Turbels	35	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to permafrost	0.98	Depth to permafrost	0.98	Depth to permafrost	0.98
89V:							
Steese	50	Somewhat limited		Somewhat limited		Very limited	
		Moderately limiting slope	0.16	Depth to soft bedrock	0.42	Slope	1.00
				Moderately limiting slope	0.16		
Fairbanks	45	Somewhat limited		Somewhat limited		Very limited	
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Slope	1.00
89X:							
Fairbanks	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
Steese	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
				Depth to soft bedrock	0.42		

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
90:							
Fubar	45	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Content of large stones	0.02	Depth to saturated zone	0.35	Content of large stones	0.02
				Content of large stones	0.02		
Tanana	45	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
91:							
Aquic Cryofluvents	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
Typic Aquorthels	30	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
Typic Cryaquents	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
211:							
Chatanika	55	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Goldstream	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
212:							
Goldstream	50	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Histels	45	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Content of organic matter	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
		Depth to saturated zone	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
251:							
Mosquito	20	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Tanana	60	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
361:							
Jarvis	55	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
Chena	35	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
362:							
Fubar	50	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Content of large stones	0.02	Depth to saturated zone	0.35	Content of large stones	0.02
				Content of large stones	0.02		
Piledriver	40	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
363:							
Jarvis	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Salchaket----------	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
411A:							
Minto----------	45	Very limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Chatanika----------	40	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
411B:							
Minto----------	40	Very limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
Chatanika----------	35	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
411C:							
Minto----------	45	Very limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Moderately limiting slope	0.04	Moderately limiting slope	0.04	Depth to saturated zone	1.00
Chatanika----------	40	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Moderately limiting slope	0.04	Moderately limiting slope	0.04	Depth to saturated zone	1.00

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
411D:							
Minto	50	Very limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Slope	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Chatanika	25	Very limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
421B:							
Fairbanks	45	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Steese	45	Not limited		Somewhat limited		Somewhat limited	
				Depth to soft bedrock	0.42	Slope	0.12
421C:							
Fairbanks	45	Somewhat limited		Somewhat limited		Very limited	
		Moderately limiting slope	0.04	Moderately limiting slope	0.04	Slope	1.00
Steese	45	Somewhat limited		Somewhat limited		Very limited	
		Moderately limiting slope	0.16	Depth to soft bedrock	0.42	Slope	1.00
				Moderately limiting slope	0.16		
421D:							
Fairbanks	55	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
Steese	30	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
				Depth to soft bedrock	0.42		
441D:							
Gilmore	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Very limiting slope	1.00	Depth to soft bedrock	1.00

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Steese	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
				Depth to soft bedrock	0.42		
441E:							
Gilmore	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
Steese	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
				Depth to soft bedrock	0.42		
441F:							
Gilmore	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
Steese	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
				Depth to soft bedrock	0.42		
441G:							
Gilmore	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
Steese	45	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
				Depth to soft bedrock	0.42		
451G:							
Brigadier	40	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
				Depth to soft bedrock	0.92		
Ester	30	Very limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
				Depth to soft bedrock	1.00		

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
451X:							
Brigadier	45	Very limited Very limiting slope	 1.00	Very limited Very limiting slope Depth to soft bedrock	 1.00 0.92	Very limited Slope	 1.00
Ester	40	Very limited Very limiting slope Depth to saturated zone Depth to permafrost	 1.00 1.00 1.00	Very limited Very limiting slope Depth to saturated zone Depth to permafrost Depth to soft bedrock	 1.00 1.00 1.00 1.00	Very limited Slope Depth to saturated zone Depth to permafrost	 1.00 1.00 1.00
452:							
Gilmore	65	Somewhat limited Depth to soft bedrock	 1.00	Very limited Depth to soft bedrock	 1.00	Very limited Depth to soft bedrock Slope	 1.00 1.00
Steese	33	Not limited		Somewhat limited Depth to soft bedrock	 0.42	Very limited Slope	 1.00
492:							
Angel	55	Somewhat limited Depth to soft bedrock Moderately limiting slope	 1.00 0.16	Very limited Depth to soft bedrock Moderately limiting slope	 1.00 0.16	Very limited Slope Depth to soft bedrock	 1.00 1.00
McCloud	40	Somewhat limited Moderately limiting slope	 0.16	Somewhat limited Depth to soft bedrock Moderately limiting slope	 0.50 0.16	Very limited Slope	 1.00
611:							
Piledriver	50	Very limited Ponding Flooding Depth to saturated zone	 1.00 1.00 1.00	Very limited Ponding Flooding Depth to saturated zone	 1.00 1.00 1.00	Very limited Ponding Flooding Depth to saturated zone	 1.00 1.00 1.00
Eielson	35	Very limited Ponding Flooding Depth to saturated zone	 1.00 1.00 1.00	Very limited Ponding Flooding Depth to saturated zone	 1.00 1.00 1.00	Very limited Ponding Flooding Depth to saturated zone	 1.00 1.00 1.00
CL:							
Typic Cryorthents	80	Very limited Flooding	 1.00	Very limited Flooding	 1.00	Very limited Flooding	 1.00
Gv:							
Gravel pits	100	Not rated		Not rated		Not rated	
Lf:							
dump areas	100	Not rated		Not rated		Not rated	

Table 7.—Building Site Development: Structures—Continued

Map symbol and soil name	Pct of map unit	Dwellings without basements (Alaska criteria)		Dwellings with basements (Alaska criteria)		Small commercial buildings (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Qu:							
Pits, quarry	100	Not rated		Not rated		Not rated	
Rv:							
Riverwash	100	Not rated		Not rated		Not rated	
UC:							
Typic Cryorthents	45	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
Urban Land	45	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	
WAH:							
Typic Cryaquents	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Histic Cryaquepts	25	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Terric Cryofibrists	20	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Content of organic matter	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
		Depth to saturated zone	1.00			Depth to saturated zone	1.00
XC:							
Typic Cryorthents	40	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
Salchaket	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 8.—Sanitary Facilities: Landfill

(This table gives soil limitation ratings and the primary limiting factors associated with the ratings. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9:							
Histels	90	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00			Hard to compact	1.00
10:							
Bolio	75	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Content of organic matter	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
		Depth to saturated zone	1.00	Flooding	0.40	Depth to saturated zone	1.00
		Flooding	0.40				
11:							
Lemeta	75	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Content of organic matter	1.00	Flooding	0.40	Content of organic matter	1.00
		Depth to saturated zone	1.00			Depth to saturated zone	1.00
13:							
Terric Cryofibrists	60	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Content of organic matter	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
		Depth to saturated zone	1.00	Flooding	0.40	Depth to saturated zone	1.00
		Flooding	0.40				
Liscum	30	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Flooding	0.40		

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
14:							
Histels	60	Very Limited		Very limited		Very limited	
		Depth to	1.00	Depth to	1.00	Depth to	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Flooding	0.40	Hard to compact	1.00
		Flooding	0.40				
Terric Cryofibrists	27	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Content of organic matter	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
		Depth to saturated zone	1.00	Flooding	0.40	Depth to saturated zone	1.00
		Flooding	0.40				
20:							
Mosquito	85	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Flooding	0.40		
21A:							
Goldstream	80	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
		Content of organic matter	1.00	Depth to permafrost	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00			Depth to permafrost	1.00
		Depth to permafrost	1.00			Seepage	0.52
21B:							
Goldstream	80	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
		Content of organic matter	1.00	Depth to permafrost	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00			Depth to permafrost	1.00
		Depth to permafrost	1.00			Seepage	0.52
22:							
Tanacross	90	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Flooding	0.40		

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
25:							
Tanana	75	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Flooding	0.40		
26:							
Histels	40	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Flooding	0.40	Hard to compact	1.00
		Flooding	0.40				
Mosquito	40	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Flooding	0.40		
31:							
Eielson	60	Very Limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Too Sandy	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too Sandy, caving	1.00				
		Depth to saturated zone	1.00				
Piledriver	30	Very Limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Too Sandy	1.00
		Seepage	1.00	Seepage	1.00	Seepage	1.00
		Too Sandy, caving	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00				
32:							
Salchaket	87	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Flooding	0.40	Depth to saturated zone	1.00
		Depth to saturated zone	1.00				
		Flooding	0.40				

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
35:							
North Pole----------	85	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Depth to saturated zone	1.00	Flooding	0.40	Depth to saturated zone	1.00
		Flooding	0.40			Gravel content	0.04
36:							
Jarvis----------	75	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Flooding	0.40	Seepage	1.00
		Flooding	0.40				
37:							
Chena----------	90	Very Limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Flooding	0.40	Seepage	1.00
		Flooding	0.40			Gravel content	0.36
		Cobble content	0.05				
39A:							
Nenana----------	95	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00			Seepage	1.00
						Gravel content	0.21
40A:							
Chatanika----------	75	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
40B:							
Chatanika----------	75	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
40C:							
Chatanika----------	80	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Moderately limiting slope	0.16
40D:							
Chatanika----------	90	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Very limiting slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
41A:							
Minto	80	Very Limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
41B:							
Minto	70	Very Limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
41C:							
Minto	60	Very Limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Moderately limiting slope	0.04
		Moderately limiting slope	0.04	Moderately limiting slope	0.04		
41D:							
Minto	85	Very Limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Very limiting slope	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
42B:							
Fairbanks	80	Not Limited		Not limited		Not limited	
42C:							
Fairbanks	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Moderately limiting slope	0.16
42CG:							
Fairbanks strongly sloping	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Moderately limiting slope	0.16
Fairbanks steep	30	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Very limiting slope	1.00

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
42D:							
Fairbanks	70	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Very limiting slope	1.00
42E:							
Fairbanks	80	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Very limiting slope	1.00
42F:							
Fairbanks	85	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Very limiting slope	1.00
42G:							
Fairbanks	90	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Very limiting slope	1.00
44B:							
Steese	80	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Seepage	1.00	Depth to bedrock	1.00		
44C:							
Steese	80	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Seepage	1.00	Depth to bedrock	1.00	Moderately limiting slope	0.16
		Moderately limiting slope	0.16	Moderately limiting slope	0.16		
44D:							
Steese	70	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Very limiting slope	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00	Very limiting slope	1.00		
44E:							
Steese	75	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Seepage	1.00	Depth to bedrock	1.00		
44F:							
Steese	85	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Seepage	1.00	Depth to bedrock	1.00		

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
44G:							
Steese	90	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Seepage	1.00	Depth to bedrock	1.00		
45B:							
Gilmore	80	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage	1.00			Seepage	0.52
45C:							
Gilmore	70	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage	1.00	Moderately limiting slope	0.16	Seepage	0.52
		Moderately limiting slope	0.16			Moderately limiting slope	0.16
45D:							
Gilmore	75	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Very limiting slope	1.00
		Seepage	1.00			Seepage	0.52
45E:							
Gilmore	70	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00			Seepage	0.52
45F:							
Gilmore	85	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00			Seepage	0.52
45G:							
Gilmore	85	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00			Seepage	0.52
46C:							
Eutrocryepts	90	Very Limited		Somewhat limited		Very limited	
		Too Sandy, caving	1.00	Moderately limiting slope	0.16	Too Sandy	1.00
		Moderately limiting slope	0.16			Moderately limiting slope	0.16

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
46D:							
Eutrocryepts--------	90	Very Limited		Very limited		Very limited	
		Too Sandy, caving	1.00	Very limiting slope	1.00	Too Sandy	1.00
		Very limiting slope	1.00			Very limiting slope	1.00
48D:							
McCloud----------	85	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Very limiting slope	1.00
		Seepage	1.00				
48E:							
McCloud----------	85	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00				
48F:							
McCloud----------	80	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00				
49D:							
Angel----------	78	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Very limiting slope	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00	Very limiting slope	1.00		
49E:							
Angel----------	78	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Very limiting slope	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00	Very limiting slope	1.00		
49F:							
Angel----------	78	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Very limiting slope	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00	Very limiting slope	1.00		

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
50G:							
Ester	95	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Depth to saturated zone	1.00	Depth to bedrock	1.00	Depth to saturated zone	1.00
		Depth to permafrost	1.00	Depth to saturated zone	1.00	Depth to permafrost	1.00
				Depth to permafrost	1.00		
50X:							
Ester	80	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Depth to saturated zone	1.00	Depth to bedrock	1.00	Depth to saturated zone	1.00
		Depth to permafrost	1.00	Depth to saturated zone	1.00	Depth to permafrost	1.00
				Depth to permafrost	1.00		
51B:							
Saulich	80	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
51C:							
Saulich	80	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Moderately limiting slope	0.16
61:							
Piledriver	75	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Depth to saturated zone	1.00	Flooding	0.40	Depth to saturated zone	1.00
		Flooding	0.40				
62:							
Peede	70	Very Limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Seepage	1.00	Depth to saturated zone	1.00		
		Depth to saturated zone	1.00				

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Mosquito----------	25	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
63:							
Tanana----------	35	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
Typic Cryaquents----	45	Very Limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Too Sandy, caving	1.00	Depth to saturated zone	1.00	Too Sandy	0.50
		Depth to saturated zone	1.00				
64:							
Eielson----------	50	Very Limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Too Sandy	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too Sandy, caving	1.00				
		Depth to saturated zone	1.00				
Tanana----------	35	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
65:							
Typic Aquorthels----	45	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Typic Cryaquents----	45	Very Limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Too Sandy, caving	1.00	Depth to saturated zone	1.00	Too Sandy	0.50
		Depth to saturated zone	1.00				
66:							
Eielson----------	80	Very Limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Too Sandy	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too Sandy, caving	1.00				
		Depth to saturated zone	1.00				
69:							
Typic Cryaquents----	50	Very Limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Seepage	1.00	Seepage	1.00	Seepage	1.00
		Depth to saturated zone	1.00				
Eielson----------	35	Very Limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Too Sandy	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too Sandy, caving	1.00				
		Depth to saturated zone	1.00				
70A:							
Volkmar----------	45	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Depth to saturated zone	1.00			Depth to saturated zone	1.00
Richardson----------	40	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00				
70B:							
Richardson----------	35	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00				

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Volkmar	35	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Depth to saturated zone	1.00			Depth to saturated zone	1.00
71:							
Mosquito	30	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Flooding	0.40		
Liscum	20	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Seepage	1.00	Seepage	0.50
		Flooding	0.40	Flooding	0.40		
North Pole	50	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Depth to saturated zone	1.00	Flooding	0.40	Depth to saturated zone	1.00
		Flooding	0.40			Gravel content	0.04
72F:							
Eutrocryepts	90	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Very limiting slope	1.00
81V:							
Saulich	90	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Moderately limiting slope	0.16
Chatanika	48	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Moderately limiting slope	0.16

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
81X:							
Saulich	90	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Moderately limiting slope	0.16
Chatanika	48	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Very limiting slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
82V:							
Gilmore	90	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage	1.00	Moderately limiting slope	0.04	Seepage	0.52
		Moderately limiting slope	0.04			Moderately limiting slope	0.04
Steese	45	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Seepage	1.00	Depth to bedrock	1.00	Moderately limiting slope	0.16
		Moderately limiting slope	0.16	Moderately limiting slope	0.16		
82X:							
Steese	70	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Seepage	1.00	Depth to bedrock	1.00		
Gilmore	60	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00			Seepage	0.52
85:							
Eutrocryepts	45	Very Limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	0.50
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Moderately limiting slope	0.16
						Gravel content	0.03

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Minto	45	Very Limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Moderately limiting slope	0.16
		Moderately limiting slope	0.16	Moderately limiting slope	0.16		
86G:							
Brigadier	75	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Seepage	1.00	Depth to bedrock	1.00	Seepage	0.52
86V:							
Brigadier	45	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Seepage	1.00	Depth to bedrock	1.00	Seepage	0.52
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Moderately limiting slope	0.16
Manchu	40	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Depth to saturated zone	1.00	Depth to bedrock	1.00	Depth to saturated zone	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Moderately limiting slope	0.16
		Moderately limiting slope	0.16	Moderately limiting slope	0.16		
86X:							
Brigadier	60	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Seepage	1.00	Depth to bedrock	1.00	Seepage	0.52
Manchu	25	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Depth to saturated zone	1.00	Depth to bedrock	1.00	Depth to saturated zone	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Moderately limiting slope	0.16
		Moderately limiting slope	0.16	Moderately limiting slope	0.16		
87V:							
Gilmore	60	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage	1.00			Seepage	0.52

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Manchu	35	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Depth to saturated zone	1.00	Depth to bedrock	1.00	Depth to saturated zone	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Moderately limiting slope	0.16
		Moderately limiting slope	0.16	Moderately limiting slope	0.16		
87X:							
Gilmore	90	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00			Seepage	0.52
88:							
Dystrocryepts	60	Very Limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to bedrock	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Very limiting slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Seepage	0.52
		Cobble content	0.09			Content of large stones	0.14
Turbels	35	Very Limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Very limiting slope	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to permafrost	0.98
		Depth to permafrost	0.98	Depth to permafrost	0.98	Seepage	0.52
						Gravel content	0.03
89V:							
Steese	50	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Seepage	1.00	Depth to bedrock	1.00	Moderately limiting slope	0.16
		Moderately limiting slope	0.16	Moderately limiting slope	0.16		
Fairbanks	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Moderately limiting slope	0.16	Moderately limiting slope	0.16	Moderately limiting slope	0.16
89X:							
Fairbanks	45	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Very limiting slope	1.00
Steese	45	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Seepage	1.00	Depth to bedrock	1.00		

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
90:							
Fubar	45	Very Limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Flooding	0.40	Seepage	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	0.18	Gravel content	0.52
		Cobble content	0.77			Content of large stones	0.03
		Flooding	0.40				
Tanana	45	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Flooding	0.40		
91:							
Aquic Cryofluvents	30	Very Limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00				
Typic Aquorthels	30	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00				
Typic Cryaquents	30	Very Limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Seepage	1.00			Seepage	1.00
		Depth to saturated zone	1.00			Gravel content	0.01
211:							
Chatanika	55	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Goldstream	35	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
		Content of organic matter	1.00	Depth to permafrost	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00			Depth to permafrost	1.00
		Depth to permafrost	1.00			Seepage	0.52

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
212:							
Goldstream	50	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Histels	45	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00			Hard to compact	1.00
251:							
Mosquito	20	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Flooding	0.40		
Tanana	60	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Flooding	0.40		
361:							
Jarvis	55	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Flooding	0.40	Seepage	1.00
		Flooding	0.40				
Chena	35	Very Limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Flooding	0.40	Seepage	1.00
		Flooding	0.40			Gravel content	0.36
		Cobble content	0.05				
362:							
Fubar	50	Very Limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Flooding	0.40	Seepage	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	0.18	Gravel content	0.52
		Cobble content	0.77			Content of large stones	0.03
		Flooding	0.40				

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Piledriver----------	40	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Depth to saturated zone	1.00	Flooding	0.40	Depth to saturated zone	1.00
		Flooding	0.40				
363:							
Jarvis----------	45	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Flooding	0.40	Seepage	1.00
		Flooding	0.40				
Salchaket----------	45	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Flooding	0.40	Depth to saturated zone	1.00
		Depth to saturated zone	1.00				
		Flooding	0.40				
411A:							
Minto----------	45	Very Limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
Chatanika----------	40	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
411B:							
Minto----------	40	Very Limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
Chatanika----------	35	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
411C:							
Minto	45	Very Limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Moderately limiting slope	0.04
		Moderately limiting slope	0.04	Moderately limiting slope	0.04		
Chatanika	40	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Moderately limiting slope	0.04	Moderately limiting slope	0.04	Moderately limiting slope	0.04
411D:							
Minto	50	Very Limited		Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00	Very limiting slope	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
Chatanika	25	Very Limited		Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00	Depth to permafrost	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Very limiting slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
421B:							
Fairbanks	45	Not Limited		Not limited		Not limited	
Steese	45	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Seepage	1.00	Depth to bedrock	1.00		
421C:							
Fairbanks	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Moderately limiting slope	0.04	Moderately limiting slope	0.04	Moderately limiting slope	0.04
Steese	45	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Seepage	1.00	Depth to bedrock	1.00	Moderately limiting slope	0.16
		Moderately limiting slope	0.16	Moderately limiting slope	0.16		

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
421D:							
Fairbanks	55	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Very limiting slope	1.00
Steese	30	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Very limiting slope	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00	Very limiting slope	1.00		
441D:							
Gilmore	45	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Very limiting slope	1.00	Very limiting slope	1.00	Very limiting slope	1.00
		Seepage	1.00			Seepage	0.52
Steese	45	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Very limiting slope	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00	Very limiting slope	1.00		
441E:							
Gilmore	45	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00			Seepage	0.52
Steese	45	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Seepage	1.00	Depth to bedrock	1.00		
441F:							
Gilmore	45	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00			Seepage	0.52
Steese	45	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Seepage	1.00	Depth to bedrock	1.00		
441G:							
Gilmore	45	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Very limiting slope	1.00
		Seepage	1.00			Seepage	0.52

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Steese	45	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Seepage	1.00	Depth to bedrock	1.00		
451G:							
Brigadier	40	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Seepage	1.00	Depth to bedrock	1.00	Seepage	0.52
Ester	30	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Depth to saturated zone	1.00	Depth to bedrock	1.00	Gravel content	1.00
		Depth to permafrost	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Depth to permafrost	1.00	Depth to permafrost	1.00
451X:							
Brigadier	45	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Seepage	1.00	Depth to bedrock	1.00	Seepage	0.52
Ester	40	Very Limited		Very limited		Very limited	
		Very limiting slope	1.00	Very limiting slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Seepage	1.00	Very limiting slope	1.00
		Depth to saturated zone	1.00	Depth to bedrock	1.00	Depth to saturated zone	1.00
		Depth to permafrost	1.00	Depth to saturated zone	1.00	Depth to permafrost	1.00
				Depth to permafrost	1.00		
452:							
Gilmore	65	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage	1.00			Seepage	0.52
Steese	33	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Seepage	1.00	Depth to bedrock	1.00		
492:							
Angel	55	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
		Seepage	1.00	Depth to bedrock	1.00	Moderately limiting slope	0.16
		Moderately limiting slope	0.16	Moderately limiting slope	0.16		

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
McCloud----------	40	Very Limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage	1.00	Moderately limiting slope	0.16	Moderately limiting slope	0.16
		Moderately limiting slope	0.16				
611:							
Piledriver----------	50	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Depth to saturated zone	1.00	Flooding	0.40	Depth to saturated zone	1.00
		Flooding	0.40				
Eielson----------	35	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Flooding	0.40	Depth to saturated zone	1.00
		Depth to saturated zone	1.00				
		Flooding	0.40				
CL:							
Typic Cryorthents---	80	Very Limited		Somewhat limited		Very limited	
		Seepage	1.00	Flooding	0.40	Too Sandy	1.00
		Clayey	1.00				
		Too Sandy, caving	1.00				
		Flooding	0.40				
Gv:							
Gravel pits---------	100	Not rated		Not rated		Not rated	
Lf:							
dump areas----------	100	Not rated		Not rated		Not rated	
Qu:							
Pits, quarry--------	100	Not rated		Not rated		Not rated	
Rv:							
Riverwash----------	100	Not rated		Not rated		Not rated	
UC:							
Typic Cryorthents---	45	Very Limited		Somewhat limited		Very limited	
		Too Sandy, caving	1.00	Flooding	0.40	Too Sandy	1.00
		Seepage	1.00				
		Flooding	0.40				
Urban Land----------	45	Not rated		Not rated		Not rated	
W:							
Water----------	100	Not rated		Not rated		Not rated	

Table 8.—Sanitary Facilities: Landfill—Continued

Map symbol and soil name	Pct of map unit	Trench sanitary landfill (Alaska criteria)		Area sanitary landfill (Alaska criteria)		Daily cover for landfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WAH:							
Typic Cryaquents----	30	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Histic Cryaquepts---	25	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Terric Cryofibrists-	20	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Content of organic matter	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
		Depth to saturated zone	1.00			Depth to saturated zone	1.00
XC:							
Typic Cryorthents---	40	Very Limited		Somewhat limited		Very limited	
		Too Sandy, caving	1.00	Flooding	0.40	Too Sandy	1.00
		Seepage	1.00				
		Flooding	0.40				
Salchaket----------	45	Very Limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Too Sandy	1.00
		Too Sandy, caving	1.00	Flooding	0.40	Depth to saturated zone	1.00
		Depth to saturated zone	1.00				
		Flooding	0.40				

Table 9.—Sanitary Facilities: Sewage Treatment

(This table gives soil limitation ratings and the primary limiting factors associated with the ratings. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
9:					
Histels	90	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Ponding	1.00
		Ponding	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Seepage	0.50
10:					
Bolio	75	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Ponding	1.00
		Ponding	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Seepage	0.50
11:					
Lemeta	75	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Ponding	1.00
		Ponding	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00		
13:					
Terric Cryofibrists	60	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Restricted permeability	0.97	Depth to saturated zone	1.00
		Flooding	0.40		
Liscum	30	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Restricted permeability	0.90	Depth to saturated zone	1.00
		Flooding	0.40	Seepage	0.01

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
14:					
Histels	60	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Subsidence	1.00	Depth to saturated zone	1.00
		Flooding	0.40		
Terric Cryofibrists	27	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Restricted permeability	0.97	Depth to saturated zone	1.00
		Flooding	0.40		
20:					
Mosquito	85	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Ponding	1.00
		Ponding	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Seepage	0.53
21A:					
Goldstream	80	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Depth to permafrost	1.00	Depth to saturated zone	1.00
				Depth to permafrost	1.00
				Slope	0.01
21B:					
Goldstream	80	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Depth to permafrost	1.00	Depth to saturated zone	1.00
				Depth to permafrost	1.00
				Slope	0.67

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
22:					
Tanacross	90	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Flooding	0.40	Depth to saturated zone	1.00
				Seepage	0.53
25:					
Tanana	75	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Seepage	0.53
26:					
Histels	40	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Ponding	1.00
		Ponding	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Seepage	0.50
Mosquito	40	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Ponding	1.00
		Ponding	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Seepage	0.53
31:					
Eielson	60	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.29	Seepage	0.53

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Piledriver----------	30	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
				Depth to saturated zone	1.00
32:					
Salchaket----------	87	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Seepage	0.53
		Restricted permeability	0.29		
35:					
North Pole----------	85	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Flooding	0.40	Depth to saturated zone	1.00
36:					
Jarvis----------	75	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Filtering capacity	0.50	Seepage	1.00
		Flooding	0.40		
37:					
Chena----------	90	Somewhat limited		Very limited	
		Filtering capacity	0.50	Seepage	1.00
		Flooding	0.40		
39A:					
Nenana----------	95	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
				Seepage	1.00
				Slope	0.01
40A:					
Chatanika----------	75	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Seepage	0.50
				Slope	0.01

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
40B:					
Chatanika----------	75	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Slope	0.67
				Seepage	0.50
40C:					
Chatanika----------	80	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.16	Seepage	0.50
40D:					
Chatanika----------	90	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Slope	1.00
		Slope	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Seepage	0.50
41A:					
Minto----------	80	Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.29	Seepage	0.53
				Slope	0.01
41B:					
Minto----------	70	Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.29	Slope	0.67
				Seepage	0.53

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
41C:					
Minto	60	Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Slope	1.00
		Restricted permeability	0.29	Depth to saturated zone	1.00
		Slope	0.04	Seepage	0.53
41D:					
Minto	85	Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Slope	1.00
		Slope	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.29	Seepage	0.53
42B:					
Fairbanks	80	Not limited		Somewhat limited	
				Slope	0.67
				Seepage	0.53
42C:					
Fairbanks	80	Somewhat limited		Very limited	
		Slope	0.16	Slope	1.00
				Seepage	0.53
42CG:					
Fairbanks strongly sloping	60	Somewhat limited		Very limited	
		Slope	0.16	Slope	1.00
				Seepage	0.53
Fairbanks steep	30	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	0.53
42D:					
Fairbanks	70	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	0.53

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
42E:					
Fairbanks	80	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	0.53
42F:					
Fairbanks	85	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	0.53
42G:					
Fairbanks	90	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	0.53
44B:					
Steese	80	Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00
				Depth to soft bedrock	1.00
				Slope	0.67
44C:					
Steese	80	Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00
		Slope	0.16	Slope	1.00
				Depth to soft bedrock	1.00
44D:					
Steese	70	Very limited		Very limited	
		Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
				Depth to soft bedrock	1.00
44E:					
Steese	75	Very limited		Very limited	
		Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
				Depth to soft bedrock	1.00
44F:					
Steese	85	Very limited		Very limited	
		Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
				Depth to soft bedrock	1.00
44G:					
Steese	90	Very limited		Very limited	
		Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
				Depth to soft bedrock	1.00

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
45B:					
Gilmore	80	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
				Seepage	1.00
				Slope	0.67
45C:					
Gilmore	70	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.16	Seepage	1.00
				Slope	1.00
45D:					
Gilmore	75	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
45E:					
Gilmore	70	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
45F:					
Gilmore	85	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
45G:					
Gilmore	85	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
46C:					
Eutrocryepts	90	Somewhat limited		Very limited	
		Slope	0.16	Slope	1.00
				Seepage	0.50
46D:					
Eutrocryepts	90	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	0.50
48D:					
McCloud	85	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	0.53

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
48E:					
McCloud	85	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	0.53
48F:					
McCloud	80	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	0.53
49D:					
Angel	78	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
49E:					
Angel	78	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
49F:					
Angel	78	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
50G:					
Ester	95	Very limited		Very limited	
		Depth to bedrock	1.00	Excess surface organic matter	1.00
		Slope	1.00	Slope	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Depth to permafrost	1.00	Depth to soft bedrock	1.00
				Depth to saturated zone	1.00
50X:					
Ester	80	Very limited		Very limited	
		Depth to bedrock	1.00	Excess surface organic matter	1.00
		Slope	1.00	Slope	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Depth to permafrost	1.00	Depth to soft bedrock	1.00
				Depth to saturated zone	1.00

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
51B:					
Saulich	80	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Excess surface organic matter	1.00
				Depth to saturated zone	1.00
				Slope	0.67
51C:					
Saulich	80	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Slope	0.16	Slope	1.00
				Depth to saturated zone	1.00
61:					
Piledriver	75	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Flooding	0.40	Depth to saturated zone	1.00
62:					
Peede	70	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Restricted permeability	0.31	Depth to saturated zone	1.00
Mosquito	25	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Flooding	1.00	Ponding	1.00
		Restricted permeability	1.00	Flooding	1.00
		Ponding	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
63:					
Tanana	35	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Seepage	0.53
Typic Cryaquents	45	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.91	Seepage	0.01
64:					
Eielson	50	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.29	Seepage	0.53
Tanana	35	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Seepage	0.53
65:					
Typic Aquorthels	45	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Flooding	1.00	Ponding	1.00
		Restricted permeability	1.00	Flooding	1.00
		Ponding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Seepage	0.50
Typic Cryaquents	45	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.91	Seepage	0.01

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
66:					
Eielson----------	80	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.29	Seepage	0.53
69:					
Typic Cryaquents----	50	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
				Depth to saturated zone	1.00
Eielson----------	35	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.29	Seepage	0.53
70A:					
Volkmar----------	45	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
				Depth to saturated zone	1.00
				Slope	0.01
Richardson----------	40	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.29	Seepage	0.53
				Slope	0.01
70B:					
Richardson----------	35	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.29	Slope	0.67
				Seepage	0.53

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Volkmar	35	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
				Depth to saturated zone	1.00
				Slope	0.67
71:					
Mosquito	30	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Ponding	1.00
		Ponding	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Seepage	0.53
Liscum	20	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Flooding	0.40	Seepage	1.00
				Depth to saturated zone	1.00
North Pole	50	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Flooding	0.40	Depth to saturated zone	1.00
72F:					
Eutrocryepts	90	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Restricted permeability	0.31	Seepage	0.50
81V:					
Saulich	90	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Slope	0.16	Slope	1.00
				Depth to saturated zone	1.00

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Chatanika----------	48	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.16	Seepage	0.50
81X:					
Saulich----------	90	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Slope	0.16	Slope	1.00
				Depth to saturated zone	1.00
Chatanika----------	48	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Slope	1.00
		Slope	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Seepage	0.50
82V:					
Gilmore----------	90	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.04	Seepage	1.00
				Slope	1.00
Steese----------	45	Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00
		Slope	0.16	Depth to soft bedrock	1.00
				Slope	1.00
82X:					
Steese----------	70	Very limited		Very limited	
		Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
				Depth to soft bedrock	1.00
Gilmore----------	60	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
85:					
Eutrocryepts	45	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Slope	0.16	Slope	1.00
				Depth to saturated zone	1.00
Minto	45	Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Slope	1.00
		Restricted permeability	0.29	Depth to saturated zone	1.00
		Slope	0.16	Seepage	0.53
86G:					
Brigadier	75	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
86V:					
Brigadier	45	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.16	Seepage	1.00
				Slope	1.00
Manchu	40	Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00
		Depth to saturated zone	1.00	Depth to soft bedrock	1.00
		Slope	0.16	Slope	1.00
				Depth to saturated zone	1.00
86X:					
Brigadier	60	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
Manchu	25	Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00
		Depth to saturated zone	1.00	Depth to soft bedrock	1.00
		Slope	0.16	Slope	1.00
				Depth to saturated zone	1.00

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
87V:					
Gilmore	60	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
				Seepage	1.00
				Slope	1.00
Manchu	35	Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00
		Depth to saturated zone	1.00	Depth to soft bedrock	1.00
		Slope	0.16	Slope	1.00
				Depth to saturated zone	1.00
87X:					
Gilmore	90	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
88:					
Dystrocryepts	60	Very limited		Very limited	
		Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
		Content of large stones	0.14	Depth to hard bedrock	1.00
				Content of large stones	0.90
Turbels	35	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
		Depth to permafrost	0.98	Depth to saturated zone	1.00
				Depth to permafrost	0.98
89V:					
Steese	50	Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00
		Slope	0.16	Depth to soft bedrock	1.00
				Slope	1.00
Fairbanks	45	Somewhat limited		Very limited	
		Slope	0.16	Slope	1.00
				Seepage	0.53
89X:					
Fairbanks	45	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	0.53

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Steese	45	Very limited		Very limited	
		Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
				Depth to soft bedrock	1.00
90:					
Fubar	45	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Filtering capacity	0.50	Content of large stones	0.19
		Flooding	0.40	Depth to saturated zone	0.17
		Content of large stones	0.02		
Tanana	45	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Seepage	0.53
91:					
Aquic Cryofluvents	30	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.31	Slope	0.67
				Seepage	0.50
Typic Aquorthels	30	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Flooding	1.00	Ponding	1.00
		Restricted permeability	1.00	Flooding	1.00
		Ponding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Slope	0.67
Typic Cryaquents	30	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
				Depth to saturated zone	1.00
				Slope	0.67

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
211:					
Chatanika----------	55	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Seepage	0.50
Goldstream----------	35	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Depth to permafrost	1.00	Depth to saturated zone	1.00
				Depth to permafrost	1.00
				Slope	0.01
212:					
Goldstream----------	50	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Ponding	1.00
		Ponding	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Seepage	0.53
Histels----------	45	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Ponding	1.00
		Ponding	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Seepage	0.50
251:					
Mosquito----------	20	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Ponding	1.00
		Ponding	1.00	Excess surface organic matter	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Seepage	0.53

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Tanana	60	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Seepage	0.53
361:					
Jarvis	55	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Filtering capacity	0.50	Seepage	1.00
		Flooding	0.40		
Chena	35	Somewhat limited		Very limited	
		Filtering capacity	0.50	Seepage	1.00
		Flooding	0.40		
362:					
Fubar	50	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Filtering capacity	0.50	Content of large stones	0.19
		Flooding	0.40	Depth to saturated zone	0.17
		Content of large stones	0.02		
Piledriver	40	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Flooding	0.40	Depth to saturated zone	1.00
363:					
Jarvis	45	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Filtering capacity	0.50	Seepage	1.00
		Flooding	0.40		
Salchaket	45	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Seepage	0.53
		Restricted permeability	0.29		

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
411A:					
Minto	45	Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.29	Seepage	0.53
				Slope	0.01
Chatanika	40	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Seepage	0.50
411B:					
Minto	40	Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.29	Slope	0.67
				Seepage	0.53
Chatanika	35	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Slope	0.67
				Seepage	0.50
411C:					
Minto	45	Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Slope	1.00
		Restricted permeability	0.29	Depth to saturated zone	1.00
		Slope	0.04	Seepage	0.53

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Chatanika----------	40	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.04	Seepage	0.50
411D:					
Minto----------	50	Very limited		Very limited	
		Massive ice possible below 6 feet, high subsidence potential	1.00	Slope	1.00
		Slope	1.00	Massive ice possible below 6 feet, high subsidence potential	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.29	Seepage	0.53
Chatanika----------	25	Very limited		Very limited	
		Depth to permafrost	1.00	Depth to permafrost	1.00
		Restricted permeability	1.00	Slope	1.00
		Slope	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Seepage	0.50
421B:					
Fairbanks----------	45	Not limited		Somewhat limited	
				Slope	0.67
				Seepage	0.53
Steese----------	45	Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00
				Depth to soft bedrock	1.00
				Slope	0.67
421C:					
Fairbanks----------	45	Somewhat limited		Very limited	
		Slope	0.04	Slope	1.00
				Seepage	0.53
Steese----------	45	Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00
		Slope	0.16	Slope	1.00
				Depth to soft bedrock	1.00

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
421D:					
Fairbanks	55	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	0.53
Steese	30	Very limited		Very limited	
		Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
				Depth to soft bedrock	1.00
441D:					
Gilmore	45	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
Steese	45	Very limited		Very limited	
		Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
				Depth to soft bedrock	1.00
441E:					
Gilmore	45	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
Steese	45	Very limited		Very limited	
		Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
				Depth to soft bedrock	1.00
441F:					
Gilmore	45	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
Steese	45	Very limited		Very limited	
		Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
				Depth to soft bedrock	1.00
441G:					
Gilmore	45	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Steese	45	Very limited		Very limited	
		Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
				Depth to soft bedrock	1.00
451G:					
Brigadier	40	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
Ester	30	Very limited		Very limited	
		Depth to bedrock	1.00	Excess surface organic matter	1.00
		Slope	1.00	Slope	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Depth to permafrost	1.00	Depth to soft bedrock	1.00
				Depth to saturated zone	1.00
451X:					
Brigadier	45	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
Ester	40	Very limited		Very limited	
		Depth to bedrock	1.00	Excess surface organic matter	1.00
		Slope	1.00	Slope	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Depth to permafrost	1.00	Depth to soft bedrock	1.00
				Depth to saturated zone	1.00
452:					
Gilmore	65	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
				Seepage	1.00
				Slope	1.00
Steese	33	Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00
				Depth to soft bedrock	1.00
				Slope	1.00

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
492:					
Angel	55	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.16	Seepage	1.00
				Slope	1.00
McCloud	40	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.16	Slope	1.00
				Seepage	0.53
611:					
Piledriver	50	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Flooding	0.40	Depth to saturated zone	1.00
Eielson	35	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Seepage	0.53
		Restricted permeability	0.29		
CL:					
Typic Cryorthents	80	Somewhat limited		Very limited	
		Flooding	0.40	Seepage	1.00
Gv:					
Gravel pits	100	Not rated		Not rated	
Lf:					
dump areas	100	Not rated		Not rated	
Qu:					
Pits, quarry	100	Not rated		Not rated	
Rv:					
Riverwash	100	Not rated		Not rated	
UC:					
Typic Cryorthents	45	Somewhat limited		Somewhat limited	
		Flooding	0.40	Seepage	0.50
		Restricted permeability	0.31		
Urban Land	45	Not rated		Not rated	
W:					
Water	100	Not rated		Not rated	

Table 9.—Sanitary Facilities: Sewage Treatment—Continued

Map symbol and soil name	Pct of map unit	Septic tank absorption fields (Alaska criteria)		Sewage lagoons (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
WAH:					
Typic Cryaquents----	30	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Seepage	0.01
Histic Cryaquepts---	25	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Excess surface organic matter	1.00
				Depth to saturated zone	1.00
				Seepage	0.50
Terric Cryofibrists-	20	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Excess surface organic matter	1.00
		Restricted permeability	0.97	Depth to saturated zone	1.00
XC:					
Typic Cryorthents---	40	Somewhat limited		Somewhat limited	
		Flooding	0.40	Seepage	0.50
		Restricted permeability	0.31		
Salchaket----------	45	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Seepage	0.53
		Restricted permeability	0.29		

Table 10.—Construction Materials: Gravel and Sand

(This table gives soil suitability ratings and the primary limiting factors associated with the ratings. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the potential limitation. Information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
9:					
Histels	90	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Organic soil	0.00
		Organic soil	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
10:					
Bolio	75	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Organic soil	0.00
		Organic soil	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
11:					
Lemeta	75	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Organic soil	0.00
		Organic soil	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
13:					
Terric Cryofibrists	60	Improbable Gravel Source		Improbable Sand Source	
		Organic soil	0.00	Organic soil	0.00
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Liscum	30	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
14:					
Histels	60	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Organic soil	0.00
		Organic soil	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Terric Cryofibrists-	27	Improbable Gravel Source		Improbable Sand Source	
		Organic soil	0.00	Organic soil	0.00
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
20:					
Mosquito----------	85	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
21A:					
Goldstream---------	80	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
		No permafrost depth limitation	0.00	No permafrost depth limitation	0.00
21B:					
Goldstream---------	80	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
		No permafrost depth limitation	0.00	No permafrost depth limitation	0.00
22:					
Tanacross----------	90	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
25:					
Tanana----------	75	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
26:					
Histels----------	40	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Organic soil	0.00
		Organic soil	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Mosquito	40	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
31:					
Eielson	60	Gravel Source		Probable Sand Source	
				Bottom layer	0.29
Piledriver	30	Gravel Source		Probable Sand Source	
				Bottom layer	0.71
32:					
Salchaket	87	Gravel Source		Probable Sand Source	
				Bottom layer	0.29
35:					
North Pole	85	Gravel Source		Sand Source	
36:					
Jarvis	75	Gravel Source		Probable Sand Source	
				Bottom layer	0.71
37:					
Chena	90	Gravel Source		Probable Sand Source	
				Bottom layer	0.43
39A:					
Nenana	95	Gravel Source		Probable Sand Source	
				Bottom layer	0.71
40A:					
Chatanika	75	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
40B:					
Chatanika	75	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
40C:					
Chatanika----------	80	Improbable Gravel		Improbable Sand	
		Source		Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
40D:					
Chatanika----------	90	Improbable Gravel		Improbable Sand	
		Source		Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
41A:					
Minto----------	80	Improbable Gravel		Improbable Sand	
		Source		Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
41B:					
Minto----------	70	Improbable Gravel		Improbable Sand	
		Source		Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
41C:					
Minto----------	60	Improbable Gravel		Improbable Sand	
		Source		Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
41D:					
Minto----------	85	Improbable Gravel		Improbable Sand	
		Source		Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
42B:					
Fairbanks----------	80	Improbable Gravel		Improbable Sand	
		Source		Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
42C:					
Fairbanks----------	80	Improbable Gravel		Improbable Sand	
		Source		Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
42CG:					
Fairbanks strongly sloping----------	60	Improbable Gravel		Improbable Sand	
		Source		Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Fairbanks steep-----	30	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
42D:					
Fairbanks----------	70	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
42E:					
Fairbanks----------	80	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
42F:					
Fairbanks----------	85	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
42G:					
Fairbanks----------	90	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
44B:					
Steese----------	80	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
44C:					
Steese----------	80	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
44D:					
Steese----------	70	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
44E:					
Steese----------	75	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
44F:					
Steese----------	85	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
44G:					
Steese	90	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
45B:					
Gilmore	80	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
45C:					
Gilmore	70	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
45D:					
Gilmore	75	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
45E:					
Gilmore	70	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
45F:					
Gilmore	85	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
45G:					
Gilmore	85	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
46C:					
Eutrocryepts	90	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
46D:					
Eutrocryepts	90	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
48D:					
McCloud	85	Gravel Source		Improbable Sand Source	
				Bottom layer not a source	0.00
48E:					
McCloud	85	Gravel Source		Improbable Sand Source	
				Bottom layer not a source	0.00
48F:					
McCloud	80	Gravel Source		Improbable Sand Source	
				Bottom layer not a source	0.00
49D:					
Angel	78	Gravel Source		Improbable Sand Source	
				Bottom layer not a source	0.00
49E:					
Angel	78	Gravel Source		Improbable Sand Source	
				Bottom layer not a source	0.00
49F:					
Angel	78	Gravel Source		Improbable Sand Source	
				Bottom layer not a source	0.00
50G:					
Ester	95	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
		No permafrost depth limitation	0.00	No permafrost depth limitation	0.00
50X:					
Ester	80	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
		No permafrost depth limitation	0.00	No permafrost depth limitation	0.00
51B:					
Saulich	80	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
51C:					
Saulich	80	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
61:					
Piledriver	75	Gravel Source		Probable Sand Source	
				Bottom layer	0.71
62:					
Peede	70	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Mosquito	25	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
63:					
Tanana	35	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
Typic Cryaquents	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
64:					
Eielson	50	Gravel Source		Probable Sand Source	
				Bottom layer	0.29
Tanana	35	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
65:					
Typic Aquorthels	45	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Typic Cryaquents----	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
66:					
Eielson----------	80	Gravel Source		Probable Sand Source	
				Bottom layer	0.29
69:					
Typic Cryaquents----	50	Gravel Source		Sand Source	
Eielson----------	35	Gravel Source		Probable Sand Source	
				Bottom layer	0.29
70A:					
Volkmar----------	45	Gravel Source		Improbable Sand Source	
				Bottom layer not a source	0.00
Richardson----------	40	Gravel Source		Improbable Sand Source	
				Bottom layer not a source	0.00
70B:					
Richardson----------	35	Gravel Source		Improbable Sand Source	
				Bottom layer not a source	0.00
Volkmar----------	35	Gravel Source		Improbable Sand Source	
				Bottom layer not a source	0.00
71:					
Mosquito----------	30	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
Liscum----------	20	Gravel Source		Sand Source	
North Pole----------	50	Gravel Source		Sand Source	
72F:					
Eutrocryepts--------	90	Gravel Source		Improbable Sand Source	
				Bottom layer not a source	0.00

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
81V:					
Saulich	90	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
Chatanika	48	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
81X:					
Saulich	90	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
Chatanika	48	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
82V:					
Gilmore	90	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Steese	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
82X:					
Steese	70	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Gilmore	60	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
85:					
Eutrocryepts	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Minto	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
86G:					
Brigadier	75	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
86V:					
Brigadier	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Manchu	40	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
86X:					
Brigadier	60	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Manchu	25	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
87V:					
Gilmore	60	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Manchu	35	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
87X:					
Gilmore	90	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
88:					
Dystrocryepts	60	Improbable Gravel Source		Improbable Sand Source	
		Hard bedrock within 4 feet	0.00	Hard bedrock within 4 feet	0.00
		Bottom layer not a source	0.00	Bottom layer not a source	0.00

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Turbels----------	35	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
		No permafrost depth limitation	0.02	No permafrost depth limitation	0.02
89V:					
Steese----------	50	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Fairbanks----------	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
89X:					
Fairbanks----------	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Steese----------	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
90:					
Fubar----------	45	Gravel Source		Probable Sand Source	
				Bottom layer	0.14
Tanana----------	45	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
91:					
Aquic Cryofluvents--	30	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Typic Aquorthels----	30	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
Typic Cryaquents----	30	Gravel Source		Improbable Sand Source	
				Bottom layer not a source	0.00

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
211:					
Chatanika	55	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
Goldstream	35	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
		No permafrost depth limitation	0.00	No permafrost depth limitation	0.00
212:					
Goldstream	50	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
Histels	45	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Organic soil	0.00
		Organic soil	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
251:					
Mosquito	20	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
Tanana	60	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
361:					
Jarvis	55	Gravel Source		Probable Sand Source	
				Bottom layer	0.71
Chena	35	Gravel Source		Probable Sand Source	
				Bottom layer	0.43

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
362:					
Fubar	50	Gravel Source		Probable Sand Source	
				Bottom layer	0.14
Piledriver	40	Gravel Source		Probable Sand Source	
				Bottom layer	0.71
363:					
Jarvis	45	Gravel Source		Probable Sand Source	
				Bottom layer	0.71
Salchaket	45	Gravel Source		Probable Sand Source	
				Bottom layer	0.29
411A:					
Minto	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Chatanika	40	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
411B:					
Minto	40	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Chatanika	35	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
411C:					
Minto	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Chatanika	40	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
411D:					
Minto	50	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Chatanika	25	Improbable Gravel Source		Improbable Sand Source	
		Depth to permafrost	0.00	Bottom layer not a source	0.00
		Bottom layer not a source	0.00	Depth to permafrost	0.00
421B:					
Fairbanks	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Steese	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
421C:					
Fairbanks	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Steese	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
421D:					
Fairbanks	55	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Steese	30	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
441D:					
Gilmore	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Steese	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
441E:					
Gilmore	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Steese	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
441F:					
Gilmore	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Steese	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
441G:					
Gilmore	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Steese	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
451G:					
Brigadier	40	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Ester	30	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
		No permafrost depth limitation	0.00	No permafrost depth limitation	0.00
451X:					
Brigadier	45	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Ester	40	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
		No permafrost depth limitation	0.00	No permafrost depth limitation	0.00

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
452:					
Gilmore	65	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
Steese	33	Improbable Gravel Source Bottom layer not a source	0.00	Improbable Sand Source Bottom layer not a source	0.00
492:					
Angel	55	Gravel Source		Improbable Sand Source Bottom layer not a source	0.00
McCloud	40	Gravel Source		Improbable Sand Source Bottom layer not a source	0.00
611:					
Piledriver	50	Gravel Source		Probable Sand Source Bottom layer	0.71
Eielson	35	Gravel Source		Probable Sand Source Bottom layer	0.29
CL:					
Typic Cryorthents	80	Improbable Gravel Source Bottom layer not a source	0.00	Sand Source	
Gv:					
Gravel pits	100	Not rated		Not rated	
Lf:					
dump areas	100	Not rated		Not rated	
Qu:					
Pits, quarry	100	Not rated		Not rated	
Rv:					
Riverwash	100	Not rated		Not rated	
UC:					
Typic Cryorthents	45	Gravel Source		Probable Sand Source Bottom layer	0.71

Table 10.—Construction Materials: Gravel and Sand—Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel (Alaska criteria)		Potential source of sand (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Urban Land	45	Not rated		Not rated	
W:					
Water	100	Not rated		Not rated	
WAH:					
Typic Cryaquents	30	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Histic Cryaquepts	25	Improbable Gravel Source		Improbable Sand Source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
Terric Cryofibrists	20	Improbable Gravel Source		Improbable Sand Source	
		Organic soil	0.00	Organic soil	0.00
		Bottom layer not a source	0.00	Bottom layer not a source	0.00
XC:					
Typic Cryorthents	40	Gravel Source		Probable Sand Source	
				Bottom layer	0.71
Salchaket	45	Gravel Source		Probable Sand Source	
				Bottom layer	0.29

Table 11.—Construction Materials: Topsoil and Roadfill

(This table gives soil suitability ratings and the primary limiting factors associated with the ratings. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the potential limitation. Information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
9:					
Histels	90	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
		Content of organic matter	0.00	Low strength	0.00
		Too acid	0.50	High frost action (check lower layers)	0.00
10:					
Bolio	75	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
		Content of organic matter	0.00	Low strength	0.00
		Too acid	0.88	High frost action (check lower layers)	0.00
11:					
Lemeta	75	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
		Content of organic matter	0.00	Low strength	0.00
		Too acid	0.76	High frost action (check lower layers)	0.00
13:					
Terric Cryofibrists	60	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Content of organic matter	0.00	Low strength	0.00
				High frost action (check lower layers)	0.00

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Liscum	30	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
14:					
Histels	60	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
		Content of organic matter	0.00	Low strength	0.00
		Too acid	0.18	High frost action (check lower layers)	0.00
Terric Cryofibrists	27	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Content of organic matter	0.00	Low strength	0.00
				High frost action (check lower layers)	0.00
20:					
Mosquito	85	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00
21A:					
Goldstream	80	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Content of organic matter	0.00	Low strength	0.00
		No permafrost depth limitation	0.00	High frost action (check lower layers)	0.00
		Too acid	0.18	No permafrost depth limitation	0.00

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
21B:					
Goldstream----------	80	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Content of organic matter	0.00	Low strength	0.00
		No permafrost depth limitation	0.00	High frost action (check lower layers)	0.00
		Too acid	0.18	No permafrost depth limitation	0.00
22:					
Tanacross----------	90	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
		Content of organic matter	0.00	High frost action (check lower layers)	0.00
		Too acid	0.32		
25:					
Tanana----------	75	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00
26:					
Histels----------	40	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
		Content of organic matter	0.00	Low strength	0.00
				High frost action (check lower layers)	0.00
Mosquito----------	40	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
31:					
Eielson	60	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
Piledriver	30	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
32:					
Salchaket	87	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Moderate frost action (check lower layers)	0.50
35:					
North Pole	85	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Rock fragment content	0.00	High frost action (check lower layers)	0.00
36:					
Jarvis	75	Good Source of Topsoil		Fair Source for Roadfill	
				Moderate frost action (check lower layers)	0.50
37:					
Chena	90	Poor Source of Topsoil		Fair Source for Roadfill	
		Too sandy	0.00	Cobble content	0.97
		Rock fragment content	0.00		
		Hard to reclaim	0.12		
39A:					
Nenana	95	Poor Source of Topsoil		Poor Source for Roadfill	
		Too sandy	0.00	High frost action (check lower layers)	0.00
		Rock fragment content	0.00		
		Hard to reclaim	0.88		

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
40A:					
Chatanika----------	75	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00
40B:					
Chatanika----------	75	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00
40C:					
Chatanika----------	80	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
		Slope	0.84	High frost action (check lower layers)	0.00
40D:					
Chatanika----------	90	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Slope	0.00	Depth to permafrost	0.00
		Depth to permafrost	0.00	High frost action (check lower layers)	0.00
				Slope	0.98
41A:					
Minto----------	80	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
41B:					
Minto	70	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
41C:					
Minto	60	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Slope	0.96	High frost action (check lower layers)	0.00
41D:					
Minto	85	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Slope	0.00	High frost action (check lower layers)	0.00
				Slope	0.98
42B:					
Fairbanks	80	Good Source of Topsoil		Poor Source for Roadfill	
				High frost action (check lower layers)	0.00
42C:					
Fairbanks	80	Fair Source of Topsoil		Poor Source for Roadfill	
		Slope	0.84	High frost action (check lower layers)	0.00
42CG:					
Fairbanks strongly sloping	60	Fair Source of Topsoil		Poor Source for Roadfill	
		Slope	0.84	High frost action (check lower layers)	0.00
Fairbanks steep	30	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Slope	0.00
				High frost action (check lower layers)	0.00

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
42D:					
Fairbanks	70	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Slope	0.00
				High frost action (check lower layers)	0.00
42E:					
Fairbanks	80	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Slope	0.00
				High frost action (check lower layers)	0.00
42F:					
Fairbanks	85	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Slope	0.00
				High frost action (check lower layers)	0.00
42G:					
Fairbanks	90	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Slope	0.00
				High frost action (check lower layers)	0.00
44B:					
Steese	80	Fair Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.56	Depth to bedrock	0.00
				Moderate frost action (check lower layers)	0.50
44C:					
Steese	80	Fair Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.56	Depth to bedrock	0.00
		Slope	0.84	Moderate frost action (check lower layers)	0.50
44D:					
Steese	70	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.56	Moderate frost action (check lower layers)	0.50

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
44E:					
Steese	75	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Slope	0.00
		Depth to bedrock	0.56	Depth to bedrock	0.00
				Moderate frost action (check lower layers)	0.50
44F:					
Steese	85	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.56	Slope	0.00
				Moderate frost action (check lower layers)	0.50
44G:					
Steese	90	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.56	Slope	0.00
				Moderate frost action (check lower layers)	0.50
45B:					
Gilmore	80	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.00	Depth to bedrock	0.00
		Rock fragment content	0.00	Moderate frost action (check lower layers)	0.50
45C:					
Gilmore	70	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.00	Depth to bedrock	0.00
		Rock fragment content	0.00	Moderate frost action (check lower layers)	0.50
		Slope	0.84		
45D:					
Gilmore	75	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Moderate frost action (check lower layers)	0.50
		Rock fragment content	0.00	Slope	0.98

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
45E:					
Gilmore	70	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.00	Slope	0.00
		Slope	0.00	Depth to bedrock	0.00
		Rock fragment content	0.00	Moderate frost action (check lower layers)	0.50
45F:					
Gilmore	85	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.00	Depth to bedrock	0.00
		Slope	0.00	Slope	0.00
		Rock fragment content	0.00	Moderate frost action (check lower layers)	0.50
45G:					
Gilmore	85	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.00	Depth to bedrock	0.00
		Slope	0.00	Slope	0.00
		Rock fragment content	0.00	Moderate frost action (check lower layers)	0.50
46C:					
Eutrocryepts	90	Fair Source of Topsoil		Poor Source for Roadfill	
		Slope	0.84	High frost action (check lower layers)	0.00
46D:					
Eutrocryepts	90	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	High frost action (check lower layers)	0.00
48D:					
McCloud	85	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.48	Moderate frost action (check lower layers)	0.50
				Slope	0.98
48E:					
McCloud	85	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Slope	0.00
		Depth to bedrock	0.48	Depth to bedrock	0.00
				Moderate frost action (check lower layers)	0.50

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
48F:					
McCloud	80	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.48	Slope	0.00
				Moderate frost action (check lower layers)	0.50
49D:					
Angel	78	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Moderate frost action (check lower layers)	0.50
				Slope	0.98
49E:					
Angel	78	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Moderate frost action (check lower layers)	0.50
				Slope	0.98
49F:					
Angel	78	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Moderate frost action (check lower layers)	0.50
				Slope	0.98
50G:					
Ester	95	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to bedrock	0.00	Depth to bedrock	0.00
		Slope	0.00	Slope	0.00
		Content of organic matter	0.00	High frost action (check lower layers)	0.00
		No permafrost depth limitation	0.00	No permafrost depth limitation	0.00
		Too acid	0.18		

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
50X:					
Ester	80	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to bedrock	0.00	Slope	0.00
		Slope	0.00	Depth to bedrock	0.00
		Content of organic matter	0.00	High frost action (check lower layers)	0.00
		No permafrost depth limitation	0.00	No permafrost depth limitation	0.00
		Too acid	0.18		
51B:					
Saulich	80	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00
51C:					
Saulich	80	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
		Slope	0.84	High frost action (check lower layers)	0.00
61:					
Piledriver	75	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
62:					
Peede	70	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Mosquito----------	25	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00
63:					
Tanana----------	35	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00
Typic Cryaquents----	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
64:					
Eielson----------	50	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
Tanana----------	35	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00
65:					
Typic Aquorthels----	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Typic Cryaquents----	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
66:					
Eielson----------	80	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
69:					
Typic Cryaquents----	50	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
Eielson----------	35	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
70A:					
Volkmar----------	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Hard to reclaim	0.88	High frost action (check lower layers)	0.00
Richardson----------	40	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
70B:					
Richardson----------	35	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Volkmar	35	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Hard to reclaim	0.88	High frost action (check lower layers)	0.00
71:					
Mosquito	30	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00
Liscum	20	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
North Pole	50	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Rock fragment content	0.00	High frost action (check lower layers)	0.00
72F:					
Eutrocryepts	90	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	High frost action (check lower layers)	0.00
81V:					
Saulich	90	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
		Slope	0.84	High frost action (check lower layers)	0.00

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Chatanika----------	48	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
		Slope	0.84	High frost action (check lower layers)	0.00
81X:					
Saulich----------	90	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
		Slope	0.84	High frost action (check lower layers)	0.00
Chatanika----------	48	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Slope	0.00	Depth to permafrost	0.00
		Depth to permafrost	0.00	High frost action (check lower layers)	0.00
				Slope	0.50
82V:					
Gilmore----------	90	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.00	Depth to bedrock	0.00
		Rock fragment content	0.00	Moderate frost action (check lower layers)	0.50
		Slope	0.96		
Steese----------	45	Fair Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.56	Depth to bedrock	0.00
		Slope	0.84	Moderate frost action (check lower layers)	0.50
82X:					
Steese----------	70	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Slope	0.00
		Depth to bedrock	0.56	Depth to bedrock	0.00
				Moderate frost action (check lower layers)	0.50

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Gilmore	60	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.00	Slope	0.00
		Slope	0.00	Depth to bedrock	0.00
		Rock fragment content	0.00	Moderate frost action (check lower layers)	0.50
85:					
Eutrocryepts	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Rock fragment content	0.00	High frost action (check lower layers)	0.00
		Hard to reclaim	0.50		
		Slope	0.84		
Minto	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Slope	0.84	High frost action (check lower layers)	0.00
86G:					
Brigadier	75	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Rock fragment content	0.00	Slope	0.00
		Depth to bedrock	0.07	Moderate frost action (check lower layers)	0.50
86V:					
Brigadier	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Rock fragment content	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.07	Moderate frost action (check lower layers)	0.50
		Slope	0.84		
Manchu	40	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to bedrock	0.67	Depth to bedrock	0.00
		Slope	0.84	Moderate frost action (check lower layers)	0.50

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
86X:					
Brigadier	60	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Slope	0.00
		Rock fragment content	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.07	Moderate frost action (check lower layers)	0.50
Manchu	25	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to bedrock	0.67	Depth to bedrock	0.00
		Slope	0.84	Moderate frost action (check lower layers)	0.50
87V:					
Gilmore	60	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.00	Depth to bedrock	0.00
		Rock fragment content	0.00	Moderate frost action (check lower layers)	0.50
Manchu	35	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to bedrock	0.67	Depth to bedrock	0.00
		Slope	0.84	Moderate frost action (check lower layers)	0.50
87X:					
Gilmore	90	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.00	Slope	0.00
		Slope	0.00	Depth to bedrock	0.00
		Rock fragment content	0.00	Moderate frost action (check lower layers)	0.50
88:					
Dystrocryepts	60	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Stone content	0.05
		Rock fragment content	0.00	Slope	0.50
		Too acid	0.99	Moderate frost action (check lower layers)	0.50
				Cobble content	0.95

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Turbels	35	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to saturated zone	0.00
		Depth to saturated zone	0.00	High frost action (check lower layers)	0.00
		No permafrost depth limitation	0.02	No permafrost depth limitation	0.02
		Too acid	0.95	Slope	0.50
				Cobble content	0.99
89V:					
Steese	50	Fair Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.56	Depth to bedrock	0.00
		Slope	0.84	Moderate frost action (check lower layers)	0.50
Fairbanks	45	Fair Source of Topsoil		Poor Source for Roadfill	
		Slope	0.84	High frost action (check lower layers)	0.00
89X:					
Fairbanks	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Slope	0.00
				High frost action (check lower layers)	0.00
Steese	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Slope	0.00
		Depth to bedrock	0.56	Depth to bedrock	0.00
				Moderate frost action (check lower layers)	0.50
90:					
Fubar	45	Poor Source of Topsoil		Fair Source for Roadfill	
		Too sandy	0.00	Cobble content	0.30
		Hard to reclaim	0.00		
		Rock fragment content	0.00		
Tanana	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
91:					
Aquic Cryofluvents--	30	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
Typic Aquorthels----	30	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00
Typic Cryaquents----	30	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
211:					
Chatanika----------	55	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00
Goldstream----------	35	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Content of organic matter	0.00	Low strength	0.00
		No permafrost depth limitation	0.00	High frost action (check lower layers)	0.00
		Too acid	0.18	No permafrost depth limitation	0.00

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
212:					
Goldstream----------	50	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
		Content of organic matter	0.00	High frost action (check lower layers)	0.00
		Too acid	0.18		
Histels----------	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
		Content of organic matter	0.00	Low strength	0.00
		Too acid	0.50	High frost action (check lower layers)	0.00
251:					
Mosquito----------	20	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00
Tanana----------	60	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00
361:					
Jarvis----------	55	Good Source of Topsoil		Fair Source for Roadfill	
				Moderate frost action (check lower layers)	0.50
Chena----------	35	Poor Source of Topsoil		Fair Source for Roadfill	
		Too sandy	0.00	Cobble content	0.97
		Rock fragment content	0.00		
		Hard to reclaim	0.12		

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
362:					
Fubar	50	Poor Source of Topsoil		Fair Source for Roadfill	
		Too sandy	0.00	Cobble content	0.30
		Hard to reclaim	0.00		
		Rock fragment content	0.00		
Piledriver	40	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
363:					
Jarvis	45	Good Source of Topsoil		Fair Source for Roadfill	
				Moderate frost action (check lower layers)	0.50
Salchaket	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Moderate frost action (check lower layers)	0.50
411A:					
Minto	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
Chatanika	40	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00
411B:					
Minto	40	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Chatanika----------	35	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
				High frost action (check lower layers)	0.00
411C:					
Minto----------	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Slope	0.96	High frost action (check lower layers)	0.00
Chatanika----------	40	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to permafrost	0.00	Depth to permafrost	0.00
		Slope	0.96	High frost action (check lower layers)	0.00
411D:					
Minto----------	50	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Slope	0.00	High frost action (check lower layers)	0.00
				Slope	0.98
Chatanika----------	25	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Slope	0.00	Depth to permafrost	0.00
		Depth to permafrost	0.00	High frost action (check lower layers)	0.00
				Slope	0.98
421B:					
Fairbanks----------	45	Good Source of Topsoil		Poor Source for Roadfill	
				High frost action (check lower layers)	0.00

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Steese	45	Fair Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.56	Depth to bedrock	0.00
				Moderate frost action (check lower layers)	0.50
421C:					
Fairbanks	45	Fair Source of Topsoil		Poor Source for Roadfill	
		Slope	0.96	High frost action (check lower layers)	0.00
Steese	45	Fair Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.56	Depth to bedrock	0.00
		Slope	0.84	Moderate frost action (check lower layers)	0.50
421D:					
Fairbanks	55	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	High frost action (check lower layers)	0.00
Steese	30	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.56	Moderate frost action (check lower layers)	0.50
441D:					
Gilmore	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Moderate frost action (check lower layers)	0.50
		Rock fragment content	0.00	Slope	0.98
Steese	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.56	Moderate frost action (check lower layers)	0.50
				Slope	0.98

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
441E:					
Gilmore	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.00	Slope	0.00
		Slope	0.00	Depth to bedrock	0.00
		Rock fragment content	0.00	Moderate frost action (check lower layers)	0.50
Steese	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Slope	0.00
		Depth to bedrock	0.56	Depth to bedrock	0.00
				Moderate frost action (check lower layers)	0.50
441F:					
Gilmore	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.00	Depth to bedrock	0.00
		Slope	0.00	Slope	0.00
		Rock fragment content	0.00	Moderate frost action (check lower layers)	0.50
Steese	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.56	Slope	0.00
				Moderate frost action (check lower layers)	0.50
441G:					
Gilmore	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.00	Depth to bedrock	0.00
		Slope	0.00	Slope	0.00
		Rock fragment content	0.00	Moderate frost action (check lower layers)	0.50
Steese	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.56	Slope	0.00
				Moderate frost action (check lower layers)	0.50

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
451G:					
Brigadier	40	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Depth to bedrock	0.00
		Rock fragment content	0.00	Slope	0.00
		Depth to bedrock	0.07	Moderate frost action (check lower layers)	0.50
Ester	30	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to bedrock	0.00	Depth to bedrock	0.00
		Slope	0.00	Slope	0.00
		Content of organic matter	0.00	High frost action (check lower layers)	0.00
		No permafrost depth limitation	0.00	No permafrost depth limitation	0.00
		Too acid	0.18		
451X:					
Brigadier	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Slope	0.00	Slope	0.00
		Rock fragment content	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.07	Moderate frost action (check lower layers)	0.50
Ester	40	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Depth to bedrock	0.00	Slope	0.00
		Slope	0.00	Depth to bedrock	0.00
		Content of organic matter	0.00	High frost action (check lower layers)	0.00
		No permafrost depth limitation	0.00	No permafrost depth limitation	0.00
		Too acid	0.18		
452:					
Gilmore	65	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.00	Depth to bedrock	0.00
		Rock fragment content	0.00	Moderate frost action (check lower layers)	0.50

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Steese	33	Fair Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.56	Depth to bedrock	0.00
				Moderate frost action (check lower layers)	0.50
492:					
Angel	55	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.00	Depth to bedrock	0.00
		Slope	0.84	Moderate frost action (check lower layers)	0.50
McCloud	40	Fair Source of Topsoil		Poor Source for Roadfill	
		Depth to bedrock	0.48	Depth to bedrock	0.00
		Slope	0.84	Moderate frost action (check lower layers)	0.50
611:					
Piledriver	50	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
Eielson	35	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
CL:					
Typic Cryorthents	80	Good Source of Topsoil		Fair Source for Roadfill	
				Moderate frost action (check lower layers)	0.50
Gv:					
Gravel pits	100	Not rated		Not rated	
Lf:					
dump areas	100	Not rated		Not rated	
Qu:					
Pits, quarry	100	Not rated		Not rated	
Rv:					
Riverwash	100	Not rated		Not rated	

Table 11.—Construction Materials: Topsoil and Roadfill—Continued

Map symbol and soil name	Pct of map unit	Potential source of topsoil (Alaska criteria)		Potential source of roadfill (Alaska criteria)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
UC:					
Typic Cryorthents---	45	Poor Source of Topsoil		Fair Source for Roadfill	
		Rock fragment content	0.00	Moderate frost action (check lower layers)	0.50
Urban Land----------	45	Not rated		Not rated	
W:					
Water----------	100	Not rated		Not rated	
WAH:					
Typic Cryaquents----	30	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
Histic Cryaquepts---	25	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				High frost action (check lower layers)	0.00
Terric Cryofibrists-	20	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Content of organic matter	0.00	Low strength	0.00
				High frost action (check lower layers)	0.00
XC:					
Typic Cryorthents---	40	Poor Source of Topsoil		Fair Source for Roadfill	
		Rock fragment content	0.00	Moderate frost action (check lower layers)	0.50
Salchaket----------	45	Poor Source of Topsoil		Poor Source for Roadfill	
		Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Moderate frost action (check lower layers)	0.50

Table 12.—Engineering Index Properties

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
9:												
Histels	0-8	Peat	PT	A-8	0	0	---	---	---	---	---	NP
	8-20	Mucky peat	PT	A-8	0	0	---	---	---	---	---	NP
	20-31	Permanently frozen mucky peat	PT	A-8	0	0	---	---	---	---	---	NP
	31-60	Permanently frozen very fine sandy loam, permanently frozen silt loam	OL, ML	A-4, A-5	0	0	100	100	95-100	75-90	30-50	NP-10
10:												
Bolio	0-5	Peat	PT	A-8	0	0	---	---	---	---	---	---
	5-18	Mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	18-60	Permanently frozen mucky peat	PT	A-8	0	0	---	---	---	---	---	---
11:												
Lemeta	0-18	Peat	PT	A-8	0	0	---	---	---	---	---	NP
	18-66	Permanently frozen mucky peat, permanently frozen muck	PT	A-8	0	0	---	---	---	---	---	---
13:												
Terric Cryofibrists	0-12	Peat	PT	A-8	0	0	---	---	---	---	---	---
	12-39	Muck	PT	A-8	0	0	---	---	---	---	---	---
	39-66	Very fine sandy loam, silty clay loam, silt loam	CL-ML	A-5	0	0	100	100	95-100	80-100	30-45	NP-30
Liscum	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-10	Muck	PT	A-8	0	0	---	---	---	---	---	---
	10-60	Silty clay loam, silt loam	CL, CL-ML, ML	A-4, A-5	0	0	100	100	90-100	70-100	30-50	NP-35
14:												
Histels	0-20	Mucky peat, peat	PT	A-8	0	0	---	---	---	---	---	NP
	20-39	Permanently frozen mucky peat, permanently frozen muck	PT	A-8	0	0	---	---	---	---	---	NP
	39-72	Permanently frozen silt loam	OL, ML	A-4, A-5	0	0	100	100	95-100	75-90	30-50	NP-10
Terric Cryofibrists	0-12	Peat	PT	A-8	0	0	---	---	---	---	---	---
	12-39	Muck	PT	A-8	0	0	---	---	---	---	---	---
	39-66	Very fine sandy loam, silty clay loam, silt loam	CL-ML	A-5	0	0	100	100	95-100	80-100	30-45	NP-30
20:												
Mosquito	0-9	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	9-20	Very fine sandy loam, silt loam, stratified silt loam to loamy fine sand	ML, OL	A-4	0	0	100	100	90-100	70-95	30-40	NP-10
	20-66	Permanently frozen silt loam, stratified permanently frozen silt loam to permanently frozen loamy fine sand	ML	A-4	0	0	100	100	90-100	70-95	30-40	NP-10

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
	In				Pct	Pct					Pct	
21A:												
Goldstream	0-9	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	9-12	Mucky silt loam	ML, OL	A-4, A-5	0	0	100	100	95-100	75-90	30-50	NP-10
	12-20	Silt loam	ML	A-4	0	0	95-100	95-100	85-100	75-95	25-35	NP-10
	20-60	Permanently frozen silt loam	ML	A-4	0	0	95-100	95-100	85-100	75-95	---	---
21B:												
Goldstream	0-9	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	9-12	Mucky silt loam	ML, OL	A-4, A-5	0	0	100	100	95-100	75-90	30-50	NP-10
	12-20	Silt loam	ML	A-4	0	0	95-100	95-100	85-100	75-95	25-35	NP-10
	20-60	Permanently frozen silt loam	ML	A-4	0	0	95-100	95-100	85-100	75-95	---	---
22:												
Tanacross	0-10	Peat	PT	A-8	0	0	---	---	---	---	---	---
	10-12	Mucky silt loam	ML, OL	A-4	0	0	100	100	95-100	75-90	30-40	NP-10
	12-16	Stratified fine sandy loam to silt loam	ML	A-4	0	0	100	100	85-100	60-95	0-40	NP-10
	16-72	Stratified permanently frozen fine sandy loam to permanently frozen silt loam	ML	A-4	0	0	100	100	85-100	60-95	---	---
25:												
Tanana	0-5	Peat	PT	A-8	0	0	---	---	---	---	---	---
	5-8	Silt loam, mucky silt loam	ML, OL	A-4	0	0	100	100	95-100	75-90	30-40	NP-10
	8-28	Silt loam, stratified silt loam to loamy fine sand	ML	A-4	0	0	100	100	80-100	70-90	30-40	NP-10
	28-72	Permanently frozen silt loam, stratified permanently frozen silt loam to permanently frozen loamy fine sand	ML	A-4	0	0	100	100	80-100	70-90	---	---
26:												
Histels	0-8	Peat	PT	A-8	0	0	---	---	---	---	---	---
	8-16	Mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	16-24	Permanently frozen mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	24-60	Permanently frozen very fine sandy loam, permanently frozen silt loam	OL, ML	A-4, A-5	0	0	100	100	95-100	75-90	30-50	NP-10
Mosquito	0-9	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	9-20	Very fine sandy loam, silt loam, stratified silt loam to loamy fine sand	ML, OL	A-4	0	0	100	100	90-100	70-95	30-40	NP-10
	20-66	Permanently frozen silt loam, stratified permanently frozen silt loam to permanently frozen loamy fine sand	ML	A-4	0	0	100	100	90-100	70-95	30-40	NP-10
31:												
Eielson	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Very fine sandy loam	ML	A-4	0	0	100	100	90-100	65-75	25-30	NP-5
	6-71	Stratified silt loam to fine sand, very fine sandy loam	SM, ML	A-4	0	0	100	95-100	85-95	40-65	25-30	NP-5
	71-77	Very gravelly sand, extremely cobbly sand	GP-GM, SP-SM	A-1	0	15-35	50-70	30-55	20-30	5-10	---	NP

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Piledriver----------	0-2	Mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-4	Stratified fine sand to silt loam, very fine sandy loam	ML	A-4	0	0	100	100	70-100	40-95	25-30	NP-5
	4-30	Stratified sand to fine sand to very fine sandy loam	ML, SM	A-4, A-3	0	0-5	90-100	80-100	40-100	20-55	20-25	NP-5
	30-72	Sand, very gravelly sand, extremely cobbly sand	GP-GM, SP-SM	A-1	0	0-40	50-100	25-100	10-60	0-20	0-0	NP
32:												
Salchaket----------	0-2	Mucky peat			0	0	---	---	---	---	---	---
	2-5	Very fine sandy loam	ML	A-4	0	0	100	100	90-100	65-75	25-30	NP-5
	5-63	Stratified silt loam to fine sand	ML, SM	A-4	0	0	100	95-100	85-95	40-65	25-30	NP-5
	63-72	Very gravelly sand, extremely cobbly sand	GP-GM, SP-SM	A-1	0	15-35	50-70	30-55	20-30	5-10	---	NP
35:												
North Pole----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Muck	PT	A-8	0	0	---	---	---	---	---	---
	6-22	Stratified fine sand to silt loam	SM, ML	A-4	0	0	100	100	80-100	40-80	0-30	NP-10
	22-72	Extremely gravelly sand, gravelly coarse sand	GP, SP	A-1	0	0	70-100	30-100	0-40	0-10	0-0	NP
36:												
Jarvis----------	0-2	Mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-6	Stratified fine sand to silt loam, very fine sandy loam	ML	A-4	0	0	100	100	50-100	0-100	25-30	NP-5
	6-24	Stratified sand to fine sand to very fine sandy loam	ML, SM	A-4, A-3	0	0-5	95-100	90-100	70-100	35-75	20-25	NP-5
	24-59	Sand, very gravelly sand, extremely cobbly sand	GP-GM, SP-SM	A-1	0	0-40	50-100	25-100	10-60	0-20	0-0	NP
37:												
Chena----------	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-7	Stratified fine sand to silt loam, fine sandy loam, fine sand	SM, ML	A-4	0	0-15	90-100	90-100	70-90	35-70	---	NP
	7-60	Coarse sand, sand, very gravelly sand, very cobbly sand	GP, SP	A-1	0	0-40	45-100	30-100	15-65	0-15	---	NP
39A:												
Nenana----------	0-2	Mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-15	Silt loam, silt	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-10
	15-21	Gravelly silt loam, gravelly silt	ML	A-4	0	0	95-100	70-75	65-75	55-70	25-35	NP-10
	21-72	Extremely gravelly sand, very gravelly sand	GP, GP-GM, SP, SP-SM	A-1	0	5-15	50-85	40-55	30-45	0-10	---	NP
40A:												
Chatanika----------	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-6	Mucky silt loam	ML, OL	A-4	0	0	100	100	90-100	80-95	70-100	NP-15
	6-22	Silt loam	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-5
	22-60	Permanently frozen silt loam			0	0	100	100	90-100	80-95	---	---

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
40B:												
Chatanika----------	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-6	Mucky silt loam	ML, OL	A-4	0	0	100	100	90-100	80-95	70-100	NP-15
	6-22	Silt loam	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-5
	22-60	Permanently frozen silt loam			0	0	100	100	90-100	80-95	---	---
40C:												
Chatanika----------	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-6	Mucky silt loam	ML, OL	A-4	0	0	100	100	90-100	80-95	70-100	NP-15
	6-22	Silt loam	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-5
	22-60	Permanently frozen silt loam			0	0	100	100	90-100	80-95	---	---
40D:												
Chatanika----------	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-6	Mucky silt loam	ML, OL	A-4	0	0	100	100	90-100	80-95	70-100	NP-15
	6-22	Silt loam	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-5
	22-60	Permanently frozen silt loam			0	0	100	100	90-100	80-95	---	---
41A:												
Minto----------	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-9	Silt loam	ML	A-4	0	0	100	100	90-100	85-100	25-40	NP-10
	9-16	Silt loam, silt	ML	A-4	0	0	100	100	90-100	85-100	15-25	NP-5
	16-71	Silt loam, silt	ML	A-4	0	0	100	100	95-100	85-100	15-25	NP-5
41B:												
Minto----------	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-9	Silt loam	ML	A-4	0	0	100	100	90-100	85-100	25-40	NP-10
	9-16	Silt loam, silt	ML	A-4	0	0	100	100	90-100	85-100	15-25	NP-5
	16-71	Silt loam, silt	ML	A-4	0	0	100	100	95-100	85-100	15-25	NP-5
41C:												
Minto----------	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-9	Silt loam	ML	A-4	0	0	100	100	90-100	85-100	25-40	NP-10
	9-16	Silt loam, silt	ML	A-4	0	0	100	100	90-100	85-100	15-25	NP-5
	16-71	Silt loam, silt	ML	A-4	0	0	100	100	95-100	85-100	15-25	NP-5
41D:												
Minto----------	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-9	Silt loam	ML	A-4	0	0	100	100	90-100	85-100	25-40	NP-10
	9-16	Silt loam, silt	ML	A-4	0	0	100	100	90-100	85-100	15-25	NP-5
	16-71	Silt loam, silt	ML	A-4	0	0	100	100	95-100	85-100	15-25	NP-5
42B:												
Fairbanks----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-30	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	30-72	Silt loam, silt	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-10

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
42C:												
Fairbanks----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-30	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	30-72	Silt loam, silt	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-10
42CG:												
Fairbanks strongly sloping----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-30	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	30-72	Silt loam, silt	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-10
Fairbanks steep------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-30	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	30-72	Silt loam, silt	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-10
42D:												
Fairbanks----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-30	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	30-72	Silt loam, silt	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-10
42E:												
Fairbanks----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
42F:												
Fairbanks----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-30	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	30-72	Silt loam, silt	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-10
42G:												
Fairbanks----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-30	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	30-72	Silt loam, silt	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-10
44B:												
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---
44C:												
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
44D:												
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---
44E:												
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---
44F:												
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-30	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	30-72	Silt loam, silt	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-10
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---
44G:												
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---
45B:												
Gilmore----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	6-12	Silt loam, silt	ML	A-4	0	0	100	100	85-95	75-85	25-35	NP-10
	12-19	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	19-60	Weathered bedrock			---	---	0	0	---	---	---	---
45C:												
Gilmore----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	6-12	Silt loam, silt	ML	A-4	0	0	100	100	85-95	75-85	25-35	NP-10
	12-19	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	19-60	Weathered bedrock			---	---	0	0	---	---	---	---

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
45D:												
Gilmore----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	6-12	Silt loam, silt	ML	A-4	0	0	100	100	85-95	75-85	25-35	NP-10
	12-19	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	19-60	Weathered bedrock			---	---	0	0	---	---	---	---
45E:												
Gilmore----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	6-12	Silt loam, silt	ML	A-4	0	0	100	100	85-95	75-85	25-35	NP-10
	12-19	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	19-60	Weathered bedrock			---	---	0	0	---	---	---	---
45F:												
Gilmore----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	6-12	Silt loam, silt	ML	A-4	0	0	100	100	85-95	75-85	25-35	NP-10
	12-19	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	19-60	Weathered bedrock			---	---	0	0	---	---	---	---
45G:												
Gilmore----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	6-12	Silt loam, silt	ML	A-4	0	0	100	100	85-95	75-85	25-35	NP-10
	12-19	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	19-60	Weathered bedrock			---	---	0	0	---	---	---	---
46C:												
Eutrocryepts---------	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-31	Very fine sandy loam, silt loam	ML	A-4	0	0	100	100	90-100	75-90	25-35	NP-5
	31-72	Stratified silt loam to fine sand, gravelly sandy loam, gravelly loamy sand	ML, SM	A-2	0	0	80-100	70-100	70-100	30-70	0-5	---
46D:												
Eutrocryepts---------	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-31	Very fine sandy loam, silt loam	ML	A-4	0	0	100	100	90-100	75-90	25-35	NP-5
	31-72	Stratified silt loam to fine sand, gravelly sandy loam, gravelly loamy sand	ML, SM	A-2	0	0	80-100	70-100	70-100	30-70	0-5	---

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
48D:												
McCloud----------	0-3	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-20	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	20-29	Silt loam, loam	ML	A-4	0	0	100	100	60-95	50-85	25-35	NP-10
	29-39	Weathered bedrock	GW	A-1	0-20	0-50	30-80	10-60	10-50	2-10	---	---
48E:												
McCloud----------	0-3	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-20	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	20-29	Silt loam, loam	ML	A-4	0	0	100	100	60-95	50-85	25-35	NP-10
	29-39	Weathered bedrock	GW	A-1	0-20	0-50	30-80	10-60	10-50	2-10	---	---
48F:												
McCloud----------	0-3	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-20	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	20-29	Silt loam, loam	ML	A-4	0	0	100	100	60-95	50-85	25-35	NP-10
	29-39	Weathered bedrock	GW	A-1	0-20	0-50	30-80	10-60	10-50	2-10	---	---
49D:												
Angel----------	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-14	Silt loam, loam	ML	A-4	0	0	100	100	60-95	50-85	25-35	NP-10
	14-24	Extremely gravelly loamy coarse sand, very gravelly sandy loam	GM	A-2	0-10	0-40	40-80	20-50	20-50	10-20	---	NP
	24-39	Weathered bedrock	GW	A-1	0-20	0-50	30-80	10-60	10-50	2-10	---	---
49E:												
Angel----------	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-14	Silt loam, loam	ML	A-4	0	0	100	100	60-95	50-85	25-35	NP-10
	14-24	Extremely gravelly loamy coarse sand, very gravelly sandy loam	GM	A-2	0-10	0-40	40-80	20-50	20-50	10-20	---	NP
	24-39	Weathered bedrock	GW	A-1	0-20	0-50	30-80	10-60	10-50	2-10	---	---
49F:												
Angel----------	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-14	Silt loam, loam	ML	A-4	0	0	100	100	60-95	50-85	25-35	NP-10
	14-24	Extremely gravelly loamy coarse sand, very gravelly sandy loam	GM	A-2	0-10	0-40	40-80	20-50	20-50	10-20	---	NP
	24-39	Weathered bedrock	GW	A-1	0-20	0-50	30-80	10-60	10-50	2-10	---	---
50G:												
Ester----------	0-13	Peat	PT	A-8	0	0	---	---	---	---	---	---
	13-17	Silt loam	ML	A-4	0-10	0-10	100	100	90-100	75-90	25-30	NP-5
	17-23	Very channery silt loam			0-30	30-40	55-65	50-60	35-50	25-40	---	NP
	23-27	Weathered bedrock			---	---	---	---	---	---	---	---

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
	In				Pct	Pct					Pct	
50X:												
Ester----------	0-13	Peat	PT	A-8	0	0	---	---	---	---	---	---
	13-17	Silt loam	ML	A-4	0-10	0-10	100	100	90-100	75-90	25-30	NP-5
	17-23	Very channery silt loam			0-30	30-40	55-65	50-60	35-50	25-40	---	NP
	23-27	Weathered bedrock			---	---	---	---	---	---	---	---
51B:												
Saulich----------	0-9	Mucky peat, peat	PT	A-8	0	0	---	---	---	---	---	---
	9-21	Silt loam, mucky silt loam	OL, ML	A-4	0	0	95-100	95-100	90-100	65-75	30-40	NP-10
	21-72	Permanently frozen silt loam	ML	A-4	0	0	95-100	95-100	90-100	65-75	30-40	NP-10
51C:												
Saulich----------	0-9	Mucky peat, peat	PT	A-8	0	0	---	---	---	---	---	---
	9-21	Silt loam, mucky silt loam	OL, ML	A-4	0	0	95-100	95-100	90-100	65-75	30-40	NP-10
	21-72	Permanently frozen silt loam	ML	A-4	0	0	95-100	95-100	90-100	65-75	30-40	NP-10
61:												
Piledriver----------	0-2	Mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-4	Stratified fine sand to silt loam, very fine sandy loam	ML	A-4	0	0	100	100	70-100	40-95	25-30	NP-5
	4-30	Stratified sand to fine sand to very fine sandy loam	ML, SM	A-3, A-4	0	0-5	90-100	80-100	40-100	20-55	20-25	NP-5
	30-72	Sand, very gravelly sand, extremely cobbly sand	SP-SM, GP-GM	A-1	0	0-40	50-100	25-100	10-60	0-20	0-0	NP
62:												
Peede----------	0-5	Muck, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	5-55	Silt loam	ML	A-4	0	0	100	100	85-100	70-90	20-35	NP-10
	55-75	Extremely gravelly sand, very gravelly sand	GM, GC	A-1	0	0	15-100	10-50	0-45	0-20	---	---
Mosquito----------	0-9	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	9-20	Very fine sandy loam, silt loam, stratified silt loam to loamy fine sand	ML, OL	A-4	0	0	100	100	90-100	70-95	30-40	NP-10
	20-66	Permanently frozen silt loam, stratified permanently frozen silt loam to permanently frozen loamy fine sand	ML	A-4	0	0	100	100	90-100	70-95	30-40	NP-10
63:												
Tanana----------	0-5	Peat	PT	A-8	0	0	---	---	---	---	---	---
	5-8	Silt loam, mucky silt loam	ML, OL	A-4	0	0	100	100	95-100	75-90	30-40	NP-10
	8-28	Silt loam, stratified silt loam to loamy fine sand	ML	A-4	0	0	100	100	80-100	70-90	30-40	NP-10
	28-72	Permanently frozen silt loam, stratified permanently frozen silt loam to permanently frozen loamy fine sand	ML	A-4	0	0	100	100	80-100	70-90	---	---

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Typic Cryaquents-----	0-5	Mucky peat, muck	PT	A-8	0	0	---	---	---	---	---	---
	5-60	Silt loam, silty clay loam, stratified very fine sand to silt loam	ML, CL	A-5, A-4	0	0	100	100	85-100	60-100	25-40	NP-10
64:												
Eielson----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Very fine sandy loam	ML	A-4	0	0	100	100	90-100	65-75	25-30	NP-5
	6-71	Stratified silt loam to fine sand, very fine sandy loam	SM, ML	A-4	0	0	100	95-100	85-95	40-65	25-30	NP-5
	71-77	Very gravelly sand, extremely cobbly sand	GP-GM, SP-SM	A-1	0	15-35	50-70	30-55	20-30	5-10	---	NP
Tanana----------	0-5	Peat	PT	A-8	0	0	---	---	---	---	---	---
	5-8	Silt loam, mucky silt loam	ML, OL	A-4	0	0	100	100	95-100	75-90	30-40	NP-10
	8-28	Silt loam, stratified silt loam to loamy fine sand	ML	A-4	0	0	100	100	80-100	70-90	30-40	NP-10
	28-72	Permanently frozen silt loam, stratified permanently frozen silt loam to permanently frozen loamy fine sand	ML	A-4	0	0	100	100	80-100	70-90	---	---
65:												
Typic Aquorthels-----	0-4	Mucky peat, peat	PT	A-8	0	0	---	---	---	---	---	---
	4-24	Stratified silt loam to very fine sandy loam to muck	CL-ML	A-4	0	0	100	100	95-100	70-90	30-40	NP-10
	24-60	Stratified permanently frozen silt loam to permanently frozen very fine sandy loam to permanently frozen mucky peat	CL-ML	A-4	0	0	100	100	95-100	70-90	---	---
Typic Cryaquents-----	0-5	Mucky peat, muck	PT	A-8	0	0	---	---	---	---	---	---
	5-60	Silt loam, silty clay loam, stratified very fine sand to silt loam	ML, CL	A-5, A-4	0	0	100	100	85-100	60-100	25-40	NP-10
66:												
Eielson----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Very fine sandy loam	ML	A-4	0	0	100	100	90-100	65-75	25-30	NP-5
	6-71	Stratified silt loam to fine sand, very fine sandy loam	SM, ML	A-4	0	0	100	95-100	85-95	40-65	25-30	NP-5
	71-77	Very gravelly sand, extremely cobbly sand	GP-GM, SP-SM	A-1	0	15-35	50-70	30-55	20-30	5-10	---	NP
69:												
Typic Cryaquents-----	0-3	Mucky peat, muck	PT	A-8	0	0	---	---	---	---	---	---
	3-31	Silt loam, stratified very fine sand to silt loam, sandy clay loam	ML, CL	A-5, A-4	0	0	100	100	85-100	60-100	25-40	NP-10
	31-75	Very gravelly sand, sand	GP, SP-SM	A-1, A-3	0	0-10	50-100	30-100	10-60	5-20	---	---
Eielson----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Very fine sandy loam	ML	A-4	0	0	100	100	90-100	65-75	25-30	NP-5
	6-71	Stratified silt loam to fine sand, very fine sandy loam	SM, ML	A-4	0	0	100	95-100	85-95	40-65	25-30	NP-5
	71-77	Very gravelly sand, extremely cobbly sand	GP-GM, SP-SM	A-1	0	15-35	50-70	30-55	20-30	5-10	---	NP

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
70A:												
Volkmar----------	0-3	Mucky peat, peat	PT	A-8	0	0	---	---	---	---	---	---
	3-10	Silt loam, very fine sandy loam	ML	A-4	0	0	100	100	95-100	75-100	30-40	NP-10
	10-30	Silt loam, very fine sandy loam	ML	A-4	0	0	100	100	95-100	75-100	30-40	NP-10
	30-72	Very gravelly coarse sand, extremely gravelly sand	GP, GW	A-1	0	0-20	40-80	20-75	10-50	0-15	---	NP
Richardson----------	0-1	Mucky peat, peat	PT	A-8	0	0	---	---	---	---	---	---
	1-20	Silt loam	ML	A-4	0	0	100	100	95-100	75-95	25-40	NP-10
	20-59	Gravelly sandy loam, very fine sandy loam, silt loam	ML	A-4	0	0	90-100	70-100	50-100	30-95	25-40	NP-10
	59-72	Extremely gravelly sand, very gravelly coarse sand	GP, GW	A-1	0	0-20	40-80	20-75	10-50	0-15	---	NP
70B:												
Richardson----------	0-1	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	1-20	Silt loam	ML	A-4	0	0	100	100	95-100	75-95	25-40	NP-10
	20-59	Gravelly sandy loam, very fine sandy loam, silt loam	ML	A-4	0	0	90-100	70-100	50-100	30-95	25-40	NP-10
	59-72	Extremely gravelly sand, very gravelly coarse sand	GP, GW	A-1	0	0-20	40-80	20-75	10-50	0-15	---	NP
Volkmar----------	0-3	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	3-10	Silt loam, very fine sandy loam	ML	A-4	0	0	100	100	95-100	75-100	30-40	NP-10
	10-30	Silt loam, very fine sandy loam	ML	A-4	0	0	100	100	95-100	75-100	30-40	NP-10
	30-72	Very gravelly coarse sand, extremely gravelly sand	GP, GW	A-1	0	0-20	40-80	20-75	10-50	0-15	---	NP
71:												
Mosquito----------	0-9	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	9-20	Very fine sandy loam, silt loam, stratified silt loam to loamy fine sand	ML, OL	A-4	0	0	100	100	90-100	70-95	30-40	NP-10
	20-66	Permanently frozen silt loam, stratified permanently frozen silt loam to permanently frozen loamy fine sand	ML	A-4	0	0	100	100	90-100	70-95	30-40	NP-10
Liscum----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-10	Muck	PT	A-8	0	0	---	---	---	---	---	---
	10-28	Stratified silt loam to loamy fine sand	CL, CL-ML, ML	A-4	0	0	100	100	80-100	50-80	0-30	NP-10
	28-59	Gravelly sandy loam	ML, GW-GM	A-4, A-2	0	0	80-100	50-65	30-50	20-40	0-15	NP-5
	59-72	Extremely gravelly sand, gravelly coarse sand	GP, SP	A-1	0	0	40-90	25-65	0-40	0-25	0-0	NP
North Pole----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Muck	PT	A-8	0	0	---	---	---	---	---	---
	6-22	Stratified fine sand to silt loam	SM, ML	A-4	0	0	100	100	80-100	40-80	0-30	NP-10
	22-72	Extremely gravelly sand, gravelly coarse sand	GP, SP	A-1	0	0	70-100	30-100	0-40	0-10	0-0	NP

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
	In				Pct	Pct					Pct	
72F:												
Eutrocryepts---------	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-49	Silt loam, stratified silt loam to loamy sand	ML	A-4	0	0	95-100	90-100	70-100	50-100	25-35	NP-5
	49-72	Very gravelly coarse sand	GP	A-1	0	0	40-90	25-85	20-30	5-10	5-20	NP-5
81V:												
Saulich----------	0-9	Mucky peat, peat	PT	A-8	0	0	---	---	---	---	---	---
	9-21	Silt loam, mucky silt loam	OL, ML	A-4	0	0	95-100	95-100	90-100	65-75	30-40	NP-10
	21-72	Permanently frozen silt loam	ML	A-4	0	0	95-100	95-100	90-100	65-75	30-40	NP-10
Chatanika----------	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-6	Mucky silt loam	ML, OL	A-4	0	0	100	100	90-100	80-95	70-100	NP-15
	6-22	Silt loam	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-5
	22-60	Permanently frozen silt loam			0	0	100	100	90-100	80-95	---	---
81X:												
Saulich----------	0-9	Mucky peat, peat	PT	A-8	0	0	---	---	---	---	---	---
	9-21	Silt loam, mucky silt loam	OL, ML	A-4	0	0	95-100	95-100	90-100	65-75	30-40	NP-10
	21-72	Permanently frozen silt loam	ML	A-4	0	0	95-100	95-100	90-100	65-75	30-40	NP-10
Chatanika----------	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-6	Mucky silt loam	ML, OL	A-4	0	0	100	100	90-100	80-95	70-100	NP-15
	6-22	Silt loam	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-5
	22-60	Permanently frozen silt loam			0	0	100	100	90-100	80-95	---	---
82V:												
Gilmore----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	6-12	Silt loam, silt	ML	A-4	0	0	100	100	85-95	75-85	25-35	NP-10
	12-19	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	19-60	Weathered bedrock			---	---	0	0	---	---	---	---
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---
82X:												
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Gilmore	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	6-12	Silt loam, silt	ML	A-4	0	0	100	100	85-95	75-85	25-35	NP-10
	12-19	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	19-60	Weathered bedrock			---	---	0	0	---	---	---	---
85:												
Eutrocryepts	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-5	Silt loam	ML	A-4	0	0	100	100	90-100	85-100	25-40	NP-10
	5-16	Silt loam, gravelly loam	ML	A-4	0	0	80-100	75-100	70-100	55-100	15-25	NP-5
	16-60	Extremely gravelly sandy loam, very gravelly loam	GM	A-4, A-2	0-20	0-35	45-70	30-60	25-55	20-50	---	NP
Minto	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-9	Silt loam	ML	A-4	0	0	100	100	90-100	85-100	25-40	NP-10
	9-16	Silt loam, silt	ML	A-4	0	0	100	100	90-100	85-100	15-25	NP-5
	16-71	Silt loam, silt	ML	A-4	0	0	100	100	95-100	85-100	15-25	NP-5
86G:												
Brigadier	0-6	Peat	PT	A-8	0	0	---	---	---	---	---	---
	6-11	Silt loam	ML	A-4	---	0	100	100	90-100	80-90	30-40	NP-10
	11-16	Silt loam	ML	A-4	---	0	100	100	85-95	75-85	25-35	NP-10
	16-24	Extremely channery sandy loam, very gravelly loam	GM	A-2	---	0-40	40-65	15-55	15-55	10-50	---	NP
	24-39	Weathered bedrock			---	---	---	---	---	---	---	---
86V:												
Brigadier	0-6	Peat	PT	A-8	0	0	---	---	---	---	---	---
	6-11	Silt loam	ML	A-4	---	0	100	100	90-100	80-90	30-40	NP-10
	11-16	Silt loam	ML	A-4	---	0	100	100	85-95	75-85	25-35	NP-10
	16-24	Extremely channery sandy loam, very gravelly loam	GM	A-2	---	0-40	40-65	15-55	15-55	10-50	---	NP
	24-39	Weathered bedrock			---	---	---	---	---	---	---	---
Manchu	0-7	Peat	PT	A-8	0	0	---	---	---	---	---	---
	7-9	Silt loam, mucky silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	9-28	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	28-39	Very channery silt loam, extremely channery loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	39-60	Weathered bedrock			---	---	---	---	---	---	---	---
86X:												
Brigadier	0-6	Peat	PT	A-8	0	0	---	---	---	---	---	---
	6-11	Silt loam	ML	A-4	---	0	100	100	90-100	80-90	30-40	NP-10
	11-16	Silt loam	ML	A-4	---	0	100	100	85-95	75-85	25-35	NP-10
	16-24	Extremely channery sandy loam, very gravelly loam	GM	A-2	---	0-40	40-65	15-55	15-55	10-50	---	NP
	24-39	Weathered bedrock			---	---	---	---	---	---	---	---

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
	In				Pct	Pct					Pct	
Manchu----------	0-7	Peat	PT	A-8	0	0	---	---	---	---	---	---
	7-9	Silt loam, mucky silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	9-28	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	28-39	Very channery silt loam, extremely channery loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	39-60	Weathered bedrock			---	---	---	---	---	---	---	---
87V:												
Gilmore----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-8	Loam, silt loam	ML	A-4	0	0-10	80-100	70-100	90-100	55-90	30-40	NP-10
	8-12	Very gravelly loam, gravelly silt loam	ML, GM	A-1, A-2	0-10	0-20	40-90	50-80	30-75	25-70	25-35	NP-10
	12-18	Extremely channery sandy loam, extremely gravelly silt loam	GM	A-2, A-1	0-15	30-40	55-65	50-60	35-50	25-40	---	NP
	18-60	Weathered bedrock			---	---	---	---	---	---	---	---
Manchu----------	0-7	Peat	PT	A-8	0	0	---	---	---	---	---	---
	7-9	Silt loam, mucky silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	9-28	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	28-39	Very channery silt loam, extremely channery loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	39-60	Weathered bedrock			---	---	---	---	---	---	---	---
87X:												
Gilmore----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-8	Loam, silt loam	ML	A-4	0	0-10	80-100	70-100	90-100	55-90	30-40	NP-10
	8-12	Very gravelly loam, gravelly silt loam	ML, GM	A-1, A-2	0-10	0-20	40-90	50-80	30-75	25-70	25-35	NP-10
	12-18	Extremely channery sandy loam, extremely gravelly silt loam	GM	A-2, A-1	0-15	30-40	55-65	50-60	35-50	25-40	---	NP
	18-60	Weathered bedrock			---	---	---	---	---	---	---	---
88:												
Dystrocryepts--------	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-7	Gravelly loam, silt loam	ML	A-4	0	0	70-100	60-95	40-80	30-75	20-40	NP-5
	7-14	Cobbly silt loam, very cobbly loam	GM, ML	A-4, A-2-4	0-40	20-60	65-95	55-90	45-80	40-75	20-35	NP-5
	14-24	Extremely channery silt loam, extremely stony loam	GM	A-2-4, A-4	0-70	20-70	30-85	15-75	10-70	5-65	20-35	NP-5
	24-28	Bedrock			---	---	---	---	---	---	---	---
Turbels----------	0-8	Peat	PT	A-8	0	0	---	---	---	---	---	---
	8-14	Cobbly loam, gravelly silt loam	ML, SM	A-4	0	10-30	65-80	50-75	40-70	30-65	15-30	NP-10
	14-22	Extremely cobbly loam, very gravelly silt loam	GM	A-1	0-20	15-55	35-65	15-50	10-45	10-40	15-30	NP-10
	22-31	Extremely cobbly loam, very gravelly silt loam	GM	A-1	0-20	15-55	35-65	15-50	10-45	10-40	15-30	NP-10

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
	In				Pct	Pct					Pct	
89V:												
Steese	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---
Fairbanks	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-30	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	30-72	Silt loam, silt	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-10
89X:												
Fairbanks	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-30	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	30-72	Silt loam, silt	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-10
Steese	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---
90:												
Fubar	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-4	Stratified fine sand to silt loam, very fine sandy loam	ML	A-3, A-4	0	0-10	95-100	90-100	50-100	25-80	25-30	NP-5
	4-60	Fine sand, sand, extremely gravelly sand, very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-3	0	15-45	50-75	30-55	15-35	0-10	---	NP
Tanana	0-5	Peat	PT	A-8	0	0	---	---	---	---	---	---
	5-8	Silt loam, mucky silt loam	ML, OL	A-4	0	0	100	100	95-100	75-90	30-40	NP-10
	8-28	Silt loam, stratified silt loam to loamy fine sand	ML	A-4	0	0	100	100	80-100	70-90	30-40	NP-10
	28-72	Permanently frozen silt loam, stratified permanently frozen silt loam to permanently frozen loamy fine sand	ML	A-4	0	0	100	100	80-100	70-90	---	---
91:												
Aquic Cryofluvents	0-3	Mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	3-10	Silt loam, gravelly silt loam, mucky silt loam	ML, OL	A-4	0	0	80-100	75-100	70-90	50-80	25-40	NP-10
	10-60	Stratified silt loam to loamy sand to gravel	ML, SM	A-4	0	0-10	80-95	75-95	70-90	40-80	25-40	NP-10

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Typic Aquorthels-----	0-4	Mucky peat, peat	PT	A-8	0	0	---	---	---	---	---	---
	4-20	Stratified silt loam to loamy sand to coarse sand	ML, SM	A-4	0	0	95-100	90-100	80-100	50-80	25-40	NP-10
	20-60	Stratified silt loam to loamy sand to coarse sand	ML, SM	A-4	0	0	90-100	85-100	75-95	40-75	---	---
Typic Cryaquents-----	0-3	Mucky peat, muck	PT	A-8	0	0	---	---	---	---	---	---
	3-39	Stratified silt loam to loamy sand to gravel	ML, SM	A-5, A-4	0	0	90-100	85-95	60-90	40-80	25-40	NP-10
	39-75	Very gravelly coarse sand, extremely gravelly coarse sand	GP	A-1	0	0-10	30-60	20-50	10-20	2-5	---	NP
211:												
Chatanika----------	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-6	Mucky silt loam	ML, OL	A-4	0	0	100	100	90-100	80-95	70-100	NP-15
	6-22	Silt loam	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-5
	22-60	Permanently frozen silt loam			0	0	100	100	90-100	80-95	---	---
Goldstream----------	0-9	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	9-12	Mucky silt loam	ML, OL	A-4, A-5	0	0	100	100	95-100	75-90	30-50	NP-10
	12-20	Silt loam	ML	A-4	0	0	95-100	95-100	85-100	75-95	25-35	NP-10
	20-60	Permanently frozen silt loam	ML	A-4	0	0	95-100	95-100	85-100	75-95	---	---
212:												
Goldstream----------	0-9	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	9-12	Mucky silt loam	ML, OL	A-4, A-5	0	0	100	100	95-100	75-90	30-50	NP-10
	12-20	Silt loam	ML	A-4	0	0	95-100	95-100	85-100	75-95	25-35	NP-10
	20-60	Permanently frozen silt loam	ML	A-4	0	0	95-100	95-100	85-100	75-95	---	---
Histels----------	0-8	Peat	PT	A-8	0	0	---	---	---	---	---	NP
	8-20	Mucky peat	PT	A-8	0	0	---	---	---	---	---	NP
	20-31	Permanently frozen mucky peat	PT	A-8	0	0	---	---	---	---	---	NP
	31-60	Permanently frozen very fine sandy loam, permanently frozen silt loam	OL, ML	A-4, A-5	0	0	100	100	95-100	75-90	30-50	NP-10
251:												
Mosquito----------	0-9	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	9-20	Very fine sandy loam, silt loam, stratified silt loam to loamy fine sand	ML, OL	A-4	0	0	100	100	90-100	70-95	30-40	NP-10
	20-66	Permanently frozen silt loam, stratified permanently frozen silt loam to permanently frozen loamy fine sand	ML	A-4	0	0	100	100	90-100	70-95	30-40	NP-10
Tanana----------	0-5	Peat	PT	A-8	0	0	---	---	---	---	---	---
	5-8	Silt loam, mucky silt loam	ML, OL	A-4	0	0	100	100	95-100	75-90	30-40	NP-10
	8-28	Silt loam, stratified silt loam to loamy fine sand	ML	A-4	0	0	100	100	80-100	70-90	30-40	NP-10
	28-72	Permanently frozen silt loam, stratified permanently frozen silt loam to permanently frozen loamy fine sand	ML	A-4	0	0	100	100	80-100	70-90	---	---

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
361:												
Jarvis----------	0-2	Mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-6	Stratified fine sand to silt loam, very fine sandy loam	ML	A-4	0	0	100	100	50-100	0-100	25-30	NP-5
	6-24	Stratified sand to fine sand to very fine sandy loam	ML, SM	A-4, A-3	0	0-5	95-100	90-100	70-100	35-75	20-25	NP-5
	24-59	Sand, very gravelly sand, extremely cobbly sand	GP-GM, SP-SM	A-1	0	0-40	50-100	25-100	10-60	0-20	0-0	NP
Chena----------	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-7	Stratified fine sand to silt loam, fine sandy loam, fine sand	SM, ML	A-4	0	0-15	90-100	90-100	70-90	35-70	---	NP
	7-60	Sand, coarse sand, very gravelly sand, very cobbly sand	GP, SP	A-1	0	0-40	45-100	30-100	15-65	0-15	---	NP
362:												
Fubar----------	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-4	Stratified fine sand to silt loam, very fine sandy loam	ML	A-3, A-4	0	0-10	95-100	90-100	50-100	25-80	25-30	NP-5
	4-60	Extremely gravelly sand, fine sand, sand, very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-3	0	15-45	50-75	30-55	15-35	0-10	---	NP
Piledriver----------	0-2	Mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-4	Stratified fine sand to silt loam, very fine sandy loam	ML	A-4	0	0	100	100	70-100	40-95	25-30	NP-5
	4-30	Stratified sand to fine sand to very fine sandy loam	ML, SM	A-3, A-4	0	0-5	90-100	80-100	40-100	20-55	20-25	NP-5
	30-72	Sand, very gravelly sand, extremely cobbly sand	SP-SM, GP-GM	A-1	0	0-40	50-100	25-100	10-60	0-20	0-0	NP
363:												
Jarvis----------	0-2	Mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-6	Stratified fine sand to silt loam, very fine sandy loam	ML	A-4	0	0	100	100	50-100	0-100	25-30	NP-5
	6-24	Stratified sand to fine sand to very fine sandy loam	ML, SM	A-4, A-3	0	0-5	95-100	90-100	70-100	35-75	20-25	NP-5
	24-59	Sand, very gravelly sand, extremely cobbly sand	GP-GM, SP-SM	A-1	0	0-40	50-100	25-100	10-60	0-20	0-0	NP
Salchaket----------	0-2	Mucky peat			0	0	---	---	---	---	---	---
	2-5	Very fine sandy loam	ML	A-4	0	0	100	100	90-100	65-75	25-30	NP-5
	5-63	Stratified silt loam to fine sand	ML, SM	A-4	0	0	100	95-100	85-95	40-65	25-30	NP-5
	63-72	Very gravelly sand, extremely cobbly sand	GP-GM, SP-SM	A-1	0	15-35	50-70	30-55	20-30	5-10	---	NP

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
411A:												
Minto----------	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-9	Silt loam	ML	A-4	0	0	100	100	90-100	85-100	25-40	NP-10
	9-16	Silt loam, silt	ML	A-4	0	0	100	100	90-100	85-100	15-25	NP-5
	16-71	Silt loam, silt	ML	A-4	0	0	100	100	95-100	85-100	15-25	NP-5
Chatanika----------	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-6	Mucky silt loam	ML, OL	A-4	0	0	100	100	90-100	80-95	70-100	NP-15
	6-22	Silt loam	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-5
	22-60	Permanently frozen silt loam			0	0	100	100	90-100	80-95	---	---
411B:												
Minto----------	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-9	Silt loam	ML	A-4	0	0	100	100	90-100	85-100	25-40	NP-10
	9-16	Silt loam, silt	ML	A-4	0	0	100	100	90-100	85-100	15-25	NP-5
	16-71	Silt loam, silt	ML	A-4	0	0	100	100	95-100	85-100	15-25	NP-5
Chatanika----------	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-6	Mucky silt loam	ML, OL	A-4	0	0	100	100	90-100	80-95	70-100	NP-15
	6-22	Silt loam	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-5
	22-60	Permanently frozen silt loam			0	0	100	100	90-100	80-95	---	---
411C:												
Minto----------	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-9	Silt loam	ML	A-4	0	0	100	100	90-100	85-100	25-40	NP-10
	9-16	Silt loam, silt	ML	A-4	0	0	100	100	90-100	85-100	15-25	NP-5
	16-71	Silt loam, silt	ML	A-4	0	0	100	100	95-100	85-100	15-25	NP-5
Chatanika----------	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-6	Mucky silt loam	ML, OL	A-4	0	0	100	100	90-100	80-95	70-100	NP-15
	6-22	Silt loam	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-5
	22-60	Permanently frozen silt loam			0	0	100	100	90-100	80-95	---	---
411D:												
Minto----------	0-2	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-9	Silt loam	ML	A-4	0	0	100	100	90-100	85-100	25-40	NP-10
	9-16	Silt loam, silt	ML	A-4	0	0	100	100	90-100	85-100	15-25	NP-5
	16-71	Silt loam, silt	ML	A-4	0	0	100	100	95-100	85-100	15-25	NP-5
Chatanika----------	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-6	Mucky silt loam	ML, OL	A-4	0	0	100	100	90-100	80-95	70-100	NP-15
	6-22	Silt loam	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-5
	22-60	Permanently frozen silt loam			0	0	100	100	90-100	80-95	---	---
421B:												
Fairbanks----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-30	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	30-72	Silt loam, silt	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-10

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
	In				Pct	Pct					Pct	
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---
421C:												
Fairbanks----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-30	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	30-72	Silt loam, silt	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-10
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---
421D:												
Fairbanks----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-30	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	30-72	Silt loam, silt	ML	A-4	0	0	100	100	90-100	80-95	25-35	NP-10
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---
441D:												
Gilmore----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	6-12	Silt loam, silt	ML	A-4	0	0	100	100	85-95	75-85	25-35	NP-10
	12-19	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	19-60	Weathered bedrock			---	---	0	0	---	---	---	---
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
	In				Pct	Pct					Pct	
441E:												
Gilmore----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	6-12	Silt loam, silt	ML	A-4	0	0	100	100	85-95	75-85	25-35	NP-10
	12-19	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	19-60	Weathered bedrock			---	---	0	0	---	---	---	---
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---
441F:												
Gilmore----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	6-12	Silt loam, silt	ML	A-4	0	0	100	100	85-95	75-85	25-35	NP-10
	12-19	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	19-60	Weathered bedrock			---	---	0	0	---	---	---	---
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---
441G:												
Gilmore----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	6-12	Silt loam, silt	ML	A-4	0	0	100	100	85-95	75-85	25-35	NP-10
	12-19	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	19-60	Weathered bedrock			---	---	0	0	---	---	---	---
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---
451G:												
Brigadier----------	0-6	Peat	PT	A-8	0	0	---	---	---	---	---	---
	6-11	Silt loam	ML	A-4	---	0	100	100	90-100	80-90	30-40	NP-10
	11-16	Silt loam	ML	A-4	---	0	100	100	85-95	75-85	25-35	NP-10
	16-24	Extremely channery sandy loam, very gravelly loam	GM	A-2	---	0-40	40-65	15-55	15-55	10-50	---	NP
	24-39	Weathered bedrock			---	---	---	---	---	---	---	---

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Ester----------	0-13	Peat	PT	A-8	0	0	0	0	---	---	---	---
	13-17	Silt loam	ML	A-4	0-10	0-10	100	100	90-100	70-90	25-30	NP-5
	17-23	Very channery silt loam			0-30	30-40	55-65	50-60	35-50	25-40	---	NP
	23-27	Weathered bedrock			---	---	---	---	---	---	---	---
451X:												
Brigadier----------	0-6	Peat	PT	A-8	0	0	---	---	---	---	---	---
	6-11	Silt loam	ML	A-4	---	0	100	100	90-100	80-90	30-40	NP-10
	11-16	Silt loam	ML	A-4	---	0	100	100	85-95	75-85	25-35	NP-10
	16-24	Extremely channery sandy loam, very gravelly loam	GM	A-2	---	0-40	40-65	15-55	15-55	10-50	---	NP
	24-39	Weathered bedrock			---	---	---	---	---	---	---	---
Ester----------	0-13	Peat	PT	A-8	0	0	---	---	---	---	---	---
	13-17	Silt loam	ML	A-4	0-10	0-10	100	100	90-100	75-90	25-30	NP-5
	17-23	Very channery silt loam			0-30	30-40	55-65	50-60	35-50	25-40	---	NP
	23-27	Weathered bedrock			---	---	---	---	---	---	---	---
452:												
Gilmore----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	30-40	NP-10
	6-12	Silt loam, silt	ML	A-4	0	0	100	100	85-95	75-85	25-35	NP-10
	12-19	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	19-60	Weathered bedrock			---	---	0	0	---	---	---	---
Steese----------	0-2	Peat	PT	A-8	0	0	---	---	---	---	---	---
	2-5	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	5-27	Silt, silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	27-33	Very channery silt loam, extremely channery silt loam	GM	A-2, A-4	0	30-40	40-65	15-55	15-55	10-50	---	NP
	33-40	Weathered bedrock			---	---	---	---	---	---	---	---
492:												
Angel----------	0-4	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-14	Silt loam, loam	ML	A-4	0	0	100	100	60-95	50-85	25-35	NP-10
	14-24	Extremely gravelly loamy coarse sand, very gravelly sandy loam	GM	A-2	0-10	0-40	40-80	20-50	20-50	10-20	---	NP
	24-39	Weathered bedrock	GW	A-1	0-20	0-50	30-80	10-60	10-50	2-10	---	---
McCloud----------	0-3	Peat, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	4-20	Silt loam	ML	A-4	0	0	100	100	90-100	80-90	25-35	NP-10
	20-29	Silt loam, loam	ML	A-4	0	0	100	100	60-95	50-85	25-35	NP-10
	29-39	Weathered bedrock	GW	A-1	0-20	0-50	30-80	10-60	10-50	2-10	---	---

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
611:												
Piledriver----------	0-2	Mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	2-4	Stratified fine sand to silt loam, very fine sandy loam	ML	A-4	0	0	100	100	70-100	40-95	25-30	NP-5
	4-30	Stratified sand to fine sand to very fine sandy loam	ML, SM	A-3, A-4	0	0-5	90-100	80-100	40-100	20-55	20-25	NP-5
	30-72	Sand, very gravelly sand, extremely cobbly sand	SP-SM, GP-GM	A-1	0	0-40	50-100	25-100	10-60	0-20	0-0	NP
Eielson----------	0-3	Peat	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Very fine sandy loam	ML	A-4	0	0	100	100	90-100	65-75	25-30	NP-5
	6-71	Stratified silt loam to fine sand, very fine sandy loam	SM, ML	A-4	0	0	100	95-100	85-95	40-65	25-30	NP-5
	71-77	Very gravelly sand, extremely cobbly sand	GP-GM, SP-SM	A-1	0	15-35	50-70	30-55	20-30	5-10	---	NP
CL:												
Typic Cryorthents----	0-1	Slightly decomposed plant material	GC-GM	A-2	0	0	---	---	---	---	---	---
	1-49	Stratified fine sand to silt loam	SC-SM, ML	A-4, A-2	0	0	100	95-100	85-95	40-65	25-35	NP-10
	49-75	Very gravelly sand, extremely gravelly sand	SW-SM	A-1	0	0-10	40-65	20-50	10-35	0-10	---	NP
Gv:												
Gravel pits----------	---	---	---	---	---	---	---	---	---	---	---	---
Lf:												
Landfill areas-------	---	---	---	---	---	---	---	---	---	---	---	---
Qu:												
Quarry pits----------	---	---	---	---	---	---	---	---	---	---	---	---
Rv:												
Riverwash----------	---	---	---	---	---	---	---	---	---	---	---	---
UC:												
Typic Cryorthents, fill----------	0-30	Stratified gravelly loamy sand to gravelly fine sandy loam to gravelly silt loam	GC-GM	A-2	0	0-15	65-80	50-75	30-65	10-55	0-15	NP-5
	30-67	Stratified fine sand to silt loam	SC-SM, ML	A-4, A-2	0	0	100	95-100	75-95	50-75	25-35	NP-10
	67-75	Very gravelly sand, extremely gravelly sand	SP-SM, GP-GM	A-1	0	0-20	40-65	20-50	10-35	0-10	---	NP
Urban Land----------	---	---	---	---	---	---	---	---	---	---	---	---
W:												
Water----------	---	---	---	---	---	---	---	---	---	---	---	---

Table 12.—Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
WAH:												
Typic Cryaquents-----	0-4	Mucky peat, muck	PT	A-8	0	0	---	---	---	---	---	---
	4-72	Silt loam	ML, CL	A-5, A-4	0	0	100	100	85-100	75-95	25-40	NP-10
Histic Cryaquepts----	0-13	Mucky peat, muck, peat	PT	A-8	0	0	---	---	---	---	---	---
	13-30	Very fine sandy loam, silt loam	ML	A-4	0	0	100	100	50-100	30-100	25-35	NP-10
	30-72	Very fine sandy loam, silt loam	ML, SM	A-4	0	0	100	100	50-100	25-100	25-35	NP-10
Terric Cryofibrists--	0-12	Peat	PT	A-8	0	0	---	---	---	---	---	---
	12-39	Muck	PT	A-8	0	0	---	---	---	---	---	---
	39-66	Very fine sandy loam, silt loam, silty clay loam	CL-ML	A-5	0	0	100	100	95-100	80-100	30-45	NP-30
XC:												
Typic Cryorthents----	0-30	Stratified gravelly loamy sand to gravelly fine sandy loam to gravelly silt loam	GC-GM	A-2	0	0-15	65-80	50-75	30-65	10-55	0-15	NP-5
	30-67	Stratified fine sand to silt loam	SC-SM, ML	A-4, A-2	0	0	100	95-100	75-95	50-75	25-35	NP-10
	67-75	Very gravelly sand, extremely gravelly sand	SP-SM, GP-GM	A-1	0	0-20	40-65	20-50	10-35	0-10	---	NP
Salchaket----------	0-2	Mucky peat			0	0	---	---	---	---	---	---
	2-5	Very fine sandy loam	ML	A-4	0	0	100	100	90-100	65-75	25-30	NP-5
	5-63	Stratified silt loam to fine sand	ML, SM	A-4	0	0	100	95-100	85-95	40-65	25-30	NP-5
	63-72	Very gravelly sand, extremely cobbly sand	GP-GM, SP-SM	A-1	0	15-35	50-70	30-55	20-30	5-10	---	NP

Table 13.—Physical Properties of the Soils

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer. Absence of an entry indicates that data were not estimated.)

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
9:														
Histels----------	0-8	---	---	---	0.05-0.10	6-20	0.10-0.20	0.0-2.9	85-95	.05	.05	1	8	0
	8-20	---	---	---	0.07-0.18	0.6-2	0.35-0.55	0.0-2.9	75-90	.05	.05			
	20-31	---	---	---	0.07-0.18	0.00-0.00	---	0.0-2.9	75-90	.05	.05			
	31-60	---	---	0-10	1.00-1.20	0.00-0.00	---	0.0-2.9	5.0-10	---	---			
10:														
Bolio----------	0-5	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	.05	.05	1	8	0
	5-18	---	---	---	0.07-0.18	0.6-2	0.35-0.50	0.0-2.9	75-90	.05	.05			
	18-60	---	---	---	0.07-0.18	0.00-0.00	---	0.0-2.9	75-90	---	---			
11:														
Lemeta----------	0-18	---	---	---	0.05-0.10	6-20	0.10-0.20	0.0-2.9	85-95	.05	.05	2	8	0
	18-66	---	---	---	0.20-0.30	0.00-0.00	---	0.0-2.9	60-85	---	---			
13:														
Terric Cryofibrists---	0-12	---	---	---	0.05-0.10	6-20	0.10-0.20	0.0-2.9	85-95	.05	.05	1	8	0
	12-39	---	---	---	0.20-0.30	0.00-0.06	0.40-0.55	0.0-2.9	60-85	---	---			
	39-66	---	---	5-35	1.30-1.45	0.2-0.6	---	0.0-2.9	5.0-10	---	---			
Liscum----------	0-3	---	---	---	0.05-0.18	0.6-2	0.25-0.30	0.0-2.9	20-80	.05	.05	5	8	0
	3-10	---	---	---	0.05-0.18	0.6-2	0.25-0.30	0.0-2.9	20-80	.05	.05			
	10-60	---	---	0-40	1.20-1.60	0.2-2	0.22-0.27	0.0-2.9	1.0-5.0	.43	.43			
14:														
Histels----------	0-20	---	---	---	0.05-0.30	0.00-20	0.35-0.50	0.0-2.9	60-95	.05	.05	1	8	0
	20-39	---	---	---	0.07-0.30	0.00-0.00	---	0.0-2.9	60-90	.05	.05			
	39-72	---	---	0-10	1.00-1.20	0.00-0.00	---	0.0-2.9	5.0-10	---	---			
Terric Cryofibrists---	0-12	---	---	---	0.05-0.10	6-20	0.10-0.20	0.0-2.9	85-95	.05	.05	1	8	0
	12-39	---	---	---	0.20-0.30	0.00-0.06	0.40-0.55	0.0-2.9	60-85	---	---			
	39-66	---	---	5-35	1.30-1.45	0.2-0.6	---	0.0-2.9	5.0-10	---	---			
20:														
Mosquito----------	0-9	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-90	.05	.05	1	8	0
	9-20	---	---	0-10	0.80-1.40	0.6-2	0.24-0.28	0.0-2.9	5.0-20	.37	.37			
	20-66	---	---	0-10	---	0.00-0.00	---	0.0-2.9	---	---	---			
21A:														
Goldstream----------	0-9	---	---	---	0.08-0.12	2-6	0.05-0.35	0.0-2.9	85-95	.05	.05	2	8	0
	9-12	---	---	5-10	1.00-1.20	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.37	.37			
	12-20	---	---	5-10	1.00-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.55	.55			
	20-60	---	---	5-10	---	0.00-0.00	---	0.0-2.9	2.0-4.0	---	---			
21B:														
Goldstream----------	0-9	---	---	---	0.08-0.12	2-6	0.05-0.35	0.0-2.9	85-95	.05	.05	2	8	0
	9-12	---	---	5-10	1.00-1.20	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.37	.37			
	12-20	---	---	5-10	1.00-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.55	.55			
	20-60	---	---	5-10	---	0.00-0.00	---	0.0-2.9	2.0-4.0	---	---			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
22:														
Tanacross----------	0-10	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	.05	.05	2	8	0
	10-12	---	---	0-10	0.80-1.20	0.6-2	0.20-0.22	0.0-2.9	5.0-10	.37	.37			
	12-16	---	---	0-10	1.20-1.40	0.6-6	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	16-72	---	---	0-10	1.20-1.40	0.00-0.00	---	0.0-2.9	0.0-1.0	---	---			
25:														
Tanana----------	0-5	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	8	0
	5-8	---	---	5-10	1.10-1.20	0.6-2	0.20-0.23	0.0-2.9	2.0-6.0	.37	.37			
	8-28	---	---	5-10	1.10-1.20	0.6-2	0.20-0.23	0.0-2.9	0.0-2.0	.43	.43			
	28-72	---	---	5-10	1.10-1.20	0.00-0.00	---	0.0-2.9	0.0-1.0	---	---			
26:														
Histels----------	0-8	---	---	---	0.05-0.10	6-20	0.10-0.20	0.0-2.9	85-95	.05	.05	1	8	0
	8-16	---	---	---	0.07-0.18	0.6-2	0.35-0.55	0.0-2.9	75-90	.05	.05			
	16-24	---	---	---	0.07-0.18	0.00-0.00	---	0.0-2.9	75-90	.05	.05			
	24-60	---	---	0-10	1.00-1.20	0.00-0.00	---	0.0-2.9	5.0-10	---	---			
Mosquito----------	0-9	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-90	.05	.05	1	8	0
	9-20	---	---	0-10	0.80-1.40	0.6-2	0.24-0.28	0.0-2.9	5.0-20	.37	.37			
	20-66	---	---	0-10	---	0.00-0.00	---	0.0-2.9	---	---	---			
31:														
Eielson----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	3	2	134
	3-6	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	3.0-6.0	.37	.37			
	6-71	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	71-77	---	---	0-5	1.50-1.60	6-20	0.02-0.04	0.0-2.9	---	.05	.24			
Piledriver----------	0-2	---	---	---	0.07-0.18	6-20	0.05-0.35	0.0-2.9	85-95	.05	.05	2	2	134
	2-4	---	---	5-10	1.10-1.20	0.6-2	0.19-0.22	0.0-2.9	3.0-6.0	.37	.37			
	4-30	---	---	0-10	1.10-1.20	0.6-2	0.15-0.18	0.0-2.9	---	.32	.32			
	30-72	---	---	0-5	1.60-1.70	6-20	0.03-0.06	0.0-2.9	---	.05	.28			
32:														
Salchaket----------	0-2	---	---	---	0.07-0.18	0.6-2	0.35-0.50	0.0-2.9	75-90	---	---	3	2	134
	2-5	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	3.0-6.0	.37	.37			
	5-63	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	63-72	---	---	0-5	1.50-1.60	6-20	0.02-0.04	0.0-2.9	---	.05	.24			
35:														
North Pole----------	0-3	---	---	---	0.05-0.18	0.6-2	0.25-0.30	0.0-2.9	20-80	.05	.05	2	2	134
	3-6	---	---	---	0.05-0.18	0.6-2	0.25-0.30	0.0-2.9	20-80	.05	.05			
	6-22	---	---	0-10	1.20-1.60	0.6-2	0.15-0.22	0.0-2.9	1.0-5.0	.43	.43			
	22-72	---	---	0-3	1.40-1.70	6-20	0.03-0.05	0.0-2.9	1.0-5.0	.05	---			
36:														
Jarvis----------	0-2	---	---	---	0.07-0.18	0.6-2	0.35-0.50	0.0-2.9	75-90	.05	.05	2	2	134
	2-6	---	---	5-10	1.10-1.20	0.6-2	0.19-0.22	0.0-2.9	3.0-6.0	.37	.37			
	6-24	---	---	0-10	1.10-1.20	0.6-2	0.15-0.18	0.0-2.9	---	.32	.32			
	24-59	---	---	0-5	1.60-1.70	6-20	0.03-0.06	0.0-2.9	---	.05	.28			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
37:														
Chena	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	1	2	134
	2-7	---	---	0-5	1.10-1.20	0.6-6	0.16-0.18	0.0-2.9	---	.28	.32			
	7-60	---	---	0-5	1.40-1.50	6-20	0.03-0.05	0.0-2.9	---	.10	.55			
39A:														
Nenana	0-2	---	---	---	0.07-0.18	0.6-2	0.35-0.50	0.0-2.9	75-90	.05	.05	2	2	134
	2-15	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	15-21	---	---	5-10	1.20-1.30	0.6-2	0.18-0.20	0.0-2.9	---	.37	.55			
	21-72	---	---	0-5	1.40-1.50	6-20	0.02-0.04	0.0-2.9	---	.05	.17			
40A:														
Chatanika	0-4	---	---	---	0.05-0.18	0.6-20	0.05-0.55	---	75-95	.05	.05	2	2	134
	4-6	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	7.0-12	.37	.37			
	6-22	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	1.0-5.0	.43	.43			
	22-60	---	---	0-10	---	0.00-0.00	---	---	1.0-5.0	---	---			
40B:														
Chatanika	0-4	---	---	---	0.05-0.18	0.6-20	0.05-0.55	---	75-95	.05	.05	2	2	134
	4-6	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	7.0-12	.37	.37			
	6-22	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	1.0-5.0	.43	.43			
	22-60	---	---	0-10	---	0.00-0.00	---	---	1.0-5.0	---	---			
40C:														
Chatanika	0-4	---	---	---	0.05-0.18	0.6-20	0.05-0.55	---	75-95	.05	.05	2	2	134
	4-6	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	7.0-12	.37	.37			
	6-22	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	1.0-5.0	.43	.43			
	22-60	---	---	0-10	---	0.00-0.00	---	---	1.0-5.0	---	---			
40D:														
Chatanika	0-4	---	---	---	0.05-0.18	0.6-20	0.05-0.55	---	75-95	.05	.05	2	2	134
	4-6	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	7.0-12	.37	.37			
	6-22	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	1.0-5.0	.43	.43			
	22-60	---	---	0-10	---	0.00-0.00	---	---	1.0-5.0	---	---			
41A:														
Minto	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	5	2	134
	2-9	---	---	0-10	1.10-1.20	0.6-2	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37			
	9-16	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
	16-71	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
41B:														
Minto	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	5	2	134
	2-9	---	---	0-10	1.10-1.20	0.6-2	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37			
	9-16	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
	16-71	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
41C:														
Minto----------	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	5	2	134
	2-9	---	---	0-10	1.10-1.20	0.6-2	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37			
	9-16	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
	16-71	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
41D:														
Minto----------	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	5	2	134
	2-9	---	---	0-10	1.10-1.20	0.6-2	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37			
	9-16	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
	16-71	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
42B:														
Fairbanks----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	5	2	134
	3-30	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	30-72	---	---	0-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
42C:														
Fairbanks----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	5	2	134
	3-30	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	30-72	---	---	0-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
42CG:														
Fairbanks strongly sloping----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	5	2	134
	3-30	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	30-72	---	---	0-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
Fairbanks steep-------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	5	2	134
	3-30	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	30-72	---	---	0-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
42D:														
Fairbanks----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	5	2	134
	3-30	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	30-72	---	---	0-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
42E:														
Fairbanks----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	5	2	134
	3-30	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	30-72	---	---	0-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
42F:														
Fairbanks----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	5	2	134
	3-30	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	30-72	---	---	0-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
42G:														
Fairbanks----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	5	2	134
	3-30	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	30-72	---	---	0-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
44B:														
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
44C:														
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
44D:														
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
44E:														
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
44F:														
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
44G:														
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
45B:														
Gilmore----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	3-6	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	6-12	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	12-19	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	19-60	---	---	---	---	---	---	0.0-2.9	---	---	---			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
45C:														
Gilmore----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	3-6	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	6-12	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	12-19	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	19-60	---	---	---	---	---	---	0.0-2.9	---	---	---			
45D:														
Gilmore----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	3-6	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	6-12	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	12-19	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	19-60	---	---	---	---	---	---	0.0-2.9	---	---	---			
45E:														
Gilmore----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	3-6	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	6-12	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	12-19	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	19-60	---	---	---	---	---	---	0.0-2.9	---	---	---			
45F:														
Gilmore----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	3-6	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	6-12	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	12-19	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	19-60	---	---	---	---	---	---	0.0-2.9	---	---	---			
45G:														
Gilmore----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	3-6	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	6-12	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	12-19	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	19-60	---	---	---	---	---	---	0.0-2.9	---	---	---			
46C:														
Eutrocryepts----------	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.55	0.0-2.9	75-95	.05	.05	5	2	134
	2-31	---	---	3-7	1.10-1.30	0.6-2	0.21-0.23	0.0-2.9	1.0-5.0	.37	.37			
	31-72	---	---	1-3	1.30-1.50	0.2-0.6	0.08-0.12	0.0-2.9	1.0-3.0	.43	.43			
46D:														
Eutrocryepts----------	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.55	0.0-2.9	75-95	.05	.05	5	2	134
	2-31	---	---	3-7	1.10-1.30	0.6-2	0.21-0.23	0.0-2.9	1.0-5.0	.37	.37			
	31-72	---	---	1-3	1.30-1.50	0.2-0.6	0.08-0.12	0.0-2.9	1.0-3.0	.43	.43			
48D:														
McCloud----------	0-3	---	---	---	0.05-0.18	2-20	0.05-0.50	0.0-2.9	85-95	---	---	2	2	134
	4-20	---	---	0-5	1.10-1.30	0.6-2	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	20-29	---	---	0-5	1.10-1.30	0.6-2	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	29-39	---	---	0-0	---	---	---	0.0-2.9	0.0-0.0	---	---			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
48E:														
McCloud----------	0-3	---	---	---	0.05-0.18	2-20	0.05-0.50	0.0-2.9	85-95	---	---	2	2	134
	4-20	---	---	0-5	1.10-1.30	0.6-2	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	20-29	---	---	0-5	1.10-1.30	0.6-2	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	29-39	---	---	0-0	---	---	---	0.0-2.9	0.0-0.0	---	---			
48F:														
McCloud----------	0-3	---	---	---	0.05-0.18	2-20	0.05-0.50	0.0-2.9	85-95	---	---	2	2	134
	4-20	---	---	0-5	1.10-1.30	0.6-2	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	20-29	---	---	0-5	1.10-1.30	0.6-2	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	29-39	---	---	0-0	---	---	---	0.0-2.9	0.0-0.0	---	---			
49D:														
Angel----------	0-4	---	---	---	0.05-0.18	2-20	0.05-0.50	0.0-2.9	85-95	---	---	1	2	134
	4-14	---	---	0-5	1.10-1.30	0.6-2	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	14-24	---	---	0-5	1.40-1.60	2-6	0.05-0.10	0.0-2.9	0.0-0.0	.15	.55			
	24-39	---	---	0-0	---	---	---	0.0-2.9	0.0-0.0	---	---			
49E:														
Angel----------	0-4	---	---	---	0.05-0.18	2-20	0.05-0.50	0.0-2.9	85-95	---	---	1	2	134
	4-14	---	---	0-5	1.10-1.30	0.6-2	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	14-24	---	---	0-5	1.40-1.60	2-6	0.05-0.10	0.0-2.9	0.0-0.0	.15	.55			
	24-39	---	---	0-0	---	---	---	0.0-2.9	0.0-0.0	---	---			
49F:														
Angel----------	0-4	---	---	---	0.05-0.18	2-20	0.05-0.50	0.0-2.9	85-95	---	---	1	2	134
	4-14	---	---	0-5	1.10-1.30	0.6-2	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	14-24	---	---	0-5	1.40-1.60	2-6	0.05-0.10	0.0-2.9	0.0-0.0	.15	.55			
	24-39	---	---	0-0	---	---	---	0.0-2.9	0.0-0.0	---	---			
50G:														
Ester----------	0-13	---	---	---	0.05-0.10	2-6	0.25-0.30	0.0-2.9	80-95	.05	.05	1	8	0
	13-17	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.37	.49			
	17-23	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	23-27	---	---	---	---	---	---	---	---	---	---			
50X:														
Ester----------	0-13	---	---	---	0.05-0.10	2-6	0.25-0.30	0.0-2.9	80-95	.05	.05	1	8	0
	13-17	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.37	.49			
	17-23	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	23-27	---	---	---	---	---	---	---	---	---	---			
51B:														
Saulich----------	0-9	---	---	---	0.07-0.18	2-6	0.30-0.35	0.0-2.9	80-90	.05	.05	2	8	0
	9-21	---	---	0-5	1.10-1.20	0.6-2	0.23-0.25	0.0-2.9	---	.37	.37			
	21-72	---	---	0-5	---	0.00-0.00	---	0.0-2.9	---	.43	.43			
51C:														
Saulich----------	0-9	---	---	---	0.07-0.18	2-6	0.30-0.35	0.0-2.9	80-90	.05	.05	2	8	0
	9-21	---	---	0-5	1.10-1.20	0.6-2	0.23-0.25	0.0-2.9	---	.37	.37			
	21-72	---	---	0-5	---	0.00-0.00	---	0.0-2.9	---	.43	.43			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
61:														
Piledriver----------	0-2	---	---	---	0.07-0.18	6-20	0.05-0.35	0.0-2.9	85-95	.05	.05	2	2	134
	2-4	---	---	5-10	1.10-1.20	0.6-2	0.19-0.22	0.0-2.9	3.0-6.0	.37	.37			
	4-30	---	---	0-10	1.10-1.20	0.6-2	0.15-0.18	0.0-2.9	---	.32	.32			
	30-72	---	---	0-5	1.60-1.70	6-20	0.03-0.06	0.0-2.9	---	.05	.28			
62:														
Peede----------	0-5	---	---	---	0.07-0.30	0.00-2	0.35-0.55	0.0-2.9	60-90	---	---	3	2	134
	5-55	---	---	3-10	1.10-1.20	0.6-2	0.20-0.25	0.0-2.9	1.0-5.0	.37	.37			
	55-75	---	---	0-3	1.40-1.70	6-20	0.03-0.04	0.0-2.9	1.0-3.0	.05	.28			
Mosquito----------	0-9	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-90	.05	.05	1	8	0
	9-20	---	---	0-10	0.80-1.40	0.6-2	0.24-0.28	0.0-2.9	5.0-20	.37	.37			
	20-66	---	---	0-10	---	0.00-0.00	---	0.0-2.9	---	---	---			
63:														
Tanana----------	0-5	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	8	0
	5-8	---	---	5-10	1.10-1.20	0.6-2	0.20-0.23	0.0-2.9	2.0-6.0	.37	.37			
	8-28	---	---	5-10	1.10-1.20	0.6-2	0.20-0.23	0.0-2.9	0.0-2.0	.43	.43			
	28-72	---	---	5-10	1.10-1.20	0.00-0.00	---	0.0-2.9	0.0-1.0	---	---			
Typic Cryaquents------	0-5	---	---	---	0.07-0.30	0.00-2	0.35-0.55	0.0-2.9	60-90	.05	.05	5	8	---
	5-60	---	---	0-35	1.10-1.30	0.2-2	0.20-0.22	0.0-2.9	1.0-5.0	.37	.37			
64:														
Eielson----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	3	2	134
	3-6	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	3.0-6.0	.37	.37			
	6-71	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	71-77	---	---	0-5	1.50-1.60	6-20	0.02-0.04	0.0-2.9	---	.05	.24			
Tanana----------	0-5	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	8	0
	5-8	---	---	5-10	1.10-1.20	0.6-2	0.20-0.23	0.0-2.9	2.0-6.0	.37	.37			
	8-28	---	---	5-10	1.10-1.20	0.6-2	0.20-0.23	0.0-2.9	0.0-2.0	.43	.43			
	28-72	---	---	5-10	1.10-1.20	0.00-0.00	---	0.0-2.9	0.0-1.0	---	---			
65:														
Typic Aquorthels------	0-4	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	85-95	.05	.05	2	8	0
	4-24	---	---	0-27	1.10-1.30	0.6-2	0.22-0.24	0.0-2.9	3.0-10	.37	.37			
	24-60	---	---	0-5	0.07-0.18	0.00-0.00	---	0.0-2.9	3.0-10	---	---			
Typic Cryaquents------	0-5	---	---	---	0.07-0.30	0.00-2	0.35-0.55	0.0-2.9	60-90	.05	.05	5	8	---
	5-60	---	---	0-35	1.10-1.30	0.2-2	0.20-0.22	0.0-2.9	1.0-5.0	.37	.37			
66:														
Eielson----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	3	2	134
	3-6	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	3.0-6.0	.37	.37			
	6-71	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	71-77	---	---	0-5	1.50-1.60	6-20	0.02-0.04	0.0-2.9	---	.05	.24			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
69:														
Typic Cryaquents------	0-3	---	---	---	0.07-0.30	0.00-2	0.35-0.55	0.0-2.9	60-90	.05	.05	5	8	---
	3-31	---	---	0-35	1.10-1.30	0.2-2	0.20-0.22	0.0-2.9	1.0-5.0	.37	.37			
	31-75	---	---	0-3	1.40-1.60	2-20	0.03-0.06	0.0-2.9	0.0-1.0	.05	.15			
Eielson----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	3	2	134
	3-6	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	3.0-6.0	.37	.37			
	6-71	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	71-77	---	---	0-5	1.50-1.60	6-20	0.02-0.04	0.0-2.9	---	.05	.24			
70A:														
Volkmar----------	0-3	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	3	2	134
	3-10	---	---	5-10	1.10-1.20	0.6-2	0.20-0.23	0.0-2.9	1.0-5.0	.37	.37			
	10-30	---	---	5-10	1.10-1.20	0.6-2	0.20-0.23	0.0-2.9	0.0-1.0	.43	.43			
	30-72	---	---	0-5	1.60-1.70	6-20	0.05-0.07	0.0-2.9	0.0-1.0	.05	.20			
Richardson----------	0-1	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	3	2	134
	1-20	---	---	5-10	1.35-1.55	0.6-2	0.18-0.23	0.0-2.9	1.0-4.0	.37	.37			
	20-59	---	---	5-10	1.35-1.55	0.6-2	0.18-0.23	0.0-2.9	---	.43	.43			
	59-72	---	---	0-5	1.55-1.70	20-20	0.02-0.08	0.0-2.9	---	.02	.05			
70B:														
Richardson----------	0-1	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	3	2	134
	1-20	---	---	5-10	1.35-1.55	0.6-2	0.18-0.23	0.0-2.9	1.0-4.0	.37	.37			
	20-59	---	---	5-10	1.35-1.55	0.6-2	0.18-0.23	0.0-2.9	---	.43	.43			
	59-72	---	---	0-5	1.55-1.70	20-20	0.02-0.08	0.0-2.9	---	.02	.05			
Volkmar----------	0-3	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	3	2	134
	3-10	---	---	5-10	1.10-1.20	0.6-2	0.20-0.23	0.0-2.9	1.0-5.0	.37	.37			
	10-30	---	---	5-10	1.10-1.20	0.6-2	0.20-0.23	0.0-2.9	0.0-1.0	.43	.43			
	30-72	---	---	0-5	1.60-1.70	6-20	0.05-0.07	0.0-2.9	0.0-1.0	.05	.20			
71:														
Mosquito----------	0-9	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-90	.05	.05	1	8	0
	9-20	---	---	0-10	0.80-1.40	0.6-2	0.24-0.28	0.0-2.9	5.0-20	.37	.37			
	20-66	---	---	0-10	---	0.00-0.00	---	0.0-2.9	---	---	---			
Liscum----------	0-3	---	---	---	0.05-0.18	0.6-2	0.25-0.30	0.0-2.9	85-95	.05	.05	5	8	0
	3-10	---	---	---	0.05-0.18	0.6-2	0.25-0.30	0.0-2.9	20-85	.05	.05			
	10-28	---	---	0-10	1.20-1.60	0.6-2	0.15-0.22	0.0-2.9	1.0-5.0	.43	.43			
	28-59	---	---	0-5	1.30-1.50	2-6	0.10-0.14	0.0-2.9	1.0-3.0	.37	.37			
	59-72	---	---	0-5	1.40-1.70	6-20	0.03-0.05	0.0-2.9	0.0-0.0	.05	.05			
North Pole----------	0-3	---	---	---	0.05-0.18	0.6-2	0.25-0.30	0.0-2.9	20-80	.05	.05	2	2	134
	3-6	---	---	---	0.05-0.18	0.6-2	0.25-0.30	0.0-2.9	20-80	.05	.05			
	6-22	---	---	0-10	1.20-1.60	0.6-2	0.15-0.22	0.0-2.9	1.0-5.0	.43	.43			
	22-72	---	---	0-3	1.40-1.70	6-20	0.03-0.05	0.0-2.9	1.0-5.0	.05	---			
72F:														
Eutrocryepts----------	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.55	0.0-2.9	75-95	.05	.05	5	2	134
	2-49	---	---	3-7	1.10-1.30	0.6-2	0.21-0.23	0.0-2.9	1.0-5.0	.37	.37			
	49-72	---	---	3-10	1.20-1.40	0.6-2	0.12-0.14	0.0-2.9	1.0-5.0	.43	.43			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
81V:														
Saulich----------	0-9	---	---	---	0.07-0.18	2-6	0.30-0.35	0.0-2.9	80-90	.05	.05	2	8	0
	9-21	---	---	0-5	1.10-1.20	0.6-2	0.23-0.25	0.0-2.9	---	.37	.37			
	21-72	---	---	0-5	---	0.00-0.00	---	0.0-2.9	---	.43	.43			
Chatanika----------	0-4	---	---	---	0.05-0.18	0.6-20	0.05-0.55	---	75-95	.05	.05	2	2	134
	4-6	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	7.0-12	.37	.37			
	6-22	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	1.0-5.0	.43	.43			
	22-60	---	---	0-10	---	0.00-0.00	---	---	1.0-5.0	---	---			
81X:														
Saulich----------	0-9	---	---	---	0.07-0.18	2-6	0.30-0.35	0.0-2.9	80-90	.05	.05	2	8	0
	9-21	---	---	0-5	1.10-1.20	0.6-2	0.23-0.25	0.0-2.9	---	.37	.37			
	21-72	---	---	0-5	---	0.00-0.00	---	0.0-2.9	---	.43	.43			
Chatanika----------	0-4	---	---	---	0.05-0.18	0.6-20	0.05-0.55	---	75-95	.05	.05	2	2	134
	4-6	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	7.0-12	.37	.37			
	6-22	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	1.0-5.0	.43	.43			
	22-60	---	---	0-10	---	0.00-0.00	---	---	1.0-5.0	---	---			
82V:														
Gilmore----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	3-6	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	6-12	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	12-19	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	19-60	---	---	---	---	---	---	0.0-2.9	---	---	---			
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
82X:														
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
Gilmore----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	3-6	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	6-12	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	12-19	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	19-60	---	---	---	---	---	---	0.0-2.9	---	---	---			
85:														
Eutrocryepts----------	0-4	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	2	2	134
	4-5	---	---	0-10	1.10-1.20	0.6-2	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37			
	5-16	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
	16-60	---	---	0-10	1.20-1.40	2-6	0.05-0.10	0.0-2.9	---	.15	.55			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
Minto----------	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	5	2	134
	2-9	---	---	0-10	1.10-1.20	0.6-2	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37			
	9-16	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
	16-71	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
86G:														
Brigadier----------	0-6	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	6-11	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	11-16	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	16-24	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	24-39	---	---	---	---	---	---	0.0-2.9	---	---	---			
86V:														
Brigadier----------	0-6	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	6-11	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	11-16	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	16-24	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	24-39	---	---	---	---	---	---	0.0-2.9	---	---	---			
Manchu----------	0-7	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	7-9	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-10	.37	.37			
	9-28	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	28-39	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	39-60	---	---	---	---	---	---	0.0-2.9	---	---	---			
86X:														
Brigadier----------	0-6	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	6-11	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	11-16	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	16-24	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	24-39	---	---	---	---	---	---	0.0-2.9	---	---	---			
Manchu----------	0-7	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	7-9	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-10	.37	.37			
	9-28	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	28-39	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	39-60	---	---	---	---	---	---	0.0-2.9	---	---	---			
87V:														
Gilmore----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	3-8	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	8-12	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	12-18	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	18-60	---	---	---	---	---	---	0.0-2.9	---	---	---			
Manchu----------	0-7	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	7-9	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-10	.37	.37			
	9-28	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	28-39	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	39-60	---	---	---	---	---	---	0.0-2.9	---	---	---			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
87X:														
Gilmore	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	3-8	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	8-12	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	12-18	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	18-60	---	---	---	---	---	---	0.0-2.9	---	---	---			
88:														
Dystrocryepts	0-2	---	---	---	0.05-0.18	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	2-7	---	---	0-10	1.10-1.40	0.6-2	0.18-0.22	0.0-2.9	2.0-8.0	.28	.37			
	7-14	---	---	0-10	1.10-1.40	0.6-2	0.12-0.18	0.0-2.9	---	.20	.43			
	14-24	---	---	0-10	1.20-1.40	2-6	0.05-0.10	0.0-2.9	---	.05	.43			
	24-28	---	---	---	---	---	---	0.0-2.9	---	---	---			
Turbels	0-8	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	80-95	.05	.05	1	8	0
	8-14	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.20	.37			
	14-22	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.10	.37			
	22-31	---	---	---	---	0.00-0.00	---	0.0-2.9	---	.10	.37			
89V:														
Steese	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
Fairbanks	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	5	2	134
	3-30	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	30-72	---	---	0-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
89X:														
Fairbanks	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	5	2	134
	3-30	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	30-72	---	---	0-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
Steese	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
90:														
Fubar	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	1	2	134
	2-4	---	---	5-10	1.20-1.30	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.32	.32			
	4-60	---	---	0-5	1.50-1.60	6-20	0.03-0.05	0.0-2.9	0.0-1.0	.05	.24			
Tanana	0-5	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	8	0
	5-8	---	---	5-10	1.10-1.20	0.6-2	0.20-0.23	0.0-2.9	2.0-6.0	.37	.37			
	8-28	---	---	5-10	1.10-1.20	0.6-2	0.20-0.23	0.0-2.9	0.0-2.0	.43	.43			
	28-72	---	---	5-10	1.10-1.20	0.00-0.00	---	0.0-2.9	0.0-1.0	---	---			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
91:														
Aquic Cryofluvents----	0-3	---	---	---	0.07-0.18	0.6-2	0.35-0.50	0.0-2.9	75-90	.05	.05	5	3	86
	3-10	---	---	3-10	1.10-1.30	0.6-2	0.22-0.24	0.0-2.9	2.0-10	.37	.37			
	10-60	---	---	3-10	1.10-1.30	0.6-2	0.20-0.22	0.0-2.9	0.0-2.0	.32	.37			
Typic Aquorthels------	0-4	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	85-95	.05	.05	4	8	0
	4-20	---	---	0-5	1.10-1.30	0.6-2	0.22-0.24	0.0-2.9	3.0-10	.37	.37			
	20-60	---	---	0-5	---	0.00-0.00	---	0.0-2.9	3.0-10	---	---			
Typic Cryaquents------	0-3	---	---	---	0.07-0.30	0.6-20	0.05-0.50	0.0-2.9	60-90	.05	.05	3	8	0
	3-39	---	---	0-10	1.10-1.30	0.2-2	0.20-0.22	0.0-2.9	1.0-5.0	.37	.37			
	39-75	---	---	0-3	1.40-1.60	2-20	0.03-0.06	0.0-2.9	0.0-1.0	.05	.15			
211:														
Chatanika----------	0-4	---	---	---	0.05-0.18	0.6-20	0.05-0.55	---	75-95	.05	.05	2	2	134
	4-6	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	7.0-12	.37	.37			
	6-22	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	1.0-5.0	.43	.43			
	22-60	---	---	0-10	---	0.00-0.00	---	---	1.0-5.0	---	---			
Goldstream----------	0-9	---	---	---	0.08-0.12	2-6	0.05-0.35	0.0-2.9	85-95	.05	.05	2	8	0
	9-12	---	---	5-10	1.00-1.20	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.37	.37			
	12-20	---	---	5-10	1.00-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.55	.55			
	20-60	---	---	5-10	---	0.00-0.00	---	0.0-2.9	2.0-4.0	---	---			
212:														
Goldstream----------	0-9	---	---	---	0.08-0.12	2-6	0.05-0.35	0.0-2.9	85-95	.05	.05	2	8	0
	9-12	---	---	5-10	1.00-1.20	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.37	.37			
	12-20	---	---	5-10	1.00-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.55	.55			
	20-60	---	---	5-10	---	0.00-0.00	---	0.0-2.9	2.0-4.0	---	---			
Histels----------	0-8	---	---	---	0.05-0.10	6-20	0.10-0.20	0.0-2.9	85-95	.05	.05	1	8	0
	8-20	---	---	---	0.07-0.18	0.6-2	0.35-0.55	0.0-2.9	75-90	.05	.05			
	20-31	---	---	---	0.07-0.18	0.00-0.00	---	0.0-2.9	75-90	.05	.05			
	31-60	---	---	0-10	1.00-1.20	0.00-0.00	---	0.0-2.9	5.0-10	---	---			
251:														
Mosquito----------	0-9	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-90	.05	.05	1	8	0
	9-20	---	---	0-10	0.80-1.40	0.6-2	0.24-0.28	0.0-2.9	5.0-20	.37	.37			
	20-66	---	---	0-10	---	0.00-0.00	---	0.0-2.9	---	---	---			
Tanana----------	0-5	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	8	0
	5-8	---	---	5-10	1.10-1.20	0.6-2	0.20-0.23	0.0-2.9	2.0-6.0	.37	.37			
	8-28	---	---	5-10	1.10-1.20	0.6-2	0.20-0.23	0.0-2.9	0.0-2.0	.43	.43			
	28-72	---	---	5-10	1.10-1.20	0.00-0.00	---	0.0-2.9	0.0-1.0	---	---			
361:														
Jarvis----------	0-2	---	---	---	0.07-0.18	0.6-2	0.35-0.50	0.0-2.9	75-90	.05	.05	2	2	134
	2-6	---	---	5-10	1.10-1.20	0.6-2	0.19-0.22	0.0-2.9	3.0-6.0	.37	.37			
	6-24	---	---	0-10	1.10-1.20	0.6-2	0.15-0.18	0.0-2.9	---	.32	.32			
	24-59	---	---	0-5	1.60-1.70	6-20	0.03-0.06	0.0-2.9	---	.05	.28			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
Chena----------	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	1	2	134
	2-7	---	---	0-5	1.10-1.20	0.6-6	0.16-0.18	0.0-2.9	---	.28	.32			
	7-60	---	---	0-5	1.40-1.50	6-20	0.03-0.05	0.0-2.9	---	.10	.55			
362:														
Fubar----------	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	1	2	134
	2-4	---	---	5-10	1.20-1.30	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.32	.32			
	4-60	---	---	0-5	1.50-1.60	6-20	0.03-0.05	0.0-2.9	0.0-1.0	.05	.24			
Piledriver----------	0-2	---	---	---	0.07-0.18	6-20	0.05-0.35	0.0-2.9	85-95	.05	.05	2	2	134
	2-4	---	---	5-10	1.10-1.20	0.6-2	0.19-0.22	0.0-2.9	3.0-6.0	.37	.37			
	4-30	---	---	0-10	1.10-1.20	0.6-2	0.15-0.18	0.0-2.9	---	.32	.32			
	30-72	---	---	0-5	1.60-1.70	6-20	0.03-0.06	0.0-2.9	---	.05	.28			
363:														
Jarvis----------	0-2	---	---	---	0.07-0.18	0.6-2	0.35-0.50	0.0-2.9	75-90	.05	.05	2	2	134
	2-6	---	---	5-10	1.10-1.20	0.6-2	0.19-0.22	0.0-2.9	3.0-6.0	.37	.37			
	6-24	---	---	0-10	1.10-1.20	0.6-2	0.15-0.18	0.0-2.9	---	.32	.32			
	24-59	---	---	0-5	1.60-1.70	6-20	0.03-0.06	0.0-2.9	---	.05	.28			
Salchaket----------	0-2	---	---	---	0.07-0.18	0.6-2	0.35-0.50	0.0-2.9	75-90	---	---	3	2	134
	2-5	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	3.0-6.0	.37	.37			
	5-63	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	63-72	---	---	0-5	1.50-1.60	6-20	0.02-0.04	0.0-2.9	---	.05	.24			
411A:														
Minto----------	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	5	2	134
	2-9	---	---	0-10	1.10-1.20	0.6-2	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37			
	9-16	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
	16-71	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
Chatanika----------	0-4	---	---	---	0.05-0.18	0.6-20	0.05-0.55	---	75-95	.05	.05	2	2	134
	4-6	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	7.0-12	.37	.37			
	6-22	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	1.0-5.0	.43	.43			
	22-60	---	---	0-10	---	0.00-0.00	---	---	1.0-5.0	---	---			
411B:														
Minto----------	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	5	2	134
	2-9	---	---	0-10	1.10-1.20	0.6-2	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37			
	9-16	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
	16-71	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
Chatanika----------	0-4	---	---	---	0.05-0.18	0.6-20	0.05-0.55	---	75-95	.05	.05	2	2	134
	4-6	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	7.0-12	.37	.37			
	6-22	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	1.0-5.0	.43	.43			
	22-60	---	---	0-10	---	0.00-0.00	---	---	1.0-5.0	---	---			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
411C:														
Minto----------	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	5	2	134
	2-9	---	---	0-10	1.10-1.20	0.6-2	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37			
	9-16	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
	16-71	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
Chatanika----------	0-4	---	---	---	0.05-0.18	0.6-20	0.05-0.55	---	75-95	.05	.05	2	2	134
	4-6	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	7.0-12	.37	.37			
	6-22	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	1.0-5.0	.43	.43			
	22-60	---	---	0-10	---	0.00-0.00	---	---	1.0-5.0	---	---			
411D:														
Minto----------	0-2	---	---	---	0.05-0.18	0.6-20	0.05-0.50	0.0-2.9	75-95	.05	.05	5	2	134
	2-9	---	---	0-10	1.10-1.20	0.6-2	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37			
	9-16	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
	16-71	---	---	0-10	1.10-1.20	0.6-2	0.21-0.23	0.0-2.9	---	.43	.43			
Chatanika----------	0-4	---	---	---	0.05-0.18	0.6-20	0.05-0.55	---	75-95	.05	.05	2	2	134
	4-6	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	7.0-12	.37	.37			
	6-22	---	---	0-10	1.00-1.30	0.6-2	0.21-0.23	---	1.0-5.0	.43	.43			
	22-60	---	---	0-10	---	0.00-0.00	---	---	1.0-5.0	---	---			
421B:														
Fairbanks----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	5	2	134
	3-30	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	30-72	---	---	0-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
421C:														
Fairbanks----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	5	2	134
	3-30	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	30-72	---	---	0-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
421D:														
Fairbanks----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	5	2	134
	3-30	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	30-72	---	---	0-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
441D:														
Gilmore----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	3-6	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	6-12	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	12-19	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	19-60	---	---	---	---	---	---	0.0-2.9	---	---	---			
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
441E:														
Gilmore----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	3-6	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	6-12	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	12-19	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	19-60	---	---	---	---	---	---	0.0-2.9	---	---	---			
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
441F:														
Gilmore----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	3-6	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	6-12	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	12-19	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	19-60	---	---	---	---	---	---	0.0-2.9	---	---	---			
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
441G:														
Gilmore----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	3-6	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	6-12	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	12-19	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	19-60	---	---	---	---	---	---	0.0-2.9	---	---	---			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
451G:														
Brigadier----------	0-6	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	6-11	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	11-16	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	16-24	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	24-39	---	---	---	---	---	---	0.0-2.9	---	---	---			
Ester----------	0-13	---	---	0-2	0.05-0.10	2-6	0.25-0.30	0.0-2.9	80-95	.05	.05	1	8	0
	13-17	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.37	.49			
	17-23	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	23-27	---	---	---	---	---	---	---	---	---	---			
451X:														
Brigadier----------	0-6	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	6-11	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	11-16	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	16-24	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	24-39	---	---	---	---	---	---	0.0-2.9	---	---	---			
Ester----------	0-13	---	---	---	0.05-0.10	2-6	0.25-0.30	0.0-2.9	80-95	.05	.05	1	8	0
	13-17	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.37	.49			
	17-23	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	23-27	---	---	---	---	---	---	---	---	---	---			
452:														
Gilmore----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	1	2	134
	3-6	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-8.0	.37	.37			
	6-12	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	12-19	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	19-60	---	---	---	---	---	---	0.0-2.9	---	---	---			
Steese----------	0-2	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	2-5	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	2.0-6.0	.37	.37			
	5-27	---	---	0-5	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	27-33	---	---	0-5	1.40-1.50	2-6	0.05-0.10	0.0-2.9	---	.15	.55			
	33-40	---	---	---	---	---	---	0.0-2.9	---	---	---			
492:														
Angel----------	0-4	---	---	---	0.05-0.18	2-20	0.05-0.50	0.0-2.9	85-95	---	---	1	2	134
	4-14	---	---	0-5	1.10-1.30	0.6-2	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	14-24	---	---	0-5	1.40-1.60	2-6	0.05-0.10	0.0-2.9	0.0-0.0	.15	.55			
	24-39	---	---	0-0	---	---	---	0.0-2.9	0.0-0.0	---	---			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
McCloud----------	0-3	---	---	---	0.05-0.18	2-20	0.05-0.50	0.0-2.9	85-95	---	---	2	2	134
	4-20	---	---	0-5	1.10-1.30	0.6-2	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	20-29	---	---	0-5	1.10-1.30	0.6-2	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	29-39	---	---	0-0	---	---	---	0.0-2.9	0.0-0.0	---	---			
611:														
Piledriver----------	0-2	---	---	---	0.07-0.18	6-20	0.05-0.35	0.0-2.9	85-95	.05	.05	2	2	134
	2-4	---	---	5-10	1.10-1.20	0.6-2	0.19-0.22	0.0-2.9	3.0-6.0	.37	.37			
	4-30	---	---	0-10	1.10-1.20	0.6-2	0.15-0.18	0.0-2.9	---	.32	.32			
	30-72	---	---	0-5	1.60-1.70	6-20	0.03-0.06	0.0-2.9	---	.05	.28			
Eielson----------	0-3	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	3	2	134
	3-6	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	3.0-6.0	.37	.37			
	6-71	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	71-77	---	---	0-5	1.50-1.60	6-20	0.02-0.04	0.0-2.9	---	.05	.24			
CL:														
Typic Cryorthents-----	0-1	---	---	---	0.05-0.10	6-20	0.05-0.35	0.0-2.9	85-95	---	---	2	2	134
	1-49	---	---	1-5	1.10-1.30	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.32	.32			
	49-75	---	---	0-3	1.30-1.50	2-20	0.05-0.06	0.0-2.9	1.0-3.0	.05	.28			
Gv:														
Gravel pits----------	---	---	---	---	---	---	---	---	---	---	---	—	---	---
Lf:														
Landfill areas--------	---	---	---	---	---	---	---	---	---	---	---	—	---	---
Qu:														
Quarry pits----------	---	---	---	---	---	---	---	---	---	---	---	—	---	---
Rv:														
Riverwash----------	---	---	---	---	---	---	---	---	---	---	---	—	---	---
UC:														
Typic Cryorthents, fill----------	0-30	---	---	3-7	1.30-1.60	0.6-2	0.12-0.15	0.0-2.9	3.0-10	.24	.37	2	2	134
	30-67	---	---	1-5	1.10-1.30	0.6-6	0.06-0.22	0.0-2.9	1.0-3.0	.32	.32			
	67-75	---	---	0-3	1.30-1.50	2-20	0.05-0.06	0.0-2.9	1.0-3.0	.05	.28			
Urban Land----------	---	---	---	---	---	---	---	---	---	---	---	—	---	---
W:														
Water----------	---	---	---	---	---	---	---	---	---	---	---	—	---	---
WAH:														
Typic Cryaquents------	0-4	---	---	---	0.07-0.30	0.00-2	0.35-0.55	0.0-2.9	60-90	.05	.05	5	8	---
	4-72	---	---	0-35	1.10-1.30	0.2-2	0.20-0.22	0.0-2.9	1.0-5.0	.37	.37			

Table 13.—Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
Histic Cryaquepts-----	0-13	---	---	---	0.07-0.30	0.00-2	0.35-0.55	0.0-2.9	60-90	.05	.05	5	8	0
	13-30	---	---	---	1.10-1.30	0.6-2	0.21-0.23	0.0-2.9	3.0-7.0	.37	.37			
	30-72	---	---	---	1.20-1.40	0.6-2	0.18-0.23	0.0-2.9	1.0-5.0	.43	.43			
Terric Cryofibrists---	0-12	---	---	---	0.05-0.10	6-20	0.10-0.20	0.0-2.9	85-95	.05	.05	1	8	0
	12-39	---	---	---	0.20-0.30	0.00-0.06	0.40-0.55	0.0-2.9	60-85	---	---			
	39-66	---	---	5-35	1.30-1.45	0.2-0.6	---	0.0-2.9	5.0-10	---	---			
XC:														
Typic Cryorthents-----	0-30	---	---	3-7	1.30-1.60	0.6-2	0.12-0.15	0.0-2.9	3.0-10	.24	.37	2	2	134
	30-67	---	---	1-5	1.10-1.30	0.6-6	0.06-0.22	0.0-2.9	1.0-3.0	.32	.32			
	67-75	---	---	0-3	1.30-1.50	2-20	0.05-0.06	0.0-2.9	1.0-3.0	.05	.28			
Salchaket----------	0-2	---	---	---	0.07-0.18	0.6-2	0.35-0.50	0.0-2.9	75-90	---	---	3	2	134
	2-5	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	3.0-6.0	.37	.37			
	5-63	---	---	5-10	1.10-1.20	0.6-2	0.20-0.22	0.0-2.9	---	.43	.43			
	63-72	---	---	0-5	1.50-1.60	6-20	0.02-0.04	0.0-2.9	---	.05	.24			

Table 14.—Chemical Properties of the Soils

(Absence of an entry indicates that data were not estimated.)

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
9:				
Histels	0-8	115-155	---	3.6-4.5
	8-20	120-210	---	3.6-5.0
	20-31	---	---	3.6-5.0
	31-60	---	---	5.1-6.0
10:				
Bolio	0-5	115-155	---	3.6-5.5
	5-18	120-210	---	3.6-6.0
	18-60	120-210	---	3.6-6.0
11:				
Lemeta	0-18	115-155	---	4.5-5.0
	18-66	120-240	---	5.1-6.1
13:				
Terric Cryofibrists	0-12	115-155	---	5.0-6.0
	12-39	120-240	---	5.6-6.6
	39-66	---	---	5.6-6.6
Liscum	0-3	30-80	---	6.1-7.3
	3-10	30-80	---	6.1-7.3
	10-60	5.0-25	---	6.1-7.3
14:				
Histels	0-20	115-155	---	3.6-4.5
	20-39	120-210	---	5.1-6.0
	39-72	5.0-20	---	5.1-6.0
Terric Cryofibrists	0-12	115-155	---	5.0-6.0
	12-39	120-240	---	5.6-6.6
	39-66	---	---	5.6-6.6
20:				
Mosquito	0-9	---	---	5.1-6.1
	9-20	30-50	---	5.6-6.6
	20-66	---	---	5.6-6.6
21A:				
Goldstream	0-9	---	70-120	3.6-4.5
	9-12	---	15-30	4.5-5.5
	12-20	---	1.0-5.0	4.5-5.5
	20-60	---	---	4.5-5.5
21B:				
Goldstream	0-9	---	70-120	3.6-4.5
	9-12	---	15-30	4.5-5.5
	12-20	---	1.0-5.0	4.5-5.5
	20-60	---	---	4.5-5.5
22:				
Tanacross	0-10	---	30-80	3.5-5.0
	10-12	20-40	---	5.1-6.0
	12-16	5.0-20	---	5.1-6.0
	16-72	---	---	5.1-6.0

Table 14.—Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
25:				
Tanana	0-5	---	---	3.5-5.0
	5-8	15-30	---	5.1-6.0
	8-28	5.0-20	---	5.6-7.3
	28-72	---	---	5.6-7.3
26:				
Histels	0-8	115-155	---	5.2-6.6
	8-16	120-210	---	5.4-6.6
	16-24	120-210	---	5.4-6.6
	24-60	5.0-20	---	6.2-6.8
Mosquito	0-9	---	---	5.1-6.1
	9-20	30-50	---	5.6-6.6
	20-66	---	---	5.6-6.6
31:				
Eielson	0-3	115-155	---	5.1-7.1
	3-6	15-30	---	5.6-7.1
	6-71	1.0-5.0	---	6.1-7.6
	71-77	1.0-5.0	---	6.1-7.6
Piledriver	0-2	---	---	5.6-6.6
	2-4	15-30	---	5.1-6.5
	4-30	1.0-5.0	---	5.6-7.3
	30-72	1.0-5.0	---	5.6-7.3
32:				
Salchaket	0-2	120-210	---	4.5-5.6
	2-5	15-30	---	5.1-6.0
	5-63	1.0-5.0	---	5.6-6.5
	63-72	1.0-5.0	---	6.1-7.3
35:				
North Pole	0-3	30-80	---	6.1-7.3
	3-6	30-80	---	6.1-7.3
	6-22	5.0-25	---	6.1-7.3
	22-72	---	---	6.1-7.3
36:				
Jarvis	0-2	---	---	5.6-6.6
	2-6	15-30	---	5.1-6.5
	6-24	1.0-5.0	---	5.6-7.3
	24-59	1.0-5.0	---	5.6-7.3
37:				
Chena	0-2	---	---	5.1-6.0
	2-7	5.0-20	---	5.6-6.5
	7-60	1.0-5.0	---	5.6-6.5
39A:				
Nenana	0-2	---	---	5.1-6.1
	2-15	5.0-10	---	5.1-6.5
	15-21	1.0-5.0	---	5.1-6.5
	21-72	1.0-5.0	---	5.1-6.5

Table 14.—Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
40A:				
Chatanika	0-4	---	---	4.5-6.1
	4-6	---	---	4.5-5.5
	6-22	---	---	4.5-6.1
	22-60	---	---	5.6-6.5
40B:				
Chatanika	0-4	---	---	4.5-6.1
	4-6	---	---	4.5-5.5
	6-22	---	---	4.5-6.1
	22-60	---	---	5.6-6.5
40C:				
Chatanika	0-4	---	---	4.5-6.1
	4-6	---	---	4.5-5.5
	6-22	---	---	4.5-6.1
	22-60	---	---	5.6-6.5
40D:				
Chatanika	0-4	---	---	4.5-6.1
	4-6	---	---	4.5-5.5
	6-22	---	---	4.5-6.1
	22-60	---	---	5.6-6.5
41A:				
Minto	0-2	---	---	4.5-5.5
	2-9	---	---	4.5-5.0
	9-16	---	---	5.1-5.5
	16-71	---	---	6.1-6.5
41B:				
Minto	0-2	---	---	4.5-5.5
	2-9	---	---	4.5-5.0
	9-16	---	---	5.1-5.5
	16-71	---	---	6.1-6.5
41C:				
Minto	0-2	---	---	4.5-5.5
	2-9	---	---	4.5-5.0
	9-16	---	---	5.1-5.5
	16-71	---	---	6.1-6.5
41D:				
Minto	0-2	---	---	4.5-5.5
	2-9	---	---	4.5-5.0
	9-16	---	---	5.1-5.5
	16-71	---	---	6.1-6.5
42B:				
Fairbanks	0-3	115-155	---	5.6-6.0
	3-30	15-30	---	5.6-6.0
	30-72	1.0-5.0	---	6.1-7.3
42C:				
Fairbanks	0-3	115-155	---	5.6-6.0
	3-30	15-30	---	5.6-6.0
	30-72	1.0-5.0	---	6.1-7.3

Table 14.—Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
42CG:				
Fairbanks strongly sloping	0-3	115-155	---	5.6-6.0
	3-30	15-30	---	5.6-6.0
	30-72	1.0-5.0	---	6.1-7.3
Fairbanks steep	0-3	115-155	---	5.6-6.0
	3-30	15-30	---	5.6-6.0
	30-72	1.0-5.0	---	6.1-7.3
42D:				
Fairbanks	0-3	115-155	---	5.6-6.0
	3-30	15-30	---	5.6-6.0
	30-72	1.0-5.0	---	6.1-7.3
42E:				
Fairbanks	0-3	115-155	---	5.6-6.0
	3-30	15-30	---	5.6-6.0
	30-72	1.0-5.0	---	6.1-7.3
42F:				
Fairbanks	0-3	115-155	---	5.6-6.0
	3-30	15-30	---	5.6-6.0
	30-72	1.0-5.0	---	6.1-7.3
42G:				
Fairbanks	0-3	115-155	---	5.6-6.0
	3-30	15-30	---	5.6-6.0
	30-72	1.0-5.0	---	6.1-7.3
44B:				
Steese	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
44C:				
Steese	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
44D:				
Steese	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
44E:				
Steese	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---

Table 14.—Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
44F:				
Steese	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
44G:				
Steese	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
45B:				
Gilmore	0-3	---	---	5.1-6.0
	3-6	15-30	---	5.6-6.0
	6-12	1.0-5.0	---	5.6-6.0
	12-19	1.0-5.0	---	6.1-6.5
	19-60	---	---	---
45C:				
Gilmore	0-3	---	---	5.1-6.0
	3-6	15-30	---	5.6-6.0
	6-12	1.0-5.0	---	5.6-6.0
	12-19	1.0-5.0	---	6.1-6.5
	19-60	---	---	---
45D:				
Gilmore	0-3	---	---	5.1-6.0
	3-6	15-30	---	5.6-6.0
	6-12	1.0-5.0	---	5.6-6.0
	12-19	1.0-5.0	---	6.1-6.5
	19-60	---	---	---
45E:				
Gilmore	0-3	---	---	5.1-6.0
	3-6	15-30	---	5.6-6.0
	6-12	1.0-5.0	---	5.6-6.0
	12-19	1.0-5.0	---	6.1-6.5
	19-60	---	---	---
45F:				
Gilmore	0-3	---	---	5.1-6.0
	3-6	15-30	---	5.6-6.0
	6-12	1.0-5.0	---	5.6-6.0
	12-19	1.0-5.0	---	6.1-6.5
	19-60	---	---	---
45G:				
Gilmore	0-3	---	---	5.1-6.0
	3-6	15-30	---	5.6-6.0
	6-12	1.0-5.0	---	5.6-6.0
	12-19	1.0-5.0	---	6.1-6.5
	19-60	---	---	---

Table 14.—Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
46C:				
Eutrocryepts----------	0-2	---	---	5.0-6.1
	2-31	---	---	5.6-7.3
	31-72	---	---	6.1-8.4
46D:				
Eutrocryepts----------	0-2	---	---	5.0-6.1
	2-31	---	---	5.6-7.3
	31-72	---	---	6.1-8.4
48D:				
McCloud----------	0-3	---	---	4.1-5.6
	4-20	---	---	5.4-6.0
	20-29	---	---	5.4-6.0
	29-39	---	---	5.4-6.2
48E:				
McCloud----------	0-3	---	---	4.1-5.6
	4-20	---	---	5.4-6.0
	20-29	---	---	5.4-6.0
	29-39	---	---	5.4-6.2
48F:				
McCloud----------	0-3	---	---	4.1-5.6
	4-20	---	---	5.4-6.0
	20-29	---	---	5.4-6.0
	29-39	---	---	5.4-6.2
49D:				
Angel----------	0-4	---	---	4.1-4.9
	4-14	---	---	5.4-6.0
	14-24	---	---	5.4-6.0
	24-39	---	---	5.4-5.8
49E:				
Angel----------	0-4	---	---	4.1-4.9
	4-14	---	---	5.4-6.0
	14-24	---	---	5.4-6.0
	24-39	---	---	5.4-5.8
49F:				
Angel----------	0-4	---	---	4.1-4.9
	4-14	---	---	5.4-6.0
	14-24	---	---	5.4-6.0
	24-39	---	---	5.4-5.8
50G:				
Ester----------	0-13	---	---	3.6-4.5
	13-17	---	---	4.5-5.5
	17-23	1.0-5.0	---	4.6-5.8
	23-27	---	---	---
50X:				
Ester----------	0-13	---	---	3.6-4.5
	13-17	---	---	4.5-5.5
	17-23	1.0-5.0	---	4.6-5.8
	23-27	---	---	---

Table 14.—Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
51B:				
Saulich	0-9	---	---	4.5-5.5
	9-21	---	---	5.1-6.6
	21-72	---	---	6.1-7.3
51C:				
Saulich	0-9	---	---	4.5-5.5
	9-21	---	---	5.1-6.6
	21-72	---	---	6.1-7.3
61:				
Piledriver	0-2	---	---	5.6-6.6
	2-4	15-30	---	5.1-6.5
	4-30	1.0-5.0	---	5.6-7.3
	30-72	1.0-5.0	---	5.6-7.3
62:				
Peede	0-5	---	---	6.1-7.3
	5-55	---	---	6.1-7.3
	55-75	---	---	6.1-7.3
Mosquito	0-9	---	---	5.1-6.1
	9-20	30-50	---	5.6-6.6
	20-66	---	---	5.6-6.6
63:				
Tanana	0-5	---	---	3.5-5.0
	5-8	15-30	---	5.1-6.0
	8-28	5.0-20	---	5.6-7.3
	28-72	---	---	5.6-7.3
Typic Cryaquents	0-5	---	---	5.6-7.3
	5-60	---	---	6.1-7.3
64:				
Eielson	0-3	115-155	---	5.1-7.1
	3-6	15-30	---	5.6-7.1
	6-71	1.0-5.0	---	6.1-7.6
	71-77	1.0-5.0	---	6.1-7.6
Tanana	0-5	---	---	3.5-5.0
	5-8	15-30	---	5.1-6.0
	8-28	5.0-20	---	5.6-7.3
	28-72	---	---	5.6-7.3
65:				
Typic Aquorthels	0-4	---	---	5.1-6.6
	4-24	---	---	5.6-6.6
	24-60	---	---	5.1-6.6
Typic Cryaquents	0-5	---	---	5.6-7.3
	5-60	---	---	6.1-7.3
66:				
Eielson	0-3	115-155	---	5.1-7.1
	3-6	15-30	---	5.6-7.1
	6-71	1.0-5.0	---	6.1-7.6
	71-77	1.0-5.0	---	6.1-7.6

Table 14.—Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
69:				
Typic Cryaquents------	0-3	---	---	5.6-7.3
	3-31	---	---	6.1-7.3
	31-75	---	---	6.1-7.3
Eielson----------	0-3	115-155	---	5.1-7.1
	3-6	15-30	---	5.6-7.1
	6-71	1.0-5.0	---	6.1-7.6
	71-77	1.0-5.0	---	6.1-7.6
70A:				
Volkmar----------	0-3	---	---	3.5-5.5
	3-10	---	15-30	4.5-5.5
	10-30	5.0-10	---	5.1-6.5
	30-72	1.0-5.0	---	5.1-6.5
Richardson----------	0-1	115-210	---	3.5-5.1
	1-20	15-30	---	5.1-7.3
	20-59	1.0-5.0	---	5.1-7.3
	59-72	1.0-5.0	---	6.6-7.3
70B:				
Richardson----------	0-1	115-210	---	3.5-5.1
	1-20	15-30	---	5.1-7.3
	20-59	1.0-5.0	---	5.1-7.3
	59-72	1.0-5.0	---	6.6-7.3
Volkmar----------	0-3	---	---	3.5-5.5
	3-10	---	15-30	4.5-5.5
	10-30	5.0-10	---	5.1-6.5
	30-72	1.0-5.0	---	5.1-6.5
71:				
Mosquito----------	0-9	---	---	5.1-6.1
	9-20	30-50	---	5.6-6.6
	20-66	---	---	5.6-6.6
Liscum----------	0-3	30-80	---	6.1-7.3
	3-10	30-80	---	6.1-7.3
	10-28	5.0-25	---	6.1-7.3
	28-59	---	---	6.1-7.3
	59-72	---	---	6.1-7.3
North Pole----------	0-3	30-80	---	6.1-7.3
	3-6	30-80	---	6.1-7.3
	6-22	5.0-25	---	6.1-7.3
	22-72	---	---	6.1-7.3
72F:				
Eutrocryepts----------	0-2	---	---	5.0-6.1
	2-49	---	---	5.6-7.3
	49-72	---	---	5.6-7.3
81V:				
Saulich----------	0-9	---	---	4.5-5.5
	9-21	---	---	5.1-6.6
	21-72	---	---	6.1-7.3

Table 14.—Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
Chatanika----------	0-4	---	---	4.5-6.1
	4-6	---	---	4.5-5.5
	6-22	---	---	4.5-6.1
	22-60	---	---	5.6-6.5
81X:				
Saulich----------	0-9	---	---	4.5-5.5
	9-21	---	---	5.1-6.6
	21-72	---	---	6.1-7.3
Chatanika----------	0-4	---	---	4.5-6.1
	4-6	---	---	4.5-5.5
	6-22	---	---	4.5-6.1
	22-60	---	---	5.6-6.5
82V:				
Gilmore----------	0-3	---	---	5.1-6.0
	3-6	15-30	---	5.6-6.0
	6-12	1.0-5.0	---	5.6-6.0
	12-19	1.0-5.0	---	6.1-6.5
	19-60	---	---	---
Steese----------	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
82X:				
Steese----------	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
Gilmore----------	0-3	---	---	5.1-6.0
	3-6	15-30	---	5.6-6.0
	6-12	1.0-5.0	---	5.6-6.0
	12-19	1.0-5.0	---	6.1-6.5
	19-60	---	---	---
85:				
Eutrocryepts----------	0-4	---	---	4.0-5.0
	4-5	---	---	4.5-5.0
	5-16	---	---	5.5-6.5
	16-60	---	---	5.5-6.5
Minto----------	0-2	---	---	4.5-5.5
	2-9	---	---	4.5-5.0
	9-16	---	---	5.1-5.5
	16-71	---	---	6.1-6.5
86G:				
Brigadier----------	0-6	---	---	3.8-4.6
	6-11	15-30	---	4.3-5.3
	11-16	1.0-5.0	---	5.2-5.7
	16-24	1.0-5.0	---	5.2-5.7
	24-39	---	---	---

Table 14.—Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
86V:				
Brigadier----------	0-6	---	---	3.8-4.6
	6-11	15-30	---	4.3-5.3
	11-16	1.0-5.0	---	5.2-5.7
	16-24	1.0-5.0	---	5.2-5.7
	24-39	---	---	---
Manchu----------	0-7	---	---	3.8-4.6
	7-9	---	---	4.3-5.4
	9-28	---	---	5.1-6.0
	28-39	---	---	5.6-6.5
	39-60	---	---	6.1-6.5
86X:				
Brigadier----------	0-6	---	---	3.8-4.6
	6-11	15-30	---	4.3-5.3
	11-16	1.0-5.0	---	5.2-5.7
	16-24	1.0-5.0	---	5.2-5.7
	24-39	---	---	---
Manchu----------	0-7	---	---	3.8-4.6
	7-9	---	---	4.3-5.4
	9-28	---	---	5.1-6.0
	28-39	---	---	5.6-6.5
	39-60	---	---	6.1-6.5
87V:				
Gilmore----------	0-3	---	---	5.1-6.0
	3-8	15-30	---	4.4-5.6
	8-12	1.0-5.0	---	5.0-5.8
	12-18	1.0-5.0	---	5.4-5.8
	18-60	---	---	---
Manchu----------	0-7	---	---	3.8-4.6
	7-9	---	---	4.3-5.4
	9-28	---	---	5.1-6.0
	28-39	---	---	5.6-6.5
	39-60	---	---	6.1-6.5
87X:				
Gilmore----------	0-3	---	---	5.1-6.0
	3-8	15-30	---	4.4-5.6
	8-12	1.0-5.0	---	5.0-5.8
	12-18	1.0-5.0	---	5.4-5.8
	18-60	---	---	---
88:				
Dystrocryepts---------	0-2	---	---	4.1-6.2
	2-7	---	---	4.6-5.6
	7-14	---	---	5.0-5.6
	14-24	---	---	5.0-5.6
	24-28	---	---	---
Turbels----------	0-8	---	---	3.6-4.5
	8-14	---	---	4.5-5.5
	14-22	---	---	4.6-5.8
	22-31	---	---	4.6-5.8

Table 14.—Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
89V:				
Steese	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
Fairbanks	0-3	115-155	---	5.6-6.0
	3-30	15-30	---	5.6-6.0
	30-72	1.0-5.0	---	6.1-7.3
89X:				
Fairbanks	0-3	115-155	---	5.6-6.0
	3-30	15-30	---	5.6-6.0
	30-72	1.0-5.0	---	6.1-7.3
Steese	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
90:				
Fubar	0-2	---	---	5.1-6.1
	2-4	---	---	5.6-6.5
	4-60	---	---	5.6-7.3
Tanana	0-5	---	---	3.5-5.0
	5-8	15-30	---	5.1-6.0
	8-28	5.0-20	---	5.6-7.3
	28-72	---	---	5.6-7.3
91:				
Aquic Cryofluvents	0-3	---	---	4.2-5.0
	3-10	---	---	4.5-5.2
	10-60	---	---	5.2-6.2
Typic Aquorthels	0-4	---	---	4.8-6.0
	4-20	---	---	5.6-6.6
	20-60	---	---	5.6-6.6
Typic Cryaquents	0-3	---	---	5.5-6.5
	3-39	---	---	5.5-6.5
	39-75	---	---	5.5-6.5
211:				
Chatanika	0-4	---	---	4.5-6.1
	4-6	---	---	4.5-5.5
	6-22	---	---	4.5-6.1
	22-60	---	---	5.6-6.5
Goldstream	0-9	---	70-120	3.6-4.5
	9-12	---	15-30	4.5-5.5
	12-20	---	1.0-5.0	4.5-5.5
	20-60	---	---	4.5-5.5

Table 14.—Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
212:				
Goldstream	0-9	---	70-120	3.6-4.5
	9-12	---	15-30	4.5-5.5
	12-20	---	1.0-5.0	4.5-5.5
	20-60	---	---	4.5-5.5
Histels	0-8	115-155	---	3.6-4.5
	8-20	120-210	---	3.6-5.0
	20-31	---	---	3.6-5.0
	31-60	---	---	5.1-6.0
251:				
Mosquito	0-9	---	---	5.1-6.1
	9-20	30-50	---	5.6-6.6
	20-66	---	---	5.6-6.6
Tanana	0-5	---	---	3.5-5.0
	5-8	15-30	---	5.1-6.0
	8-28	5.0-20	---	5.6-7.3
	28-72	---	---	5.6-7.3
361:				
Jarvis	0-2	---	---	5.6-6.6
	2-6	15-30	---	5.1-6.5
	6-24	1.0-5.0	---	5.6-7.3
	24-59	1.0-5.0	---	5.6-7.3
Chena	0-2	---	---	5.1-6.0
	2-7	5.0-20	---	5.6-6.5
	7-60	1.0-5.0	---	5.6-6.5
362:				
Fubar	0-2	---	---	5.1-6.1
	2-4	---	---	5.6-6.5
	4-60	---	---	5.6-7.3
Piledriver	0-2	---	---	5.6-6.6
	2-4	15-30	---	5.1-6.5
	4-30	1.0-5.0	---	5.6-7.3
	30-72	1.0-5.0	---	5.6-7.3
363:				
Jarvis	0-2	---	---	5.6-6.6
	2-6	15-30	---	5.1-6.5
	6-24	1.0-5.0	---	5.6-7.3
	24-59	1.0-5.0	---	5.6-7.3
Salchaket	0-2	120-210	---	4.5-5.6
	2-5	15-30	---	5.1-6.0
	5-63	1.0-5.0	---	5.6-6.5
	63-72	1.0-5.0	---	6.1-7.3
411A:				
Minto	0-2	---	---	4.5-5.5
	2-9	---	---	4.5-5.0
	9-16	---	---	5.1-5.5
	16-71	---	---	6.1-6.5

Table 14.—Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
Chatanika----------	0-4	---	---	4.5-6.1
	4-6	---	---	4.5-5.5
	6-22	---	---	4.5-6.1
	22-60	---	---	5.6-6.5
411B:				
Minto----------	0-2	---	---	4.5-5.5
	2-9	---	---	4.5-5.0
	9-16	---	---	5.1-5.5
	16-71	---	---	6.1-6.5
Chatanika----------	0-4	---	---	4.5-6.1
	4-6	---	---	4.5-5.5
	6-22	---	---	4.5-6.1
	22-60	---	---	5.6-6.5
411C:				
Minto----------	0-2	---	---	4.5-5.5
	2-9	---	---	4.5-5.0
	9-16	---	---	5.1-5.5
	16-71	---	---	6.1-6.5
Chatanika----------	0-4	---	---	4.5-6.1
	4-6	---	---	4.5-5.5
	6-22	---	---	4.5-6.1
	22-60	---	---	5.6-6.5
411D:				
Minto----------	0-2	---	---	4.5-5.5
	2-9	---	---	4.5-5.0
	9-16	---	---	5.1-5.5
	16-71	---	---	6.1-6.5
Chatanika----------	0-4	---	---	4.5-6.1
	4-6	---	---	4.5-5.5
	6-22	---	---	4.5-6.1
	22-60	---	---	5.6-6.5
421B:				
Fairbanks----------	0-3	115-155	---	5.6-6.0
	3-30	15-30	---	5.6-6.0
	30-72	1.0-5.0	---	6.1-7.3
Steese----------	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
421C:				
Fairbanks----------	0-3	115-155	---	5.6-6.0
	3-30	15-30	---	5.6-6.0
	30-72	1.0-5.0	---	6.1-7.3
Steese----------	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---

Table 14.—Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
421D:				
Fairbanks	0-3	115-155	---	5.6-6.0
	3-30	15-30	---	5.6-6.0
	30-72	1.0-5.0	---	6.1-7.3
Steese	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
441D:				
Gilmore	0-3	---	---	5.1-6.0
	3-6	15-30	---	5.6-6.0
	6-12	1.0-5.0	---	5.6-6.0
	12-19	1.0-5.0	---	6.1-6.5
	19-60	---	---	---
Steese	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
441E:				
Gilmore	0-3	---	---	5.1-6.0
	3-6	15-30	---	5.6-6.0
	6-12	1.0-5.0	---	5.6-6.0
	12-19	1.0-5.0	---	6.1-6.5
	19-60	---	---	---
Steese	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
441F:				
Gilmore	0-3	---	---	5.1-6.0
	3-6	15-30	---	5.6-6.0
	6-12	1.0-5.0	---	5.6-6.0
	12-19	1.0-5.0	---	6.1-6.5
	19-60	---	---	---
Steese	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
441G:				
Gilmore	0-3	---	---	5.1-6.0
	3-6	15-30	---	5.6-6.0
	6-12	1.0-5.0	---	5.6-6.0
	12-19	1.0-5.0	---	6.1-6.5
	19-60	---	---	---

Table 14.—Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
Steese	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
451G:				
Brigadier	0-6	---	---	3.8-4.6
	6-11	15-30	---	4.3-5.3
	11-16	1.0-5.0	---	5.2-5.7
	16-24	1.0-5.0	---	5.2-5.7
	24-39	---	---	---
Ester	0-13	---	---	3.6-4.5
	13-17	---	---	4.5-5.5
	17-23	1.0-5.0	---	4.6-5.8
	23-27	---	---	---
451X:				
Brigadier	0-6	---	---	3.8-4.6
	6-11	15-30	---	4.3-5.3
	11-16	1.0-5.0	---	5.2-5.7
	16-24	1.0-5.0	---	5.2-5.7
	24-39	---	---	---
Ester	0-13	---	---	3.6-4.5
	13-17	---	---	4.5-5.5
	17-23	1.0-5.0	---	4.6-5.8
	23-27	---	---	---
452:				
Gilmore	0-3	---	---	5.1-6.0
	3-6	15-30	---	5.6-6.0
	6-12	1.0-5.0	---	5.6-6.0
	12-19	1.0-5.0	---	6.1-6.5
	19-60	---	---	---
Steese	0-2	---	---	5.1-6.0
	2-5	---	---	5.1-6.0
	5-27	---	---	5.1-6.0
	27-33	1.0-5.0	---	6.1-6.5
	33-40	---	---	---
492:				
Angel	0-4	---	---	4.1-4.9
	4-14	---	---	5.4-6.0
	14-24	---	---	5.4-6.0
	24-39	---	---	5.4-5.8
McCloud	0-3	---	---	4.1-5.6
	4-20	---	---	5.4-6.0
	20-29	---	---	5.4-6.0
	29-39	---	---	5.4-6.2
611:				
Piledriver	0-2	---	---	5.6-6.6
	2-4	15-30	---	5.1-6.5
	4-30	1.0-5.0	---	5.6-7.3
	30-72	1.0-5.0	---	5.6-7.3

Table 14.—Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	In	meq/100 g	meq/100 g	pH
Eielson	0-3	115-155	---	5.1-7.1
	3-6	15-30	---	5.6-7.1
	6-71	1.0-5.0	---	6.1-7.6
	71-77	1.0-5.0	---	6.1-7.6
CL:				
Typic Cryorthents	0-1	---	---	5.5-6.6
	1-49	---	---	6.1-7.3
	49-75	---	---	6.1-7.3
Gv:				
Gravel pits	---	---	---	---
Lf:				
Landfill areas	---	---	---	---
Qu:				
Quarry pits	---	---	---	---
Rv:				
Riverwash	---	---	---	---
UC:				
Typic Cryorthents, fill	0-30	---	---	6.1-7.3
	30-67	---	---	6.1-7.3
	67-75	---	---	6.1-7.3
Urban Land	---	---	---	---
W:				
Water	---	---	---	---
WAH:				
Typic Cryaquents	0-4	---	---	5.6-7.3
	4-72	---	---	6.1-7.3
Histic Cryaquepts	0-13	---	---	4.5-5.6
	13-30	---	---	5.1-6.0
	30-72	---	---	5.5-6.1
Terric Cryofibrists	0-12	115-155	---	5.0-6.0
	12-39	120-240	---	5.6-6.6
	39-66	---	---	5.6-6.6
XC:				
Typic Cryorthents	0-30	---	---	6.1-7.3
	30-67	---	---	6.1-7.3
	67-75	---	---	6.1-7.3
Salchaket	0-2	120-210	---	4.5-5.6
	2-5	15-30	---	5.1-6.0
	5-63	1.0-5.0	---	5.6-6.5
	63-72	1.0-5.0	---	6.1-7.3

Table 15.-Water Features

(See text for definitions of terms used in this table. Upper limit, Lower limit, and Surface water depth are in feet. An entry of '>6.0' for Upper limit or Lower limit indicates that wet soil may continue below a depth of 6.0 feet. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Hydro-logic group	Month	Wet soil		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
9:									
Histels	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	---	None
		May	0.0	>6.0	0.5	Long	Frequent	---	None
		June	0.0	>6.0	0.5	Long	Frequent	---	None
		July	0.7	>6.0	0.5	Long	Occasional	---	None
		August	0.7	>6.0	0.5	Long	Occasional	---	None
		September	0.7	>6.0	0.5	Long	Occasional	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
10:									
Bolio	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		May	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		June	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		July	0.4	>6.0	0.5	Long	Occasional	Brief	Rare
		August	0.4	>6.0	0.5	Long	Occasional	Brief	Rare
		September	0.4	>6.0	0.5	Long	Occasional	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
11:									
Lemeta	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		May	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		June	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		July	0.4	>6.0	0.5	Long	Occasional	Brief	Rare
		August	0.4	>6.0	0.5	Long	Occasional	Brief	Rare
		September	0.4	>6.0	0.5	Long	Occasional	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
13:									
Terric Cryofibrists	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		May	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		June	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		July	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		August	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		September	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--**Continued**

Map symbol and soil name	Hydrologic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
Liscum----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.5	>6.0	0.5	Long	Frequent	Brief	Rare
		May	0.5	>6.0	0.5	Long	Frequent	Brief	Rare
		June	0.5	>6.0	0.5	Long	Frequent	Brief	Rare
		July	0.5	>6.0	0.5	Long	Occasional	Brief	Rare
		August	0.5	>6.0	0.5	Long	Occasional	Brief	Rare
		September	0.5	>6.0	0.5	Long	Occasional	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
14:									
Histels----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.2	Long	Frequent	Brief	Rare
		May	0.0	>6.0	0.2	Long	Frequent	Brief	Rare
		June	0.3	>6.0	0.2	Long	Frequent	Brief	Rare
		July	1.0	>6.0	---	---	None	Brief	Rare
		August	1.6	>6.0	---	---	None	Brief	Rare
		September	1.6	>6.0	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Terric Cryofibrists----	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		May	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		June	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		July	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		August	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		September	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
20:									
Mosquito----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		May	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		June	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		July	0.7	>6.0	0.5	Long	Occasional	Brief	Rare
		August	0.7	>6.0	0.5	Long	Occasional	Brief	Rare
		September	0.7	>6.0	0.5	Long	Occasional	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
21A:									
Goldstream----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	---	None
		May	0.0	>6.0	0.5	Long	Frequent	---	None
		June	0.5	>6.0	0.5	Long	Frequent	---	None
		July	1.0	>6.0	0.5	Long	Occasional	---	None
		August	1.0	>6.0	0.5	Long	Occasional	---	None
		September	1.0	>6.0	0.5	Long	Occasional	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
21B:									
Goldstream----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	---	None
		May	0.0	>6.0	0.5	Long	Frequent	---	None
		June	0.5	>6.0	0.5	Long	Frequent	---	None
		July	1.0	>6.0	0.5	Long	Occasional	---	None
		August	1.0	>6.0	0.5	Long	Occasional	---	None
		September	1.0	>6.0	0.5	Long	Occasional	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
22:									
Tanacross----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.3	Long	Frequent	Brief	Rare
		May	0.0	>6.0	0.3	Long	Frequent	Brief	Rare
		June	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		July	1.0	>6.0	---	---	None	Brief	Rare
		August	1.0	>6.0	---	---	None	Brief	Rare
		September	1.0	>6.0	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
25:									
Tanana----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		May	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		June	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		July	1.3	>6.0	---	---	None	Brief	Rare
		August	1.3	>6.0	---	---	None	Brief	Rare
		September	1.3	>6.0	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
26:									
Histels----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		May	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		June	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		July	0.7	>6.0	0.5	Long	Occasional	Brief	Rare
		August	0.7	>6.0	0.5	Long	Occasional	Brief	Rare
		September	0.7	>6.0	0.5	Long	Occasional	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Mosquito----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		May	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		June	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		July	0.7	>6.0	0.5	Long	Occasional	Brief	Rare
		August	0.7	>6.0	0.5	Long	Occasional	Brief	Rare
		September	0.7	>6.0	0.5	Long	Occasional	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydrologic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
31:									
Eielson----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	>6.0	0.3	Long	Frequent	Brief	Occasional
		May	0.7	>6.0	0.3	Long	Frequent	Brief	Occasional
		June	3.9	>6.0	---	---	None	Brief	Occasional
		July	3.9	>6.0	---	---	None	Brief	Occasional
		August	3.9	>6.0	---	---	None	Brief	Occasional
		September	3.9	>6.0	---	---	None	Brief	Occasional
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Piledriver----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	>6.0	0.3	Long	Frequent	Brief	Occasional
		May	0.7	>6.0	0.3	Long	Frequent	Brief	Occasional
		June	3.9	>6.0	---	---	None	Brief	Occasional
		July	3.9	>6.0	---	---	None	Brief	Occasional
		August	3.9	>6.0	---	---	None	Brief	Occasional
		September	3.9	>6.0	---	---	None	Brief	Occasional
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
32:									
Salchaket----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	0.3	Long	Frequent	Brief	Rare
		May	0.7	1.6	0.3	Long	Frequent	Brief	Rare
		June	---	---	---	---	None	Brief	Rare
		July	---	---	---	---	None	Brief	Rare
		August	---	---	---	---	None	Brief	Rare
		September	---	---	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
35:									
North Pole----------	C								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		May	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		June	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		July	3.3	>6.0	---	---	None	Brief	Rare
		August	3.3	>6.0	---	---	None	Brief	Rare
		September	3.3	>6.0	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
36:									
Jarvis----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	0.2	Long	Occasional	Brief	Rare
		May	---	---	---	---	None	Brief	Rare
		June	---	---	---	---	None	Brief	Rare
		July	---	---	---	---	None	Brief	Rare
		August	---	---	---	---	None	Brief	Rare
		September	---	---	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
37:									
Chena	A								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	Brief	Rare
		May	---	---	---	---	None	Brief	Rare
		June	---	---	---	---	None	Brief	Rare
		July	---	---	---	---	None	Brief	Rare
		August	---	---	---	---	None	Brief	Rare
		September	---	---	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
39A:									
Nenana	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	0.2	Long	Occasional	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
40A:									
Chatanika	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	---	---	None	---	None
		May	0.0	>6.0	---	---	None	---	None
		June	0.7	>6.0	---	---	None	---	None
		July	1.6	>6.0	---	---	None	---	None
		August	1.6	>6.0	---	---	None	---	None
		September	1.6	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
40B:									
Chatanika	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	---	---	None	---	None
		May	0.0	>6.0	---	---	None	---	None
		June	0.7	>6.0	---	---	None	---	None
		July	1.6	>6.0	---	---	None	---	None
		August	1.6	>6.0	---	---	None	---	None
		September	1.6	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
40C:									
Chatanika	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	---	---	None	---	None
		May	0.0	>6.0	---	---	None	---	None
		June	0.7	>6.0	---	---	None	---	None
		July	1.6	>6.0	---	---	None	---	None
		August	1.6	>6.0	---	---	None	---	None
		September	1.6	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydrologic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
40D:									
Chatanika----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	---	---	None	---	None
		May	0.0	>6.0	---	---	None	---	None
		June	0.7	>6.0	---	---	None	---	None
		July	1.6	>6.0	---	---	None	---	None
		August	1.6	>6.0	---	---	None	---	None
		September	1.6	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
41A:									
Minto----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	---	---	None	---	None
		May	0.7	1.6	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
41B:									
Minto----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	---	---	None	---	None
		May	0.7	1.6	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
41C:									
Minto----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	---	---	None	---	None
		May	0.7	1.6	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
41D:									
Minto----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	---	---	None	---	None
		May	0.7	1.6	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
42B:									
Fairbanks----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
42C:									
Fairbanks----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
42CG:									
Fairbanks strongly Sloping	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Fairbanks steep---------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
42D:									
Fairbanks----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
42E:									
Fairbanks----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
42F:									
Fairbanks----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
42G:									
Fairbanks----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
44B:									
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
44C:									
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
44D:									
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
44E:									
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
44F:									
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
44G:									
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
45B:									
Gilmore----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
45C:									
Gilmore----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
45D:									
Gilmore----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
45E:									
Gilmore----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
45F:									
Gilmore----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
45G:									
Gilmore----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
46C:									
Eutrocryepts----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
46D:									
Eutrocryepts----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
48D:									
McCloud----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
48E:									
McCloud----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
48F:									
McCloud----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydrologic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
49D:									
Angel	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
49E:									
Angel	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
49F:									
Angel	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
50G:									
Ester	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.7	1.6	---	---	None	---	None
		May	0.7	1.6	---	---	None	---	None
		June	1.0	1.6	---	---	None	---	None
		July	1.0	1.6	---	---	None	---	None
		August	1.0	1.6	---	---	None	---	None
		September	1.0	1.6	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
50X:									
Ester	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.7	1.6	---	---	None	---	None
		May	0.7	1.6	---	---	None	---	None
		June	1.0	1.6	---	---	None	---	None
		July	1.0	1.6	---	---	None	---	None
		August	1.0	1.6	---	---	None	---	None
		September	1.0	1.6	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
51B:									
Saulich----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.2	Long	Frequent	---	None
		May	0.0	>6.0	0.2	Long	Frequent	---	None
		June	0.7	>6.0	---	---	None	---	None
		July	1.6	>6.0	---	---	None	---	None
		August	1.6	>6.0	---	---	None	---	None
		September	1.6	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
51C:									
Saulich----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.2	Long	Frequent	---	None
		May	0.0	>6.0	0.2	Long	Frequent	---	None
		June	0.7	>6.0	---	---	None	---	None
		July	1.6	>6.0	---	---	None	---	None
		August	1.6	>6.0	---	---	None	---	None
		September	1.6	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
61:									
Piledriver----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	>6.0	0.3	Long	Frequent	Brief	Rare
		May	0.7	>6.0	0.3	Long	Frequent	Brief	Rare
		June	3.9	>6.0	---	---	None	Brief	Rare
		July	3.9	>6.0	---	---	None	Brief	Rare
		August	3.9	>6.0	---	---	None	Brief	Rare
		September	3.9	>6.0	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
62:									
Peede----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	Brief	Occasional
		May	0.0	>6.0	0.5	Long	Frequent	Brief	Occasional
		June	0.0	>6.0	0.5	Long	Frequent	Brief	Occasional
		July	0.7	>6.0	0.5	Long	Occasional	Brief	Occasional
		August	0.7	>6.0	0.5	Long	Occasional	Brief	Occasional
		September	0.7	>6.0	0.5	Long	Occasional	Brief	Occasional
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Mosquito----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	Brief	Occasional
		May	0.0	>6.0	0.5	Long	Frequent	Brief	Occasional
		June	0.0	>6.0	0.5	Long	Frequent	Brief	Occasional
		July	0.7	>6.0	0.5	Long	Occasional	Brief	Occasional
		August	0.7	>6.0	0.5	Long	Occasional	Brief	Occasional
		September	0.7	>6.0	0.5	Long	Occasional	Brief	Occasional
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydrologic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
63:									
Tanana----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.5	>6.0	0.3	Long	Frequent	Brief	Occasional
		May	0.5	>6.0	0.3	Long	Frequent	Brief	Occasional
		June	0.5	>6.0	0.3	Long	Frequent	Brief	Occasional
		July	1.3	>6.0	---	---	None	Brief	Occasional
		August	1.3	>6.0	---	---	None	Brief	Occasional
		September	1.3	>6.0	---	---	None	Brief	Occasional
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Typic Cryaquents-------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.3	Long	Frequent	Brief	Occasional
		May	0.0	>6.0	0.3	Long	Frequent	Brief	Occasional
		June	0.0	>6.0	0.3	Long	Frequent	Brief	Occasional
		July	0.7	>6.0	---	---	None	Brief	Occasional
		August	0.7	>6.0	---	---	None	Brief	Occasional
		September	0.7	>6.0	---	---	None	Brief	Occasional
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
64:									
Eielson----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	>6.0	0.3	Long	Frequent	Brief	Occasional
		May	0.7	>6.0	0.3	Long	Frequent	Brief	Occasional
		June	3.9	>6.0	---	---	None	Brief	Occasional
		July	3.9	>6.0	---	---	None	Brief	Occasional
		August	3.9	>6.0	---	---	None	Brief	Occasional
		September	3.9	>6.0	---	---	None	Brief	Occasional
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Tanana----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.5	>6.0	0.3	Long	Frequent	Brief	Occasional
		May	0.5	>6.0	0.3	Long	Frequent	Brief	Occasional
		June	0.5	>6.0	0.3	Long	Frequent	Brief	Occasional
		July	1.3	>6.0	---	---	None	Brief	Occasional
		August	1.3	>6.0	---	---	None	Brief	Occasional
		September	1.3	>6.0	---	---	None	Brief	Occasional
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
65:									
Typic Aquorthels-------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.3	Long	Frequent	Brief	Occasional
		May	0.0	>6.0	0.3	Long	Frequent	Brief	Occasional
		June	0.0	>6.0	0.3	Long	Frequent	Brief	Occasional
		July	0.7	>6.0	---	---	None	Brief	Occasional
		August	0.7	>6.0	---	---	None	Brief	Occasional
		September	0.7	>6.0	---	---	None	Brief	Occasional
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
Typic Cryaquents-------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.3	Long	Frequent	Brief	Occasional
		May	0.0	>6.0	0.3	Long	Frequent	Brief	Occasional
		June	0.0	>6.0	0.3	Long	Frequent	Brief	Occasional
		July	0.7	>6.0	---	---	None	Brief	Occasional
		August	0.7	>6.0	---	---	None	Brief	Occasional
		September	0.7	>6.0	---	---	None	Brief	Occasional
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
66:									
Eielson----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	>6.0	0.3	Long	Frequent	Brief	Occasional
		May	0.7	>6.0	0.3	Long	Frequent	Brief	Occasional
		June	3.9	>6.0	---	---	None	Brief	Occasional
		July	3.9	>6.0	---	---	None	Brief	Occasional
		August	3.9	>6.0	---	---	None	Brief	Occasional
		September	3.9	>6.0	---	---	None	Brief	Occasional
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
69:									
Typic Cryaquents-------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.3	Long	Frequent	Brief	Occasional
		May	0.0	>6.0	0.3	Long	Frequent	Brief	Occasional
		June	0.0	>6.0	0.3	Long	Frequent	Brief	Occasional
		July	0.7	>6.0	---	---	None	Brief	Occasional
		August	0.7	>6.0	---	---	None	Brief	Occasional
		September	0.7	>6.0	---	---	None	Brief	Occasional
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Eielson----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	>6.0	0.3	Long	Frequent	Brief	Occasional
		May	0.7	>6.0	0.3	Long	Frequent	Brief	Occasional
		June	3.9	>6.0	---	---	None	Brief	Occasional
		July	3.9	>6.0	---	---	None	Brief	Occasional
		August	3.9	>6.0	---	---	None	Brief	Occasional
		September	3.9	>6.0	---	---	None	Brief	Occasional
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
70A:									
Volkmar----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	0.3	Long	Frequent	---	None
		May	0.7	1.6	0.3	Long	Frequent	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydrologic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
Richardson----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	0.3	Long	Frequent	---	None
		May	0.7	1.6	0.3	Long	Frequent	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
70B:									
Richardson----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	0.3	Long	Frequent	---	None
		May	0.7	1.6	0.3	Long	Frequent	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Volkmar----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	0.3	Long	Frequent	---	None
		May	0.7	1.6	0.3	Long	Frequent	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
71:									
Mosquito----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		May	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		June	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		July	0.7	>6.0	0.5	Long	Occasional	Brief	Rare
		August	0.7	>6.0	0.5	Long	Occasional	Brief	Rare
		September	0.7	>6.0	0.5	Long	Occasional	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Liscum----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.5	>6.0	0.5	Long	Frequent	Brief	Rare
		May	0.5	>6.0	0.5	Long	Frequent	Brief	Rare
		June	0.5	>6.0	0.5	Long	Frequent	Brief	Rare
		July	0.5	>6.0	0.5	Long	Occasional	Brief	Rare
		August	0.5	>6.0	0.5	Long	Occasional	Brief	Rare
		September	0.5	>6.0	0.5	Long	Occasional	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
North Pole----------	C								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		May	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		June	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		July	3.3	>6.0	---	---	None	Brief	Rare
		August	3.3	>6.0	---	---	None	Brief	Rare
		September	3.3	>6.0	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
72F:									
Eutrocryepts----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
81V:									
Saulich----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.2	Long	Frequent	---	None
		May	0.0	>6.0	0.2	Long	Frequent	---	None
		June	0.7	>6.0	---	---	None	---	None
		July	1.6	>6.0	---	---	None	---	None
		August	1.6	>6.0	---	---	None	---	None
		September	1.6	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Chatanika----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	---	---	None	---	None
		May	0.0	>6.0	---	---	None	---	None
		June	0.7	>6.0	---	---	None	---	None
		July	1.6	>6.0	---	---	None	---	None
		August	1.6	>6.0	---	---	None	---	None
		September	1.6	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
81X:									
Saulich----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.2	Long	Frequent	---	None
		May	0.0	>6.0	0.2	Long	Frequent	---	None
		June	0.7	>6.0	---	---	None	---	None
		July	1.6	>6.0	---	---	None	---	None
		August	1.6	>6.0	---	---	None	---	None
		September	1.6	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydrologic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
Chatanika----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	---	---	None	---	None
		May	0.0	>6.0	---	---	None	---	None
		June	0.7	>6.0	---	---	None	---	None
		July	1.6	>6.0	---	---	None	---	None
		August	1.6	>6.0	---	---	None	---	None
		September	1.6	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
82V:									
Gilmore----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
82X:									
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Gilmore----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
85:									
Eutrocryepts----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	---	---	None	---	None
		May	0.7	1.6	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Minto----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	---	---	None	---	None
		May	0.7	1.6	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
86G:									
Brigadier----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
86V:									
Brigadier----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Manchu----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.6	0.8	---	---	None	---	None
		May	0.6	1.3	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydrologic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
86X:									
Brigadier	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Manchu	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.6	0.8	---	---	None	---	None
		May	0.6	1.3	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
87V:									
Gilmore	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Manchu	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.6	0.8	---	---	None	---	None
		May	0.6	1.3	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
87X:									
Gilmore	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
88:									
Dystrocryepts----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Turbels----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.5	1.6	---	---	None	---	None
		May	0.5	1.6	---	---	None	---	None
		June	1.0	1.6	---	---	None	---	None
		July	1.0	1.6	---	---	None	---	None
		August	1.0	1.6	---	---	None	---	None
		September	1.0	1.6	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
89V:									
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Fairbanks----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
89X:									
Fairbanks----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydrologic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
90:									
Fubar----------	C								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	Brief	Rare
		May	---	---	---	---	None	Brief	Rare
		June	4.5	>6.0	---	---	None	Brief	Rare
		July	4.5	>6.0	---	---	None	Brief	Rare
		August	4.5	>6.0	---	---	None	Brief	Rare
		September	---	---	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Tanana----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		May	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		June	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		July	1.3	>6.0	---	---	None	Brief	Rare
		August	1.3	>6.0	---	---	None	Brief	Rare
		September	1.3	>6.0	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
91:									
Aquic Cryofluvs--------	C								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	>6.0	0.3	Long	Frequent	Long	Occasional
		May	0.3	>6.0	0.3	Long	Frequent	Long	Occasional
		June	4.3	>6.0	---	---	None	Brief	Occasional
		July	4.3	>6.0	---	---	None	Brief	Occasional
		August	4.3	>6.0	---	---	None	Brief	Occasional
		September	4.3	>6.0	---	---	None	Brief	Occasional
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Typic Aquorthe---------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.3	Long	Frequent	Long	Occasional
		May	0.0	>6.0	0.3	Long	Frequent	Long	Occasional
		June	0.0	>6.0	0.3	Long	Frequent	Brief	Occasional
		July	1.0	>6.0	---	---	None	Brief	Occasional
		August	1.0	>6.0	---	---	None	Brief	Occasional
		September	1.0	>6.0	---	---	None	Brief	Occasional
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
Typic Cryaquents-------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.3	Long	Frequent	Long	Frequent
		May	0.0	>6.0	0.3	Long	Frequent	Long	Frequent
		June	0.0	>6.0	0.3	Long	Frequent	Brief	Frequent
		July	0.7	>6.0	0.3	Brief	Occasional	Brief	Frequent
		August	0.7	>6.0	0.3	Brief	Occasional	Brief	Frequent
		September	0.7	>6.0	0.3	Brief	Occasional	Brief	Frequent
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
211:									
Chatanika----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	---	---	None	---	None
		May	0.0	>6.0	---	---	None	---	None
		June	0.7	>6.0	---	---	None	---	None
		July	1.6	>6.0	---	---	None	---	None
		August	1.6	>6.0	---	---	None	---	None
		September	1.6	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Goldstream----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	---	None
		May	0.0	>6.0	0.5	Long	Frequent	---	None
		June	0.5	>6.0	0.5	Long	Frequent	---	None
		July	1.0	>6.0	0.5	Long	Occasional	---	None
		August	1.0	>6.0	0.5	Long	Occasional	---	None
		September	1.0	>6.0	0.5	Long	Occasional	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
212:									
Goldstream----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	---	None
		May	0.0	>6.0	0.5	Long	Frequent	---	None
		June	0.5	>6.0	0.5	Long	Frequent	---	None
		July	1.0	>6.0	0.5	Long	Occasional	---	None
		August	1.0	>6.0	0.5	Long	Occasional	---	None
		September	1.0	>6.0	0.5	Long	Occasional	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Histels----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	---	None
		May	0.0	>6.0	0.5	Long	Frequent	---	None
		June	0.0	>6.0	0.5	Long	Frequent	---	None
		July	0.7	>6.0	0.5	Long	Occasional	---	None
		August	0.7	>6.0	0.5	Long	Occasional	---	None
		September	0.7	>6.0	0.5	Long	Occasional	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydrologic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
251:									
Mosquito	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		May	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		June	0.0	>6.0	0.5	Long	Frequent	Brief	Rare
		July	0.7	>6.0	0.5	Long	Occasional	Brief	Rare
		August	0.7	>6.0	0.5	Long	Occasional	Brief	Rare
		September	0.7	>6.0	0.5	Long	Occasional	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Tanana	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		May	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		June	0.5	>6.0	0.3	Long	Frequent	Brief	Rare
		July	1.3	>6.0	---	---	None	Brief	Rare
		August	1.3	>6.0	---	---	None	Brief	Rare
		September	1.3	>6.0	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
361:									
Jarvis	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	0.2	Long	Occasional	Brief	Rare
		May	---	---	---	---	None	Brief	Rare
		June	---	---	---	---	None	Brief	Rare
		July	---	---	---	---	None	Brief	Rare
		August	---	---	---	---	None	Brief	Rare
		September	---	---	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Chena	A								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	Brief	Rare
		May	---	---	---	---	None	Brief	Rare
		June	---	---	---	---	None	Brief	Rare
		July	---	---	---	---	None	Brief	Rare
		August	---	---	---	---	None	Brief	Rare
		September	---	---	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
362:									
Fubar	C								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	Brief	Rare
		May	---	---	---	---	None	Brief	Rare
		June	4.5	>6.0	---	---	None	Brief	Rare
		July	4.5	>6.0	---	---	None	Brief	Rare
		August	4.5	>6.0	---	---	None	Brief	Rare
		September	---	---	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
Piledriver----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	>6.0	0.3	Long	Frequent	Brief	Rare
		May	0.7	>6.0	0.3	Long	Frequent	Brief	Rare
		June	3.9	>6.0	---	---	None	Brief	Rare
		July	3.9	>6.0	---	---	None	Brief	Rare
		August	3.9	>6.0	---	---	None	Brief	Rare
		September	3.9	>6.0	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
363:									
Jarvis----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	0.2	Long	Occasional	Brief	Rare
		May	---	---	---	---	None	Brief	Rare
		June	---	---	---	---	None	Brief	Rare
		July	---	---	---	---	None	Brief	Rare
		August	---	---	---	---	None	Brief	Rare
		September	---	---	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Salchaket----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	0.3	Long	Frequent	Brief	Rare
		May	0.7	1.6	0.3	Long	Frequent	Brief	Rare
		June	---	---	---	---	None	Brief	Rare
		July	---	---	---	---	None	Brief	Rare
		August	---	---	---	---	None	Brief	Rare
		September	---	---	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
411A:									
Minto----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	---	---	None	---	None
		May	0.7	1.6	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Chatanika----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	---	---	None	---	None
		May	0.0	>6.0	---	---	None	---	None
		June	0.7	>6.0	---	---	None	---	None
		July	1.6	>6.0	---	---	None	---	None
		August	1.6	>6.0	---	---	None	---	None
		September	1.6	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydrologic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
411B:									
Minto	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	---	---	None	---	None
		May	0.7	1.6	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Chatanika	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	---	---	None	---	None
		May	0.0	>6.0	---	---	None	---	None
		June	0.7	>6.0	---	---	None	---	None
		July	1.6	>6.0	---	---	None	---	None
		August	1.6	>6.0	---	---	None	---	None
		September	1.6	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
411C:									
Minto	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	---	---	None	---	None
		May	0.7	1.6	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Chatanika	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	---	---	None	---	None
		May	0.0	>6.0	---	---	None	---	None
		June	0.7	>6.0	---	---	None	---	None
		July	1.6	>6.0	---	---	None	---	None
		August	1.6	>6.0	---	---	None	---	None
		September	1.6	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
411D:									
Minto	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	---	---	None	---	None
		May	0.7	1.6	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
Chatanika----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	---	---	None	---	None
		May	0.0	>6.0	---	---	None	---	None
		June	0.7	>6.0	---	---	None	---	None
		July	1.6	>6.0	---	---	None	---	None
		August	1.6	>6.0	---	---	None	---	None
		September	1.6	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
421B:									
Fairbanks----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
421C:									
Fairbanks----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydrologic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
421D:									
Fairbanks----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
441D:									
Gilmore----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
441E:									
Gilmore----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
441F:									
Gilmore----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
441G:									
Gilmore----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydrologic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
451G:									
Brigadier----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Ester----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.7	1.6	---	---	None	---	None
		May	0.7	1.6	---	---	None	---	None
		June	1.0	1.6	---	---	None	---	None
		July	1.0	1.6	---	---	None	---	None
		August	1.0	1.6	---	---	None	---	None
		September	1.0	1.6	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
451X:									
Brigadier----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Ester----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.7	1.6	---	---	None	---	None
		May	0.7	1.6	---	---	None	---	None
		June	1.0	1.6	---	---	None	---	None
		July	1.0	1.6	---	---	None	---	None
		August	1.0	1.6	---	---	None	---	None
		September	1.0	1.6	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
452:									
Gilmore----------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
Steese----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
492:									
Angel----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
McCloud----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
611:									
Piledriver----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	>6.0	0.3	Long	Frequent	Brief	Rare
		May	0.7	>6.0	0.3	Long	Frequent	Brief	Rare
		June	3.9	>6.0	---	---	None	Brief	Rare
		July	3.9	>6.0	---	---	None	Brief	Rare
		August	3.9	>6.0	---	---	None	Brief	Rare
		September	3.9	>6.0	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Eielson----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	>6.0	0.3	Long	Frequent	Brief	Rare
		May	0.7	>6.0	0.3	Long	Frequent	Brief	Rare
		June	3.9	>6.0	---	---	None	Brief	Rare
		July	3.9	>6.0	---	---	None	Brief	Rare
		August	3.9	>6.0	---	---	None	Brief	Rare
		September	3.9	>6.0	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
CL:									
Typic Cryorthents------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	Brief	Rare
		May	---	---	---	---	None	Brief	Rare
		June	---	---	---	---	None	Brief	Rare
		July	---	---	---	---	None	Brief	Rare
		August	---	---	---	---	None	Brief	Rare
		September	---	---	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Gv:									
Gravel pits----------	---								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Rv:									
Riverwash----------	---								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	Frequent
		May	---	---	---	---	None	---	Frequent
		June	---	---	---	---	None	---	Frequent
		July	---	---	---	---	None	---	Frequent
		August	---	---	---	---	None	---	Frequent
		September	---	---	---	---	None	---	Frequent
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
UC:									
Typic Cryorthents, fill----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	Brief	Rare
		May	---	---	---	---	None	Brief	Rare
		June	---	---	---	---	None	Brief	Rare
		July	---	---	---	---	None	Brief	Rare
		August	---	---	---	---	None	Brief	Rare
		September	---	---	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Urban Land----------	---								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	Brief	Rare
		May	---	---	---	---	None	Brief	Rare
		June	---	---	---	---	None	Brief	Rare
		July	---	---	---	---	None	Brief	Rare
		August	---	---	---	---	None	Brief	Rare
		September	---	---	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
		December	---	---	---	---	None	---	None
W:									
Water----------	---								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	---	None
		May	---	---	---	---	None	---	None
		June	---	---	---	---	None	---	None
		July	---	---	---	---	None	---	None
		August	---	---	---	---	None	---	None
		September	---	---	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
WAH:									
Typic Cryaquents-------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.3	Long	Frequent	---	None
		May	0.0	>6.0	0.3	Long	Frequent	---	None
		June	0.0	>6.0	0.3	Long	Frequent	---	None
		July	0.7	>6.0	---	---	None	---	None
		August	0.7	>6.0	---	---	None	---	None
		September	0.7	>6.0	---	---	None	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Histic Cryaquepts------	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	---	None
		May	0.0	>6.0	0.5	Long	Frequent	---	None
		June	0.7	>6.0	0.5	Long	Frequent	---	None
		July	1.3	>6.0	0.5	Long	Occasional	---	None
		August	1.3	>6.0	0.5	Long	Occasional	---	None
		September	1.3	>6.0	0.5	Long	Occasional	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
Terric Cryofibrists----	D								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.0	>6.0	0.5	Long	Frequent	---	None
		May	0.0	>6.0	0.5	Long	Frequent	---	None
		June	0.0	>6.0	0.5	Long	Frequent	---	None
		July	0.0	>6.0	0.5	Long	Frequent	---	None
		August	0.0	>6.0	0.5	Long	Frequent	---	None
		September	0.0	>6.0	0.5	Long	Frequent	---	None
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None
XC:									
Typic Cryorthents------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	---	---	---	---	None	Brief	Rare
		May	---	---	---	---	None	Brief	Rare
		June	---	---	---	---	None	Brief	Rare
		July	---	---	---	---	None	Brief	Rare
		August	---	---	---	---	None	Brief	Rare
		September	---	---	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 15.—Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Wet soil: Upper limit	Wet soil: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
Salchaket----------	B								
		January	---	---	---	---	None	---	None
		February	---	---	---	---	None	---	None
		March	---	---	---	---	None	---	None
		April	0.3	1.6	0.3	Long	Frequent	Brief	Rare
		May	0.7	1.6	0.3	Long	Frequent	Brief	Rare
		June	---	---	---	---	None	Brief	Rare
		July	---	---	---	---	None	Brief	Rare
		August	---	---	---	---	None	Brief	Rare
		September	---	---	---	---	None	Brief	Rare
		October	---	---	---	---	None	---	None
		November	---	---	---	---	None	---	None
		December	---	---	---	---	None	---	None

Table 16.—Hydric Soils List

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
9:							
Histels	Histels (90%)	Yes	depressions on terraces, flats on terraces	1,3	YES	NO	YES
	Goldstream (10%)	Yes	valley floors	2B3,3	YES	NO	YES
10:							
Bolio peat	Bolio (75%)	Yes	depressions on terraces, flats on terraces	1,3	YES	NO	YES
	Goldstream (10%)	Yes	valley floors	2B3,3	YES	NO	YES
	Lemeta (10%)	Yes	fens on terraces	1,3	YES	NO	YES
	Chatanika (5%)	Yes	hills	2B3	YES	NO	NO
	Ponds (0%)	Yes	depressions	3	NO	NO	YES
11:							
Lemeta peat	Lemeta (75%)	Yes	fens on terraces	1,3	YES	NO	YES
	Bolio (10%)	Yes	depressions on terraces, flats on terraces	1,3	YES	NO	YES
	Goldstream (10%)	Yes	valley floors	2B3,3	YES	NO	YES
	Chatanika (5%)	Yes	hills	2B3	YES	NO	NO
	Ponds (0%)	Yes	depressions	3	NO	NO	YES
13:							
Terric Cryofibrists-Liscum complex	Terric Cryofibrists (60%)	Yes	depressions on flood plains	3,1	YES	NO	YES
	Liscum (30%)	Yes	alluvial flats	2B3	YES	NO	NO
	Histels (5%)	Yes	depressions	1,3	YES	NO	YES
	Typic Cryaquents (5%)	Yes	flood plains	3,2B3	YES	NO	YES
14:							
Histels-Terric Cryofibrists complex	Histels (60%)	Yes	peat plateaus	1	YES	NO	NO
	Terric Cryofibrists (27%)	Yes	depressions on flood plains	1,3	YES	NO	YES
	Tanacross (10%)	Yes	alluvial flats	2B3,3	YES	NO	YES
	Water (5%)	---	NO DATA	---	---	---	---

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
20:							
Mosquito peat	Mosquito (85%)	Yes	alluvial flats, depressions	2B3,3	YES	NO	YES
	Bolio (5%)	Yes	depressions on terraces, flats on terraces	1,3	YES	NO	YES
	Bradway (5%)	Yes	depressions on flood plains	2B3,3	YES	NO	YES
	Liscum (5%)	Yes	alluvial flats	2B3	YES	NO	NO
	Water (0%)	---	NO DATA	---	---	---	---
21A:							
Goldstream peat, 0 to 3 percent slopes	Goldstream (80%)	Yes	valley floors	2B3,3	YES	NO	YES
	Chatanika (10%)	Yes	hills	2B3	YES	NO	NO
	Histels (5%)	Yes	depressions on terraces, flats on terraces	1,3	YES	NO	YES
	Goldstream (steeper) (3%)	Yes	valley floors	2B3,3	YES	NO	YES
	Typic Cryaquents (2%)	Yes	depressions	3,2B3	YES	NO	YES
21B:							
Goldstream peat, 3 to 7 percent slopes	Goldstream (80%)	Yes	valley floors	2B3,3	YES	NO	YES
	Chatanika (10%)	Yes	hills	2B3	YES	NO	NO
	Histels (5%)	Yes	depressions on terraces, flats on terraces	1,3	YES	NO	YES
	Minto (5%)	No	hills	---	---	---	---
	Typic Cryaquents (0%)	Yes	depressions	2B3,3	YES	NO	YES
22:							
Tanacross peat	Tanacross (90%)	Yes	alluvial flats	2B3,3	YES	NO	YES
	Tanana (10%)	Yes	terraces	2B3,3	YES	NO	YES
	North Pole (0%)	Yes	alluvial flats	2B3,3	YES	NO	YES
25:							
Tanana silt loam	Bolio (5%)	Yes	depressions on terraces, flats on terraces	1,3	YES	NO	YES
	Jarvis (5%)	No	flood plains	---	---	---	---
	Noonku (5%)	Yes	sloughs	2B3,3	YES	NO	YES
	Tanacross (5%)	Yes	alluvial flats	2B3,3	YES	NO	YES
	Tanana (75%)	Yes	terraces	2B3,3	YES	NO	YES
	Salchaket (5%)	No	flood plains	---	---	---	---
	North Pole (0%)	Yes	alluvial flats	2B3,3	YES	NO	YES

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
26: Histels and Mosquito peat	Histels (40%)	Yes	depressions on flood plains, flats on flood plains	1,3	YES	NO	YES
	Mosquito (40%)	Yes	alluvial flats, depressions	2B3,3	YES	NO	YES
	Terric Cryofibrists (5%)	Yes	depressions on flood plains	1,3	YES	NO	YES
	Peede (3%)	Yes	depressions	3,2B3	YES	NO	YES
	Salchaket (3%)	No	flood plains	---	---	---	---
31: Eielson-Piledriver complex, occasionally flooded	Eielson (60%)	No	flood plains	---	---	---	---
	Piledriver (30%)	No	flood plains	---	---	---	---
	Fubar (5%)	No	flood plains	---	---	---	---
	Noonku (3%)	Yes	sloughs	3,2B3	YES	NO	YES
	Salchaket (2%)	No	flood plains	---	---	---	---
32: Salchaket very fine sandy loam	Salchaket (87%)	No	flood plains	---	---	---	---
	Jarvis (10%)	No	flood plains	---	---	---	---
	Tanana (3%)	Yes	terraces	2B3,3	YES	NO	YES
	North Pole (0%)	Yes	alluvial flats	2B3,3	YES	NO	YES
35: North Pole very fine sandy loam	North Pole (85%)	Yes	alluvial flats	2B3,3	YES	NO	YES
	Mosquito (5%)	Yes	alluvial flats, depressions	2B3,3	YES	NO	YES
	Tanana (5%)	Yes	terraces	2B3,3	YES	NO	YES
	Noonku (3%)	Yes	sloughs	2B3,3	YES	NO	YES
	Liscum (2%)	Yes	alluvial flats	2B3	YES	NO	NO
	Eielson (0%)	No	flood plains	---	---	---	---
36: Jarvis very fine sandy loam	Jarvis (75%)	No	flood plains	---	---	---	---
	Chena (5%)	No	stream terraces	---	---	---	---
	Noonku (5%)	Yes	sloughs	3,2B3	YES	NO	YES
	Salchaket (10%)	No	flood plains	---	---	---	---
	Tanana (5%)	Yes	terraces	2B3,3	YES	NO	YES

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
37: Chena very fine sandy loam	Chena (90%)	No	stream terraces	---	---	---	---
	Jarvis (5%)	No	flood plains	---	---	---	---
	Noonku (5%)	Yes	sloughs	3,2B3	YES	NO	YES
	Tanana (0%)	Yes	terraces	2B3,3	YES	NO	YES
39A: Nenana silt loam, 0 to 3 percent slopes	Nenana (95%)	No	stream terraces	---	---	---	---
	Richardson (5%)	No	stream terraces	---	---	---	---
	Salchaket (5%)	No	flood plains	---	---	---	---
40A: Chatanika silt loam, 0 to 3 percent slopes	Chatanika (75%)	Yes	hills	2B3	YES	NO	NO
	Goldstream (10%)	Yes	valley floors	2B3,3	YES	NO	YES
	Chatanika (steeper) (7%)	Yes	hills	2B3	YES	NO	NO
	Minto (5%)	No	hills	---	---	---	---
	Saulich (3%)	Yes	valley sides	2B3	YES	NO	NO
	Histels (0%)	Yes	depressions on terraces, flats on terraces	1,3	YES	NO	YES
	Ponds (0%)	Yes	depressions	3	NO	NO	YES
40B: Chatanika silt loam, 3 to 7 percent slopes	Chatanika (75%)	Yes	hills	2B3	YES	NO	NO
	Chatanika (less steep) (5%)	Yes	hills	2B3	YES	NO	NO
	Chatanika (steeper) (5%)	Yes	hills	2B3	YES	NO	NO
	Goldstream (5%)	Yes	valley floors	2B3,3	YES	NO	YES
	Minto (5%)	No	hills	---	---	---	---
	Saulich (5%)	Yes	valley sides	2B3	YES	NO	NO
40C: Chatanika silt loam, 7 to 12 percent slopes	Chatanika (80%)	Yes	hills	2B3	YES	NO	NO
	Chatanika (less steep) (5%)	Yes	hills	2B3	YES	NO	NO
	Chatanika (steeper) (5%)	Yes	hills	2B3	YES	NO	NO
	Goldstream (5%)	Yes	valley floors	2B3,3	YES	NO	YES
	Minto (5%)	No	hills	---	---	---	---

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
40D:							
Chatanika silt loam, 12 to 20 percent slopes	Chatanika (90%)	Yes	hills	2B3	YES	NO	NO
	Chatanika (less steep) (5%)	Yes	hills	2B3	YES	NO	NO
	Minto (5%)	No	hills	---	---	---	---
41A:							
Minto silt loam, 0 to 3 percent slopes	Minto (80%)	No	hills	---	---	---	---
	Chatanika (10%)	Yes	hills	2B3	YES	NO	NO
	Fairbanks (5%)	No	hills	---	---	---	---
	Minto (steeper) (5%)	No	hills	---	---	---	---
41B:							
Minto silt loam, 3 to 7 percent slopes	Minto (70%)	No	hills	---	---	---	---
	Chatanika (13%)	Yes	hills	2B3	YES	NO	NO
	Minto (steeper) (7%)	No	hills	---	---	---	---
	Minto (less steep) (5%)	No	hills	---	---	---	---
	Fairbanks (5%)	No	hills	---	---	---	---
41C:							
Minto silt loam, 7 to 12 percent slopes	Minto (60%)	No	hills	---	---	---	---
	Chatanika (10%)	Yes	hills	2B3	YES	NO	NO
	Minto (less steep) (10%)	No	hills	---	---	---	---
	Minto (steeper) (10%)	No	hills	---	---	---	---
	Fairbanks (5%)	No	hills	---	---	---	---
	Saulich (5%)	Yes	valley sides	2B3	YES	NO	NO
41D:							
Minto silt loam, 12 to 20 percent slopes	Minto (85%)	No	hills	---	---	---	---
	Chatanika (5%)	Yes	hills	2B3	YES	NO	NO
	Fairbanks (5%)	No	hills	---	---	---	---
	Minto (less steep) (5%)	No	hills	---	---	---	---
	Minto (steeper) (2%)	No	hills	---	---	---	---

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
42B: Fairbanks silt loam, 3 to 7 percent slopes	Fairbanks (80%)	No	hills	---	---	---	---
	Minto (10%)	No	hills	---	---	---	---
	Fairbanks (less steep) (5%)	No	hills	---	---	---	---
	Fairbanks (steeper) (5%)	No	hills	---	---	---	---
42C: Fairbanks silt loam, 7 to 12 percent slopes	Fairbanks (80%)	No	hills	---	---	---	---
	Fairbanks (steeper) (10%)	No	hills	---	---	---	---
	Fairbanks (less steep) (5%)	No	hills	---	---	---	---
	Minto (5%)	No	hills	---	---	---	---
42CG: Fairbanks silt loam, strongly sloping and steep	Fairbanks strongly sloping (60%)	No	hills	---	---	---	---
	Fairbanks steep (30%)	No	hills	---	---	---	---
	Minto (5%)	No	hills	---	---	---	---
	Steese (5%)	No	hills	---	---	---	---
42D: Fairbanks silt loam, 12 to 20 percent slopes	Fairbanks (70%)	No	hills	---	---	---	---
	Fairbanks (less steep) (10%)	No	hills	---	---	---	---
	Fairbanks (steeper) (10%)	No	hills	---	---	---	---
	Minto (5%)	No	hills	---	---	---	---
	Steese (5%)	No	hills	---	---	---	---
	Gilmore (0%)	No	hills	---	---	---	---
42E: Fairbanks silt loam, 20 to 30 percent slopes	Fairbanks (80%)	No	hills	---	---	---	---
	Fairbanks (less steep) (10%)	No	hills	---	---	---	---
	Fairbanks (steeper) (5%)	No	hills	---	---	---	---
	Steese (5%)	No	hills	---	---	---	---
	Gilmore (0%)	No	hills	---	---	---	---

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
42F:							
Fairbanks silt loam, 30 to 45 percent slopes	Fairbanks (85%)	No	hills	---	---	---	---
	Fairbanks (less steep) (5%)	No	hills	---	---	---	---
	Fairbanks (steeper) (5%)	No	hills	---	---	---	---
	Steese (5%)	No	hills	---	---	---	---
42G:							
Fairbanks silt loam, 45 to 70 percent slopes	Fairbanks (90%)	No	hills	---	---	---	---
	Fairbanks (less steep) (10%)	No	hills	---	---	---	---
44B:							
Steese silt loam, 3 to 7 percent slopes	Steese (80%)	No	hills	---	---	---	---
	Steese (steeper) (10%)	No	hills	---	---	---	---
	Fairbanks (5%)	No	hills	---	---	---	---
	Gilmore (5%)	No	hills	---	---	---	---
44C:							
Steese silt loam, 7 to 12 percent slopes	Steese (80%)	No	hills	---	---	---	---
	Steese (steeper) (10%)	No	hills	---	---	---	---
	Fairbanks (5%)	No	hills	---	---	---	---
	Gilmore (5%)	No	hills	---	---	---	---
44D:							
Steese silt loam, 12 to 20 percent slopes	Steese (70%)	No	hills	---	---	---	---
	Steese (steeper) (10%)	No	hills	---	---	---	---
	Steese (less steep) (5%)	No	hills	---	---	---	---
	Fairbanks (5%)	No	hills	---	---	---	---
	Gilmore (5%)	No	hills	---	---	---	---

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
44E:							
Steese silt loam, 20 to 30 percent slopes	Ester (2%)	Yes	hills	2B3	YES	NO	NO
	Steese (75%)	No	hills	---	---	---	---
	Steese (steeper) (10%)	No	hills	---	---	---	---
	Steese (less steep) (5%)	No	hills	---	---	---	---
	Gilmore (5%)	No	hills	---	---	---	---
	Fairbanks (3%)	No	hills	---	---	---	---
44F:							
Steese silt loam, 30 to 45 percent slopes	Steese (85%)	No	hills	---	---	---	---
	Steese (less steep) (10%)	No	hills	---	---	---	---
	Gilmore (5%)	No	hills	---	---	---	---
44G:							
Steese silt loam, 45 to 70 percent slopes	Steese (90%)	No	hills	---	---	---	---
	Gilmore (5%)	No	hills	---	---	---	---
	Steese (less steep) (5%)	No	hills	---	---	---	---
45B:							
Gilmore silt loam, 3 to 7 percent slopes	Gilmore (80%)	No	hills	---	---	---	---
	Gilmore (less steep) (10%)	No	hills	---	---	---	---
	Gilmore (steeper) (5%)	No	hills	---	---	---	---
	Steese (5%)	No	hills	---	---	---	---
	Ester (0%)	Yes	hills	2B3	YES	NO	NO
45C:							
Gilmore silt loam, 7 to 12 percent slopes	Gilmore (70%)	No	hills	---	---	---	---
	Gilmore (steeper) (13%)	No	hills	---	---	---	---
	Gilmore (less steep) (10%)	No	hills	---	---	---	---
	Steese (7%)	No	hills	---	---	---	---

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
45D: Gilmore silt loam, 12 to 20 percent slopes	Gilmore (75%)	No	hills	---	---	---	---
	Gilmore (less steep) (10%)	No	hills	---	---	---	---
	Gilmore (steeper) (10%)	No	hills	---	---	---	---
	Steese (5%)	No	hills	---	---	---	---
	Fairbanks (0%)	No	hills	---	---	---	---
45E: Gilmore silt loam, 20 to 30 percent slopes	Gilmore (70%)	No	hills	---	---	---	---
	Gilmore (less steep) (12%)	No	hills	---	---	---	---
	Steese (10%)	No	hills	---	---	---	---
	Gilmore (steeper) (5%)	No	hills	---	---	---	---
	Ester (3%)	Yes	hills	2B3	YES	NO	NO
45F: Gilmore silt loam, 30 to 45 percent slopes	Gilmore (85%)	No	hills	---	---	---	---
	Gilmore (less steep) (10%)	No	hills	---	---	---	---
	Steese (5%)	No	hills	---	---	---	---
	Rock Outcrops (0%)	No	NO DATA	---	---	---	---
45G: Gilmore silt loam, 45 to 70 percent slopes	Gilmore (85%)	No	hills	---	---	---	---
	Ester (5%)	Yes	hills	2B3	YES	NO	NO
	Gilmore (less steep) (5%)	No	hills	---	---	---	---
	Steese (5%)	No	hills	---	---	---	---
	Rock Outcrops (0%)	No	NO DATA	---	---	---	---
46C: Eutrocryepts, 7 to 12 percent slopes	Eutrocryepts (90%)	No	hills	---	---	---	---
	Eutrocryepts (less steep) (10%)	No	hills	---	---	---	---

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
46D: Eutrocryepts, 12 to 20 percent slopes	Eutrocryepts (90%)	No	hills	---	---	---	---
	Eutrocryepts (steeper) (10%)	No	hills	---	---	---	---
48D: McCloud silt loam, 12 to 20 percent slopes	McCloud (85%)	No	hills	---	---	---	---
	Angel (10%)	No	hills	---	---	---	---
	McCloud (steeper) (3%)	No	hills	---	---	---	---
	McCloud (less steep) (2%)	No	hills	---	---	---	---
48E: McCloud silt loam, 20 to 30 percent slopes	McCloud (85%)	No	hills	---	---	---	---
	Angel (10%)	No	hills	---	---	---	---
	McCloud (less steep) (3%)	No	hills	---	---	---	---
	McCloud (steeper) (2%)	No	hills	---	---	---	---
48F: McCloud silt loam, 30 to 45 percent slopes	McCloud (80%)	No	hills	---	---	---	---
	Angel (15%)	No	hills	---	---	---	---
	McCloud (less steep) (3%)	No	hills	---	---	---	---
	McCloud (steeper) (2%)	No	hills	---	---	---	---
49D: Angel silt loam, 12 to 20 percent slopes	Angel (78%)	No	hills	---	---	---	---
	McCloud (15%)	No	hills	---	---	---	---
	Angel (less steep) (5%)	No	hills	---	---	---	---
	Angel (steeper) (2%)	No	hills	---	---	---	---
49E: Angel silt loam, 20 to 30 percent slopes	Angel (78%)	No	hills	---	---	---	---
	McCloud (15%)	No	hills	---	---	---	---
	Angel (steeper) (3%)	No	hills	---	---	---	---
	Angel (less steep) (2%)	No	hills	---	---	---	---

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
49F:							
Angel silt loam, 30 to 45 percent slopes	Angel (78%)	No	hills	---	---	---	---
	McCloud (5%)	No	hills	---	---	---	---
	Angel (less steep) (3%)	No	hills	---	---	---	---
	Angel (steeper) (2%)	No	hills	---	---	---	---
50G:							
Ester peat, 45 to 70 percent slopes	Ester (95%)	Yes	hills	2B3	YES	NO	NO
	Brigadier (5%)	No	hills	---	---	---	---
50X:							
Ester peat, 20 to 45 percent slopes	Ester (80%)	Yes	hills	2B3	YES	NO	NO
	Brigadier (10%)	No	hills	---	---	---	---
	Ester (steeper) (5%)	Yes	hills	2B3	YES	NO	NO
	Saulich (5%)	Yes	valley sides	2B3	YES	NO	NO
	Steese (0%)	No	hills	---	---	---	---
51B:							
Saulich peat, 3 to 7 percent slopes	Saulich (80%)	Yes	valley sides	2B3	YES	NO	NO
	Goldstream (5%)	Yes	valley floors	2B3,3	YES	NO	YES
	Saulich (less steep) (5%)	Yes	valley sides	2B3	YES	NO	NO
	Saulich (steeper) (5%)	Yes	valley sides	2B3	YES	NO	NO
	Chatanika (3%)	Yes	hills	2B3	YES	NO	NO
	Minto (2%)	No	hills	---	---	---	---
51C:							
Saulich peat, 7 to 12 percent slopes	Saulich (80%)	Yes	valley sides	2B3	YES	NO	NO
	Goldstream (5%)	Yes	valley floors	2B3,3	YES	NO	YES
	Saulich (less steep) (5%)	Yes	valley sides	2B3	YES	NO	NO
	Saulich (steeper) (5%)	Yes	valley sides	2B3	YES	NO	NO
	Chatanika (3%)	Yes	hills	2B3	YES	NO	NO
	Minto (2%)	No	hills	---	---	---	---

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
61: Piledriver very fine sandy loam	Piledriver (75%)	No	flood plains	---	---	---	---
	Eielson (15%)	No	flood plains	---	---	---	---
	Fubar (10%)	No	flood plains	---	---	---	---
	North Pole (0%)	Yes	alluvial flats	2B3,3	YES	NO	YES
	Tanana (0%)	Yes	terraces	2B3,3	YES	NO	YES
62: Peede-Mosquito complex	Peede (70%)	Yes	depressions	2B3,3	YES	NO	YES
	Mosquito (25%)	Yes	alluvial flats, depressions	2B3,3	YES	NO	YES
	Liscum (5%)	Yes	alluvial flats	2B3	YES	NO	NO
63: Typic Cryaquents-Tanana complex	Eielson (10%)	No	flood plains	---	---	---	---
	Histels (10%)	Yes	depressions on flood plains, flats on flood plains	1,3	YES	NO	YES
	Tanana (35%)	Yes	terraces	2B3,3	YES	NO	YES
	Typic Cryaquents (45%)	Yes	flood plains	2B3,3	YES	NO	YES
64: Eielson-Tanana complex	Eielson (50%)	No	flood plains	---	---	---	---
	Peede (10%)	Yes	depressions	3,2B3	YES	NO	YES
	Tanacross (5%)	Yes	alluvial flats	2B3,3	YES	NO	YES
	Tanana (35%)	Yes	terraces	2B3,3	YES	NO	YES
65: Typic Cryaquents and Typic Aquorthels	Typic Aquorthels (45%)	Yes	flood plains	2B3,3	YES	NO	YES
	Eielson (5%)	No	flood plains	---	---	---	---
	Terric Cryofibrists (5%)	Yes	depressions on flood plains	1,3	YES	NO	YES
	Typic Cryaquents (45%)	Yes	flood plains	3,2B3	YES	NO	YES
66: Eielson fine sandy loam	Eielson (80%)	No	flood plains	---	---	---	---
	Peede (10%)	Yes	depressions	2B3,3	YES	NO	YES
	Tanana (10%)	Yes	terraces	2B3,3	YES	NO	YES

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
69: Typic Cryaquents-Eielson complex	Typic Cryaquents (50%)	Yes	flood plains	3,2B3	YES	NO	YES
	Eielson (35%)	No	flood plains	---	---	---	---
	Jarvis (10%)	No	flood plains	---	---	---	---
	Riverwash (5%)	---	NO DATA	---	---	---	---
	Tanana (2%)	Yes	terraces	2B3,3	YES	NO	YES
70A: Volkmar-Richardson complex, 0 to 3 percent slopes	Volkmar (45%)	No	stream terraces	---	---	---	---
	Richardson (40%)	No	stream terraces	---	---	---	---
	Mosquito (5%)	Yes	alluvial flats, depressions	2B3,3	YES	NO	YES
	Tanacross (5%)	Yes	alluvial flats	2B3,3	YES	NO	YES
	Tanana (5%)	Yes	terraces	2B3,3	YES	NO	YES
70B: Volkmar-Richardson complex, 3 to 7 percent slopes	Richardson (35%)	No	stream terraces	---	---	---	---
	Volkmar (35%)	No	stream terraces	---	---	---	---
	Eutrocryepts (10%)	No	escarpments on terraces	---	---	---	---
	Tanana (5%)	Yes	terraces	2B3,3	YES	NO	YES
	Typic Cryaquents (10%)	Yes	flood plains	2B3,3	YES	NO	YES
71: North Pole-Mosquito-Liscum complex	Mosquito (30%)	Yes	alluvial flats, depressions	2B3,3	YES	NO	YES
	Liscum (20%)	Yes	alluvial flats	2B3	YES	NO	NO
	Typic Cryaquents (5%)	Yes	flood plains	3,2B3	YES	NO	YES
	Histels (0%)	Yes	depressions on flood plains, flats on flood plains	1,3	YES	NO	YES
	North Pole (50%)	Yes	alluvial flats	2B3,3	YES	NO	YES
72F: Eutrocryepts, escarpments, 7 to 45 percent slopes	Eutrocryepts (90%)	No	escarpments on terraces	---	---	---	---
	Soils with permafrost on footslopes (5%)	---	NO DATA	---	---	---	---

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
81V: Saulich peat and Chatanika silt loam, 3 to 15 percent slopes	Saulich (90%)	Yes	valley sides	2B3	YES	NO	NO
	Chatanika (48%)	Yes	hills	2B3	YES	NO	NO
	Minto (2%)	No	hills	---	---	---	---
	Saulich (steeper) (2%)	Yes	valley sides	2B3	YES	NO	NO
81X: Saulich peat and Chatanika silt loam, 15 to 20 percent slopes	Saulich (90%)	Yes	valley sides	2B3	YES	NO	NO
	Chatanika (48%)	Yes	hills	2B3	YES	NO	NO
	Chatanika (2%)	Yes	hills	2B3	YES	NO	NO
	Saulich (less steep) (2%)	Yes	valley sides	2B3	YES	NO	NO
82V: Gilmore and Steese silt loams, 3 to 15 percent slopes	Gilmore (90%)	No	hills	---	---	---	---
	Steese (45%)	No	hills	---	---	---	---
	Gilmore (steeper) (5%)	No	hills	---	---	---	---
82X: Gilmore and Steese silt loams, 15 to 45 percent slopes	Steese (70%)	No	hills	---	---	---	---
	Gilmore (60%)	No	hills	---	---	---	---
	Steese (less steep) (4%)	No	hills	---	---	---	---
	Angel (3%)	No	hills	---	---	---	---
	Gilmore (steeper) (3%)	No	hills	---	---	---	---
85: Eutrocryepts and Minto silt loam, 3 to 20 percent slopes	Eutrocryepts (45%)	No	hills	---	---	---	---
	Minto (45%)	No	hills	---	---	---	---
	Saulich (5%)	Yes	valley sides	2B3	YES	NO	NO
	Aquic Cryofluvents (5%)	No	flood plains	---	---	---	---

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
86G: Brigadier silt loam, 45 to 70 percent slopes	Brigadier (75%)	No	hills	---	---	---	---
	Brigadier (less steep) (10%)	No	hills	---	---	---	---
	Gilmore (10%)	No	hills	---	---	---	---
	Manchu (3%)	No	hills	---	---	---	---
86V: Brigadier and Steese, cool silt loams, 3 to 15 percent slopes	Brigadier (45%)	No	hills	---	---	---	---
	Manchu (40%)	No	hills	---	---	---	---
	Gilmore (10%)	No	hills	---	---	---	---
	Steese (5%)	No	hills	---	---	---	---
86X: Brigadier and Steese, cool silt loams, 15 to 45 percent slopes	Brigadier (60%)	No	hills	---	---	---	---
	Manchu (25%)	No	hills	---	---	---	---
	Gilmore (10%)	No	hills	---	---	---	---
	Steese (5%)	No	hills	---	---	---	---
87V: Gilmore silt loam, subalpine and Steese silt loam, cool	Gilmore (60%)	No	hills	---	---	---	---
	Manchu (35%)	No	hills	---	---	---	---
	Soils with permafrost (5%)	---	NO DATA	---	---	---	---
87X: Gilmore silt loam, subalpine, 15 to 45 percent slopes	Gilmore (90%)	No	hills	---	---	---	---
	Gilmore (less steep) (5%)	No	hills	---	---	---	---
	Manchu (5%)	No	hills	---	---	---	---
88: Dystrocryepts-Turbels complex, 0 to 30 percent slopes	Dystrocryepts (60%)	No	hills	---	---	---	---
	Turbels (35%)	Yes	hills	2B3	YES	NO	NO
	Rock outcrops (5%)	---	NO DATA	---	---	---	---

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
89V: Fairbanks and Steese silt loams, 3 to 15 percent slopes	Steese (50%)	No	hills	---	---	---	---
	Fairbanks (45%)	No	hills	---	---	---	---
	Steese (steeper) (5%)	No	hills	---	---	---	---
89X: Fairbanks and Steese silt loams, 15 to 45 percent slopes	Fairbanks (45%)	No	hills	---	---	---	---
	Steese (45%)	No	hills	---	---	---	---
	Steese (less steep) (5%)	No	hills	---	---	---	---
90: Fubar-Tanana complex, 0 to 3 percent slopes	Fubar (45%)	No	flood plains	---	---	---	---
	Mosquito (5%)	Yes	alluvial flats, depressions	2B3,3	YES	NO	YES
	Piledriver (5%)	No	flood plains	---	---	---	---
	Tanana (45%)	Yes	terraces	2B3,3	YES	NO	YES
91: Cryofluvents-Typic Cryaquents-Typic Aquorthels complex, 2 to 10 percent slopes	Aquic Cryofluvents (30%)	No	flood plains	---	---	---	---
	Typic Aquorthels (30%)	Yes	flood plains	2B3,3	YES	NO	YES
	Typic Cryaquents (30%)	Yes	flood plains	2B3,3	YES	NO	YES
	Chatanika (5%)	Yes	hills	2B3	YES	NO	NO
	Saulich (5%)	Yes	valley sides	2B3	YES	NO	NO
211: Chatanika-Goldstream complex, 0 to 3 percent slopes	Chatanika (55%)	Yes	hills	2B3	YES	NO	NO
	Goldstream (35%)	Yes	valley floors	2B3,3	YES	NO	YES
	Minto (5%)	No	hills	---	---	---	---
	Chatanika (steeper) (3%)	Yes	hills	2B3	YES	NO	NO
	Histels (2%)	Yes	depressions on terraces, flats on terraces	1,3	YES	NO	YES
	Ponds (0%)	Yes	depressions	3	NO	NO	YES

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
212: Goldstream-Histels complex, 0 to 3 percent slopes	Goldstream (50%)	Yes	valley floors	2B3,3	YES	NO	YES
	Histels (45%)	Yes	depressions on terraces, flats on terraces	1,3	YES	NO	YES
	Terric Cryofibrists (5%)	Yes	thermokarst depressions	1,3	YES	NO	YES
251: Tanana-Mosquito complex	Mosquito (20%)	Yes	alluvial flats, depressions	2B3,3	YES	NO	YES
	Jarvis (15%)	No	flood plains	---	---	---	---
	Liscum (3%)	Yes	alluvial flats	2B3	YES	NO	NO
	Noonku (2%)	Yes	sloughs	3,2B3	YES	NO	YES
	Tanana (60%)	Yes	terraces	2B3,3	YES	NO	YES
361: Jarvis-Chena complex	Jarvis (55%)	No	flood plains	---	---	---	---
	Chena (35%)	No	stream terraces	---	---	---	---
	Noonku (5%)	Yes	sloughs	3,2B3	YES	NO	YES
	Salchaket (5%)	No	flood plains	---	---	---	---
	Tanana (0%)	Yes	terraces	2B3,3	YES	NO	YES
362: Piledriver-Fubar complex	Fubar (50%)	No	flood plains	---	---	---	---
	Piledriver (40%)	No	flood plains	---	---	---	---
	Eielson (5%)	No	flood plains	---	---	---	---
	Noonku (3%)	Yes	sloughs	2B3,3	YES	NO	YES
	North Pole (2%)	Yes	alluvial flats	2B3,3	YES	NO	YES
363: Jarvis-Salchaket complex	Jarvis (45%)	No	flood plains	---	---	---	---
	Tanana (5%)	Yes	terraces	2B3,3	YES	NO	YES
	Chena (2%)	No	stream terraces	---	---	---	---
	Noonku (2%)	Yes	sloughs	3,2B3	YES	NO	YES
	Salchaket (45%)	No	flood plains	---	---	---	---
	North Pole (1%)	Yes	alluvial flats	2B3,3	YES	NO	YES

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
411A: Minto-Chatanika complex, 0 to 3 percent slopes	Minto (45%)	No	hills	---	---	---	---
	Chatanika (40%)	Yes	hills	2B3	YES	NO	NO
	Chatanika (steeper) (5%)	Yes	hills	2B3	YES	NO	NO
	Goldstream (5%)	Yes	valley floors	2B3,3	YES	NO	YES
	Minto (steeper) (5%)	No	hills	---	---	---	---
411B: Minto-Chatanika complex, 3 to 7 percent slopes	Minto (40%)	No	hills	---	---	---	---
	Chatanika (35%)	Yes	hills	2B3	YES	NO	NO
	Minto (less steep) (7%)	No	hills	---	---	---	---
	Minto (steeper) (7%)	No	hills	---	---	---	---
	Saulich (5%)	Yes	valley sides	2B3	YES	NO	NO
	Chatanika (less steep) (2%)	Yes	hills	2B3	YES	NO	NO
	Chatanika (steeper) (2%)	Yes	hills	2B3	YES	NO	NO
	Goldstream (2%)	Yes	valley floors	2B3,3	YES	NO	YES
411C: Minto-Chatanika complex, 7 to 12 percent slopes	Minto (45%)	No	hills	---	---	---	---
	Chatanika (40%)	Yes	hills	2B3	YES	NO	NO
	Minto (steeper) (10%)	No	hills	---	---	---	---
	Chatanika (less steep) (5%)	Yes	hills	2B3	YES	NO	NO
	Saulich (0%)	Yes	valley sides	2B3	YES	NO	NO
	Typic Cryaquents (0%)	Yes	depressions	2B3,3	YES	NO	YES
411D: Minto-Chatanika complex, 12 to 20 percent slopes	Minto (50%)	No	hills	---	---	---	---
	Chatanika (25%)	Yes	hills	2B3	YES	NO	NO
	Minto (steeper) (15%)	No	hills	---	---	---	---
	Saulich (5%)	Yes	valley sides	2B3	YES	NO	NO
	Typic Cryaquents (5%)	Yes	depressions	2B3,3	YES	NO	YES

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
421B:							
Fairbanks-Steese complex, 3 to 7 percent slopes	Fairbanks (45%)	No	hills	---	---	---	---
	Steese (45%)	No	hills	---	---	---	---
	Gilmore (10%)	No	hills	---	---	---	---
421C:							
Fairbanks-Steese complex, 7 to 12 percent slopes	Fairbanks (45%)	No	hills	---	---	---	---
	Steese (45%)	No	hills	---	---	---	---
	Gilmore (10%)	No	hills	---	---	---	---
421D:							
Fairbanks-Steese complex, 12 to 20 percent slopes	Fairbanks (55%)	No	hills	---	---	---	---
	Steese (30%)	No	hills	---	---	---	---
	Fairbanks (less steep) (5%)	No	hills	---	---	---	---
	Fairbanks (steeper) (5%)	No	hills	---	---	---	---
	Steese (steeper) (3%)	No	hills	---	---	---	---
	Steese (less steep) (2%)	No	hills	---	---	---	---
	Gilmore (0%)	No	hills	---	---	---	---
441D:							
Steese-Gilmore complex, 12 to 20 percent slopes	Gilmore (45%)	No	hills	---	---	---	---
	Steese (45%)	No	hills	---	---	---	---
	Gilmore (steeper or less steep) (5%)	No	hills	---	---	---	---
	Steese (steeper or less steep) (5%)	No	hills	---	---	---	---
441E:							
Steese-Gilmore complex, 20 to 30 percent slopes	Gilmore (45%)	No	hills	---	---	---	---
	Steese (45%)	No	hills	---	---	---	---
	Gilmore (steeper or less steep) (5%)	No	hills	---	---	---	---
	Steese (steeper or less steep) (5%)	No	hills	---	---	---	---

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
441F:							
Steese-Gilmore complex, 30 to 45 percent slopes	Gilmore (45%)	No	hills	---	---	---	---
	Steese (45%)	No	hills	---	---	---	---
	Gilmore (steeper or less steep) (5%)	No	hills	---	---	---	---
	Steese (steeper or less steep) (5%)	No	hills	---	---	---	---
441G:							
Steese-Gilmore complex, 45 to 70 percent slopes	Gilmore (45%)	No	hills	---	---	---	---
	Steese (45%)	No	hills	---	---	---	---
	Gilmore (less steep) (5%)	No	hills	---	---	---	---
	Steese (less steep) (5%)	No	hills	---	---	---	---
451G:							
Brigadier-Ester complex, 45 to 70 percent slopes	Brigadier (40%)	No	hills	---	---	---	---
	Ester (30%)	Yes	hills	2B3	YES	NO	NO
	Ester (less steep) (10%)	Yes	hills	2B3	YES	NO	NO
	Gilmore (10%)	No	hills	---	---	---	---
	Steese (10%)	No	hills	---	---	---	---
	Saulich (0%)	Yes	valley sides	2B3	YES	NO	NO
451X:							
Brigadier-Ester complex, 15 to 45 percent slopes	Brigadier (45%)	No	hills	---	---	---	---
	Ester (40%)	Yes	hills	2B3	YES	NO	NO
	Gilmore (5%)	No	hills	---	---	---	---
	Steese (5%)	No	hills	---	---	---	---
	Ester (steeper) (3%)	Yes	hills	2B3	YES	NO	NO
	Saulich (2%)	Yes	valley sides	2B3	YES	NO	NO
452:							
Gilmore-Steese complex, 3 to 15 percent slopes	Gilmore (65%)	No	hills	---	---	---	---
	Steese (33%)	No	hills	---	---	---	---
	Steese (steeper) (2%)	No	hills	---	---	---	---

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
492:							
Angel-McCloud complex, 3 to 15 percent slopes	Angel (55%)	No	hills	---	---	---	---
	McCloud (40%)	No	hills	---	---	---	---
	Angel (steeper) (3%)	No	hills	---	---	---	---
	McCloud (steeper) (2%)	No	hills	---	---	---	---
611:							
Piledriver-Eielson complex	Piledriver (50%)	No	flood plains	---	---	---	---
	Eielson (35%)	No	flood plains	---	---	---	---
	Fubar (5%)	No	flood plains	---	---	---	---
	Noonku (5%)	Yes	sloughs	2B3,3	YES	NO	YES
	Riverwash (5%)	---	NO DATA	---	---	---	---
CL:							
Typic Cryorthents, pit spoil	Typic Cryorthents (80%)	No	flood plains, terraces	---	---	---	---
	Fubar (5%)	No	flood plains	---	---	---	---
	Jarvis (5%)	No	flood plains	---	---	---	---
	Piledriver (5%)	No	flood plains	---	---	---	---
	Salchaket (5%)	No	flood plains	---	---	---	---
Gv:							
Pits, gravel	Gravel pits (100%)	No	gravel pits	---	---	---	---
Lf:							
Landfill, Dumps	dump areas (100%)	---	dumps	---	---	---	---
Qu:							
Pits, quarry	Pits, quarry (100%)	---	quarries	---	---	---	---
Rv:							
Riverwash	Riverwash (100%)	Yes	flood plains	4	NO	YES	NO
UC:							
Urban land-Typic Cryorthents complex, 0 to 1 percent slopes	Typic Cryorthents (45%)	No	flood plains, terraces	---	---	---	---
	Urban Land (45%)	---	alluvial flats	---	---	---	---
	Jarvis (3%)	No	flood plains	---	---	---	---
	Fubar (2%)	No	flood plains	---	---	---	---
	Salchaket (5%)	No	flood plains	---	---	---	---
W:							
Water	Water (100%)	Yes	depressions	3	NO	NO	YES

Table 16.—Hydric Soils List—Continued

Map symbol and map unit name	Soil name (% of map unit)	Hydric	Local landform	Hydric soils criteria: Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
WAH:							
Typic Cryaquent, Terric Cryofibrist, and Histic Cryaquept soils	Typic Cryaquents (30%)	Yes	depressions	2B3,3	YES	NO	YES
	Histic Cryaquepts (25%)	Yes	depressions	3,2B3	YES	NO	YES
	Terric Cryofibrists (20%)	Yes	thermokarst depressions	1,3	YES	NO	YES
	Histels (15%)	Yes	depressions	1,3	YES	NO	YES
	Water (10%)	---	NO DATA	---	---	---	---
XC:							
Salchacket-Typic Cryorthents complex	Typic Cryorthents (40%)	No	flood plains, terraces	---	---	---	---
	Jarvis (10%)	No	flood plains	---	---	---	---
	Fubar (5%)	No	flood plains	---	---	---	---
	Salchaket (45%)	No	flood plains	---	---	---	---

Table 17.—Soil Features

(See text for definitions of terms used in this table. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
9:									
Histels	Permafrost	16-24	---	Strongly cemented	8-18	16-35	High	High	High
10:									
Bolio	Permafrost	14-28	---	Strongly cemented	5-10	15-30	High	High	High
11:									
Lemeta	Permafrost	14-24	---	Strongly cemented	8-16	16-32	High	High	High
13:									
Terric Cryofibrists	---	---	---	---	8-10	16-20	High	Moderate	Moderate
Liscum	---	---	---	---	1-6	6-12	High	Moderate	Moderate
14:									
Histels	Permafrost	14-35	---	Strongly cemented	8-30	16-59	High	High	High
Terric Cryofibrists	---	---	---	---	8-10	16-20	High	Moderate	Moderate
20:									
Mosquito	Permafrost	14-31	---	Strongly cemented	1-6	10-12	High	Moderate	Moderate
21A:									
Goldstream	Permafrost	14-24	---	Strongly cemented	1-6	6-12	High	High	High
21B:									
Goldstream	Permafrost	14-24	---	Strongly cemented	1-6	6-12	High	High	High
22:									
Tanacross	Permafrost	10-28	---	Strongly cemented	1-8	8-16	High	High	High
25:									
Tanana	Permafrost	16-47	---	Strongly cemented	1-3	3-6	High	Moderate	Moderate
26:									
Histels	Permafrost	16-35	---	Strongly cemented	8-14	16-28	High	High	High
Mosquito	Permafrost	14-31	---	Strongly cemented	1-6	10-12	High	Moderate	Moderate

Table 17.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
31:									
Eielson	---	---	---	---	---	---	High	Moderate	Moderate
Piledriver	---	---	---	---	---	---	High	Moderate	Moderate
32:									
Salchaket	---	---	---	---	---	---	Moderate	Moderate	Moderate
35:									
North Pole	---	---	---	---	1-3	3-6	High	Moderate	Moderate
36:									
Jarvis	---	---	---	---	---	---	Moderate	Moderate	Moderate
37:									
Chena	---	---	---	---	---	---	Low	Moderate	Moderate
39A:									
Nenana	---	---	---	---	---	---	High	Moderate	Moderate
40A:									
Chatanika	Permafrost	12-39	---	Strongly cemented	---	---	High	Moderate	Moderate
40B:									
Chatanika	Permafrost	12-39	---	Strongly cemented	---	---	High	Moderate	Moderate
40C:									
Chatanika	Permafrost	12-39	---	Strongly cemented	---	---	High	Moderate	Moderate
40D:									
Chatanika	Permafrost	12-39	---	Strongly cemented	---	---	High	Moderate	Moderate
41A:									
Minto	Permafrost	80-199	---	Strongly cemented	---	---	High	High	High
41B:									
Minto	Permafrost	80-199	---	Strongly cemented	---	---	High	High	High
41C:									
Minto	Permafrost	80-199	---	Strongly cemented	---	---	High	High	High
41D:									
Minto	Permafrost	80-199	---	Strongly cemented	---	---	High	High	High

Table 17.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
42B:									
Fairbanks	---	---	---	---	---	---	High	Moderate	Moderate
42C:									
Fairbanks	---	---	---	---	---	---	High	Moderate	Moderate
42CG:									
Fairbanks strongly sloping	---	---	---	---	---	---	High	Moderate	Moderate
Fairbanks steep	---	---	---	---	---	---	High	Moderate	Moderate
42D:									
Fairbanks	---	---	---	---	---	---	High	Moderate	Moderate
42E:									
Fairbanks	---	---	---	---	---	---	High	Moderate	Moderate
42F:									
Fairbanks	---	---	---	---	---	---	High	Moderate	Moderate
42G:									
Fairbanks	---	---	---	---	---	---	High	Moderate	Moderate
44B:									
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
44C:									
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
44D:									
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
44E:									
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
44F:									
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate

Table 17.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
44G:									
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
45B:									
Gilmore	Bedrock (paralithic)	13-24	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
45C:									
Gilmore	Bedrock (paralithic)	13-24	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
45D:									
Gilmore	Bedrock (paralithic)	13-24	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
45E:									
Gilmore	Bedrock (paralithic)	13-24	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
45F:									
Gilmore	Bedrock (paralithic)	13-24	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
45G:									
Gilmore	Bedrock (paralithic)	13-24	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
46C:									
Eutrocryepts	---	---	---	---	---	---	High	Moderate	Moderate
46D:									
Eutrocryepts	---	---	---	---	---	---	High	Moderate	Moderate
48D:									
McCloud	Bedrock (paralithic)	21-35	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
48E:									
McCloud	Bedrock (paralithic)	21-35	---	Moderately cemented	---	---	Moderate	Moderate	Moderate

Table 17.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
48F:									
McCloud	Bedrock (paralithic)	21-35	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
49D:									
Angel	Bedrock (paralithic)	12-22	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
49E:									
Angel	Bedrock (paralithic)	12-22	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
49F:									
Angel	Bedrock (paralithic)	12-22	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
50G:									
Ester	Permafrost Bedrock (paralithic)	12-30 14-39	---	---	---	---	High	High	High
50X:									
Ester	Permafrost Bedrock (paralithic)	12-30 14-39	---	---	---	---	High	High	High
51B:									
Saulich	Permafrost	14-24	---	Strongly cemented	4-8	6-12	High	High	High
51C:									
Saulich	Permafrost	14-24	---	Strongly cemented	4-8	6-12	High	High	High
61:									
Piledriver	---	---	---	---	---	---	High	Moderate	Moderate
62:									
Peede	---	---	---	---	---	---	High	Moderate	Moderate
Mosquito	Permafrost	14-31	---	Strongly cemented	1-6	10-12	High	Moderate	Moderate

Table 17.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
63:									
Tanana	Permafrost	16-47	---	Strongly cemented	1-3	3-6	High	Moderate	Moderate
Typic Cryaquents	---	---	---	---	---	---	High	Moderate	Moderate
64:									
Eielson	---	---	---	---	---	---	High	Moderate	Moderate
Tanana	Permafrost	16-47	---	Strongly cemented	1-3	3-6	High	Moderate	Moderate
65:									
Typic Aquorthels	Permafrost	14-28	---	Strongly cemented	---	---	High	Moderate	Moderate
Typic Cryaquents	---	---	---	---	---	---	High	Moderate	Moderate
66:									
Eielson	---	---	---	---	---	---	High	Moderate	Moderate
69:									
Typic Cryaquents	---	---	---	---	---	---	High	Moderate	Moderate
Eielson	---	---	---	---	---	---	High	Moderate	Moderate
70A:									
Volkmar	---	---	---	---	0	---	High	High	High
Richardson	---	---	---	---	---	---	High	High	High
70B:									
Richardson	---	---	---	---	---	---	High	High	High
Volkmar	---	---	---	---	0	---	High	High	High
71:									
Mosquito	Permafrost	14-31	---	Strongly cemented	1-6	10-12	High	Moderate	Moderate
Liscum	---	---	---	---	1-6	6-12	High	Moderate	Moderate
North Pole	---	---	---	---	1-3	3-6	High	Moderate	Moderate
72F:									
Eutrocryepts	---	---	---	---	---	---	High	Moderate	Moderate

Table 17.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
81V:									
Saulich	Permafrost	14-24	---	Strongly cemented	4-8	6-12	High	High	High
Chatanika	Permafrost	12-39	---	Strongly cemented	---	---	High	Moderate	Moderate
81X:									
Saulich	Permafrost	14-24	---	Strongly cemented	4-8	6-12	High	High	High
Chatanika	Permafrost	12-39	---	Strongly cemented	---	---	High	Moderate	Moderate
82V:									
Gilmore	Bedrock (paralithic)	13-24	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
82X:									
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
Gilmore	Bedrock (paralithic)	13-24	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
85:									
Eutrocryepts	---	---	---	---	---	---	High	High	High
Minto	Permafrost	80-199	---	Strongly cemented	---	---	High	High	High
86G:									
Brigadier	Bedrock (paralithic)	12-35	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
86V:									
Brigadier	Bedrock (paralithic)	12-35	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
Manchu	Bedrock (paralithic)	24-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate

Table 17.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
86X:									
Brigadier	Bedrock (paralithic)	12-35	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
Manchu	Bedrock (paralithic)	24-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
87V:									
Gilmore	Bedrock (paralithic)	12-22	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
Manchu	Bedrock (paralithic)	24-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
87X:									
Gilmore	Bedrock (paralithic)	12-22	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
88:									
Dystrocryepts	Bedrock (lithic)	14-79	---	Indurated	---	---	Moderate	Moderate	Moderate
Turbels	Permafrost	16-30	---	---	---	---	High	High	High
89V:									
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
Fairbanks	---	---	---	---	---	---	High	Moderate	Moderate
89X:									
Fairbanks	---	---	---	---	---	---	High	Moderate	Moderate
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
90:									
Fubar	---	---	---	---	---	---	Low	Moderate	Moderate
Tanana	Permafrost	16-47	---	Strongly cemented	1-3	3-6	High	Moderate	Moderate

Table 17.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
91:									
Aquic Cryofluvents-----	---	---	---	---	---	---	High	Moderate	Moderate
Typic Aquorthels-------	Permafrost	12-30	---	Strongly cemented	---	---	High	Moderate	Moderate
Typic Cryaquents-------	---	---	---	---	---	---	High	Moderate	Moderate
211:									
Chatanika----------	Permafrost	12-39	---	Strongly cemented	---	---	High	Moderate	Moderate
Goldstream----------	Permafrost	14-24	---	Strongly cemented	1-6	6-12	High	High	High
212:									
Goldstream----------	Permafrost	14-24	---	Strongly cemented	1-6	6-12	High	High	High
Histels----------	Permafrost	16-24	---	Strongly cemented	8-18	16-35	High	High	High
251:									
Mosquito----------	Permafrost	14-31	---	Strongly cemented	1-6	10-12	High	Moderate	Moderate
Tanana----------	Permafrost	16-47	---	Strongly cemented	1-3	3-6	High	Moderate	Moderate
361:									
Jarvis----------	---	---	---	---	---	---	Moderate	Moderate	Moderate
Chena----------	---	---	---	---	---	---	Low	Moderate	Moderate
362:									
Fubar----------	---	---	---	---	---	---	Low	Moderate	Moderate
Piledriver----------	---	---	---	---	---	---	High	Moderate	Moderate
363:									
Jarvis----------	---	---	---	---	---	---	Moderate	Moderate	Moderate
Salchaket----------	---	---	---	---	---	---	Moderate	Moderate	Moderate
411A:									
Minto----------	Permafrost	80-199	---	Strongly cemented	---	---	High	High	High
Chatanika----------	Permafrost	12-39	---	Strongly cemented	---	---	High	Moderate	Moderate

Table 17.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
411B:									
Minto	Permafrost	80-199	---	Strongly cemented	---	---	High	High	High
Chatanika	Permafrost	12-39	---	Strongly cemented	---	---	High	Moderate	Moderate
411C:									
Minto	Permafrost	80-199	---	Strongly cemented	---	---	High	High	High
Chatanika	Permafrost	12-39	---	Strongly cemented	---	---	High	Moderate	Moderate
411D:									
Minto	Permafrost	80-199	---	Strongly cemented	---	---	High	High	High
Chatanika	Permafrost	12-39	---	Strongly cemented	---	---	High	Moderate	Moderate
421B:									
Fairbanks	---	---	---	---	---	---	High	Moderate	Moderate
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
421C:									
Fairbanks	---	---	---	---	---	---	High	Moderate	Moderate
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
421D:									
Fairbanks	---	---	---	---	---	---	High	Moderate	Moderate
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
441D:									
Gilmore	Bedrock (paralithic)	13-24	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
441E:									
Gilmore	Bedrock (paralithic)	13-24	---	Moderately cemented	---	---	Moderate	Moderate	Moderate

Table 17.—Soil Features—Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Thickness	Restrictive layer: Hardness	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In	In		In	In			
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
441F:									
Gilmore	Bedrock (paralithic)	13-24	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
441G:									
Gilmore	Bedrock (paralithic)	13-24	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
451G:									
Brigadier	Bedrock (paralithic)	12-35	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
Ester	Permafrost	12-30	---	---	---	---	High	High	High
	Bedrock (paralithic)	14-39							
451X:									
Brigadier	Bedrock (paralithic)	12-35	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
Ester	Permafrost	12-30	---	---	---	---	High	High	High
	Bedrock (paralithic)	14-39							
452:									
Gilmore	Bedrock (paralithic)	13-24	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
Steese	Bedrock (paralithic)	20-40	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
492:									
Angel	Bedrock (paralithic)	12-22	---	Moderately cemented	---	---	Moderate	Moderate	Moderate

Table 17.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
McCloud	Bedrock (paralithic)	21-35	---	Moderately cemented	---	---	Moderate	Moderate	Moderate
611:									
Piledriver	---	---	---	---	---	---	High	Moderate	Moderate
Eielson	---	---	---	---	---	---	High	Moderate	Moderate
CL:									
Typic Cryorthents	---	---	---	---	---	---	Moderate	Moderate	Moderate
Gv:									
Gravel pits	---	---	---	---	---	---	---	---	---
Lf:									
dump areas	---	---	---	---	---	---	---	---	---
Qu:									
Pits, quarry	---	---	---	---	---	---	---	---	---
Rv:									
Riverwash	---	---	---	---	---	---	---	---	---
UC:									
Typic Cryorthents	---	---	---	---	---	---	Moderate	Moderate	Moderate
Urban Land	---	---	---	---	---	---	Moderate	Moderate	Moderate
W:									
Water	---	---	---	---	---	---	---	---	---
WAH:									
Typic Cryaquents	---	---	---	---	---	---	High	Moderate	Moderate
Histic Cryaquepts	---	---	---	---	2-3	3-6	High	High	High
Terric Cryofibrists	---	---	---	---	8-10	16-20	High	Moderate	Moderate
XC:									
Typic Cryorthents	---	---	---	---	---	---	Moderate	Moderate	Moderate
Salchaket	---	---	---	---	---	---	Moderate	Moderate	Moderate

Table 18.—Classification of the Soils

Soil name	Family or higher taxonomic class
Angel	Loamy-skeletal, mixed, superactive, shallow Typic Eutrocryepts
Aquic Cryofluvents	Aquic Cryofluvents
Bolio	Dysic, subgelic Typic Hemistels
Brigadier	Loamy-skeletal, mixed, superactive, shallow Typic Eutrocryepts
Chatanika	Coarse-silty, mixed, superactive, subgelic Typic Aquiturbels
Chena	Sandy-skeletal, mixed Typic Cryorthents
Dystrocryepts	Dystrocryepts
Eielson	Coarse-loamy, mixed, superactive, nonacid Aquic Cryofluvents
Ester	Loamy, mixed, superactive, subgelic, shallow Typic Histoturbels
Aquic Eutrocryepts	Aquic Eutrocryepts
Eutrocryepts	Eutrocryepts
Fairbanks	Coarse-silty, mixed, superactive Typic Eutrocryepts
Fubar	Sandy-skeletal, mixed Typic Cryofluvents
Gilmore	Loamy-skeletal, mixed, superactive, shallow Typic Dystrocryepts
Goldstream	Coarse-silty, mixed, superactive, subgelic Typic Histoturbels
Histels	Histels
Histic Cryaquepts	Histic Cryaquepts
Jarvis	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, nonacid Typic Cryofluvents
Lemeta	Dysic, subgelic Typic Fibristels
Liscum	Coarse-loamy, mixed, superactive, nonacid Histic Cryaquepts
Manchu	Coarse-loamy, mixed, superactive Aquic Eutrocryepts
Mccloud	Coarse-loamy, mixed, superactive Typic Dystrocryepts
Minto	Coarse-silty, mixed, superactive Aquic Eutrocryepts
Mosquito	Coarse-loamy, mixed, nonacid, subgelic Ruptic Histoturbels
Nenana	Coarse-silty over sandy or sandy-skeletal, mixed, superactive Typic Eutrocryepts
North Pole	Coarse-loamy, mixed, superactive, nonacid Aeric Cryaquepts
Peede	Coarse-silty, mixed, superactive, nonacid, Typic Cryaquents
Piledriver	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, nonacid Aquic Cryofluvents
Richardson	Coarse-silty, mixed, superactive Aquic Eutrocryepts
Salchaket	Coarse-loamy, mixed, superactive, nonacid Typic Cryofluvents
Saulich	Coarse-silty, mixed, superactive, subgelic Typic Histoturbels
Steese	Coarse-loamy, mixed, superactive Typic Eutrocryepts
Tanacross	Coarse-loamy, mixed, superactive, subgelic Typic Histoturbels
Tanana	Coarse-loamy, mixed, superactive, subgelic Typic Aquiturbels
Terric Cryofibrists	Terric Cryofibrists
Turbels	Turbels
Typic Aquorthels	Typic Aquorthels
Typic Cryaquents	Typic Cryaquents
Typic Cryorthents	Typic Cryorthents
Volkmar	Coarse-silty over sandy or sandy-skeletal, mixed, superactive Aquic Eutrocryepts