af

Artificial fill
Unoriented clay- to boulder-size material and
mammade debris. Includes dams, road and railroad fills, controlled and uncontrolled dumps,
and disturbed ground. 0-150 feet thick

UNCONFORMITY

Qpp

Post-Piney Creek alluvium

Cobbly gravel with some boulders. The wide flood plain of Clear Creek east of the Table Mountains has a high proportion of silt. Deposit shown only along Clear and Tucker Creeks, although narrow bands of similar material are present in most valleys. As much as 5 feet thick

UNCONFORMITY

Qp

Piney Creek Alluvium

Dark-gray to dark-brown micaceous sandy silt or
silty sand. Upper 1 foot commonly dark-gray
humic silt. At places, the lower part is
gravel. 3-10 feet thick

UNCONFORMITY

Qb

Broadway Alluvium
Silty cobbly gravel and coarse sand. The upper
1-3 feet commonly clayey to pebbly silt,
particularly in the eastern part of the quadrangle. 3-15 feet thick

UNCONFORMITY

Qlo

Louviers Alluvium

Silty fine-grained sand, becoming coarser at depth. Upper 1-3 feet commonly clayey to sandy silt and at places underlain by gravel as much as 3 feet thick that is moderately cemented by calcium carbonate. Query indicates formation designation is uncertain. 10-20 feet thick except in Clear Creek valley, where it may be as much as 60 feet thick

UNCONFORMITY

Qs

Slocum Alluvium
Cobbly gravel with some boulders; silty at places
north of Clear Creek valley. Upper 1-2 feet
locally pebbly to clayey silt, which at places
is underlain by a few feet of gravel that is
weakly to moderately cemented by calcium carbonate. 10-40 feet thick

UNCONFORMITY

Qv

Verdos Alluvium

Silty sand, becoming coarser at depth. May contain thin beds of white volcanic ash similar to the Pearlette Volcanic Ash. At places the upper 1-3 feet is pebbly to clayey silt, which is locally underlain by as much as 7 feet of gravel that is weakly to moderately cemented by calcium carbonate. About 40 feet thick

UNCONFORMITY

Qrf

Aftonian

Rocky Flats Alluvium

Bouldery cobble gravel; predominantly quartzite.

At places the upper 1-6 feet is clayey to pebbly silt, which is locally underlain by as much as 6 feet of gravel that is weakly to strongly cemented by calcium carbonite. 10-50 feet thick

UNCONFORMITY

Qpr

Pre-Rocky Flats alluvium

Bouldery cobble gravel; predominantly sandstone and quartzite. At places the upper 1-6 feet is clayey to pebbly silt, which is locally underlain by as much as 6 feet of gravel that is weakly to strongly cemented by calcium carbonate. Probably early Nebraskan; or possibly Pliocene age. 6-15 feet thick

ANGULAR UNCONFORMITY

Bedrock

Igneous, metamorphic, and sedimentary rock ranging from Precambrian to Tertiary in age Q1

Landslide deposit

Disoriented blocks of bedrock or surficial deposits. Material predominantly silt and clay size, but contains many boulders. Solid-line contact indicates probable historic movement. Areas subject to rock fall, principally around Table Mountains, not shown on the map. 0-20 feet thick

Qco

Colluvium
Clayey to sandy silt; may contain boulders. Ranges
from 0-20 feet thick on steep slopes; 0-10 feet
thick on gentle slopes

Qes?

Loess

Sandy silt; upper 1-3 feet may be slightly clayey. Query indicates deposit possibly modified by colluviation. 3 to 10 feet thick

Qyf

Young alluvial fan
Poorly sorted silty to bouldery gravel; upper 1-2
feet locally very silty. May be as much as 20
feet thick

Qof

Old alluvial fan

Poorly sorted silty to bouldery gravel; upper 1-2'
feet may be very silty; locally underlain by 1-3
feet of gravel that is weakly to moderately

Qre

cemented by calcium carbonate. 0-30 feet thick

Residuum

Clayey to cobbly gravel; at places the upper 1-3 feet is silty and locally underlain by material that is weakly to moderately cemented by calcium carbonate. 0-15 feet thick

Contact
Long dashed where approximately located; short
dashed where inferred

>- Adit or tunnel

Gravel pit

Sample locality
Showing field identification number

PRELIMINARY SURFICIAL GEOLOGIC MAP AND MATERIALS TEST DATA
OF THE GOLDEN QUADRANGLE, JEFFERSON COUNTY, COLORADO

By Richard Van Horn

The Golden quadrangle, 10 miles west of Denver, Colo.. is principally in the Colorado Piedmont section of the Great Plains physiographic province but does include a small portion of the Front Range of the Southern Rocky Mountains province. Streams flowing from the mountains have truncated tilted bedrock and have formed gently eastward-sloping alluvial plains, eight of which are shown on the accompanying geologic map. These plains are composed mainly of gravel, which is 5 to more than 50 feet thick. The gravel deposited by the larger streams is coarser near the mountain front and finer to the east. Gravel deposited by the smaller streams is generally silty and contains fewer cobbles and pebbles than equivalent deposits formed by the larger streams. Also shown on the map are local alluvial fans, residuum, more than 90 landslide areas (mostly on North and South Table Mountains), colluvium, loess, artificial fill, and bedrock outcrops. Deposits less than 3 feet thick are not shown. The relative ages of the deposits are shown on table 1.

The materials test-data are included with this report so that the approximate engineering characteristics of the various deposits can be determined for planning purposes. The results of materials tests represent the gross characteristics of the geologic formations involved and may vary significantly within a few feet of the sample location. Additional testing should be done before using materials on the basis of the materials tests table.

THIS REPORT IS PRELIMINARY AND HAS NOT BEEN EDITED FOR CONFORMITY WITH U.S. GEOLOGICAL SURVEY STANDARDS AND NOMENCLATURE.

Table 1. -- Quaternary rock units of the Golden quadrangle, Colorado

Series	Age	Rock unit	
Recent		Artificial fill Post-Piney Creek alluvium Piney Creek Alluvium	
Recent and Pleistocene Pleistocene		Landslides	
		Colluvium	
		Alluvial fans	Young (post-middle-Wisconsin)
			Old (pre-middle-Wisconsin)
		Loess	
		Residuum	
	Wisconsin	Broadway Alluvium	
		Louviers Allúvium	
	Sangamon and Illinoian	Broadway Alluvium Louviers Allúvium Slocum Alluvium	
	Yarmouth and Kansa	Verdos Alluvium	
	Aftonian	Rocky Flats Alluvium	
	and Nebraskan	Pre-Rocky Flat	s alluvium (possibly Pliocene)

Colorado (golden quad.). Surficial. 1:24,00 sheet 3,

no. 68-308 sheet 2 of 3

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