



Mapped, edited, and published by the Geological Survey
Control by USGS and USGS
Topography from aerial photographs by photogrammetric methods
Aerial photographs taken 1958. Field check 1959
Polyconic projection. 1927 North American datum
10,000-foot grid based on Ohio coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks,
zone 17, shown in blue
Areas covered by dashed light-blue pattern are subject to
controlled inundation to 941 feet in Atwood Reservoir and
978 feet in Leesville Reservoir

UTM GRID AND 1971 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

SCALE 1:24,000
CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION
Heavy-duty
Medium-duty
Light-duty
Unimproved dirt
State Route

DELLROY, OHIO
N 4030—W 8107.5/7.5
1959
PHOTO REVISOR 1971

Landslides and related features interpreted
from aerial photographs:
1:60,000 scale black and white 1960
1:80,000 scale black and white 1976

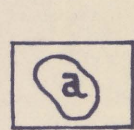
Photointerpretation and field check 1976
This map has not been edited or reviewed
for conformity with Geological Survey
standards and nomenclature.

LANDSLIDES AND RELATED FEATURES

OF THE DELLROY, OHIO QUADRANGLE

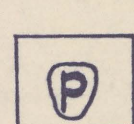
by

WILLIAM E. DAVIES and GREGORY C. OHLMACHER
1978
U. S. Geological Survey
OPEN FILE MAP 78-1057 (E-7)



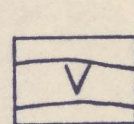
ACTIVE OR RECENTLY ACTIVE LANDSLIDE

Complex landslide composed of earthflow, debris slide, earth and rock slump. Identified from historical records, and from scars, debris and other field evidence. Ground extremely unstable; sliding accelerated by excavation, loading and changes in drainage conditions. May include areas with several active slides too small to be shown separately. Questioned where doubtful.



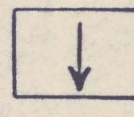
LANDSLIDE

Area of extensive hummocky ground caused by earthflow and earth and rock slump. Lacks clear evidence of active sliding. Relatively stable in natural, undisturbed state, generally not affected by small structures properly sited in areas away from the edge of the toe; can be reactivated by extensive, rapid excavation, loading, and changes in ground water and surface water conditions. Area of old landslide probably includes recent ones not identified from field evidence or otherwise documented. Upslope boundary of landslide generally defined by modified scarp, but downslope (toe) may be gradational and not well defined. Questioned where doubtful.

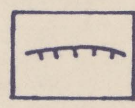


COLLUVIAL SLOPE

Valley wall along major streams with slope as steep as 40° (85%); stony, clayey silt soil up to 50 ft. (15 m) thick; commonly buttressed by a terrace or bench at the toe of the slope; very susceptible to sliding by cutting of toe area, removal of terrace or bench, and overloading; landslide commonly activated without apparent cause.

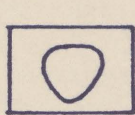


AREAS SUSCEPTIBLE TO DEBRIS FLOWS AND DEBRIS AVALANCHES
Primarily shallow, narrow ravines and chutes with accumulation of stony colluvium generally 10 ft. (3 m) or less in thickness; susceptible to rapid movement during intense rainfall. Most ravines designated show evidence of former debris flows and avalanches. Symbol - a - designates historical debris flow or debris avalanche.



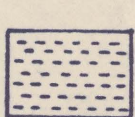
AREAS SUSCEPTIBLE TO ROCKFALL

Steep, locally vertical, natural and man-made slopes and cliffs, 15 ft. (4.5 m) or higher. Formed dominantly of sandstone, limestone, sandy shale, mudstone and claystone. Interbedded mudstone, claystone and shale weather rapidly leaving sandstone and limestone rock faces unsupported.



COVE UNDERLAIN BY CLAY LAYER

Rounded or U-shaped valley with steep concave slope of valley floor (coves) and valley heads underlain by clayey soils forming a coherent layer generally 8 ft. (2.5 m) or less in thickness. Zone of water commonly at the base of the clay layer is under 2 to 8 ft. (0.6 - 2.5 m) artesian head. Clay soil is underlain by claystone and shale. Clay slab moves as a coherent mass up to 1 ft. (0.3 m) per year; very susceptible to more rapid sliding when overloaded by fill or structure and by excavations that break the continuity of slope. Recent soil slips (earth flows) as much as 40,000 square feet (3,700 square meters) in size are common.



SOIL AND ROCK SUSCEPTIBLE TO LANDSLIDING

Soil and rock similar to that involved in landslides elsewhere in map area; primarily areas underlain by claystone, mudstone and shale associated with other rock types. Rock weathers rapidly on exposure forming clayey soil highly susceptible to sliding.

AREAS LEAST PRONE TO LANDSLIDES

Map areas in which no patterns or symbols are shown; primarily valley floors, ridge tops and broad benches; modification by excavation and fill may lead to local landslides.

NOTE
Information shown is intended as a general guide to ground conditions as of the date of field check. Additional landslides and rockfalls should be anticipated in all map units. The map unit depicts the dominant condition in the area delineated and variations in slope stability may occur at any point in the unit. This map is suitable for general planning purposes and as a supplement to more detailed studies for site selection. The map cannot be used as a substitute for detailed geologic and engineering investigations to establish design and construction criteria of specific sites. Some symbols may not appear on this map because the description is applicable to a series of maps.

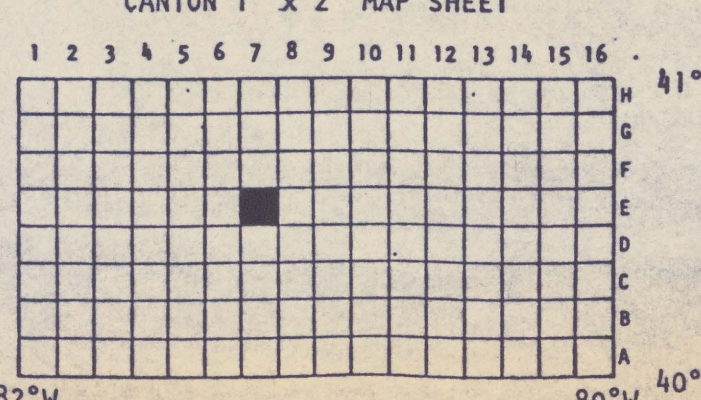
MAN-MADE FEATURES

Strip mines (combination of letter symbols indicates complex formed of more than one type of strip mine)
sh bench with high wall
sf furrowed with high wall
sd multiple furrows and multiple benches
srg reclaimed by grading
sru reclaimed by secondary use
sh/r regraded in part, high wall remains

Coal refuse banks
r identified on aerial photographs; not classified in field check
rb not burnt nor on fire
rbb burnt
rbd burning
rbs sludge

Quarries
q quarry site
qub spoil bank, quarry waste
Gravel pits
g site of gravel pit
Slides in man-made features
a/f earth flow in fill
a/s earth flow in strip castings
a/r earth flow in coal refuse

CANTON 1° x 2° MAP SHEET



M(200)
R290
no. 78-1057
Dellroy, OH
no. E-7
c.1

U.S. GEOLOGICAL SURVEY
RESTON, VA
LIBRARY
3 1818 00364409 1