

U. S. GEOLOGICAL SURVEY  
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The U. S. Geological Survey is releasing in open files the following reports. Copies are available for consultation in the Geological Survey Libraries, 1033 GSA Bldg., Washington, D.C. 20242; Bldg. 25, Federal Center, Denver, Colo. 80225; and 345 Middlefield Rd., Menlo Park, Calif. 94025. Copies are also available for consultation in other offices as listed:

1. Lithologic logs of six exploratory holes (UCe-9, -10, -11, -12a, -13, and -14) drilled in alluvium in central Nevada, by G. S. Corchary. 19 p., 1 fig., 6 tables. 1012 Federal Bldg., Denver, Colo. 80202; 504 Custom House, San Francisco, Calif. 94111; 7638 Federal Bldg., Los Angeles, Calif. 90012; 8102 Federal Office Bldg., Salt Lake City, Utah 84111; Library, Mackay School of Mines, University of Nevada, Reno, Nev. 89507.

68-136 ✓ 2. Preliminary materials map of the Woronoco quadrangle, Massachusetts, by G. William Holmes. 1 map (scale 1:24,000), 8 data sheets. Massachusetts Dept. of Public Works, 100 Nashua St., Boston, Mass. 02114; and USGS, 80 Broad St., Boston, Mass. 02110. Material from which copy can be made at private expense is available in the USGS Boston office.

3. Imagery of craters produced by missile impacts, by H. J. Moore, Reuben Kachadoorian, and J. F. McCauley. 38 p., 17 figs., 1 table. 601 E. Cedar Ave., Flagstaff, Ariz. 86001.

4. Principal facts for gravity stations in northeastern Washington, by W. E. Davis, and W. T. Kinoshita. 14 p. 504 Custom House, San Francisco, Calif., 94111; 7638 Federal Bldg., Los Angeles, Calif. 90012; 678 U.S. Court House Bldg., Spokane, Wash., 99201; Washington Division of Mines and Geology, Dept. of Natural Resources, 335 General Administration Bldg., Olympia, Wash. 98501.

The following four reports are available for consultation in the three U. S. Geological Survey Libraries listed in opening paragraph above, as well as at the Kentucky Geological Survey, 307 Mineral Industries Bldg., University of Kentucky, Lexington, Ky. 40506; and USGS, 710 West High St., Lexington, Ky. 40508. Material from which reproduction can be made at private expense is available in the Lexington office of USGS.

5. Preliminary structure map of the Ford quadrangle, central Kentucky, by D. F. B. Black. 1 map, scale 1:24,000.

6. Preliminary structure map of the Salvisa quadrangle, central Kentucky, by Earle R. Cressman. 1 map, scale 1:24,000.

7. Preliminary structure map of the Nicholasville quadrangle, Jessamine and Fayette Counties, Kentucky, by W. C. MacQuown. 1 map, scale 1:24,000.

8. Preliminary structure map of the Little Hickman quadrangle, central Kentucky, by Don E. Wolcott. 1 map, scale 1:24,000.

Field and megascopic observations:

Station number 1

Active

Location: County Hampden Town Westfield Pit  Inactive

42°08.5' N

Road location Off Montgomery Road Coordinates 72°46' W

Geologic unit or occurrence Delta deposit

Textural description Cobble gravel Eng. Soil Type GW

Dimensions of deposit: Areal extent 6000' x 6000' Estimated thickness 60'

Dimensions of pit: Areal extent 500' x 500' Exposed thickness 20'

Lithologic composition (approximate %) \_\_\_\_\_

Grain size: Maximum 10" Mean 1 mm Est. % of sand 50 Est. % fines 2

Rounding Well Grading Well Sorting Medium well

Soil development 6-12" Sandy A-B horizon Color Light brown

Oxidation or staining 12" Leaching --

Secondary deposition -- Reactive matter --

Section:

Slumped

No delta bedding seen

Rock type	
Gneiss	19
Granitic	41
Quartzite	30
Mafic	8
Schist	2

General Description: Very large shallow pit of high-quality coarse clean gravel. Land valuable because of encroaching housing development.

WOTONOCO  
 MASS.  
 STATE  
 GEOLOGIST  
 G. W. Holmes  
 DATE  
 JULY, 1966  
 PROJECT  
 MASS. MATERIALS

Field and microscopic observations:

Station number 2

Location: County Hampden Town Westfield Pit X Active  
Inactive  
42°08.5' N  
 Road location Pochassic Coordinates 72°46' W

Geologic unit or occurrence Delta

Textural description Cobble gravel Coarse sand Eng. Soil Type GW  
SW

Dimensions of deposit: Areal extent 6000x6000' Estimated thickness 60'

Dimensions of pit: Areal extent 1000x800' Exposed thickness 12'

Lithologic composition (approximate %) \_\_\_\_\_

Grain size: Maximum 8" Mean 1 mm Est. % of sand 70 Est. % fines 1

Rounding Well Grading Well Sorting Medium

Soil development Stripped Color Reddish brown (spoil)

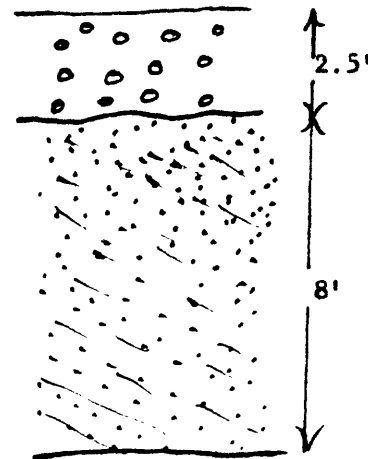
Oxidation or staining 1-2' Leaching --

Secondary deposition -- Reactive matter --

QUADRANGLE Woronoco  
 STATE Mass.  
 GEOLOGIST G. W. Holmes  
 DATE July, 1966  
 PROJECT Mass. materials

Section:

Rock type	%
Gneiss	22
Granitic	28
Quartzite	39
Mafic	1
Schist	1
Limestone	5
Miscellaneous	4



General Description: Very large active pit (W. E. Moore, Inc.). Good to fair quality gravel and large quantity of gray coarse clean sand in sporadic exposures in foreset beds. Topset-foreset interface about 203'.

Field and megascopic observations:

Station number 3

Location: County Hamden Town Westfield Pit X Active Inactive

Road location Near end of Pochassie St, Coordinates 42009'N 72048'W

Geologic unit or occurrence Stream terrace deposit

Textural description Cobble gravel Eng. Soil Type GP

Dimensions of deposit: Areal extent 2000x5000' Estimated thickness 70'

Dimensions of pit: Areal extent 200x200' Exposed thickness 18'

Lithologic composition (approximate %) Quartzite 30, granitic 30, gneiss 30, schist 10

Grain size: Maximum 1.5 Mean 1/2" Est. % of sand 30 Est. % fines 3

Rounding Well Grading Medium Sorting Medium

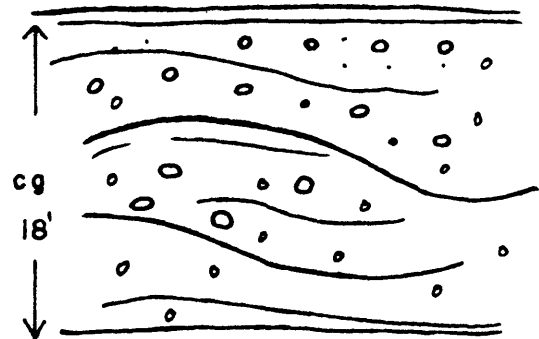
Soil development Thin (.5') A horizon Indistinct B Color Brown Yellow

Oxidation or staining Slight staining to base Leaching --

Secondary deposition -- Reactive matter --

Section:

Rock type	



General Description: Nearly uniform section of cobble gravel with gently undulating channel bedding and a few undulating lenses of sand Ca. 1' thick used for bank run gravel.

MASS. MATERIALS PROJECT  
 DATE Aug., 1966  
 GEOLOGIST G. W. Holmes  
 STATE MASS.  
 QUADRANGLE Worcester

Field and megascopic observations:

Station number 4

Location: County Hampden Town Westfield Pit x Active  
Inactive

42°09'

Read location End of Eghassic St. Coordinates 72°48' W

Geologic unit or occurrence Stream terrace deposit

Textural description Gravel of mixed sizes Eng. Soil Type GW

Dimensions of deposit: Areal extent 4400' x 2000' Estimated thickness 130'

Dimensions of pit: Areal extent 500' x 600' Exposed thickness 45'

Lithologic composition (approximate %) Quartzite 30, granite 30, gneiss 20,  
schist 20

Grain size: Maximum 3' Mean 1/2" Est. % of sand 60 Est. % fines 5

Rounding Well Grading Well Sorting Medium

Soil development 1/2 ft. Brown A Indistinct B Color Brown  
Lt. yellow

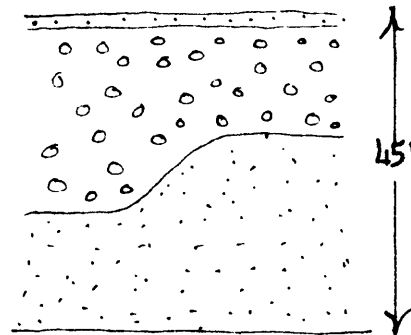
Oxidation or staining To about 20' Leaching --

Secondary deposition \_\_\_\_\_ Reactive matter \_\_\_\_\_

Section: Extremely variable

Over 300'-400' Exp.

Rock type	



General Description: Texture and bedding variable but essentially channeled to well-stratified flat-bedded gravel and sand. Single section not too illustrative. Good quality, large quantity of gravel and sand for washed aggregate.

Moronoco  
 QUADRANGLE  
 Mass.  
 STATE  
 G. W. Holmes  
 GEOLOGIST  
 August, 1966  
 DATE  
 Mass. materials  
 PROJECT

Field and megascopic observations:

Station number 5

Location: County Hampden Town Westfield Pit X Active  
Inactive

42°11'N

Road location Off Russellville Rd. Coordinates 72°46'W

Geologic unit or occurrence St. Terrace deposits

Textural description Gravel of mixed sizes Eng. Soil Type GW

Dimensions of deposit: Areal extent 1/2 mile Estimated thickness 50'

Dimensions of pit: Areal extent <sup>est.</sup> 300x300' Exposed thickness 10'

Lithologic composition (approximate %) quartzite 30  
Gneiss 30, granite 30, schist 10,

Grain size: Maximum\* 5" Mean 1 mm Est. % of sand 70 Est. % fines 10

Rounding Well Grading Well Sorting Medium

Soil development -- Color --

Oxidation or staining -- Leaching --

Secondary deposition -- Reactive matter --

MASS. QUADRANGLE STATE GEOLOGIST PROJECT  
 U. V. Holmes  
 August, 1966  
 MASS. MATERIALS

Section:

Slumped and overgrown

Rock type	

General Description: Abandoned for estimated several decades. Capped with sand. Reported because of quarry symbol on topo map. Large area of poor residential property underlain by s and g in vicinity.

\* A few 5-8' boulders.

Field and megascopic observations:

Station number 6  
 Active  
 Inactive  
 42°11.5'N  
 72°51'W

Location: County Hamden Town Russell Pit x  
 Road location Carrington Road Coordinates 72°51'W

Geologic unit or occurrence Stream terrace deposit

Textural description Gravel of mixed sizes Eng. Soil Type GW

Dimensions of deposit: Areal extent 2000' x 200' Estimated thickness 100'

Dimensions of pit: Areal extent 100' x 100' Exposed thickness 45'

Lithologic composition (approximate %) \_\_\_\_\_

Grain size: Maximum 4' Mean 0.08" Est. % of sand 50-60 Est. % fines 5-10  
 Sub-rounded to \_\_\_\_\_

Rounding Sub-angular Grading Med. to well Sorting Med. to poor

Soil development A - 4"; B - 15-18" Color 10 YR dry 7/4

Oxidation or staining \_\_\_\_\_ Leaching \_\_\_\_\_

Secondary deposition \_\_\_\_\_ Reactive matter None noted

Section:

Rock type	%
Granite	48
Mafic	24
Quartzite	24
Quartz	2
Gneiss	2

General Description:

Slump obscures section. Dip and collapse present. Fines are stratified above a 4' cobble-gravel layer.

HORNOCK  
 QUADRANGLE  
 MASSACHUSETTS  
 STATE  
 G. C. Kelley  
 GEOLOGIST  
 8-7-67  
 DATE  
 MASS. MATERIALS  
 PROJECT

Field and microscopic observations:

Station number 7

Location: County Hampshire Town Huntington Pit  Active  Inactive  
 Road location South of Rt. 112 Coordinates 42°14'N 72°52.5'W

Geologic unit or occurrence Stream terrace deposit

Textural description Gravel of mixed sizes Eng. Soil Type GW

Dimensions of deposit: Areal extent 1000' x 200' Estimated thickness 40'

Dimensions of pit: Areal extent 50' x 75' Exposed thickness 15'

Lithologic composition (approximate %) \_\_\_\_\_

Grain size: Maximum 7' Mean 0.04" Est. % of sand 50 Est. % fines 40

Rounding Sub-rounded Grading Med. to well Sorting Poor to medium

Soil development A = 5"; B = 10" Color 10 YR 5/1 - 5/2

Oxidation or staining -- Leaching --

Secondary deposition -- Reactive matter Minor CaCO<sub>3</sub>

Section:

Rock type	%
Quartz	8
Amphibolite	38
Phyllite	10
Granite	30
Quartzite	12
Schist	2

General Description:

Pit surface slump obscures section. Large cobbles concentrated in the 2' below B Zone.

QUADRANGLE: Woronoco STATE: Massachusetts GEOLOGIST: G. C. Kelley DATE: 8-7-67 PROJECT: Mass. Materials