PRELIMINARY MATERIALS MAP, ASHLEY FALLS
QUADRANGLE, MASSACHUSETTS-CONNECTICUT

BY

G. WILLIAM HOLMES

U. S. Geological Survey;


64-79

30 JUN 1964
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3. Preliminary materials map, Ashley Falls quadrangle, Massachusetts-Connecticut, by G. William Holmes. 1 map, scale 1:24,000; 22 data sheets. Room 1, 270 Dartmouth St., Boston, Mass.; Massachusetts Dept. of Public Works, 100 Nashua St., Boston, Mass.; U. S. Bureau of Public Roads, 31 St. James Ave., Boston, Mass. Copies from which reproductions can be made at private expense are available for this and the following 3 reports at the 270 Dartmouth St. address.


5. Preliminary materials map, Massachusetts portion of the State Line quadrangle, Massachusetts-New York, by G. William Holmes. 1 map, scale 1:24,000; 11 data sheets. Room 1, 270 Dartmouth St., Boston, Mass.; Massachusetts Dept. of Public Works, 100 Nashua St., Boston, Mass.; U. S. Bureau of Public Roads, 31 St. James Ave., Boston, Mass. (See note beneath Item 3 above)

6. Preliminary materials map, Stockbridge quadrangle, Massachusetts, by G. William Holmes. 1 map, scale 1:24,000; 7 data sheets. Room 1, 270 Dartmouth St., Boston, Mass.; Massachusetts Dept. of Public Works, 100 Nashua St., Boston, Mass.; U. S. Bureau of Public Roads, 31 St. James Ave., Boston, Mass. (See note beneath Item 3 above)
Field and megascopic observations:  

Station number | 1  
---|---
Location:  
County | Litchfield  
Town | North Canaan  
Pit |  
Intersect. Canaan Valley Road  
Road location | and Conn.-U.S. Rt. 44  
Coordinates | 73°16'  

Geologic unit or occurrence | delta  
Textural description | pebble sand  
Eng. Soil Type | SP  
Dimensions of deposit:  
Areal extent | 8500' x 3000'  
Estimated thickness | 100' single wall  
Dimensions of pit:  
Areal extent | 250'  
Exposed thickness | 40'-50'  
Lithologic composition (approximate %)  
Grain size:  
Maximum | 5''  
Mean | 0.75''  
Est. % of sand | 75%  
Est. % fines | 2%  
Rounding | subrounded to rounded  
Grading | poor  
Sorting | well sorted  
Soil development |  
Color |  
Oxidation or staining |  
Leaching |  
Secondary deposition | calciche (as pebble coatings and crusts)  
Reactive matter | CaCO₃  

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartzite</td>
<td>76</td>
</tr>
<tr>
<td>Sandstone, conglomerate</td>
<td>1</td>
</tr>
<tr>
<td>Limestone, dolostone, marble</td>
<td>2</td>
</tr>
<tr>
<td>Igneous</td>
<td>2</td>
</tr>
<tr>
<td>Gneiss</td>
<td>6</td>
</tr>
<tr>
<td>Schists (chlorite, quartz, muscovite)</td>
<td>8</td>
</tr>
<tr>
<td>Free quartz</td>
<td>2</td>
</tr>
<tr>
<td>Miscellaneous includes goethite, limonite, and ferruginous breccia or conglomerate</td>
<td>3</td>
</tr>
</tbody>
</table>

General Description:  Pit wall is badly slumped. Textural description is of materials as they appear in slump debris: 4' exposure at top of wall shows coarse pebbly sand interbedded with sandy pebble gravel. Pit itself is at downstream edge of delta.
Field and megascopic observations:

Location: County Litchfield Town North Canaan Pit X
Just north of Conn.-U.S. Road location Rt. 1/2, 500' west of Canaan Valley Road

Geologic unit or occurrence delta

Textural description pebble sand Eng. Soil Type SP

Dimensions of deposit: Areal extent 8'000' x 3'000' Estimated thickness 100'

Dimensions of pit: Areal extent 100' x 150' Exposed thickness 40'

Lithologic composition (approximate %)

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartzite</td>
<td>76</td>
</tr>
<tr>
<td>Sandstone, conglomerate</td>
<td>2</td>
</tr>
<tr>
<td>Limestone, dolostone, marble</td>
<td>7</td>
</tr>
<tr>
<td>Igneous mafic felsic</td>
<td>4</td>
</tr>
<tr>
<td>Gneiss</td>
<td>3</td>
</tr>
<tr>
<td>Schists (chlorite, quartz muscovite)</td>
<td>3</td>
</tr>
<tr>
<td>Free quartz</td>
<td>3</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>2</td>
</tr>
</tbody>
</table>

General Description: Pit itself lies at southern edge of delta. Exposed materials consist of 15' to 20' of interbedded coarse pebble gravel and medium to coarse pebble sand, as topset beds, overlying 15' of well-stratified medium to coarse sandy foreset beds. Foresets dip steeply to southwest. No evidence of collapse. Nearly vertical sandy faces contain higher percent of silty fines.
Field and megascopic observations:

Station number 3

<table>
<thead>
<tr>
<th>Location: County</th>
<th>Litchfield</th>
<th>Town North Canaan Pit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town</td>
<td>North Canaan</td>
<td></td>
</tr>
<tr>
<td>Road location</td>
<td>Road: 7 mi. north of Canaan Valley</td>
<td></td>
</tr>
<tr>
<td>Coordinates</td>
<td>Conn.-U.S. Ht. 44</td>
<td></td>
</tr>
<tr>
<td>Geologic unit or occurrence</td>
<td>delta</td>
<td></td>
</tr>
<tr>
<td>Textural description</td>
<td>sandy gravel</td>
<td></td>
</tr>
<tr>
<td>Eng. Soil Type</td>
<td>GW</td>
<td></td>
</tr>
<tr>
<td>Dimensions of deposit:</td>
<td>Areal extent 3000' x 8500' Estimated thickness 100'</td>
<td></td>
</tr>
<tr>
<td>Dimensions of pit:</td>
<td>Areal extent 250' x 175' Exposed thickness 15'</td>
<td></td>
</tr>
<tr>
<td>Lithologic composition (approximate %)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grain size: Maxumum</td>
<td>8&quot;</td>
<td>Mean 1&quot;</td>
</tr>
<tr>
<td>Rounding</td>
<td>subrounded</td>
<td>Grading</td>
</tr>
<tr>
<td>Soil development</td>
<td>stripped</td>
<td>Color</td>
</tr>
<tr>
<td>Oxidation or staining</td>
<td>16&quot;-30&quot; B horizon</td>
<td>Leaching</td>
</tr>
<tr>
<td>Secondary deposition on pebbles</td>
<td>Reactive matter</td>
<td>CaCO₃</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartzite</td>
<td>69</td>
</tr>
<tr>
<td>Sandstone, conglomerate</td>
<td>7</td>
</tr>
<tr>
<td>Limestone, dolostone, marble</td>
<td>4</td>
</tr>
<tr>
<td>Gneiss</td>
<td>5</td>
</tr>
<tr>
<td>Schists (chlorite, quartz, muscovite)</td>
<td>5</td>
</tr>
<tr>
<td>Igneous felsic</td>
<td>6</td>
</tr>
<tr>
<td>Free quartz</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>4</td>
</tr>
</tbody>
</table>

General Description: A broad, shallow pit exposing 5' to 15' of horizontally stratified interbedded coarse gravel; fine to coarse sand; and silty sand.
Field and megascopic observations:

Station number 4

Location: County Litchfield Town North Canaan Pit
Northwest side of Canaan Valley
Road location Road: 7 mi. north of Coordinates
Com.-Rt. 44

Geologic unit or occurrence Qd Delta deposit

Textural description pebbly sand Eng. Soil Type SW

Dimensions of deposit: Areal extent 3000' x 8500' Estimated thickness 100'

Dimensions of pit: Areal extent 200' x 300' Exposed thickness 25'

Lithologic composition (approximate %)

Grain size: Maximum 8" Mean .75" Est. % of sand 65 Est. % fines 8

Rounding rounded Grading well graded Sorting poor

Soil development stripped Color 1'-2' of B horizon remains:

Oxidation or staining Variable Fe₂O₃ staining to 2' 59.5' Leaching

Secondary deposition coatings Reactive matter CaCO₃

Section:

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartzite</td>
<td>69</td>
</tr>
<tr>
<td>Sandstone, conglomerate</td>
<td></td>
</tr>
<tr>
<td>Limestone, dolostone, marble</td>
<td>2</td>
</tr>
<tr>
<td>Gneiss</td>
<td>1</td>
</tr>
<tr>
<td>Schist</td>
<td>12</td>
</tr>
<tr>
<td>Igneous</td>
<td></td>
</tr>
<tr>
<td>mafic</td>
<td>8</td>
</tr>
<tr>
<td>felsic</td>
<td></td>
</tr>
<tr>
<td>Free quartz</td>
<td>4</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>4</td>
</tr>
</tbody>
</table>

General Description: Walls of pit are badly slumped. One small exposure shows 2' to 5' of topset interbedded silty coarse sand and silty pebble gravel over 3' to 5' of medium to coarse-grained sandy foresets.
Field and megascopic observations:

Location: County Litchfield
Town North Canaan Pit
Road location Road: 1300' north of
Coordinates 73°17'

Geologic unit or occurrence Delta

Textural description pebbly sand

Dimensions of deposit: Areal extent 3000' x 8500' Estimated thickness 100'

Dimensions of pit: Areal extent 100' x 100' Exposed thickness 30'

Lithologic composition (approximate %)

Grain size: Maximum 6'' Mean 0.25'' Est. % of sand 75% Est. % fines 3-5

Rounding rounded Grading medium Sorting medium

Soil development A stripped Color

Oxidation or staining sandy topset beds Leaching

Secondary deposition some caliche Reactive matter CaCO₃

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartzite</td>
<td>66</td>
</tr>
<tr>
<td>Sandstone, conglomerate*</td>
<td>6</td>
</tr>
<tr>
<td>Limestone, dolostone, marble</td>
<td>5</td>
</tr>
<tr>
<td>Mafic</td>
<td>7</td>
</tr>
<tr>
<td>Igneous felsic</td>
<td></td>
</tr>
<tr>
<td>Gneiss</td>
<td>1</td>
</tr>
<tr>
<td>Schists **</td>
<td>10</td>
</tr>
<tr>
<td>Free quartz</td>
<td>2</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3</td>
</tr>
</tbody>
</table>

General Description: 6' topsets of interbedded pebble gravel and coarse silty sand, overlying 15'-20' foresets of medium to coarse sand. Section described here and illustrated is exposed on south wall of pit. Elsewhere sandy foresets show ripple marks.

* some calcareous sandstone
** chlorite and quartz muscovite
Field and megascopic observations:

Location: County Litchfield Town North Canaan Pit
1000' north of Conn.-U.S. Rt. Coordinate 73°17' W.
Road location 4/4; 1000' east of North Canaan Pit
Coordinates 73°17' W.

Geologic unit or occurrence delta

Textural description sandy gravel

Eng. Soil Type GW

Dimensions of deposit: Areal extent 3000' x 8500' Estimated thickness 100'

Dimensions of pit: Areal extent 400' x 500' Exposed thickness 20'

Lithologic composition (approximate %)

Grain size: Maximum 8' Mean 1' Est. % of sand 55 Est. % fines 3-5

Rounding rounded Grading well graded Sorting medium to poor

Weak forest soil:

Soil development 4" A, A2; 24"-36" B

Color

Oxidation or staining Leaching

Secondary deposition occasional caliche Reactive matter CaCO3

Section:

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartzite</td>
<td>65</td>
</tr>
<tr>
<td>Sandstone, conglomerate</td>
<td>3</td>
</tr>
<tr>
<td>Limestone, dolostone, marble</td>
<td>6</td>
</tr>
<tr>
<td>Gneiss</td>
<td></td>
</tr>
<tr>
<td>Schists</td>
<td>11</td>
</tr>
<tr>
<td>Igneous</td>
<td></td>
</tr>
<tr>
<td>mafic</td>
<td>5</td>
</tr>
<tr>
<td>felsic</td>
<td></td>
</tr>
<tr>
<td>Free quartz</td>
<td>5</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>5</td>
</tr>
</tbody>
</table>

chlorite and quartz muscovite

some limonite-goethite

General Description: Textural description is of materials as they appear in slump debris. Much of floor area of this pit is presently used as drainage sump and settling basin for wash plant tailings (installment just east of Allyndale Road).

One small exposure on south wall of pit shows 15' to 20' of fine to coarse sandy foresets.
Field and megascopic observations:

<table>
<thead>
<tr>
<th>Location: County Litchfield</th>
<th>Town North Canaan Pit</th>
<th>Station number 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast side of Allyndale</td>
<td>Pit x</td>
<td>Active Inactive</td>
</tr>
<tr>
<td>Road location: Road: 1100' north of</td>
<td>Coordinates 42°01' N. 73°17' W.</td>
<td></td>
</tr>
<tr>
<td>Geologic unit or occurrence</td>
<td>delta</td>
<td></td>
</tr>
</tbody>
</table>

Textural description: 

- Soil Type __________ Eng. Soil Type __________

Dimensions of deposit:

- Areal extent 3000' x 3500' Estimated thickness 100'

Dimensions of pit:

- Areal extent __________ Exposed thickness __________

Lithologic composition (approximate %)

Grain size: Maximum ____ Mean ____ Est. % of sand ____ Est. % fines __________

Rounding __________ Grading __________ Sorting __________

Soil development __________ Color __________

Oxidation or staining __________ Leaching __________

Secondary deposition __________ Reactive matter __________

<table>
<thead>
<tr>
<th>Rock type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

General Description: This pit is at present the site of a wash plant. Walls and floor of pit are littered with loam and spoil piles.
Field and megascopic observations:

Location: County Litchfield Town North Canaan Pit
North side of Conn.-U.S. Rt. 44; Location 800' west of Allyndale
Road location X Active Coordinates 42°01' N.

Geologic unit or occurrence delta

Textural description silty sand

Dimensions of deposit: Areal extent 3000' x 8500' Estimated thickness 100'

Dimensions of pit: Areal extent 300' x 300' Exposed thickness 30'

Lithologic composition (approximate %)

Grain size: Maximum 5' Mean 0.25' Est. % of sand 90 Est. % fines 4-6

Rounding subrounded

Grading poor

Sorting well sorted

Soil development 36'B

Color

Oxidation or staining

Leaching

Secondary deposition some caliche

Reactive matter CaCO₃

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartzite</td>
<td>68</td>
</tr>
<tr>
<td>Sandstone, conglomerate</td>
<td>2</td>
</tr>
<tr>
<td>Limestone, dolostone, marble</td>
<td>4</td>
</tr>
<tr>
<td>Gneiss</td>
<td>1</td>
</tr>
<tr>
<td>Schists *</td>
<td>12</td>
</tr>
<tr>
<td>Igneous mafic</td>
<td>6</td>
</tr>
<tr>
<td>Felsic</td>
<td>2</td>
</tr>
<tr>
<td>Free quartz</td>
<td>3</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>2</td>
</tr>
</tbody>
</table>

General Description: Southeast wall of pit shows silty swale deposit (10' thick) overlying 12' of well stratified fine to medium grained sand showing ripple marks. Sand is in delta foresets. Elsewhere in pit sandy foresets are capped with topsets of interbedded fine to coarse sand and sandy pebble gravel (2' to 6' thick).

* chlorite and quartz muscovite
Field and megascopic observations:

Location: County Litchfield Town North Canaan Pit Southwest side of Allyndale Pit
Road location Road: 1400' north of Coordinates 42°01'20" N. 73°17'15" W. Station number 9

Geologic unit or occurrence delta

Textural description sandy gravel

Dimensions of deposit: Areal extent 3000' x 8500' Estimated thickness 100'

Dimensions of pit: Areal extent 400' x 500' Exposed thickness 40'

Lithologic composition (approximate %)

Grain size: Maximum 8" Mean 1" Est. % of sand 50 Est. % fines 0-3

Rounding subrounded Grading medium Sorting medium

Soil development

Oxidation or staining

Leaching

Secondary deposition

Reactive matter CaCO3

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartzite</td>
<td>71</td>
</tr>
<tr>
<td>Sandstone, conglomerate</td>
<td>4</td>
</tr>
<tr>
<td>Limestone, dolostone, marble</td>
<td>5</td>
</tr>
<tr>
<td>Gneiss</td>
<td>1</td>
</tr>
<tr>
<td>Schists</td>
<td>7</td>
</tr>
<tr>
<td>Igneous mafic</td>
<td>6</td>
</tr>
<tr>
<td>Igneous felsic</td>
<td></td>
</tr>
<tr>
<td>Free quartz</td>
<td>3</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3</td>
</tr>
</tbody>
</table>

General Description: Generally poor exposures show 20'-30' of fine to coarse sandy foresets capped with 10' of pebble gravel topsets (interbedded fine sand and silt).
Field and megascopic observations:

<table>
<thead>
<tr>
<th>Station number</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location:</td>
<td>County Litchfield</td>
</tr>
<tr>
<td></td>
<td>Town North Canaan</td>
</tr>
<tr>
<td></td>
<td>Pit X</td>
</tr>
<tr>
<td></td>
<td>Active</td>
</tr>
<tr>
<td></td>
<td>Inactive</td>
</tr>
<tr>
<td>West side of unnamed road</td>
<td>42°01' N.</td>
</tr>
<tr>
<td>Road location connecting Alvydale Road</td>
<td>73°17' W.</td>
</tr>
<tr>
<td>and Conn.-U.S, Rt. 44; north of Rt. 44</td>
<td></td>
</tr>
<tr>
<td>Geologic unit or occurrence</td>
<td>delta</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Textural description</th>
<th>pebbly sand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eng. Soil Type</td>
<td>SW</td>
</tr>
<tr>
<td>Dimensions of deposit: Areal extent</td>
<td>3000' x 8500'</td>
</tr>
<tr>
<td>Estimated thickness</td>
<td>100'</td>
</tr>
<tr>
<td>Dimensions of pit:    Areal extent</td>
<td>300' x 300'</td>
</tr>
<tr>
<td>Exposed thickness</td>
<td>35'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lithologic composition (approximate %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grain size: Maximum 10&quot; Mean 7.5&quot; Est. % of sand 80 Est. % fines 3-5</td>
</tr>
<tr>
<td>Rounding</td>
</tr>
<tr>
<td>Grading</td>
</tr>
<tr>
<td>Sorting</td>
</tr>
<tr>
<td>Seil development</td>
</tr>
<tr>
<td>Color</td>
</tr>
</tbody>
</table>

| Secondary deposition | some caliche |
| Reactive matter     | CaCO₃        |

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartzites</td>
<td>82</td>
</tr>
<tr>
<td>Sandstone, conglomerate</td>
<td>3</td>
</tr>
<tr>
<td>Limestone, dolostone, marble</td>
<td>4</td>
</tr>
<tr>
<td>Gneiss</td>
<td>1</td>
</tr>
<tr>
<td>Schists</td>
<td>5</td>
</tr>
<tr>
<td>Igneous mafic</td>
<td>4</td>
</tr>
<tr>
<td>Free quartz</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>chlorite</td>
</tr>
<tr>
<td></td>
<td>limonite-goethite</td>
</tr>
</tbody>
</table>

General Description: 30' of fine to coarse sandy foresets capped with 5' interbedded pebbly sand and pebble gravel of topsets.
Field and megascopic observations:

<table>
<thead>
<tr>
<th>Location: County</th>
<th>Litchfield</th>
<th>Town</th>
<th>North Canaan</th>
<th>Pit</th>
<th>X Active</th>
</tr>
</thead>
<tbody>
<tr>
<td>North side of Moses Meade Road; 42°02'</td>
<td>800' west of College Road</td>
<td>73°16'</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Geologic unit or occurrence: outwash

Textural description: sandy gravel

Eng. Soil Type: GP

Dimensions of deposit: Areal extent 1500' x 3700' Estimated thickness 20'

Dimensions of pit: Areal extent 100' x 100' Exposed thickness 6'

Lithologic composition (approximate %)

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartzite</td>
<td>51</td>
</tr>
<tr>
<td>Sandstone, conglomerate</td>
<td>3</td>
</tr>
<tr>
<td>Limestone, dolostone, marble</td>
<td>12</td>
</tr>
<tr>
<td>Gneiss</td>
<td></td>
</tr>
<tr>
<td>Schists</td>
<td>13</td>
</tr>
<tr>
<td>Igneous, felsic</td>
<td>3</td>
</tr>
<tr>
<td>Free quartz</td>
<td>18</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
</tr>
</tbody>
</table>

General Description: Exposure shows 6' of fine pebble gravel (matrix of coarse, well-sorted sand); poorly stratified. Colors (moist):

<table>
<thead>
<tr>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>forest litter 2.5yr 2/4</td>
</tr>
<tr>
<td>A</td>
<td>sandy gravel 2.5yr 3/2</td>
</tr>
<tr>
<td>B</td>
<td>sandy gravel 5yr 4/4</td>
</tr>
<tr>
<td>C</td>
<td>sandy gravel 5yr 5/3</td>
</tr>
</tbody>
</table>
Field and macroscopic observations:

Location: County Litchfield Town North Canaan Pit
Northeast side of Allynale Road; 42°02'30"
Road location 2000' south of Conn. Coordinates 73°18'

Geologic unit or occurrence: ice contact stratified drift in kame terrace

Textural description: pebble gravel
Eng. Soil Type: GP

Dimensions of deposit:
Areal extent 16000' Estimated thickness 40'

Dimensions of pit:
Areal extent 200' x 400' Exposed thickness 15'

Lithologic composition (approximate %):

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartzite</td>
<td>81</td>
</tr>
<tr>
<td>Sandstone, conglomerate</td>
<td>2</td>
</tr>
<tr>
<td>Limestone, dolostone, marble</td>
<td>3</td>
</tr>
<tr>
<td>Gneiss</td>
<td>4</td>
</tr>
<tr>
<td>Schists</td>
<td>8</td>
</tr>
<tr>
<td>Igneous mafic</td>
<td></td>
</tr>
<tr>
<td>Igneous felsic</td>
<td></td>
</tr>
<tr>
<td>Free quartz</td>
<td>2</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
</tr>
</tbody>
</table>

Section:

occasional pale green arkose

General Description: Shallow pit walls are badly slumped. Few exposures show poorly stratified, coarse pebble gravel.
Field and megascopic observations:

Station number: 13  
Active

Location: County Litchfield  
Town North Canaan  
Pit X  
South side of Clayton Road;  
Road location just south of Conn. State Coordinates 42°03'  
47°17'40"  

Geologic unit or occurrence: ice contact stratified drift in kame terrace

Textural description: sandy gravel  
Eng. Soil Type: GW  

Dimensions of deposit:  
Areal extent: 2500' x 16000'  
Estimated thickness: 40'

Dimensions of pit:  
Areal extent: 50'-100'  
Exposed thickness: 15'

Lithologic composition (approximate %):  

Grain size:  
Maximum 1/4"  
Mean 1/2"  
Est. % of sand: 40  
Est. % fines: 2

Rounding: subrounded  
Grading: medium  
Sorting: medium

Soil development:  
1/8" B plow zone  
Color: use below  
Staining: consistent through

Oxidation or staining:  
B horizon; mottled  
Leaching: below

Secondary deposition:  
Reactive matter: CaCO₃

Section:

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartzite</td>
<td>72</td>
</tr>
<tr>
<td>Sandstone, conglomerate</td>
<td>3</td>
</tr>
<tr>
<td>Limestone, dolostone, marble</td>
<td>2</td>
</tr>
<tr>
<td>Gneiss</td>
<td>6</td>
</tr>
<tr>
<td>Schists</td>
<td>12</td>
</tr>
<tr>
<td>Igneous mafic felsic</td>
<td></td>
</tr>
<tr>
<td>Free quartz</td>
<td>3</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>2</td>
</tr>
</tbody>
</table>

General Description: Shallow pit walls are badly slumped. 3'-4' of well-graded, poorly stratified sand over 12(?) feet of well-sorted sandy pebble gravel.

Colors: (moist)  
AB: silty sand; 10yr 4/4  
B: sand; 10yr 5/6  
C: pebble gravel; 10yr 7/3
Field and megascopic observations:

Station number 14

Location: County Berkshire Town Sheffield Pit 1
Road location 200' west of Polkoff Road;
Road location line.

Geologic unit or occurrence ice contact stratified drift in kame terrace

Textural description pebbly sand

Dimensions of deposit: Areal extent 2500' x 16000'
Estimated thickness 20'

Dimensions of pit: Areal extent 400' x 1500'
Exposed thickness 20'

Lithologic composition (approximate %)

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartzite</td>
<td>67</td>
</tr>
<tr>
<td>Sandstone, conglomerate</td>
<td>2</td>
</tr>
<tr>
<td>Limestone, dolostone, marble</td>
<td>3</td>
</tr>
<tr>
<td>Gneiss</td>
<td>11</td>
</tr>
<tr>
<td>Schists</td>
<td>3</td>
</tr>
<tr>
<td>Igneous mafic</td>
<td>9</td>
</tr>
<tr>
<td>Free quartz</td>
<td>3</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3</td>
</tr>
</tbody>
</table>

General Description: Shallow pit walls badly slumped. 5' poorly stratified, well-graded pebbly sand exposed by clearing portion of pit wall. Exposures on south wall of pit show well-sorted, poorly stratified, pebble gravel. Pebble count made along south wall.
Field and megascopic observations:

Station number: 15

<table>
<thead>
<tr>
<th>Location:</th>
<th>County Berkshire</th>
<th>Town Sheffield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pit</td>
<td>900' east of relocated U.S.</td>
<td></td>
</tr>
<tr>
<td>Road location</td>
<td>Rt. 7; just north of</td>
<td></td>
</tr>
<tr>
<td>Coordinates</td>
<td>Mass. State line</td>
<td></td>
</tr>
<tr>
<td>Geologic unit or occurrence</td>
<td>ice-contact stratified drift in kame terrace</td>
<td></td>
</tr>
</tbody>
</table>

Textual description: pebble gravel  
Eng. Soil Type: GW

Dimensions of deposit: Areal extent 2000 x 8000' Estimated thickness 25'
Dimensions of pit: Areal extent 100' x 900' Exposed thickness 15'

Lithologic composition (approximate %)

| Grain size: | Maximum 5" | Mean 0.75" | Est. % of sand 35 | Est. % fines 0-3 |

Rounding: rounded  
Grading: medium  
Sorting: medium  
Stripped along south side

Soil development of pit: North wall: 6"  
Color: AB plow zone; 24"-36" B.

Oxidation or staining: slight staining  
Leaching: throughout section

Secondary deposition: some caliche  
Reactive matter: CaCO₃

Section:

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartzite</td>
<td>50</td>
</tr>
<tr>
<td>Sandstone, conglomerate</td>
<td>7</td>
</tr>
<tr>
<td>Limestone, dolostone, marble</td>
<td>19</td>
</tr>
<tr>
<td>Gneiss</td>
<td>9</td>
</tr>
<tr>
<td>Schists</td>
<td>19</td>
</tr>
<tr>
<td>Igneous mafic</td>
<td>1</td>
</tr>
<tr>
<td>Felsic</td>
<td></td>
</tr>
<tr>
<td>Free quartz</td>
<td>11</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3</td>
</tr>
</tbody>
</table>

General Description: Pit is very broad and shallow exposing 15' to 20' of well-sorted pebble gravel interbedded with sandy gravel and pebbly sand. Materials exposed on north wall are finer (sandy pebble gravel and sand).
Field and macroscopic observations:

Station number 16

Location: County Berkshire Town New Marlboro Pit X

Road location Clayton and Shumpike

Coordinates 73°17'30" W.

Geologic unit or occurrence ice contact stratified drift in kame terrace

Textural description pebble gravel (ca) 2500' x

Dimensions of deposit: Areal extent 16000' Estimated thickness 40'

Dimensions of pit: Areal extent 200' x 200' Exposed thickness 10'-25'

Lithologic composition (approximate %)

Grain size: Maximum 20" Mean 1.75" Est. % of sand 25 Est. % fines 7-9

Rounding subrounded

Grading medium

Sorting medium

Soil development 10" B

Color B 10yr 6/6 dry

Oxidation or staining Leaching

Secondary deposition

Reactive matter CaCO₃

<table>
<thead>
<tr>
<th>Rock type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartzite</td>
<td>65</td>
</tr>
<tr>
<td>Sandstone, conglomerate</td>
<td>4</td>
</tr>
<tr>
<td>Limestone, dolostone, marble</td>
<td>1</td>
</tr>
<tr>
<td>Gneiss</td>
<td>11</td>
</tr>
<tr>
<td>Schists</td>
<td>15</td>
</tr>
<tr>
<td>Igneous</td>
<td></td>
</tr>
<tr>
<td>mafic</td>
<td>2</td>
</tr>
<tr>
<td>felsic</td>
<td></td>
</tr>
<tr>
<td>Free quartz</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>2</td>
</tr>
</tbody>
</table>

General Description: Pit now occupied by auto scrap. Walls of pit are very badly slumped. 10'-25' of coarse pebble gravel; matrix of silty coarse sand and finer pebble gravel. Though predominantly pebble gravel, boulders and cobbles amount to about 10 percent of entire mass.
Field and megascopic observations:

Location: County Berkshire Town Sheffield Pit Inactive
Southwest side of relocated Road location U.S. Rt. 71 just north of Coordinates 42°05'30" N. 73°20' W.

Geologic unit or occurrence outwash terrace

Textural description sand Eng. Soil Type SW

Dimensions of deposit: Areal extent 1.5 x 2.5 mile Estimated thickness 35'

Dimensions of pit: Areal extent 150' x 300' Exposed thickness 10'

Lithologic composition (approximate %)

Grain size: Maximum 0.5" Mean .01" Est. % of sand 90 Est. % fines 7-10 very slight cohesion

Rounding subrounded Grading well graded Sorting medium all sand sizes represented.

Soil development 10" B Fe2O3 staining Color see below for soil profile and colors
Oxidation or staining throughout section Leaching

Secondary deposition  Reactive matter CaCO3

General Description: Shallow pit walls of which expose 10' of well graded, poorly stratified fine to coarse sand incorporating some silty fines. Standing water 10' below rim of pit. Sand "by the fistfull" is slightly cohesive. Pit 19 is a duplicate of pit 17.
Estimated Engineering Characteristics of Major Deposits of Unexploited Construction Materials

Geologist: G. William Holmes  Date: August 1963  Project: Mass. materials

Location: Quadrangle: Ashley Falls State Mass.  Town: Sheffield

Identifying symbol: A  Lat: 42°06' N.  Long: 72°22' W.

Road coordinates: One-fourth mile west of Route 7 on Salisbury Road

Accessibility: Adjacent to roads

Geologic unit: Outwash

Topography: Flat terrace

Water supply: Schenob Brook flows around west and north side of deposit

Estimated texture: Pebble-cobble gravel

Dimensions: Areal extent: 4000' x 4000'  Estimated thickness: 20'

Present land use: Agriculture

Local abundance of similar materials: Gravel pits within 2 miles to west

General description: Evenly bedded, moderately well sorted pebble-cobble gravel, grading into pebble sand to the southeast, occurring as featureless terrace. Part of extensive gravel outwash deposits traceable for several miles into the quadrangles to the west and northwest.

Evaluation: Suitability, and potential utilization.

Very large quantity of good-quality gravel and sand, requiring little or no washing or grading. Except for present land use, may be an important and easily exploited and transported supply of construction materials. Recovery is probably limited by high water table, estimated to be 20' or less below the surface.
## Estimated Engineering Characteristics of Major Deposits of Unexploited Construction Materials

**Geologist:** G. William Holmes  
**Date:** August 1963  
**Project:** Mass. materials  
**Location:** Quadrangle Ashley Falls State Mass. Town Sheffield  

<table>
<thead>
<tr>
<th>Identifying symbol</th>
<th>B</th>
<th>Lat</th>
<th>42°06'</th>
<th>Long</th>
<th>72°21'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read coordinates</td>
<td>About 1\frac{1}{2} miles southeast of Sheffield center and west of Route 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Accessibility:** Adjacent to highway and secondary roads

**Geologic unit:** Outwash

**Topography:** Flat terrace

**Water supply:** Is polluted

**Estimated texture:** Coarse sand and a few small pebbles

**Dimensions:** Areal extent 5000x5000', Estimated thickness 20'

**Present land use:** Pasture

**Local abundance of similar materials:** Shallow pits to the south

**General description:** Featureless terrace composed of stratified, current-bedded coarse to medium sand, with a few layers of small pebbles. Grades westward into pebble-cobble outwash deposits.

**Evaluation:** Suitability, and potential utilization.  
Very large supply of good-quality sand, easily recovered and accessible.  
May have local lenses of silt and clay-size material, such as occurs northwest of Sheffield center.
Estimated Engineering Characteristics of Major Deposits of Unexploited Construction Materials

Geologist: C. William Holmes  Date: August 1963  Project: Mass. materials

Location: Quadrangle Ashley Falls  State: Mass.  Town: Sheffield

Identifying symbol: C  Lat: 42°03' N.  Long: 73°18' W.

Read coordinates: Between Stahl and Hewins Roads, 1 mile ENE. of Ashley Falls

Accessibility: Near three secondary roads

Geologic unit: Outwash

Topography: Flat terrace

Water supply: About 1 mile north of Konkapot River, a clear stream

Estimated texture: Coarse sand and fine pebbles

Dimensions: Areal extent 8000x6000'  Estimated thickness 15-20

Present land use: Agriculture and forest

Local abundance of similar materials: Major gravel pit to the south

General description: Evenly bedded coarse sand and pebbles, grading southeastward and southward into pebble-cobble gravel.

Evaluation: Suitability, and potential utilization.

Very large supply of coarse, clean sand, easily recovered and transported.
Estimated Engineering Characteristics of Major Deposits of Unexploited Construction Materials

Geologist: C. William Holmes  Date: August 1963  Project: Mass. materials

Location: Quadrangle Ashley Falls  State: Mass.  Town: New Marlborough

Identifying symbol: D  Lat: 42°07' N.  Long: 73°16' W.

Road coordinates: On Bartaville Road ½ mile north of Mill River

Accessibility: Adjacent to hard-surfaced secondary road

Geologic unit: Kame

Topography: Humped hills with relief up to 100'

Water supply: Adjacent to Konkapot River, a clear water stream

Estimated texture: Cobble gravel with lenses of material ranging from sand to boulders

Dimensions: Areal extent: 8000x2000'  Estimated thickness: 100

Present land use: Forest. Gravel pits in southern end of kame group

Local abundance of similar materials: (see above)

General description: Well-graded materials ranging from sand to boulder sizes, poorly or chaotically bedded.

Evaluation: Suitability, and potential utilization.

Good-quality and large quantity of clean sand and gravel offering a wide range of sizes; easily accessible.
Estimated Engineering Characteristics of Major Deposits of Unexploited Construction Materials

Geologist: G. William Holmes  Date: August 1963  Project: Mass. materials

Location: Quadrangle: Ashley Falls  State: Conn.  Town: North Canaan

Identifying symbol: E  Lat: 42°01' N.  Long: 73°16' W.

Road coordinates: Along State road about ½ mile east of East Canaan

Accessibility: (see above)

Geologic unit: Outwash

Topography: Nearly flat terrace trenched by Blackberry and Whiting Rivers

Water supply: Blackberry and Whiting Rivers cross the deposit

Estimated texture: Boulder to cobble gravel

Dimensions: Areal extent: 6000' x 4000'  Estimated thickness: 15'

Present land use: Agriculture

Local abundance of similar materials: Boulder gravel not locally available elsewhere

General description:

Outwash deposit formed by meltwater streams with moderate to steep gradient, which was competent to move large cobbles and boulders. Poorly stratified and sorted.

Evaluation: Suitability, and potential utilization.

Good source of coarse, clean fill. Thickness probably limited by high water table.