

## Map Unit Description (MN)

Hubbard County, Minnesota

[Data apply to the entire extent of the map unit within the survey area. Map unit and soil properties for a specific parcel of land may vary somewhat and should be determined by onsite investigation]

### 82B--Redeye loamy sand, 1 to 6 percent slopes

#### Redeye

*Extent:* 80 percent of the unit

*Landform(s):* drumlins

*Slope gradient:* 1 to 6 percent

*Parent material:* outwash over till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .17

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.31 to 0.38 in	5.1 to 7.3
E -- 3 to 18 in	sand	rapid	1.05 to 1.50 in	5.1 to 6.5
Bw -- 18 to 26 in	loamy sand	rapid	0.55 to 0.79 in	5.6 to 6.5
2Bt1-2 -- 26 to 52 in	sandy loam	moderately slow	2.86 to 3.38 in	5.1 to 7.3
2Cd -- 52 to 60 in	sandy loam	slow	0.00 to 0.31 in	6.6 to 8.4

## Map Unit Description (MN)

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### 82C--Redeye loamy sand, 6 to 12 percent slopes

#### Redeye

*Extent:* 80 percent of the unit

*Landform(s):* drumlins

*Slope gradient:* 6 to 12 percent

*Parent material:* outwash over till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .17

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A --	0 to 3 in	loamy sand	rapid	0.31 to 0.38 in	5.1 to 7.3
E --	3 to 18 in	sand	rapid	1.05 to 1.50 in	5.1 to 6.5
Bw --	18 to 26 in	loamy sand	rapid	0.55 to 0.79 in	5.6 to 6.5
2Bt1-2 --	26 to 52 in	sandy loam	moderately slow	2.86 to 3.38 in	5.1 to 7.3
2Cd --	52 to 60 in	sandy loam	slow	0.00 to 0.31 in	6.6 to 8.4

## Map Unit Description (MN)

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### 133B--Dalbo silt loam, 2 to 8 percent slopes

#### Dalbo

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 2 to 8 percent

*Parent material:* lacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* moderately well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .37

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,E -- 0 to 6 in	silt loam	moderate	1.30 to 1.42 in	5.6 to 7.3
Bt1..BC -- 6 to 41 in	silty clay	moderately slow	3.50 to 6.31 in	5.1 to 7.3
C -- 41 to 60 in	silt loam	moderate	3.78 to 4.16 in	7.4 to 8.4

### 133C--Dalbo silt loam, 8 to 15 percent slopes

#### Dalbo

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 8 to 15 percent

*Parent material:* lacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* moderately well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 6

*Wind erodibility index (WEI):* 48

*Kw factor (surface layer)* .37

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,E -- 0 to 6 in	silt loam	moderate	1.30 to 1.42 in	5.6 to 7.3
Bt1..BC -- 6 to 41 in	silty clay	moderately slow	3.50 to 6.31 in	5.1 to 7.3
C -- 41 to 60 in	silt loam	moderate	3.78 to 4.16 in	7.4 to 8.4

## Map Unit Description (MN)

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### 139B--Huntersville loamy fine sand, 1 to 6 percent slopes

#### Huntersville

*Extent:* 80 percent of the unit

*Landform(s):* drumlins

*Slope gradient:* 1 to 6 percent

*Parent material:* outwash over till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* moderately well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,E -- 0 to 12 in	loamy fine sand	rapid	1.18 to 1.42 in	6.1 to 7.3
Bw -- 12 to 24 in	loamy sand	rapid	0.49 to 1.22 in	6.1 to 7.3
2Bt -- 24 to 40 in	sandy loam	moderately slow	1.78 to 2.10 in	6.1 to 7.3
2Cd1-2 -- 40 to 80 in	sandy loam	slow	0.00 to 1.59 in	6.6 to 7.8

## Map Unit Description (MN)

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### 147--Spoooner silt loam, 0 to 2 percent slopes

#### Spoooner

*Extent:* 90 percent of the unit

*Landform(s):* swales on lake plains

*Slope gradient:* 0 to 2 percent

*Parent material:* lacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 4L

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .37

*Land capability, nonirrigated* 2w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	silt loam	moderate	1.57 to 1.89 in	5.6 to 7.8
Eg -- 8 to 13 in	silt loam	moderately rapid	0.87 to 0.97 in	5.6 to 7.8
Btg -- 13 to 20 in	silt loam	moderate	1.20 to 1.56 in	6.1 to 7.8
Cg1..Cg3 -- 20 to 80 in	silt loam	moderate	10.17 to 13.17 in	7.4 to 8.4

### 158B--Zimmerman loamy fine sand, 1 to 6 percent slopes

#### Zimmerman

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains, valley trains

*Slope gradient:* 1 to 6 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .15

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,E -- 0 to 16 in	loamy fine sand	rapid	1.61 to 1.94 in	5.1 to 6.5
E'..E&Bt -- 16 to 60 in	fine sand	rapid	2.62 to 4.37 in	5.1 to 7.3

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### 158C--Zimmerman loamy fine sand, 6 to 12 percent slopes

#### Zimmerman

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains, valley trains

*Slope gradient:* 6 to 12 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .15

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,E -- 0 to 16 in	loamy fine sand	rapid	1.61 to 1.94 in	5.1 to 6.5
E'.E&Bt -- 16 to 80 in	fine sand	rapid	3.83 to 6.38 in	5.1 to 7.3

### 167A--Baudette silt loam, 1 to 3 percent slopes

#### Baudette

*Extent:* 85 percent of the unit

*Landform(s):* flats on lake plains, rises on lake plains

*Slope gradient:* 1 to 3 percent

*Parent material:* lacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* moderately well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 5

*Wind erodibility index (WEI):* 56

*Kw factor (surface layer)* .37

*Land capability, nonirrigated* 1

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	silt loam	moderate	0.79 to 0.87 in	5.6 to 7.3
E -- 4 to 8 in	very fine sandy loam	moderate	0.55 to 0.79 in	5.6 to 7.3
Bt1,Bt2 -- 8 to 35 in	silt loam	moderate	4.62 to 6.52 in	5.6 to 7.8
C -- 35 to 60 in	silt loam	moderate	4.22 to 5.46 in	7.4 to 8.4

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### 170--Blomford loamy fine sand, 0 to 2 percent slopes

#### Blomford

*Extent:* 85 percent of the unit

*Landform(s):* swales on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* outwash over till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .15

*Land capability, nonirrigated* 3w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 5 in	loamy fine sand	rapid	0.41 to 0.61 in	5.1 to 7.3
Eg -- 5 to 23 in	loamy fine sand	rapid	0.89 to 1.42 in	5.1 to 7.3
2Btg1-2 -- 23 to 55 in	clay loam	moderate	4.20 to 5.49 in	5.1 to 7.3
2BCg,2Cg -- 55 to 80 in	sandy clay loam	moderate	2.48 to 3.72 in	6.1 to 8.4

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### 202--Meehan loamy sand, map 22-30, 0 to 3 percent slopes

#### Meehan, map 22-30

*Extent:* 85 percent of the unit

*Landform(s):* flats on outwash plains, swales on outwash plains

*Slope gradient:* 0 to 3 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .17

*Land capability, nonirrigated* 4w

*Hydric soil:* no

*Hydrologic group:* A/D

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 6 in	loamy sand	moderately rapid	0.59 to 0.71 in	3.5 to 7.3
Bw1..Bg -- 6 to 38 in	loamy sand	rapid	1.94 to 3.55 in	3.5 to 6.5
Cg1,Cg2 -- 38 to 80 in	sand	rapid	0.83 to 2.92 in	3.5 to 7.3

### 207B--Nymore loamy sand, 2 to 6 percent slopes

#### Nymore

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 2 to 6 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .15

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loamy sand	rapid	0.79 to 0.94 in	5.1 to 6.5
BA..Bw2 -- 8 to 33 in	sand	rapid	0.50 to 2.02 in	5.1 to 7.3
C -- 33 to 60 in	sand	rapid	0.54 to 2.14 in	5.1 to 7.8

## Map Unit Description (MN)

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### 207C--Nymore loamy sand, 6 to 12 percent slopes

#### Nymore

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 6 to 12 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .15

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loamy sand	rapid	0.79 to 0.94 in	5.1 to 6.5
BA..Bw2 -- 8 to 33 in	sand	rapid	0.50 to 2.02 in	5.1 to 7.3
C -- 33 to 60 in	sand	rapid	0.54 to 2.14 in	5.1 to 7.8

### 207D--Nymore loamy sand, 12 to 20 percent slopes

#### Nymore

*Extent:* 90 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 12 to 20 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .15

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loamy sand	rapid	0.79 to 0.94 in	5.1 to 6.5
BA..Bw2 -- 8 to 33 in	sand	rapid	0.50 to 2.02 in	5.1 to 7.3
C -- 33 to 60 in	sand	rapid	0.54 to 2.14 in	5.1 to 7.8

## Map Unit Description (MN)

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### 260--Duelm loamy sand, 0 to 2 percent slopes

#### Duelm

<p><i>Extent:</i> 80 percent of the unit</p> <p><i>Landform(s):</i> swales on outwash plains, swales on valley trains</p> <p><i>Slope gradient:</i> 0 to 2 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> moderately well drained</p>	<p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 2</p> <p><i>Wind erodibility index (WEI):</i> 134</p> <p><i>Kw factor (surface layer)</i> .15</p> <p><i>Land capability, nonirrigated</i> 4s</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> A</p> <p><i>Potential for frost action:</i> moderate</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 16 in	loamy sand	rapid	1.29 to 1.94 in	5.6 to 7.3
Bw1,Bw2 -- 16 to 30 in	coarse sand	rapid	0.83 to 1.52 in	5.1 to 7.3
C1,C2 -- 30 to 80 in	coarse sand	rapid	1.00 to 3.50 in	5.6 to 7.8

### 261--Isan loamy sand, depressional, 0 to 1 percent slopes

#### Isan, depressional

<p><i>Extent:</i> 90 percent of the unit</p> <p><i>Landform(s):</i> depressions on outwash plains</p> <p><i>Slope gradient:</i> 0 to 1 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> frequent</p> <p><i>Drainage class:</i> very poorly drained</p>	<p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 2</p> <p><i>Wind erodibility index (WEI):</i> 134</p> <p><i>Kw factor (surface layer)</i> .17</p> <p><i>Land capability, nonirrigated</i> 5w</p> <p><i>Hydric soil:</i> yes</p> <p><i>Hydrologic group:</i> A/D</p> <p><i>Potential for frost action:</i> moderate</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1..A3 -- 0 to 11 in	loamy sand	rapid	0.88 to 1.32 in	5.6 to 7.3
Bg -- 11 to 15 in	loamy sand	rapid	0.24 to 0.39 in	5.1 to 6.5
Cg1..Cg3 -- 15 to 80 in	coarse sand	rapid	2.60 to 3.90 in	5.6 to 7.3

## Map Unit Description (MN)

Hubbard County, Minnesota

### 267B--Snellman sandy loam, 2 to 8 percent slopes

#### Snellman

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 8 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	sandy loam	moderately rapid	0.26 to 0.35 in	5.1 to 6.5
E1,E2 -- 2 to 16 in	loamy sand	moderate	1.28 to 1.98 in	5.1 to 6.5
Bt1,Bt2 -- 16 to 31 in	sandy clay loam	moderate	1.80 to 2.69 in	5.6 to 7.3
Bk -- 31 to 41 in	sandy loam	moderate	1.08 to 1.57 in	7.4 to 8.4
C -- 41 to 80 in	sandy loam	moderate	4.29 to 6.24 in	7.4 to 8.4

## Map Unit Description (MN)

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### 346--Talmoon loam, 0 to 2 percent slopes

#### Talmoon

*Extent:* 90 percent of the unit

*Landform(s):* swales on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 5

*Wind erodibility index (WEI):* 56

*Kw factor (surface layer)* .37

*Land capability, nonirrigated* 2w

*Hydric soil:* yes

*Hydrologic group:* C/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loam	moderate	0.63 to 0.69 in	5.1 to 7.3
Eg -- 3 to 14 in	very fine sandy loam	moderate	1.43 to 2.43 in	5.1 to 7.3
Btg1-2 -- 14 to 55 in	clay loam	moderately slow	6.55 to 7.78 in	5.6 to 7.3
Cg -- 55 to 80 in	clay loam	moderately slow	3.72 to 4.71 in	7.4 to 8.4

## Map Unit Description (MN)

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### 406A--Dorset sandy loam, 0 to 2 percent slopes

#### Dorset

*Extent:* 90 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .17

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 11 in	sandy loam	moderately rapid	1.43 to 1.65 in	5.6 to 7.3
Bt1,Bt2 -- 11 to 20 in	sandy loam	moderately rapid	1.09 to 1.72 in	5.6 to 7.3
2Bk -- 20 to 38 in	gravelly coarse sand	rapid	1.09 to 1.81 in	7.4 to 8.4
2C -- 38 to 80 in	gravelly coarse sand	rapid	0.83 to 1.67 in	7.4 to 8.4

## Map Unit Description (MN)

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### 488--Becida fine sandy loam, morainic, 0 to 2 percent slopes, stony

#### Becida, morainic, stony

*Extent:* 85 percent of the unit

*Landform(s):* swales on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 3w

*Hydric soil:* yes

*Hydrologic group:* C/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 5 in	fine sandy loam	moderate	0.67 to 0.92 in	5.6 to 7.3
Eg -- 5 to 12 in	loamy sand	moderate	0.80 to 1.07 in	5.6 to 6.5
E/B -- 12 to 29 in	sandy loam	moderate	2.08 to 2.77 in	5.1 to 6.5
Btg..Bt2 -- 29 to 65 in	sandy loam	slow	0.72 to 2.15 in	5.1 to 6.5
BCd -- 65 to 80 in	fine sandy loam	slow	0.00 to 0.60 in	6.6 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 526C--Steamboat-Two Inlets-Seelyeville complex, pitted, 0 to 15 percent slopes

#### Steamboat, pitted

*Extent:* 40 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 3 to 15 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 4e

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sandy loam	moderately rapid	0.41 to 0.57 in	5.1 to 6.5
E,E/B -- 3 to 35 in	loamy sand	moderate	2.87 to 5.42 in	5.1 to 6.5
Bt -- 35 to 46 in	sandy loam	moderately slow	1.32 to 2.09 in	5.3 to 7.3
C1,C2 -- 46 to 80 in	fine sandy loam	moderate	3.39 to 5.42 in	7.4 to 7.8

#### Two Inlets, pitted

*Extent:* 30 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 3 to 15 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	loamy sand	rapid	0.20 to 0.24 in	5.6 to 7.3
E -- 2 to 9 in	gravelly loamy coarse sand	rapid	0.64 to 0.78 in	5.6 to 7.3
Bt -- 9 to 19 in	gravelly loamy coarse sand	rapid	0.89 to 1.08 in	5.6 to 7.3
C -- 19 to 80 in	gravelly coarse sand	very rapid	1.22 to 2.44 in	6.6 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 526C--Steamboat-Two Inlets-Seelyeville complex, pitted, 0 to 15 percent slopes

#### Seelyeville, pitted

*Extent:* 20 percent of the unit

*Landform(s):* depressions on moraines

*Slope gradient:* 0 to 1 percent

*Parent material:* herbaceous organic material

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 2

*Wind erodibility group (WEG):* 8

*Wind erodibility index (WEI):* 0

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 8w

*Hydric soil:* yes

*Hydrologic group:* A/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1,Oa2 -- 0 to 18 in	muck	moderately rapid	6.34 to 8.15 in	
Oa3..Oa5 -- 18 to 60 in	muck	moderately rapid	14.61 to 18.78 in	

## Map Unit Description (MN)

Hubbard County, Minnesota

### 526E--Steamboat-Two Inlets-Seelyeville complex, pitted, 0 to 35 percent slopes

#### Steamboat, pitted

*Extent:* 45 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 15 to 35 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 6e

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sandy loam	moderately rapid	0.41 to 0.57 in	5.1 to 6.5
E,E/B -- 3 to 35 in	loamy sand	moderate	2.87 to 5.42 in	5.1 to 6.5
Bt -- 35 to 46 in	sandy loam	moderately slow	1.32 to 2.09 in	5.3 to 7.3
C1,C2 -- 46 to 80 in	fine sandy loam	moderate	3.39 to 5.42 in	7.4 to 7.8

#### Two Inlets, pitted

*Extent:* 25 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 15 to 35 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	loamy sand	rapid	0.20 to 0.24 in	5.6 to 7.3
E -- 2 to 9 in	gravelly loamy coarse sand	rapid	0.64 to 0.78 in	5.6 to 7.3
Bt -- 9 to 19 in	gravelly loamy coarse sand	rapid	0.89 to 1.08 in	5.6 to 7.3
C -- 19 to 80 in	gravelly coarse sand	very rapid	1.22 to 2.44 in	6.6 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 526E--Steamboat-Two Inlets-Seelyeville complex, pitted, 0 to 35 percent slopes

#### Seelyeville, pitted

<p><i>Extent:</i> 20 percent of the unit</p> <p><i>Landform(s):</i> depressions on moraines</p> <p><i>Slope gradient:</i> 0 to 1 percent</p> <p><i>Parent material:</i> herbaceous organic material</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> frequent</p> <p><i>Drainage class:</i> very poorly drained</p>	<p><i>Soil loss tolerance (T factor):</i> 2</p> <p><i>Wind erodibility group (WEG):</i> 8</p> <p><i>Wind erodibility index (WEI):</i> 0</p> <p><i>Kw factor (surface layer)</i> .02</p> <p><i>Land capability, nonirrigated</i> 8w</p> <p><i>Hydric soil:</i> yes</p> <p><i>Hydrologic group:</i> A/D</p> <p><i>Potential for frost action:</i> high</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1,Oa2 -- 0 to 18 in	muck	moderately rapid	6.34 to 8.15 in	
Oa3..Oa5 -- 18 to 60 in	muck	moderately rapid	14.61 to 18.78 in	

### 540--Seelyeville muck, depressional, map 22-30, 0 to 1 percent slopes

#### Seelyeville, depressional, map 22-30

<p><i>Extent:</i> 90 percent of the unit</p> <p><i>Landform(s):</i> depressions on lake plains, depressions on moraines, depressions on outwash plains</p> <p><i>Slope gradient:</i> 0 to 1 percent</p> <p><i>Parent material:</i> herbaceous organic material</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> frequent</p> <p><i>Drainage class:</i> very poorly drained</p>	<p><i>Soil loss tolerance (T factor):</i> 2</p> <p><i>Wind erodibility group (WEG):</i> 2</p> <p><i>Wind erodibility index (WEI):</i> 134</p> <p><i>Kw factor (surface layer)</i> .02</p> <p><i>Land capability, nonirrigated</i> 6w</p> <p><i>Hydric soil:</i> yes</p> <p><i>Hydrologic group:</i> A/D</p> <p><i>Potential for frost action:</i> high</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1 -- 0 to 10 in	muck	moderately rapid	3.44 to 4.43 in	
Oa2..Oa5 -- 10 to 80 in	muck	moderately rapid	24.53 to 31.54 in	

## Map Unit Description (MN)

Hubbard County, Minnesota

### 541--Rifle mucky peat, depressional, map 22-30, 0 to 1 percent slopes

#### Rifle, depressional, map 22-30

*Extent:* 90 percent of the unit

*Landform(s):* depressions on lake plains, depressions on moraines, depressions on outwash plains

*Slope gradient:* 0 to 1 percent

*Parent material:* herbaceous organic material

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 2

*Wind erodibility group (WEG):* 5

*Wind erodibility index (WEI):* 56

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 6w

*Hydric soil:* yes

*Hydrologic group:* A/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oe1 -- 0 to 14 in	mucky peat	moderately rapid	6.80 to 8.22 in	
Oe2,Oe3 -- 14 to 60 in	mucky peat	moderately rapid	21.92 to 26.49 in	

### 545--Rondeau muck, depressional, 0 to 1 percent slopes

#### Rondeau, depressional

*Extent:* 90 percent of the unit

*Landform(s):* depressions on moraines, depressions on outwash plains

*Slope gradient:* 0 to 1 percent

*Parent material:* organic material over marl

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 1

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 6w

*Hydric soil:* yes

*Hydrologic group:* A/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa..Oa3 -- 0 to 44 in	muck	moderately rapid	15.43 to 21.17 in	
Cg1,Cg2 -- 44 to 60 in	marl	slow	3.15 to 3.46 in	

## Map Unit Description (MN)

Hubbard County, Minnesota

### 567A--Verndale sandy loam, 0 to 2 percent slopes

#### Verndale

*Extent:* 90 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 2

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	sandy loam	moderately rapid	1.18 to 1.54 in	5.6 to 7.3
Bt1,Bt2 -- 9 to 19 in	sandy loam	moderate	1.38 to 1.77 in	5.6 to 7.3
2Bw1-2 -- 19 to 49 in	coarse sand	rapid	1.80 to 2.39 in	5.6 to 7.3
2C -- 49 to 60 in	sand	rapid	0.22 to 0.66 in	6.1 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 574G--Steamboat-Two Inlets complex, pitted, 35 to 65 percent slopes

#### Steamboat, pitted

*Extent:* 45 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 35 to 65 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 7e

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sandy loam	moderately rapid	0.41 to 0.57 in	5.1 to 6.5
E,E/B -- 3 to 35 in	loamy sand	moderate	2.87 to 5.42 in	5.1 to 6.5
Bt -- 35 to 46 in	sandy loam	moderately slow	1.32 to 2.09 in	5.3 to 7.3
C1,C2 -- 46 to 80 in	fine sandy loam	moderate	3.39 to 5.42 in	7.4 to 7.8

#### Two Inlets, pitted

*Extent:* 35 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 35 to 65 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 7s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	loamy sand	rapid	0.20 to 0.24 in	5.6 to 7.3
E -- 2 to 9 in	gravelly loamy coarse sand	rapid	0.64 to 0.78 in	5.6 to 7.3
Bt -- 9 to 19 in	gravelly loamy coarse sand	rapid	0.89 to 1.08 in	5.6 to 7.3
C -- 19 to 80 in	gravelly coarse sand	very rapid	1.22 to 2.44 in	6.6 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 628--Talmoon muck, depressional, 0 to 1 percent slopes

#### Talmoon, depressional

*Extent:* 90 percent of the unit

*Landform(s):* depressions on moraines

*Slope gradient:* 0 to 1 percent

*Parent material:* glaciolacustrine deposits over till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)*

*Land capability, nonirrigated* 6w

*Hydric soil:* yes

*Hydrologic group:* C/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa -- 0 to 10 in	muck	moderately rapid	2.46 to 3.94 in	5.1 to 7.3
Eg -- 10 to 15 in	very fine sandy loam	moderate	0.67 to 1.13 in	5.1 to 7.3
Btg1-2 -- 15 to 55 in	clay loam	moderately slow	6.43 to 7.63 in	5.6 to 7.3
Cg -- 55 to 80 in	clay loam	moderately slow	3.72 to 4.71 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 672--Willossippi loam, 0 to 2 percent slopes

#### Willossippi

*Extent:* 90 percent of the unit

*Landform(s):* swales on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* glaciolacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 5

*Wind erodibility index (WEI):* 56

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 4w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.70 in	5.1 to 7.3
Eg -- 7 to 12 in	fine sandy loam	moderately rapid	0.71 to 1.04 in	5.1 to 7.3
Btg1-4 -- 12 to 32 in	stratified loamy sand to silty clay loam	moderate	3.01 to 3.81 in	5.6 to 7.8
BCg..Cg3 -- 32 to 60 in	stratified loamy sand to silty clay loam	moderate	3.35 to 5.31 in	6.6 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 675C--Two Inlets-Eagleview-Steamboat complex, pitted, 3 to 15 percent slopes

#### Two Inlets, pitted

*Extent:* 45 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 3 to 15 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	loamy sand	rapid	0.20 to 0.24 in	5.6 to 7.3
E -- 2 to 9 in	gravelly loamy coarse sand	rapid	0.64 to 0.78 in	5.6 to 7.3
Bt -- 9 to 19 in	gravelly loamy coarse sand	rapid	0.89 to 1.08 in	5.6 to 7.3
C -- 19 to 80 in	gravelly coarse sand	very rapid	1.22 to 2.44 in	6.6 to 7.8

#### Eagleview, pitted

*Extent:* 25 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 3 to 15 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	loamy sand	rapid	0.39 to 0.47 in	5.6 to 7.3
E,Bw -- 4 to 28 in	sand	rapid	2.16 to 2.64 in	5.6 to 7.3
E&Bt -- 28 to 45 in	sand	rapid	1.02 to 1.35 in	6.1 to 7.3
C1,C2 -- 45 to 80 in	sand	rapid	1.75 to 2.45 in	6.1 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 675C--Two Inlets-Eagleview-Steamboat complex, pitted, 3 to 15 percent slopes

#### Steamboat, pitted

*Extent:* 20 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 3 to 15 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 4e

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	fine sandy loam	moderately rapid	0.41 to 0.57 in	5.1 to 6.5
E,E/B -- 3 to 35 in	loamy sand	moderate	2.87 to 5.42 in	5.1 to 6.5
Bt -- 35 to 46 in	sandy loam	moderately slow	1.32 to 2.09 in	5.3 to 7.3
C1,C2 -- 46 to 80 in	fine sandy loam	moderate	3.39 to 5.42 in	7.4 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 675E--Two Inlets-Eagleview-Steamboat complex, pitted, 15 to 35 percent slopes

#### Two Inlets, pitted

*Extent:* 45 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 15 to 35 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	loamy sand	rapid	0.20 to 0.24 in	5.6 to 7.3
E -- 2 to 9 in	gravelly loamy coarse sand	rapid	0.64 to 0.78 in	5.6 to 7.3
Bt -- 9 to 19 in	gravelly loamy coarse sand	rapid	0.89 to 1.08 in	5.6 to 7.3
C -- 19 to 80 in	gravelly coarse sand	very rapid	1.22 to 2.44 in	6.6 to 7.8

#### Eagleview, pitted

*Extent:* 25 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 15 to 35 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	loamy sand	rapid	0.39 to 0.47 in	5.6 to 7.3
E,Bw -- 4 to 28 in	sand	rapid	2.16 to 2.64 in	5.6 to 7.3
E&Bt -- 28 to 45 in	sand	rapid	1.02 to 1.35 in	6.1 to 7.3
C1,C2 -- 45 to 80 in	sand	rapid	1.75 to 2.45 in	6.1 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 675E--Two Inlets-Eagleview-Steamboat complex, pitted, 15 to 35 percent slopes

#### Steamboat, pitted

*Extent:* 20 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 15 to 35 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 6e

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sandy loam	moderately rapid	0.41 to 0.57 in	5.1 to 6.5
E,E/B -- 3 to 35 in	loamy sand	moderate	2.87 to 5.42 in	5.1 to 6.5
Bt -- 35 to 46 in	sandy loam	moderately slow	1.32 to 2.09 in	5.3 to 7.3
C1,C2 -- 46 to 80 in	fine sandy loam	moderate	3.39 to 5.42 in	7.4 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 675G--Two Inlets-Eagleview-Steamboat complex, pitted, 35 to 65 percent slopes

#### Two Inlets, pitted

*Extent:* 45 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 35 to 65 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 7s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	loamy sand	rapid	0.20 to 0.24 in	5.6 to 7.3
E -- 2 to 9 in	gravelly loamy coarse sand	rapid	0.64 to 0.78 in	5.6 to 7.3
Bt -- 9 to 19 in	gravelly loamy coarse sand	rapid	0.89 to 1.08 in	5.6 to 7.3
C -- 19 to 80 in	gravelly coarse sand	very rapid	1.22 to 2.44 in	6.6 to 7.8

#### Eagleview, pitted

*Extent:* 30 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 35 to 65 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	loamy sand	rapid	0.39 to 0.47 in	5.6 to 7.3
E,Bw -- 4 to 28 in	sand	rapid	2.16 to 2.64 in	5.6 to 7.3
E&Bt -- 28 to 45 in	sand	rapid	1.02 to 1.35 in	6.1 to 7.3
C1,C2 -- 45 to 80 in	sand	rapid	1.75 to 2.45 in	6.1 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 675G--Two Inlets-Eagleview-Steamboat complex, pitted, 35 to 65 percent slopes

#### Steamboat, pitted

*Extent:* 20 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 35 to 65 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 7e

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sandy loam	moderately rapid	0.41 to 0.57 in	5.1 to 6.5
E,E/B -- 3 to 35 in	loamy sand	moderate	2.87 to 5.42 in	5.1 to 6.5
Bt -- 35 to 46 in	sandy loam	moderately slow	1.32 to 2.09 in	5.3 to 7.3
C1,C2 -- 46 to 80 in	fine sandy loam	moderate	3.39 to 5.42 in	7.4 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 701--Runeberg mucky loam, depressional, 0 to 1 percent slopes

#### Runeberg, depressional

*Extent:* 90 percent of the unit

*Landform(s):* depressions on drumlins, depressions on moraines

*Slope gradient:* 0 to 1 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 5

*Wind erodibility index (WEI):* 56

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 6w

*Hydric soil:* yes

*Hydrologic group:* C/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 10 in	mucky loam	moderate	1.77 to 2.46 in	6.1 to 7.3
Bg1..Bg3 -- 10 to 36 in	sandy loam	moderately slow	3.12 to 4.68 in	6.1 to 7.3
Cg1,Cg2 -- 36 to 60 in	sandy loam	moderately slow	1.44 to 3.12 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 709B--Lengby fine sandy loam, 2 to 8 percent slopes

#### Lengby

*Extent:* 80 percent of the unit

*Landform(s):* moraines, outwash plains

*Slope gradient:* 2 to 8 percent

*Parent material:* glaciolacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A --	0 to 3 in	fine sandy loam	moderately rapid	0.38 to 0.57 in	6.1 to 7.3
E --	3 to 11 in	loamy fine sand	rapid	0.63 to 0.94 in	5.6 to 7.3
B/E..Bt2 --	11 to 26 in	loam	moderate	2.24 to 2.84 in	6.1 to 7.3
C1..C3 --	26 to 48 in	stratified coarse sand to silt loam	moderately rapid	1.76 to 3.53 in	7.4 to 8.4
C4 --	48 to 60 in	stratified sand to loamy very fine sand	rapid	0.71 to 1.42 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 709C--Lengby fine sandy loam, 8 to 15 percent slopes

#### Lengby

*Extent:* 80 percent of the unit

*Landform(s):* moraines, outwash plains

*Slope gradient:* 8 to 15 percent

*Parent material:* glaciolacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	fine sandy loam	moderately rapid	0.38 to 0.57 in	6.1 to 7.3
E -- 3 to 11 in	loamy fine sand	rapid	0.63 to 0.94 in	5.6 to 7.3
B/E..Bt2 -- 11 to 26 in	loam	moderate	2.24 to 2.84 in	6.1 to 7.3
C1..C3 -- 26 to 48 in	sr to silt loam to coarse sand	moderately rapid	1.76 to 3.53 in	7.4 to 8.4
C4 -- 48 to 60 in	stratified sand to loamy very fine sand	rapid	0.71 to 1.42 in	7.4 to 8.4

### 719B--Rondeau muck (seepland), 1 to 6 percent slopes

#### Rondeau, seepland

*Extent:* 80 percent of the unit

*Landform(s):* flats on outwash plains, rises on outwash plains

*Slope gradient:* 1 to 6 percent

*Parent material:* organic material over marl

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* rare

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 1

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 6w

*Hydric soil:* yes

*Hydrologic group:* C/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa,Oe -- 0 to 20 in	muck	moderately rapid	7.03 to 9.64 in	
Cg2 -- 20 to 80 in	marl	slow	11.97 to 13.17 in	

## Map Unit Description (MN)

Hubbard County, Minnesota

### 731A--Sanburn loamy sand, 0 to 3 percent slopes

#### Sanburn

*Extent:* 90 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 3 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,E1 -- 0 to 6 in	loamy sand	moderately rapid	0.53 to 0.65 in	5.1 to 6.5
E2 -- 6 to 15 in	loamy sand	moderately rapid	0.63 to 0.81 in	5.1 to 6.5
Bt -- 15 to 21 in	sandy loam	moderately rapid	0.41 to 0.71 in	5.1 to 6.5
2BC..2C2 -- 21 to 60 in	sand	rapid	0.78 to 1.56 in	5.1 to 6.5

## Map Unit Description (MN)

Hubbard County, Minnesota

### 744B--Debs-Akeley complex, 1 to 8 percent slopes

#### Debs

*Extent:* 55 percent of the unit

*Landform(s):* lake plains, moraines

*Slope gradient:* 1 to 8 percent

*Parent material:* lacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 5

*Wind erodibility index (WEI):* 56

*Kw factor (surface layer)* .37

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	silt loam	moderate	0.35 to 0.47 in	6.1 to 7.3
E -- 2 to 12 in	very fine sandy loam	moderately rapid	1.48 to 1.97 in	6.1 to 7.3
Bt1,Bt2 -- 12 to 32 in	silty clay loam	moderate	3.21 to 4.42 in	6.1 to 7.3
C -- 32 to 60 in	silt loam	moderate	3.91 to 6.15 in	7.4 to 8.4

#### Akeley

*Extent:* 25 percent of the unit

*Landform(s):* lake plains, moraines

*Slope gradient:* 1 to 8 percent

*Parent material:* outwash over glaciolacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .15

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.31 to 0.38 in	5.1 to 7.3
Bw,E -- 3 to 49 in	sand	rapid	3.20 to 4.57 in	5.1 to 6.5
2Bt -- 49 to 56 in	silt loam	moderate	1.13 to 1.56 in	5.1 to 7.3
2C1..2C3 -- 56 to 80 in	stratified fine sand to silt loam	moderate	2.40 to 5.28 in	5.1 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 746--Haslie muck, depressional, 0 to 1 percent slopes

#### Haslie, depressional

*Extent:* 90 percent of the unit

*Landform(s):* depressions on moraines, depressions on outwash plains

*Slope gradient:* 0 to 1 percent

*Parent material:* organic material over coprogenic material

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 1

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 6w

*Hydric soil:* yes

*Hydrologic group:* C/D

*Potential for frost action:* high

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1 --	0 to 12 in	muck	moderately rapid	4.13 to 5.67 in	
Oa2 --	12 to 30 in	muck	moderately rapid	6.34 to 8.69 in	
Cg1..Cg3 --	30 to 80 in	mucky silt loam	moderately slow	9.00 to 12.00 in	

## Map Unit Description (MN)

Hubbard County, Minnesota

### 775B--Sugarbush-Two Inlets complex, 1 to 8 percent slopes

#### Sugarbush

*Extent:* 60 percent of the unit

*Landform(s):* outwash plains, valley trains

*Slope gradient:* 1 to 8 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sandy loam	moderately rapid	0.41 to 0.47 in	5.6 to 7.3
E -- 3 to 13 in	loamy sand	rapid	0.89 to 1.08 in	5.6 to 7.3
Bt -- 13 to 25 in	sandy loam	moderately rapid	1.46 to 1.83 in	5.6 to 7.3
2C -- 25 to 80 in	gravelly coarse sand	very rapid	1.09 to 3.28 in	5.6 to 8.4

#### Two Inlets

*Extent:* 30 percent of the unit

*Landform(s):* outwash plains, valley trains

*Slope gradient:* 1 to 8 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	loamy sand	rapid	0.20 to 0.24 in	5.6 to 7.3
E -- 2 to 10 in	gravelly loamy coarse sand	rapid	0.71 to 0.87 in	5.6 to 7.3
Bt -- 10 to 33 in	gravelly loamy coarse sand	rapid	2.09 to 2.56 in	6.1 to 7.3
C -- 33 to 60 in	gravelly coarse sand	very rapid	0.54 to 1.07 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 775C--Sugarbush-Two Inlets complex, 8 to 15 percent slopes

#### Sugarbush

<p><i>Extent:</i> 55 percent of the unit</p> <p><i>Landform(s):</i> outwash plains, valley trains</p> <p><i>Slope gradient:</i> 8 to 15 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> well drained</p>	<p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 3</p> <p><i>Wind erodibility index (WEI):</i> 86</p> <p><i>Kw factor (surface layer)</i> .20</p> <p><i>Land capability, nonirrigated</i> 4e</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> A</p> <p><i>Potential for frost action:</i> low</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sandy loam	moderately rapid	0.41 to 0.47 in	5.6 to 7.3
E -- 3 to 13 in	loamy sand	rapid	0.89 to 1.08 in	5.6 to 7.3
Bt -- 13 to 25 in	sandy loam	moderately rapid	1.46 to 1.83 in	5.6 to 7.3
2C -- 25 to 80 in	gravelly coarse sand	very rapid	1.09 to 3.28 in	5.6 to 8.4

#### Two Inlets

<p><i>Extent:</i> 35 percent of the unit</p> <p><i>Landform(s):</i> outwash plains, valley trains</p> <p><i>Slope gradient:</i> 8 to 15 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> excessively drained</p>	<p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 2</p> <p><i>Wind erodibility index (WEI):</i> 134</p> <p><i>Kw factor (surface layer)</i> .10</p> <p><i>Land capability, nonirrigated</i> 4s</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> A</p> <p><i>Potential for frost action:</i> low</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	loamy sand	rapid	0.20 to 0.24 in	5.6 to 7.3
E -- 2 to 10 in	gravelly loamy coarse sand	rapid	0.71 to 0.87 in	5.6 to 7.3
Bt -- 10 to 33 in	gravelly loamy coarse sand	rapid	2.09 to 2.56 in	6.1 to 7.3
C -- 33 to 60 in	gravelly coarse sand	very rapid	0.54 to 1.07 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 778B--Dorset-Corliss complex, 1 to 6 percent slopes

#### Dorset

*Extent:* 60 percent of the unit  
*Landform(s):* outwash plains, valley trains  
*Slope gradient:* 1 to 6 percent  
*Parent material:* outwash  
*Restrictive feature(s):* greater than 60 inches  
*Flooding:* none  
*Ponding:* none  
*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 3  
*Wind erodibility group (WEG):* 3  
*Wind erodibility index (WEI):* 86  
*Kw factor (surface layer)* .17  
*Land capability, nonirrigated* 3s  
*Hydric soil:* no  
*Hydrologic group:* A  
*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 11 in	sandy loam	moderately rapid	1.43 to 1.65 in	5.6 to 7.3
Bt1,Bt2 -- 11 to 20 in	sandy loam	moderately rapid	1.09 to 1.72 in	5.6 to 7.3
2Bk -- 20 to 38 in	gravelly coarse sand	rapid	1.09 to 1.81 in	7.4 to 8.4
2C -- 38 to 80 in	gravelly coarse sand	rapid	0.83 to 1.67 in	7.4 to 8.4

#### Corliss

*Extent:* 30 percent of the unit  
*Landform(s):* outwash plains, valley trains  
*Slope gradient:* 1 to 6 percent  
*Parent material:* outwash  
*Restrictive feature(s):* greater than 60 inches  
*Flooding:* none  
*Ponding:* none  
*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5  
*Wind erodibility group (WEG):* 2  
*Wind erodibility index (WEI):* 134  
*Kw factor (surface layer)* .10  
*Land capability, nonirrigated* 4s  
*Hydric soil:* no  
*Hydrologic group:* A  
*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	loamy coarse sand	rapid	0.71 to 0.85 in	6.1 to 7.8
Bw -- 7 to 11 in	gravelly loamy coarse sand	rapid	0.12 to 0.39 in	6.1 to 7.8
Bk..C4 -- 11 to 60 in	gravelly coarse sand	rapid	0.98 to 2.93 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 778C--Dorset-Corliss complex, 6 to 12 percent slopes

#### Dorset

*Extent:* 55 percent of the unit

*Landform(s):* outwash plains, valley trains

*Slope gradient:* 6 to 12 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .17

*Land capability, nonirrigated* 4e

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 11 in	sandy loam	moderately rapid	1.43 to 1.65 in	5.6 to 7.3
Bt1,Bt2 -- 11 to 20 in	sandy loam	moderately rapid	1.09 to 1.72 in	5.6 to 7.3
2Bk -- 20 to 38 in	gravelly coarse sand	rapid	1.09 to 1.81 in	7.4 to 8.4
2C -- 38 to 80 in	gravelly coarse sand	rapid	0.83 to 1.67 in	7.4 to 8.4

#### Corliss

*Extent:* 35 percent of the unit

*Landform(s):* outwash plains, valley trains

*Slope gradient:* 6 to 12 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	loamy coarse sand	rapid	0.71 to 0.85 in	6.1 to 7.8
Bw -- 7 to 11 in	gravelly loamy coarse sand	rapid	0.12 to 0.39 in	6.1 to 7.8
Bk..C4 -- 11 to 60 in	gravelly coarse sand	rapid	0.98 to 2.93 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 797--Mooselake and Lupton soils, 0 to 1 percent slopes

#### Mooselake

<p><i>Extent:</i> 45 percent of the unit</p> <p><i>Landform(s):</i> depressions on lake plains, depressions on moraines, depressions on outwash plains</p> <p><i>Slope gradient:</i> 0 to 1 percent</p> <p><i>Parent material:</i> woody organic material</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> frequent</p> <p><i>Drainage class:</i> very poorly drained</p>	<p><i>Soil loss tolerance (T factor):</i> 2</p> <p><i>Wind erodibility group (WEG):</i> 5</p> <p><i>Wind erodibility index (WEI):</i> 56</p> <p><i>Kw factor (surface layer):</i> .02</p> <p><i>Land capability, nonirrigated:</i> 6w</p> <p><i>Hydric soil:</i> yes</p> <p><i>Hydrologic group:</i> A/D</p> <p><i>Potential for frost action:</i> high</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oe1 -- 0 to 10 in	mucky peat	moderately rapid	3.44 to 5.41 in	
Oe2..Oe4 -- 10 to 80 in	mucky peat	moderately rapid	28.03 to 35.04 in	

#### Lupton

<p><i>Extent:</i> 45 percent of the unit</p> <p><i>Landform(s):</i> depressions on lake plains, depressions on moraines, depressions on outwash plains</p> <p><i>Slope gradient:</i> 0 to 1 percent</p> <p><i>Parent material:</i> woody organic material</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> very poorly drained</p>	<p><i>Soil loss tolerance (T factor):</i> 2</p> <p><i>Wind erodibility group (WEG):</i> 2</p> <p><i>Wind erodibility index (WEI):</i> 134</p> <p><i>Kw factor (surface layer):</i> .02</p> <p><i>Land capability, nonirrigated:</i> 7w</p> <p><i>Hydric soil:</i> yes</p> <p><i>Hydrologic group:</i> A/D</p> <p><i>Potential for frost action:</i> high</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1 -- 0 to 10 in	muck	moderately rapid	3.44 to 4.43 in	
Oa2..Oa4 -- 10 to 80 in	muck	moderately rapid	24.53 to 31.54 in	

## Map Unit Description (MN)

Hubbard County, Minnesota

### 799--Seelyeville and Bowstring soils, 0 to 1 percent slopes, frequently flooded

#### Seelyeville, frequently flooded

*Extent:* 45 percent of the unit

*Landform(s):* flood plains

*Slope gradient:* 0 to 1 percent

*Parent material:* herbaceous organic material

*Restrictive feature(s):* greater than 60 inches

*Flooding:* frequent

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 2

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 6w

*Hydric soil:* yes

*Hydrologic group:* A/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1 -- 0 to 12 in	muck	moderately rapid	4.13 to 5.31 in	
Oa2..Oa5 -- 12 to 80 in	muck	moderately rapid	23.84 to 30.65 in	

#### Bowstring, frequently flooded

*Extent:* 40 percent of the unit

*Landform(s):* flood plains

*Slope gradient:* 0 to 1 percent

*Parent material:* organic material over alluvium

*Restrictive feature(s):* greater than 60 inches

*Flooding:* frequent

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 1

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 6w

*Hydric soil:* yes

*Hydrologic group:* A/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1,Oa2 -- 0 to 38 in	muck	moderately rapid	13.37 to 17.19 in	
Cg -- 38 to 47 in	stratified sand to fine sandy loam	rapid	0.69 to 1.21 in	
Oa' -- 47 to 80 in	muck	moderately rapid	11.57 to 14.88 in	

## Map Unit Description (MN)

Hubbard County, Minnesota

### 820B--Potatolake very fine sandy loam, 1 to 8 percent slopes

#### Potatolake

*Extent:* 85 percent of the unit

*Landform(s):* lake plains, moraines, outwash plains

*Slope gradient:* 1 to 8 percent

*Parent material:* glaciolacustrine deposits over outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* moderately well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	very fine sandy loam	moderate	1.81 to 1.99 in	5.6 to 7.3
E -- 9 to 15 in	very fine sandy loam	moderate	0.89 to 1.30 in	5.6 to 7.3
Bt1,Bt2 -- 15 to 30 in	silty clay loam	moderate	2.54 to 3.59 in	5.6 to 7.8
2Bk..2C2 -- 30 to 80 in	stratified gravelly coarse sand to silt loam	rapid	3.00 to 8.00 in	6.6 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 820C--Potatolake very fine sandy loam, 8 to 15 percent slopes

#### Potatolake

*Extent:* 85 percent of the unit

*Landform(s):* lake plains, moraines, outwash plains

*Slope gradient:* 8 to 15 percent

*Parent material:* glaciolacustrine deposits over outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* moderately well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	very fine sandy loam	moderate	1.81 to 1.99 in	5.6 to 7.3
E -- 9 to 15 in	very fine sandy loam	moderate	0.89 to 1.30 in	5.6 to 7.3
Bt1,Bt2 -- 15 to 30 in	silty clay loam	moderate	2.54 to 3.59 in	5.6 to 7.8
2Bk..2C2 -- 30 to 80 in	stratified gravelly coarse sand to silt loam	rapid	3.00 to 8.00 in	6.6 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 831C--Akeley-Debs complex, 8 to 15 percent slopes

#### Akeley

*Extent:* 45 percent of the unit

*Landform(s):* lake plains, moraines

*Slope gradient:* 8 to 15 percent

*Parent material:* outwash over glaciolacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .15

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.31 to 0.38 in	5.1 to 7.3
Bw,E -- 3 to 49 in	sand	rapid	3.20 to 4.57 in	5.1 to 6.5
2Bt -- 49 to 56 in	silt loam	moderate	1.13 to 1.56 in	5.1 to 7.3
2C1..2C3 -- 56 to 80 in	stratified fine sand to silt loam	moderate	2.40 to 5.28 in	5.1 to 7.8

#### Debs

*Extent:* 40 percent of the unit

*Landform(s):* lake plains, moraines

*Slope gradient:* 8 to 15 percent

*Parent material:* lacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 5

*Wind erodibility index (WEI):* 56

*Kw factor (surface layer)* .37

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	silt loam	moderate	0.35 to 0.47 in	6.1 to 7.3
E -- 2 to 12 in	very fine sandy loam	moderately rapid	1.48 to 1.97 in	6.1 to 7.3
Bt1,Bt2 -- 12 to 32 in	silty clay loam	moderate	3.21 to 4.42 in	6.1 to 7.3
C -- 32 to 60 in	silt loam	moderate	3.91 to 6.15 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 831E--Akeley-Debs complex, 15 to 35 percent slopes

#### Akeley

*Extent:* 60 percent of the unit

*Landform(s):* lake plains, moraines

*Slope gradient:* 15 to 35 percent

*Parent material:* outwash over glaciolacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .15

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.31 to 0.38 in	5.1 to 7.3
Bw,E -- 3 to 49 in	sand	rapid	3.20 to 4.57 in	5.1 to 6.5
2Bt -- 49 to 56 in	silt loam	moderate	1.13 to 1.56 in	5.1 to 7.3
2C1..2C3 -- 56 to 80 in	stratified fine sand to silt loam	moderate	2.40 to 5.28 in	5.1 to 7.8

#### Debs

*Extent:* 25 percent of the unit

*Landform(s):* lake plains, moraines

*Slope gradient:* 15 to 35 percent

*Parent material:* lacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 5

*Wind erodibility index (WEI):* 56

*Kw factor (surface layer)* .37

*Land capability, nonirrigated* 6e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	silt loam	moderate	0.35 to 0.47 in	6.1 to 7.3
E -- 2 to 12 in	very fine sandy loam	moderately rapid	1.48 to 1.97 in	6.1 to 7.3
Bt1,Bt2 -- 12 to 32 in	silty clay loam	moderate	3.21 to 4.42 in	6.1 to 7.3
C -- 32 to 60 in	silt loam	moderate	3.91 to 6.15 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 844B--Sanburn-Graycalm complex, 3 to 8 percent slopes

#### Sanburn

*Extent:* 55 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 3 to 8 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,E1 -- 0 to 6 in	loamy sand	moderately rapid	0.53 to 0.65 in	5.1 to 6.5
E2 -- 6 to 15 in	loamy sand	moderately rapid	0.63 to 0.81 in	5.1 to 6.5
Bt -- 15 to 21 in	sandy loam	moderately rapid	0.41 to 0.71 in	5.1 to 6.5
2BC..2C2 -- 21 to 60 in	sand	rapid	0.78 to 1.56 in	5.1 to 6.5

#### Graycalm

*Extent:* 35 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 3 to 8 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.19 to 0.38 in	3.5 to 6.5
Bw1,Bw2 -- 3 to 20 in	sand	rapid	0.85 to 1.69 in	3.5 to 7.3
E -- 20 to 39 in	sand	rapid	0.76 to 1.70 in	3.5 to 7.3
E&Bt -- 39 to 80 in	sand	rapid	1.64 to 2.46 in	3.5 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 867B--Graycalm-Menahga complex, 1 to 8 percent slopes

#### Graycalm

*Extent:* 60 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 1 to 8 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.19 to 0.38 in	3.5 to 6.5
Bw1,Bw2 -- 3 to 20 in	sand	rapid	0.85 to 1.69 in	3.5 to 7.3
E -- 20 to 39 in	sand	rapid	0.76 to 1.70 in	3.5 to 7.3
E&Bt -- 39 to 80 in	sand	rapid	1.64 to 2.46 in	3.5 to 8.4

#### Menahga

*Extent:* 30 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 1 to 8 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.31 to 0.38 in	4.5 to 6.5
Bw -- 3 to 17 in	loamy sand	rapid	0.69 to 0.96 in	4.5 to 6.5
C1..C3 -- 17 to 80 in	sand	rapid	3.15 to 4.41 in	5.6 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 867C--Graycalm-Menahga complex, 8 to 15 percent slopes

#### Graycalm

*Extent:* 60 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 8 to 15 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.19 to 0.38 in	3.5 to 6.5
Bw1,Bw2 -- 3 to 20 in	sand	rapid	0.85 to 1.69 in	3.5 to 7.3
E -- 20 to 39 in	sand	rapid	0.76 to 1.70 in	3.5 to 7.3
E&Bt -- 39 to 80 in	sand	rapid	1.64 to 2.46 in	3.5 to 8.4

#### Menahga

*Extent:* 30 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 8 to 15 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.31 to 0.38 in	4.5 to 6.5
Bw -- 3 to 17 in	loamy sand	rapid	0.69 to 0.96 in	4.5 to 6.5
C1..C3 -- 17 to 80 in	sand	rapid	3.15 to 4.41 in	5.6 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 867E--Graycalm-Menahga complex, 15 to 30 percent slopes

#### Graycalm

<p><i>Extent:</i> 50 percent of the unit</p> <p><i>Landform(s):</i> outwash plains</p> <p><i>Slope gradient:</i> 15 to 30 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> somewhat excessively drained</p>	<p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 2</p> <p><i>Wind erodibility index (WEI):</i> 134</p> <p><i>Kw factor (surface layer)</i> .10</p> <p><i>Land capability, nonirrigated</i> 6s</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> A</p> <p><i>Potential for frost action:</i> low</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.19 to 0.38 in	3.5 to 6.5
Bw1,Bw2 -- 3 to 20 in	sand	rapid	0.85 to 1.69 in	3.5 to 7.3
E -- 20 to 39 in	sand	rapid	0.76 to 1.70 in	3.5 to 7.3
E&Bt -- 39 to 80 in	sand	rapid	1.64 to 2.46 in	3.5 to 8.4

#### Menahga

<p><i>Extent:</i> 40 percent of the unit</p> <p><i>Landform(s):</i> outwash plains</p> <p><i>Slope gradient:</i> 15 to 30 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> excessively drained</p>	<p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 2</p> <p><i>Wind erodibility index (WEI):</i> 134</p> <p><i>Kw factor (surface layer)</i> .10</p> <p><i>Land capability, nonirrigated</i> 7s</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> A</p> <p><i>Potential for frost action:</i> low</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.31 to 0.38 in	4.5 to 6.5
Bw -- 3 to 17 in	loamy sand	rapid	0.69 to 0.96 in	4.5 to 6.5
C1..C3 -- 17 to 80 in	sand	rapid	3.15 to 4.41 in	5.6 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 867F--Graycalm-Menahga complex, 30 to 45 percent slopes

#### Graycalm

*Extent:* 50 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 30 to 45 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 7s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.19 to 0.38 in	3.5 to 6.5
Bw1,Bw2 -- 3 to 20 in	sand	rapid	0.85 to 1.69 in	3.5 to 7.3
E -- 20 to 39 in	sand	rapid	0.76 to 1.70 in	3.5 to 7.3
E&Bt -- 39 to 80 in	sand	rapid	1.64 to 2.46 in	3.5 to 8.4

#### Menahga

*Extent:* 40 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 30 to 45 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 7s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.31 to 0.38 in	4.5 to 6.5
Bw -- 3 to 17 in	loamy sand	rapid	0.69 to 0.96 in	4.5 to 6.5
C1..C3 -- 17 to 80 in	sand	rapid	3.15 to 4.41 in	5.6 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1015--Udipsamments (cut and fill land)

#### Udipsamments, cut and fill land

<p><i>Extent:</i> 90 percent of the unit</p> <p><i>Landform(s):</i> outwash plains, valley trains</p> <p><i>Slope gradient:</i> 0 to 10 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> excessively drained</p>	<p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 1</p> <p><i>Wind erodibility index (WEI):</i> 220</p> <p><i>Kw factor (surface layer)</i> .02</p> <p><i>Land capability, nonirrigated</i> 6s</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> A</p> <p><i>Potential for frost action:</i> low</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
AC -- 0 to 14 in	sand	rapid	0.71 to 1.42 in	6.6 to 7.3
C1 -- 14 to 60 in	sand	rapid	2.28 to 3.65 in	6.6 to 7.3
C2 -- 60 to 80 in	coarse sand	very rapid	0.60 to 1.00 in	7.4 to 8.4

### 1016--Udorthents, loamy (cut and fill land)

#### Udorthents, loamy, cut and fill land

<p><i>Extent:</i> 90 percent of the unit</p> <p><i>Landform(s):</i> lake plains, moraines</p> <p><i>Slope gradient:</i> 0 to 50 percent</p> <p><i>Parent material:</i> glaciolacustrine deposits and/or till</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> well drained</p>	<p><i>Soil loss tolerance (T factor):</i></p> <p><i>Wind erodibility group (WEG):</i></p> <p><i>Wind erodibility index (WEI):</i></p> <p><i>Kw factor (surface layer)</i></p> <p><i>Land capability, nonirrigated</i> 6s</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i></p> <p><i>Potential for frost action:</i> moderate</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
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## Map Unit Description (MN)

Hubbard County, Minnesota

### 1021C--Graycalm-Sanburn complex, 8 to 15 percent slopes

#### Graycalm

*Extent:* 55 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 8 to 15 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .15

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.19 to 0.38 in	3.5 to 6.5
Bw1,Bw2 -- 3 to 20 in	sand	rapid	0.85 to 1.69 in	3.5 to 7.3
E -- 20 to 39 in	sand	rapid	0.76 to 1.70 in	3.5 to 7.3
E&Bt -- 39 to 80 in	sand	rapid	1.64 to 2.46 in	3.5 to 8.4

#### Sanburn

*Extent:* 35 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 8 to 15 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 4e

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A,E1 -- 0 to 6 in	loamy sand	moderately rapid	0.53 to 0.65 in	5.1 to 6.5
E2 -- 6 to 15 in	loamy sand	moderately rapid	0.63 to 0.81 in	5.1 to 6.5
Bt -- 15 to 21 in	sandy loam	moderately rapid	0.41 to 0.71 in	5.1 to 6.5
2BC..2C2 -- 21 to 60 in	sand	rapid	0.78 to 1.56 in	5.1 to 6.5

## Map Unit Description (MN)

Hubbard County, Minnesota

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### 1027--Udorthents, wet substratum (fill land)

#### Udorthents, wet substratum, fill land

*Extent:* 90 percent of the unit

*Landform(s):* lake plains, moraines, outwash plains

*Slope gradient:* 0 to 5 percent

*Parent material:* earthflow deposits over organic material

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:*

*Soil loss tolerance (T factor):*

*Wind erodibility group (WEG):*

*Wind erodibility index (WEI):*

*Kw factor (surface layer)*

*Land capability, nonirrigated*

*Hydric soil:* unranked

*Hydrologic group:*

*Potential for frost action:*

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
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## Map Unit Description (MN)

Hubbard County, Minnesota

### 1030--Pits, gravel-Udipsamments complex

#### Pits, gravel

*Extent:* 60 percent of the unit

*Landform(s):* lake plains, moraines, outwash plains

*Slope gradient:* 0 to 50 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:*

*Soil loss tolerance (T factor):*

*Wind erodibility group (WEG):*

*Wind erodibility index (WEI):*

*Kw factor (surface layer)*

*Land capability, nonirrigated*

*Hydric soil:* unranked

*Hydrologic group:*

*Potential for frost action:*

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
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#### Udipsamments

*Extent:* 40 percent of the unit

*Landform(s):* lake plains, moraines, outwash plains

*Slope gradient:* 1 to 50 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 1

*Wind erodibility index (WEI):* 220

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 8s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
AC -- 0 to 14 in	sand	rapid	0.71 to 1.42 in	6.6 to 7.3
C1 -- 14 to 60 in	sand	rapid	2.28 to 3.65 in	6.6 to 7.3
C2 -- 60 to 80 in	coarse sand	very rapid	0.60 to 1.00 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1111--Nidaros muck, 0 to 1 percent slopes, frequently flooded

#### Nidaros, frequently flooded

*Extent:* 75 percent of the unit

*Landform(s):* flood plains

*Slope gradient:* 0 to 1 percent

*Parent material:* organic material over outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* frequent

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 1

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 6w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1..Oa3 -- 0 to 32 in	muck	moderately rapid	11.16 to 14.35 in	
A1,A2 -- 32 to 38 in	sandy loam	moderate	0.82 to 1.39 in	
2Cg -- 38 to 60 in	sand	rapid	0.65 to 1.73 in	

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1113--Haslie, Seelyeville, and Cathro soils, ponded, 0 to 1 percent slopes

#### Haslie, ponded

*Extent:* 30 percent of the unit

*Landform(s):* depressions on lake plains, depressions on moraines

*Slope gradient:* 0 to 1 percent

*Parent material:* organic material over coprogenic material

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 1

*Wind erodibility group (WEG):* 8

*Wind erodibility index (WEI):* 0

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 8w

*Hydric soil:* yes

*Hydrologic group:* C/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1,Oa2 -- 0 to 20 in	muck	moderately rapid	7.03 to 9.64 in	
Cg1..Cg3 -- 20 to 60 in	mucky silt loam	moderately slow	7.16 to 9.54 in	

#### Seelyeville, ponded

*Extent:* 30 percent of the unit

*Landform(s):* depressions

*Slope gradient:* 0 to 1 percent

*Parent material:* herbaceous organic material

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 2

*Wind erodibility group (WEG):* 8

*Wind erodibility index (WEI):* 0

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 8w

*Hydric soil:* yes

*Hydrologic group:* A/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1,Oa2 -- 0 to 18 in	muck	moderately rapid	6.34 to 8.15 in	
Oa3..Oa5 -- 18 to 60 in	muck	moderately rapid	14.61 to 18.78 in	

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1113--Haslie, Seelyeville, and Cathro soils, ponded, 0 to 1 percent slopes

#### Cathro, ponded

*Extent:* 30 percent of the unit

*Landform(s):* depressions on lake plains, depressions on moraines

*Slope gradient:* 0 to 1 percent

*Parent material:* organic material over glaciolacustrine deposits and/or till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 1

*Wind erodibility group (WEG):* 8

*Wind erodibility index (WEI):* 0

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 8w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa -- 0 to 23 in	muck	moderately rapid	10.28 to 12.56 in	
Cg -- 23 to 60 in	clay loam	moderate	4.07 to 8.14 in	

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1126B--Verndale-Nymore complex, 1 to 6 percent slopes

#### Verndale

*Extent:* 60 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 1 to 6 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 2

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	sandy loam	moderately rapid	1.18 to 1.54 in	5.6 to 7.3
Bt1,Bt2 -- 9 to 19 in	sandy loam	moderate	1.38 to 1.77 in	5.6 to 7.3
2Bw1-2 -- 19 to 49 in	coarse sand	rapid	1.80 to 2.39 in	5.6 to 7.3
2C -- 49 to 60 in	sand	rapid	0.22 to 0.66 in	6.1 to 8.4

#### Nymore

*Extent:* 30 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 1 to 6 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .15

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loamy sand	rapid	0.79 to 0.94 in	5.1 to 6.5
BA..Bw2 -- 8 to 33 in	sand	rapid	0.50 to 2.02 in	5.1 to 7.3
C -- 33 to 60 in	sand	rapid	0.54 to 2.14 in	5.1 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1127A--Bootlake-Graycalm complex, 0 to 2 percent slopes

#### Bootlake

*Extent:* 60 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sandy loam	moderately rapid	0.41 to 0.47 in	5.6 to 7.3
E -- 3 to 7 in	loamy sand	rapid	0.35 to 0.43 in	5.6 to 7.3
Bt -- 7 to 13 in	sandy loam	moderately rapid	0.71 to 0.89 in	5.6 to 7.3
2Bw -- 13 to 47 in	coarse sand	rapid	0.68 to 2.37 in	6.1 to 7.3
2C -- 47 to 80 in	coarse sand	rapid	0.66 to 2.31 in	7.4 to 8.4

#### Graycalm

*Extent:* 30 percent of the unit

*Landform(s):* flats on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.19 to 0.38 in	3.5 to 6.5
Bw1,Bw2 -- 3 to 20 in	sand	rapid	0.85 to 1.69 in	3.5 to 7.3
E -- 20 to 39 in	sand	rapid	0.76 to 1.70 in	3.5 to 7.3
E&Bt -- 39 to 80 in	sand	rapid	1.64 to 2.46 in	3.5 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1127B--Bootlake-Graycalm complex, 2 to 8 percent slopes

#### Bootlake

*Extent:* 60 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 2 to 8 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sandy loam	moderately rapid	0.41 to 0.47 in	5.6 to 7.3
E -- 3 to 7 in	loamy sand	rapid	0.35 to 0.43 in	5.6 to 7.3
Bt -- 7 to 13 in	sandy loam	moderately rapid	0.71 to 0.89 in	5.6 to 7.3
2Bw -- 13 to 47 in	coarse sand	rapid	0.68 to 2.37 in	6.1 to 7.3
2C -- 47 to 80 in	coarse sand	rapid	0.66 to 2.31 in	7.4 to 8.4

#### Graycalm

*Extent:* 30 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 2 to 8 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.19 to 0.38 in	3.5 to 6.5
Bw1,Bw2 -- 3 to 20 in	sand	rapid	0.85 to 1.69 in	3.5 to 7.3
E -- 20 to 39 in	sand	rapid	0.76 to 1.70 in	3.5 to 7.3
E&Bt -- 39 to 80 in	sand	rapid	1.64 to 2.46 in	3.5 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1136--Nidaros muck, depressional, 0 to 1 percent slopes

#### Nidaros, depressional

*Extent:* 90 percent of the unit

*Landform(s):* depressions on outwash plains

*Slope gradient:* 0 to 1 percent

*Parent material:* organic material over outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 1

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 6w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1,Oa2 -- 0 to 27 in	muck	moderately rapid	9.51 to 12.22 in	
A1,A2 -- 27 to 38 in	sandy loam	moderate	1.43 to 2.43 in	
2Cg -- 38 to 80 in	sand	rapid	1.25 to 3.34 in	

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1164--Zerkel loam, 1 to 3 percent slopes

#### Zerkel

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines, rises on moraines

*Slope gradient:* 1 to 3 percent

*Parent material:* glaciolacustrine deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* moderately well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 5

*Wind erodibility index (WEI):* 56

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 1

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	loam	moderate	0.79 to 0.94 in	5.6 to 7.3
E -- 4 to 10 in	very fine sandy loam	rapid	0.59 to 1.30 in	5.6 to 7.3
B/E..Bt2 -- 10 to 29 in	loam	moderate	2.89 to 3.67 in	5.6 to 7.3
Bk -- 29 to 37 in	stratified fine sand to silt loam	moderately rapid	0.39 to 1.73 in	7.4 to 8.4
C -- 37 to 80 in	stratified fine sand to silt loam	moderately rapid	2.15 to 9.44 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1200--Egglake loam, 0 to 2 percent slopes

#### Egglake

*Extent:* 85 percent of the unit

*Landform(s):* swales on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 5

*Wind erodibility index (WEI):* 56

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 2w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	loam	moderately rapid	0.39 to 0.83 in	5.6 to 7.3
E -- 4 to 9 in	fine sandy loam	moderately rapid	0.61 to 0.72 in	5.6 to 7.3
Btg -- 9 to 25 in	sandy clay loam	moderate	2.58 to 2.91 in	5.6 to 7.3
Bg,Bkg -- 25 to 80 in	coarse sandy loam	moderate	6.02 to 7.11 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1230--Haslie and Nidaros soils, ponded, 0 to 1 percent slopes

#### Haslie, ponded

*Extent:* 45 percent of the unit

*Landform(s):* depressions on outwash plains

*Slope gradient:* 0 to 1 percent

*Parent material:* organic material over coprogenic material

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 1

*Wind erodibility group (WEG):* 8

*Wind erodibility index (WEI):* 0

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 8w

*Hydric soil:* yes

*Hydrologic group:* A/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1,Oa2 -- 0 to 44 in	muck	moderately rapid	15.43 to 21.17 in	
Cg1..Cg3 -- 44 to 60 in	mucky silt loam	moderately slow	2.83 to 3.78 in	

#### Nidaros, ponded

*Extent:* 45 percent of the unit

*Landform(s):* depressions on outwash plains

*Slope gradient:* 0 to 1 percent

*Parent material:* organic material over outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 1

*Wind erodibility group (WEG):* 8

*Wind erodibility index (WEI):* 0

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 8w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1,Oa2 -- 0 to 38 in	muck	moderately rapid	13.37 to 17.19 in	
A1,A2 -- 38 to 54 in	sandy clay loam	moderate	2.05 to 3.46 in	
2Cg -- 54 to 60 in	sand	rapid	0.18 to 0.47 in	

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1238E--Two Inlets-Sugarbush complex, 15 to 30 percent slopes

#### Two Inlets

*Extent:* 60 percent of the unit

*Landform(s):* outwash plains, valley trains

*Slope gradient:* 15 to 30 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	loamy sand	rapid	0.20 to 0.24 in	5.6 to 7.3
E -- 2 to 10 in	gravelly loamy coarse sand	rapid	0.71 to 0.87 in	5.6 to 7.3
Bt -- 10 to 33 in	gravelly loamy coarse sand	rapid	2.09 to 2.56 in	6.1 to 7.3
C -- 33 to 60 in	gravelly coarse sand	very rapid	0.54 to 1.07 in	7.4 to 8.4

#### Sugarbush

*Extent:* 35 percent of the unit

*Landform(s):* outwash plains, valley trains

*Slope gradient:* 15 to 30 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 6e

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sandy loam	moderately rapid	0.41 to 0.47 in	5.6 to 7.3
E -- 3 to 13 in	loamy sand	rapid	0.89 to 1.08 in	5.6 to 7.3
Bt -- 13 to 25 in	sandy loam	moderately rapid	1.46 to 1.83 in	5.6 to 7.3
2C -- 25 to 80 in	gravelly coarse sand	very rapid	1.09 to 3.28 in	5.6 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1238F--Two Inlets-Sugarbush complex, 30 to 45 percent slopes

#### Two Inlets

*Extent:* 70 percent of the unit

*Landform(s):* outwash plains, valley trains

*Slope gradient:* 30 to 45 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 7s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	loamy sand	rapid	0.20 to 0.24 in	5.6 to 7.3
E -- 2 to 10 in	gravelly loamy coarse sand	rapid	0.71 to 0.87 in	5.6 to 7.3
Bt -- 10 to 33 in	gravelly loamy coarse sand	rapid	2.09 to 2.56 in	6.1 to 7.3
C -- 33 to 60 in	gravelly coarse sand	very rapid	0.54 to 1.07 in	7.4 to 8.4

#### Sugarbush

*Extent:* 25 percent of the unit

*Landform(s):* outwash plains, valley trains

*Slope gradient:* 30 to 45 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 6e

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sandy loam	moderately rapid	0.41 to 0.47 in	5.6 to 7.3
E -- 3 to 13 in	loamy sand	rapid	0.89 to 1.08 in	5.6 to 7.3
Bt -- 13 to 25 in	sandy loam	moderately rapid	1.46 to 1.83 in	5.6 to 7.3
2C -- 25 to 80 in	gravelly coarse sand	very rapid	1.09 to 3.28 in	5.6 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1244B--Sol-Sugarbush complex, 2 to 8 percent slopes, very stony

#### Sol, very stony

*Extent:* 50 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 8 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	sandy loam	moderate	0.47 to 0.79 in	5.1 to 6.5
E -- 4 to 17 in	loamy sand	moderately rapid	1.17 to 1.69 in	5.1 to 6.5
B/E,Bt -- 17 to 43 in	sandy clay loam	moderate	4.16 to 5.20 in	5.6 to 7.3
C -- 43 to 80 in	fine sandy loam	moderate	4.07 to 5.92 in	7.4 to 7.8

#### Sugarbush, very stony

*Extent:* 25 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 8 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sandy loam	moderately rapid	0.41 to 0.47 in	5.6 to 7.3
E -- 3 to 12 in	loamy sand	rapid	0.78 to 0.95 in	5.6 to 7.3
Bt -- 12 to 25 in	sandy loam	moderately rapid	1.61 to 2.01 in	5.6 to 7.3
2C -- 25 to 60 in	gravelly coarse sand	very rapid	0.69 to 2.08 in	5.6 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1244C--Sol-Sugarbush complex, 8 to 15 percent slopes, very stony

#### Sol, very stony

*Extent:* 50 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 8 to 15 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	sandy loam	moderate	0.47 to 0.79 in	5.1 to 6.5
E -- 4 to 17 in	loamy sand	moderately rapid	1.17 to 1.69 in	5.1 to 6.5
B/E,Bt -- 17 to 43 in	sandy clay loam	moderate	4.16 to 5.20 in	5.6 to 7.3
C -- 43 to 80 in	fine sandy loam	moderate	4.07 to 5.92 in	7.4 to 7.8

#### Sugarbush, very stony

*Extent:* 25 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 8 to 15 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sandy loam	moderately rapid	0.41 to 0.47 in	5.6 to 7.3
E -- 3 to 12 in	loamy sand	rapid	0.78 to 0.95 in	5.6 to 7.3
Bt -- 12 to 25 in	sandy loam	moderately rapid	1.61 to 2.01 in	5.6 to 7.3
2C -- 25 to 60 in	gravelly coarse sand	very rapid	0.69 to 2.08 in	5.6 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1244E--Sol-Sugarbush complex, 15 to 30 percent slopes, very stony

#### Sol, very stony

*Extent:* 45 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 15 to 30 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 7s

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	sandy loam	moderate	0.47 to 0.79 in	5.1 to 6.5
E -- 4 to 17 in	loamy sand	moderately rapid	1.17 to 1.69 in	5.1 to 6.5
B/E,Bt -- 17 to 43 in	sandy clay loam	moderate	4.16 to 5.20 in	5.6 to 7.3
C -- 43 to 80 in	fine sandy loam	moderate	4.07 to 5.92 in	7.4 to 7.8

#### Sugarbush, very stony

*Extent:* 35 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 15 to 30 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sandy loam	moderately rapid	0.41 to 0.47 in	5.6 to 7.3
E -- 3 to 12 in	loamy sand	rapid	0.78 to 0.95 in	5.6 to 7.3
Bt -- 12 to 25 in	sandy loam	moderately rapid	1.61 to 2.01 in	5.6 to 7.3
2C -- 25 to 60 in	gravelly coarse sand	very rapid	0.69 to 2.08 in	5.6 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1247D--Corliss-Dorset complex, 12 to 20 percent slopes

#### Corliss

*Extent:* 60 percent of the unit

*Landform(s):* outwash plains, valley trains

*Slope gradient:* 12 to 20 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 6e

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	loamy coarse sand	rapid	0.71 to 0.85 in	6.1 to 7.8
Bw -- 7 to 11 in	gravelly loamy coarse sand	rapid	0.12 to 0.39 in	6.1 to 7.8
Bk..C4 -- 11 to 60 in	gravelly coarse sand	rapid	0.98 to 2.93 in	7.4 to 8.4

#### Dorset

*Extent:* 30 percent of the unit

*Landform(s):* outwash plains, valley trains

*Slope gradient:* 12 to 20 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 3

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .17

*Land capability, nonirrigated* 6e

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 11 in	sandy loam	moderately rapid	1.43 to 1.65 in	5.6 to 7.3
Bt1,Bt2 -- 11 to 20 in	sandy loam	moderately rapid	1.09 to 1.72 in	5.6 to 7.3
2Bk -- 20 to 38 in	gravelly coarse sand	rapid	1.09 to 1.81 in	7.4 to 8.4
2C -- 38 to 80 in	gravelly coarse sand	rapid	0.83 to 1.67 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1248C--Nymore-Verndale complex, 6 to 12 percent slopes

#### Nymore

<p><i>Extent:</i> 55 percent of the unit</p> <p><i>Landform(s):</i> outwash plains</p> <p><i>Slope gradient:</i> 6 to 12 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> excessively drained</p>	<p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 2</p> <p><i>Wind erodibility index (WEI):</i> 134</p> <p><i>Kw factor (surface layer)</i> .15</p> <p><i>Land capability, nonirrigated</i> 6s</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> A</p> <p><i>Potential for frost action:</i> low</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loamy sand	rapid	0.79 to 0.94 in	5.1 to 6.5
BA..Bw2 -- 8 to 33 in	sand	rapid	0.50 to 2.02 in	5.1 to 7.3
C -- 33 to 60 in	sand	rapid	0.54 to 2.14 in	5.1 to 7.8

#### Verndale

<p><i>Extent:</i> 35 percent of the unit</p> <p><i>Landform(s):</i> outwash plains</p> <p><i>Slope gradient:</i> 6 to 12 percent</p> <p><i>Parent material:</i> outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> somewhat excessively drained</p>	<p><i>Soil loss tolerance (T factor):</i> 2</p> <p><i>Wind erodibility group (WEG):</i> 3</p> <p><i>Wind erodibility index (WEI):</i> 86</p> <p><i>Kw factor (surface layer)</i> .24</p> <p><i>Land capability, nonirrigated</i> 4e</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> B</p> <p><i>Potential for frost action:</i> low</p>
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<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 9 in	sandy loam	moderately rapid	1.18 to 1.54 in	5.6 to 7.3
Bt1,Bt2 -- 9 to 19 in	sandy loam	moderate	1.38 to 1.77 in	5.6 to 7.3
2Bw1-2 -- 19 to 49 in	coarse sand	rapid	1.80 to 2.39 in	5.6 to 7.3
2C -- 49 to 60 in	sand	rapid	0.22 to 0.66 in	6.1 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1249C--Graycalm-Bootlake complex, 8 to 15 percent slopes

#### Graycalm

*Extent:* 55 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 8 to 15 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .15

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	loamy sand	rapid	0.19 to 0.38 in	3.5 to 6.5
Bw1,Bw2 -- 3 to 20 in	sand	rapid	0.85 to 1.69 in	3.5 to 7.3
E -- 20 to 39 in	sand	rapid	0.76 to 1.70 in	3.5 to 7.3
E&Bt -- 39 to 80 in	sand	rapid	1.64 to 2.46 in	3.5 to 8.4

#### Bootlake

*Extent:* 35 percent of the unit

*Landform(s):* outwash plains

*Slope gradient:* 8 to 15 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 4e

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	sandy loam	moderately rapid	0.41 to 0.47 in	5.6 to 7.3
E -- 3 to 7 in	loamy sand	rapid	0.35 to 0.43 in	5.6 to 7.3
Bt -- 7 to 13 in	sandy loam	moderately rapid	0.71 to 0.89 in	5.6 to 7.3
2Bw -- 13 to 47 in	coarse sand	rapid	0.68 to 2.37 in	6.1 to 7.3
2C -- 47 to 80 in	coarse sand	rapid	0.66 to 2.31 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1271--Roscommon mucky loamy sand, depressional, map 22-30, 0 to 1 percent slopes

#### Roscommon, depressional, map 22-30

*Extent:* 90 percent of the unit

*Landform(s):* depressions on lake plains, depressions on outwash plains

*Slope gradient:* 0 to 1 percent

*Parent material:* glaciofluvial deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .05

*Land capability, nonirrigated* 6w

*Hydric soil:* yes

*Hydrologic group:* A/D

*Potential for frost action:* moderate

<i>Representative soil profile:</i>			<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A --	0 to 6 in	mucky loamy sand		rapid	0.47 to 1.18 in	5.6 to 7.8
Cg1,Cg2 --	6 to 80 in	sand		rapid	3.70 to 6.66 in	5.6 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1272B--Sol fine sandy loam, 2 to 6 percent slopes

#### Sol

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	fine sandy loam	moderate	0.38 to 0.63 in	5.1 to 6.5
E -- 3 to 14 in	fine sandy loam	moderately rapid	0.99 to 1.43 in	5.1 to 6.5
B/E,Bt -- 14 to 38 in	sandy clay loam	moderate	3.84 to 4.80 in	5.6 to 7.3
C -- 38 to 60 in	fine sandy loam	moderate	2.38 to 3.46 in	7.4 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1294--Nary fine sandy loam, 1 to 3 percent slopes

#### Nary

*Extent:* 85 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 1 to 3 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* moderately well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 2s

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 3 in	fine sandy loam	moderate	0.38 to 0.63 in	5.1 to 6.0
E -- 3 to 15 in	loamy fine sand	moderately rapid	1.06 to 1.54 in	5.1 to 6.0
B/E,Bt -- 15 to 36 in	sandy clay loam	moderately slow	3.34 to 4.17 in	5.6 to 6.5
C -- 36 to 60 in	sandy loam	moderate	2.64 to 3.84 in	7.4 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1319B--Rockwood sandy loam, 2 to 6 percent slopes, stony

#### Rockwood, stony

*Extent:* 80 percent of the unit

*Landform(s):* drumlins

*Slope gradient:* 2 to 6 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	sandy loam	moderate	1.02 to 1.42 in	5.1 to 6.5
E -- 8 to 16 in	sandy loam	moderate	0.99 to 1.24 in	5.1 to 6.5
BE1, BE2 -- 16 to 37 in	sandy loam	moderate	2.50 to 3.13 in	5.6 to 7.3
Bt -- 37 to 46 in	sandy loam	moderately slow	1.09 to 1.36 in	5.6 to 7.3
Cd -- 46 to 60 in	sandy loam	very slow	0.00 to 0.55 in	6.1 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1319C--Rockwood sandy loam, 6 to 12 percent slopes, stony

#### Rockwood, stony

*Extent:* 80 percent of the unit

*Landform(s):* drumlins

*Slope gradient:* 6 to 12 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	sandy loam	moderate	1.02 to 1.42 in	5.1 to 6.5
E -- 8 to 16 in	sandy loam	moderate	0.99 to 1.24 in	5.1 to 6.5
BE1, BE2 -- 16 to 37 in	sandy loam	moderate	2.50 to 3.13 in	5.6 to 7.3
Bt -- 37 to 46 in	sandy loam	moderately slow	1.09 to 1.36 in	5.6 to 7.3
Cd -- 46 to 60 in	sandy loam	very slow	0.00 to 0.55 in	6.1 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1319D--Rockwood sandy loam, 12 to 20 percent slopes, stony

#### Rockwood, stony

*Extent:* 80 percent of the unit

*Landform(s):* drumlins

*Slope gradient:* 12 to 20 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 4e

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	sandy loam	moderate	1.02 to 1.42 in	5.1 to 6.5
E -- 8 to 16 in	sandy loam	moderate	0.99 to 1.24 in	5.1 to 6.5
BE1, BE2 -- 16 to 37 in	sandy loam	moderate	2.50 to 3.13 in	5.6 to 7.3
Bt -- 37 to 46 in	sandy loam	moderately slow	1.09 to 1.36 in	5.6 to 7.3
Cd -- 46 to 60 in	sandy loam	very slow	0.00 to 0.55 in	6.1 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1321--Paddock-Becida complex, 0 to 2 percent slopes, stony

#### Paddock, stony

*Extent:* 45 percent of the unit

*Landform(s):* drumlins

*Slope gradient:* 0 to 2 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 2w

*Hydric soil:* no

*Hydrologic group:* C/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	fine sandy loam	moderate	1.02 to 1.42 in	5.6 to 7.3
EB -- 8 to 15 in	sandy loam	moderate	0.85 to 1.13 in	5.6 to 6.5
Bt1..BC -- 15 to 40 in	sandy loam	moderately slow	3.02 to 4.03 in	6.6 to 7.3
Cd1,Cd2 -- 40 to 60 in	sandy loam	very slow	0.00 to 0.79 in	6.6 to 8.4

#### Becida, stony

*Extent:* 35 percent of the unit

*Landform(s):* swales on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 5

*Wind erodibility index (WEI):* 56

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 2w

*Hydric soil:* yes

*Hydrologic group:* C/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	5.6 to 7.3
Eg -- 8 to 13 in	fine sandy loam	moderate	0.61 to 0.82 in	5.6 to 6.5
E/B -- 13 to 27 in	sandy loam	moderate	1.70 to 2.27 in	5.1 to 6.5
Btg..Bt2 -- 27 to 58 in	sandy loam	slow	0.61 to 1.84 in	5.1 to 6.5
BCd -- 58 to 80 in	sandy loam	very slow	0.44 to 1.32 in	6.6 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1332B--Rockwood fine sandy loam, morainic, 3 to 8 percent slopes, stony

#### Rockwood, morainic, stony

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 3 to 8 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 7 in	fine sandy loam	moderate	0.92 to 1.28 in	5.1 to 6.5
E --	7 to 16 in	loamy sand	moderate	1.09 to 1.36 in	5.1 to 6.5
BE1, BE2 --	16 to 37 in	sandy loam	moderate	2.50 to 3.13 in	5.6 to 7.3
Bt, Cd --	37 to 80 in	sandy loam	slow	0.00 to 1.72 in	6.6 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1332C--Rockwood fine sandy loam, morainic, 8 to 15 percent slopes, stony

#### Rockwood, morainic, stony

*Extent:* 85 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 8 to 15 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 4e

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 7 in	fine sandy loam	moderate	0.92 to 1.28 in	5.1 to 6.5
E --	7 to 16 in	loamy sand	moderate	1.09 to 1.36 in	5.1 to 6.5
BE1, BE2 --	16 to 37 in	sandy loam	moderate	2.50 to 3.13 in	5.6 to 7.3
Bt, Cd --	37 to 80 in	sandy loam	slow	0.00 to 1.72 in	6.6 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1332E--Rockwood fine sandy loam, morainic, 15 to 30 percent slopes, stony

#### Rockwood, morainic, stony

*Extent:* 90 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 15 to 30 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>		<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap --	0 to 7 in	fine sandy loam	moderate	0.92 to 1.28 in	5.1 to 6.5
E --	7 to 16 in	loamy sand	moderate	1.09 to 1.36 in	5.1 to 6.5
BE1, BE2 --	16 to 37 in	sandy loam	moderate	2.50 to 3.13 in	5.6 to 7.3
Bt, Cd --	37 to 80 in	sandy loam	slow	0.00 to 1.72 in	6.6 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1334--Huntersville loamy sand, 1 to 3 percent slopes

#### Huntersville

*Extent:* 80 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 1 to 3 percent

*Parent material:* outwash over till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* moderately well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .20

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loamy sand	rapid	0.79 to 0.94 in	6.1 to 7.3
E..2Bt -- 8 to 38 in	loamy sand	rapid	1.21 to 3.03 in	6.1 to 7.3
2Cd1 -- 38 to 65 in	sandy loam	moderately slow	2.94 to 3.48 in	6.1 to 7.3
2Cd2 -- 65 to 80 in	sandy loam	slow	0.00 to 0.60 in	6.6 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1336--Blowers fine sandy loam, morainic, 1 to 3 percent slopes, stony

#### Blowers, morainic, stony

*Extent:* 80 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 1 to 3 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* moderately well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .24

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 5 in	fine sandy loam	moderate	0.67 to 0.92 in	5.1 to 7.3
E..B/E -- 5 to 23 in	sandy loam	moderate	2.13 to 2.66 in	5.1 to 6.5
Bt,BC -- 23 to 47 in	sandy loam	moderate	2.88 to 3.60 in	5.6 to 7.3
Cd -- 47 to 80 in	sandy loam	slow	0.00 to 1.32 in	6.6 to 7.8

### 1356--Water, miscellaneous

#### Water, miscellaneous

*Extent:* 100 percent of the unit

*Landform(s):*

*Slope gradient:*

*Parent material:*

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:*

*Soil loss tolerance (T factor):*

*Wind erodibility group (WEG):*

*Wind erodibility index (WEI):*

*Kw factor (surface layer)*

*Land capability, nonirrigated*

*Hydric soil:* unranked

*Hydrologic group:*

*Potential for frost action:*

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
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## Map Unit Description (MN)

Hubbard County, Minnesota

### 1421B--Rockwood--Two Inlets, morainic, complex, 3 to 8 percent slopes, stony

#### Rockwood, morainic, stony

*Extent:* 50 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 3 to 8 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	fine sandy loam	moderate	0.92 to 1.28 in	5.1 to 6.5
E -- 7 to 16 in	loamy sand	moderate	1.09 to 1.36 in	5.1 to 6.5
BE1, BE2 -- 16 to 37 in	sandy loam	moderate	2.50 to 3.13 in	5.6 to 7.3
Bt, Cd -- 37 to 80 in	sandy loam	slow	0.00 to 1.72 in	6.6 to 7.8

#### Two Inlets, morainic, stony

*Extent:* 25 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 3 to 8 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	loamy sand	rapid	0.20 to 0.24 in	5.6 to 7.3
E -- 2 to 9 in	gravelly loamy coarse sand	rapid	0.64 to 0.78 in	5.6 to 7.3
Bt -- 9 to 19 in	gravelly loamy coarse sand	rapid	0.89 to 1.08 in	5.6 to 7.3
C -- 19 to 80 in	gravelly coarse sand	very rapid	1.22 to 2.44 in	6.6 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1421C--Rockwood-Two Inlets, morainic, complex, 8 to 15 percent slopes, stony

#### Rockwood, morainic, stony

*Extent:* 45 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 8 to 15 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 4e

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	fine sandy loam	moderate	0.92 to 1.28 in	5.1 to 6.5
E -- 7 to 16 in	loamy sand	moderate	1.09 to 1.36 in	5.1 to 6.5
BE1, BE2 -- 16 to 37 in	sandy loam	moderate	2.50 to 3.13 in	5.6 to 7.3
Bt, Cd -- 37 to 80 in	sandy loam	slow	0.00 to 1.72 in	6.6 to 7.8

#### Two Inlets, morainic, stony

*Extent:* 30 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 8 to 15 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	loamy sand	rapid	0.20 to 0.24 in	5.6 to 7.3
E -- 2 to 9 in	gravelly loamy coarse sand	rapid	0.64 to 0.78 in	5.6 to 7.3
Bt -- 9 to 19 in	gravelly loamy coarse sand	rapid	0.89 to 1.08 in	5.6 to 7.3
C -- 19 to 80 in	gravelly coarse sand	very rapid	1.22 to 2.44 in	6.6 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1421E--Rockwood--Two Inlets, morainic, complex, 15 to 30 percent slopes, stony

#### Rockwood, morainic, stony

*Extent:* 45 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 15 to 30 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 7 in	fine sandy loam	moderate	0.92 to 1.28 in	5.1 to 6.5
E -- 7 to 16 in	loamy sand	moderate	1.09 to 1.36 in	5.1 to 6.5
BE1, BE2 -- 16 to 37 in	sandy loam	moderate	2.50 to 3.13 in	5.6 to 7.3
Bt, Cd -- 37 to 80 in	sandy loam	slow	0.00 to 1.72 in	6.6 to 7.8

#### Two Inlets, morainic, stony

*Extent:* 40 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 15 to 30 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 2 in	loamy sand	rapid	0.20 to 0.24 in	5.6 to 7.3
E -- 2 to 9 in	gravelly loamy coarse sand	rapid	0.64 to 0.78 in	5.6 to 7.3
Bt -- 9 to 19 in	gravelly loamy coarse sand	rapid	0.89 to 1.08 in	5.6 to 7.3
C -- 19 to 80 in	gravelly coarse sand	very rapid	1.22 to 2.44 in	6.6 to 7.8

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1438B--Braham loamy fine sand, moderately wet, 2 to 6 percent slopes

#### Braham, moderately wet

*Extent:* 75 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* outwash over till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .28

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 8 in	loamy fine sand	rapid	0.79 to 0.94 in	5.6 to 7.3
E -- 8 to 24 in	loamy fine sand	rapid	1.29 to 1.61 in	5.6 to 7.3
2BE.2Bt2 -- 24 to 42 in	sandy clay loam	moderate	2.72 to 3.26 in	5.1 to 7.3
2Bk -- 42 to 60 in	loam	moderate	2.66 to 3.19 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1439--Cathro muck, depressional, map 22-30, 0 to 1 percent slopes

#### Cathro, depressional, map 22-30

*Extent:* 75 percent of the unit

*Landform(s):* depressions on lake plains, depressions on moraines

*Slope gradient:* 0 to 1 percent

*Parent material:* organic material over glaciolacustrine deposits and/or till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 1

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer):* .02

*Land capability, nonirrigated:* 6w

*Hydric soil:* yes

*Hydrologic group:* A/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1 -- 0 to 12 in	muck	moderately rapid	5.31 to 6.50 in	
Oa2 -- 12 to 43 in	muck	moderately rapid	10.89 to 14.00 in	
A,Cg -- 43 to 80 in	sandy loam	moderate	4.07 to 7.03 in	

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1440B--Redeye loamy sand, morainic, 3 to 8 percent slopes

#### Redeye, morainic

*Extent:* 75 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 3 to 8 percent

*Parent material:* outwash over till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .17

*Land capability, nonirrigated* 3s

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 5 in	loamy sand	rapid	0.51 to 0.61 in	5.1 to 7.3
E,Bw -- 5 to 31 in	sand	rapid	1.82 to 2.60 in	5.6 to 6.5
2Bt1-2 -- 31 to 43 in	sandy loam	moderately slow	1.30 to 1.54 in	5.1 to 7.3
2Cd -- 43 to 80 in	sandy loam	slow	0.00 to 1.48 in	6.6 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1440C--Redeye loamy sand, morainic, 8 to 15 percent slopes

#### Redeye, morainic

*Extent:* 75 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 8 to 15 percent

*Parent material:* outwash over till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .17

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 5 in	loamy sand	rapid	0.51 to 0.61 in	5.1 to 7.3
E,Bw -- 5 to 31 in	sand	rapid	1.82 to 2.60 in	5.6 to 6.5
2Bt1-2 -- 31 to 43 in	sandy loam	moderately slow	1.30 to 1.54 in	5.1 to 7.3
2Cd -- 43 to 80 in	sandy loam	slow	0.00 to 1.48 in	6.6 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1444--Wurtsmith loamy sand, map 22-30, 0 to 3 percent slopes

#### Wurtsmith, map 22-30

*Extent:* 75 percent of the unit

*Landform(s):* flats on lake plains, rises on lake plains, flats on outwash plains, rises on outwash plains

*Slope gradient:* 0 to 3 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* moderately well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 4s

*Hydric soil:* no

*Hydrologic group:* A/D

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap -- 0 to 6 in	loamy sand	rapid	0.47 to 0.71 in	4.5 to 7.3
Bw1,Bw2 -- 6 to 20 in	sand	rapid	0.85 to 1.70 in	3.5 to 6.5
BC..Cg -- 20 to 80 in	sand	rapid	2.99 to 4.19 in	3.5 to 7.3

### 1445--Markey muck, depressional, map 22-30, 0 to 1 percent slopes

#### Markey, depressional, map 22-30

*Extent:* 75 percent of the unit

*Landform(s):* depressions on lake plains, depressions on outwash plains

*Slope gradient:* 0 to 1 percent

*Parent material:* organic material over outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 1

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .02

*Land capability, nonirrigated* 6w

*Hydric soil:* yes

*Hydrologic group:* A/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Oa1,Oa2 -- 0 to 26 in	muck	moderately rapid	9.09 to 11.69 in	
Cg1,Cg2 -- 26 to 80 in	sand	rapid	1.62 to 4.31 in	

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1447--Beltrami very fine sandy loam, 1 to 3 percent slopes

#### Beltrami

*Extent:* 75 percent of the unit

*Landform(s):* flats on moraines

*Slope gradient:* 1 to 3 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .37

*Land capability, nonirrigated* 1

*Hydric soil:* no

*Hydrologic group:* C

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 6 in	very fine sandy loam	moderately rapid	0.77 to 1.18 in	5.6 to 7.3
E -- 6 to 12 in	very fine sandy loam	moderately rapid	0.65 to 1.12 in	5.6 to 7.3
Bt1..BC -- 12 to 39 in	clay loam	moderate	4.07 to 5.16 in	5.6 to 7.8
C1,C2 -- 39 to 80 in	loam	moderate	6.14 to 7.78 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1450B--Sanburn very stony loamy sand, 1 to 8 percent slopes, bouldery

#### Sanburn, bouldery

*Extent:* 80 percent of the unit

*Landform(s):* outwash plains, valley trains

*Slope gradient:* 1 to 8 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .05

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	very stony loamy sand	moderately rapid	0.12 to 0.24 in	5.1 to 6.5
E1,E2 -- 4 to 17 in	loamy sand	moderately rapid	0.91 to 1.17 in	5.1 to 6.5
Bt -- 17 to 24 in	sandy loam	moderately rapid	0.50 to 0.85 in	5.1 to 6.5
2BC..2C2 -- 24 to 80 in	sand	rapid	1.12 to 2.24 in	5.1 to 6.5

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1450C--Sanburn very stony loamy sand, 8 to 15 percent slopes, bouldery

#### Sanburn, bouldery

*Extent:* 80 percent of the unit

*Landform(s):* outwash plains, valley trains

*Slope gradient:* 8 to 15 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .05

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	very stony loamy sand	moderately rapid	0.12 to 0.24 in	5.1 to 6.5
E1,E2 -- 4 to 17 in	loamy sand	moderately rapid	0.91 to 1.17 in	5.1 to 6.5
Bt -- 17 to 24 in	sandy loam	moderately rapid	0.50 to 0.85 in	5.1 to 6.5
2BC..2C2 -- 24 to 80 in	sand	rapid	1.12 to 2.24 in	5.1 to 6.5

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1450E--Sanburn very stony loamy sand, 15 to 30 percent slopes, bouldery

#### Sanburn, bouldery

*Extent:* 75 percent of the unit

*Landform(s):* outwash plains, valley trains

*Slope gradient:* 15 to 30 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* somewhat excessively drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .05

*Land capability, nonirrigated* 6s

*Hydric soil:* no

*Hydrologic group:* A

*Potential for frost action:* low

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 4 in	very stony loamy sand	moderately rapid	0.12 to 0.24 in	5.1 to 6.5
E1,E2 -- 4 to 17 in	loamy sand	moderately rapid	0.91 to 1.17 in	5.1 to 6.5
Bt -- 17 to 24 in	sandy loam	moderately rapid	0.50 to 0.85 in	5.1 to 6.5
2BC..2C2 -- 24 to 80 in	sand	rapid	1.12 to 2.24 in	5.1 to 6.5

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1460B--Nebish very fine sandy loam, moderately wet, 2 to 6 percent slopes

#### Nebish, moderately wet

*Extent:* 70 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 2 to 6 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .43

*Land capability, nonirrigated* 2e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 6 in	very fine sandy loam	moderately rapid	0.77 to 1.06 in	5.6 to 7.3
E -- 6 to 12 in	very fine sandy loam	moderately rapid	0.65 to 1.12 in	5.6 to 7.3
Bt1,Bt2 -- 12 to 32 in	loam	moderate	3.01 to 3.81 in	5.6 to 7.8
BC..C2 -- 32 to 80 in	loam	moderate	5.28 to 9.13 in	7.4 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1460C--Nebish very fine sandy loam, 6 to 12 percent slopes

#### Nebish

*Extent:* 70 percent of the unit

*Landform(s):* moraines

*Slope gradient:* 6 to 12 percent

*Parent material:* till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* well drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 3

*Wind erodibility index (WEI):* 86

*Kw factor (surface layer)* .43

*Land capability, nonirrigated* 3e

*Hydric soil:* no

*Hydrologic group:* B

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 5 in	very fine sandy loam	moderately rapid	0.67 to 0.92 in	5.6 to 7.3
E -- 5 to 14 in	fine sandy loam	moderately rapid	1.00 to 1.72 in	5.6 to 7.3
Bt1..BC -- 14 to 39 in	loam	moderate	3.72 to 4.71 in	5.6 to 7.8
C1,C2 -- 39 to 80 in	loam	moderate	4.50 to 7.78 in	7.4 to 8.4

### 1943--Roscommon loamy sand, map 22-30, 0 to 2 percent slopes

#### Roscommon, map 22-30

*Extent:* 85 percent of the unit

*Landform(s):* swales on lake plains, swales on outwash plains

*Slope gradient:* 0 to 2 percent

*Parent material:* glaciofluvial deposits

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .05

*Land capability, nonirrigated* 4w

*Hydric soil:* yes

*Hydrologic group:* A/D

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 6 in	loamy sand	rapid	0.41 to 1.18 in	5.6 to 7.8
Cg1,Cg2 -- 6 to 60 in	sand	rapid	2.70 to 3.78 in	5.6 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1956--Staples loamy sand, 0 to 2 percent slopes

#### Staples

*Extent:* 75 percent of the unit

*Landform(s):* swales on drumlins, swales on moraines

*Slope gradient:* 0 to 2 percent

*Parent material:* outwash over till

*Restrictive feature(s):* greater than 60 inches

*Flooding:* none

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .10

*Land capability, nonirrigated* 3w

*Hydric soil:* yes

*Hydrologic group:* C/D

*Potential for frost action:* high

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A -- 0 to 7 in	loamy sand	rapid	0.71 to 0.85 in	5.1 to 7.3
Eg1..Eg3 -- 7 to 36 in	sand	rapid	2.01 to 2.87 in	5.1 to 7.3
2Btg -- 36 to 44 in	sandy loam	moderately slow	0.50 to 1.07 in	5.1 to 7.3
2Cd1-2 -- 44 to 60 in	sandy loam	very slow	0.00 to 0.63 in	6.6 to 7.8

### 1968--Evert loam, 0 to 1 percent slopes, occasionally flooded

#### Evert, occasionally flooded

*Extent:* 80 percent of the unit

*Landform(s):* flats on flood plains

*Slope gradient:* 0 to 1 percent

*Parent material:* alluvium

*Restrictive feature(s):* greater than 60 inches

*Flooding:* occasional

*Ponding:* occasional

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 2

*Wind erodibility group (WEG):* 5

*Wind erodibility index (WEI):* 56

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 4w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 11 in	loam	moderate	2.09 to 2.43 in	6.1 to 7.8
Cg1..Cg5 -- 11 to 60 in	sand	rapid	2.44 to 4.88 in	6.1 to 8.4

## Map Unit Description (MN)

Hubbard County, Minnesota

### 1969--Evert-Isan complex, channeled, 0 to 1 percent slopes, frequently flooded

#### Evert, channeled, frequently flooded

*Extent:* 55 percent of the unit

*Landform(s):* depressions on flood plains

*Slope gradient:* 0 to 1 percent

*Parent material:* alluvium

*Restrictive feature(s):* greater than 60 inches

*Flooding:* frequent

*Ponding:* frequent

*Drainage class:* very poorly drained

*Soil loss tolerance (T factor):* 2

*Wind erodibility group (WEG):* 5

*Wind erodibility index (WEI):* 56

*Kw factor (surface layer)* .32

*Land capability, nonirrigated* 7w

*Hydric soil:* yes

*Hydrologic group:* B/D

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A -- 0 to 11 in	loam	moderate	2.09 to 2.43 in	6.1 to 7.8
Cg1..Cg5 -- 11 to 60 in	sand	rapid	2.44 to 4.88 in	6.1 to 8.4

#### Isan, channeled, frequently flooded

*Extent:* 25 percent of the unit

*Landform(s):* flats on flood plains

*Slope gradient:* 0 to 1 percent

*Parent material:* outwash

*Restrictive feature(s):* greater than 60 inches

*Flooding:* frequent

*Ponding:* none

*Drainage class:* poorly drained

*Soil loss tolerance (T factor):* 5

*Wind erodibility group (WEG):* 2

*Wind erodibility index (WEI):* 134

*Kw factor (surface layer)* .17

*Land capability, nonirrigated* 7w

*Hydric soil:* yes

*Hydrologic group:* A/D

*Potential for frost action:* moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
A1..A3 -- 0 to 13 in	loamy sand	rapid	1.04 to 1.56 in	5.6 to 7.3
Bg -- 13 to 30 in	sand	rapid	1.02 to 1.69 in	5.1 to 6.5
Cg1..Cg3 -- 30 to 60 in	sand	rapid	1.20 to 1.80 in	5.6 to 7.3

## Map Unit Description (MN)

Hubbard County, Minnesota

### W--Water

#### Water

*Extent:* 100 percent of the unit

*Landform(s):*

*Slope gradient:*

*Parent material:*

*Restrictive feature(s):* greater than 60 inches

*Flooding:*

*Ponding:*

*Drainage class:*

*Soil loss tolerance (T factor):*

*Wind erodibility group (WEG):*

*Wind erodibility index (WEI):*

*Kw factor (surface layer)*

*Land capability, nonirrigated*

*Hydric soil:* unranked

*Hydrologic group:*

*Potential for frost action:*

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
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This report provides a semitabular listing of some soil and site properties and interpretations that are valuable in communicating the concept of a map unit. The report also provides easy access to the commonly used conservation planning information in one place. The major soil components in each map unit are displayed. Minor components may be displayed if they are included in the database and are selected at the time the report is generated.