PEDON DESCRIPTION -- NEON Site STEI

Print Date: Apr 2 2018

Description Date: Sep 15 2016

Describer: Ryan Bevernitz

NEON Plot ID: STEI_053

Site ID: S2016WI069053

Pedon ID: S2016WI069053

Site Note: This pedon is for the NEON sampling project at the STEI_053 site. 9 meters and 30 degrees from the SW 40m X 40m corner to the center of the soil core.

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 17N0040

Soil Name as Described/Sampled: Capitola

Classification: Coarse-loamy, mixed, superactive, frigid Aeric Epiaqualfs

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on footslope of side slope of ground moraine on till plain

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 41 to 100 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 13 cm.
glossic horizon 41 to 60 cm.
argillic horizon 41 to 100 cm.

Country:

State: Wisconsin

County: Lincoln

MLRA: 94D -- Northern Highland Sandy Drift

Soil Survey Area: WI069 -- Lincoln County, Wisconsin
10-RHI -- Rhinelander, Wisconsin

Map Unit: MxB -- Moodig sandy loam, 0 to 4 percent slopes

Pit Location: This pedon is for the NEON sampling project at the STEI_053 site. 9 meters and 30 degrees from the SW 40m X 40m corner to the center of the soil core.

Quad Name: Woodboro, Wisconsin

Std Latitude: 45.5055600

Std Longitude: 89.5875500

Latitude: 45 degrees 30 minutes 20.01 seconds north

Longitude: 89 degrees 35 minutes 15.17 seconds west

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation: American red raspberry, beechfern, bigtooth aspen, bunchberry dogwood, Pennsylvania sedge, quaking aspen, red maple

Parent Material: coarse-loamy till

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 0.5 percent nonflat subangular indurated 250- to 600-millimeter Mixed rock fragments

Description database: KSSL

Cont. Site ID: S2016WI069053 **Pedon ID:** S2016WI069053

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
2.0	471.0	175						poorly		

A--0 to 13 centimeters (0.0 to 5.1 inches); very dark brown (10YR 2/2) loam; friable; 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00217

EB--13 to 41 centimeters (5.1 to 16.1 inches); brown (10YR 5/3) sandy loam; friable; 10 percent medium prominent 7.5YR 4/6), moist, masses of oxidized iron and 10 percent medium distinct 10YR 5/1), moist, iron depletions; 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00218

B/E--41 to 60 centimeters (16.1 to 23.6 inches); 80 percent brown (7.5YR 4/4) and 20 percent brown (7.5YR 5/3) sandy loam; friable; 1 percent medium faint 10YR 5/2), moist, iron depletions and 25 percent medium prominent 5YR 4/6), moist, and 5YR 5/8), moist, masses of oxidized iron; 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00219

Bt--60 to 100 centimeters (23.6 to 39.4 inches); reddish brown (5YR 4/4) gravelly sandy loam; friable; 1 percent medium prominent 7.5YR 5/2), moist, iron depletions and 25 percent medium distinct 5YR 4/6), moist, masses of oxidized iron; 20 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00220

PEDON DESCRIPTION -- NEON Site STEI

Print Date: Apr 2 2018

Description Date: Sep 15 2016

Describer: Ryan Bevernitz

NEON Plot ID: STEI_059

Site ID: S2016WI069059

Pedon ID: S2016WI069059

Site Note: This pedon is for the NEON sampling project at the STEI_059 site. 3 meters and 25 degrees from the SW 40m X 40m corner to the center of the soil core.

Pedon Note: Gravelly sandy loam till at 102cm; 7.5YR 4/4

Lab Source ID: KSSL

Lab Pedon #: 17N0039

Soil Name as Described/Sampled: Moodig

Classification: Coarse-loamy, mixed, superactive, frigid Alfic Epiaquods

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on talf ground moraine on till plain

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 9 cm.
spodic horizon 9 to 22 cm.
glossic horizon 22 to 100 cm.
argillic horizon 55 to 100 cm.

Country:

State: Wisconsin

County: Lincoln

MLRA: 94D -- Northern Highland Sandy Drift

Soil Survey Area: WI069 -- Lincoln County, Wisconsin
10-RHI -- Rhinelander, Wisconsin

Map Unit: MxB -- Moodig sandy loam, 0 to 4 percent slopes

Pit Location: This pedon is for the NEON sampling project at the STEI_059 site. 3 meters and 25 degrees from the SW 40m X 40m corner to the center of the soil core.

Quad Name: Woodboro, Wisconsin

Std Latitude: 45.5089600

Std Longitude: 89.5886400

Latitude: 45 degrees 30 minutes 32.26 seconds north

Longitude: 89 degrees 35 minutes 19.10 seconds west

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover: Tree cover

Secondary Earth Cover: Intermixed conifers and hardwoods

Existing Vegetation: American red raspberry, balsam fir, black ash, fibrousroot sedge, goldenrod, partridgeberry, Pennsylvania sedge, quaking aspen, red maple, western brackenfern

Parent Material: coarse-loamy till

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2016WI069059 **Pedon ID:** S2016WI069059

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
2.0	474.0	235						somewhat poorly		

A--0 to 9 centimeters (0.0 to 3.5 inches); very dark grayish brown (10YR 3/2) fine sandy loam; weak medium subangular blocky parts to weak medium granular structure; friable; . Lab sample # 17N00213

Bs--9 to 22 centimeters (3.5 to 8.7 inches); brown (7.5YR 4/4) fine sandy loam; weak fine subangular blocky structure; friable; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00214

E/B--22 to 55 centimeters (8.7 to 21.7 inches); 70 percent brown (10YR 4/3) and 30 percent brown (7.5YR 4/4) sandy loam; moderate medium subangular blocky structure; friable; 1 percent fine distinct 7.5YR 4/6), moist, masses of oxidized iron and 10 percent medium distinct 10YR 5/2) iron depletions and 25 percent medium prominent 5YR 4/6), moist, masses of oxidized iron; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00215

2B/E--55 to 100 centimeters (21.7 to 39.4 inches); 80 percent reddish brown (5YR 4/4) and 20 percent brown (7.5YR 5/3) gravelly sandy loam; moderate medium subangular blocky structure; friable; 10 percent medium distinct 10YR 5/2) iron depletions and 25 percent medium prominent 5YR 4/6), moist, masses of oxidized iron; 20 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00216

PEDON DESCRIPTION -- NEON Site STEI

Print Date: Apr 2 2018

Description Date: Sep 12 2016

Describer: Mike Rokus

NEON Plot ID: STEI_005

Site ID: S2016WI099005

Pedon ID: S2016WI099005

Site Note: This pedon is for the NEON sampling project at the STEI_005 site. 7 meters and 290 degrees from the SE 40m X 40m corner to the center of the soil pit.

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 17N0037

Soil Name as Described/Sampled: Newood

Classification: Coarse-loamy, mixed, frigid Oxyaquic Haplorthods

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: taxadjunct

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of side slope of moraine on till plain

Upslope Shape: convex

Cross Slope Shape: concave

Particle Size Control Section: 25 to 78 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 9 cm.
spodic horizon 9 to 78 cm.
densic contact 78 to 78 cm.
densic materials 78 to 100 cm.

Country:

State: Wisconsin

County: Price

MLRA: 90A -- Wisconsin and Minnesota Thin Loess and Till, Northern Part

Soil Survey Area: WI099 -- Price County, Wisconsin
10-RHI -- Rhinelander, Wisconsin

Map Unit: 847B -- Newood fine sandy loam, drumlins, 2 to 6 percent slopes, very stony

Pit Location: This pedon is for the NEON sampling project at the STEI_005 site. 7 meters and 290 degrees from the SE 40m X 40m corner to the center of the soil pit.

Quad Name: Pike Lake SE, Wisconsin

Std Latitude: 45.8262600

Std Longitude: 90.0860600

Latitude: 45 degrees 49 minutes 34.54 seconds north

Longitude: 90 degrees 5 minutes 9.82 seconds west

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover: Tree cover

Secondary Earth Cover: Intermixed conifers and hardwoods

Existing Vegetation: American basswood, balsam fir, hophornbeam, northern red oak, red maple, white ash

Parent Material: coarse-loamy till

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 0.0 percent nonflat subangular indurated 250- to 600-millimeter Mixed rock fragments

Description database: KSSL

Cont. Site ID: S2016WI099005 **Pedon ID:** S2016WI099005

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
3.0	501.0	324						moderately well		

A--0 to 9 centimeters (0.0 to 3.5 inches); very dark brown (7.5YR 2.5/2) loam; weak medium granular structure; friable; very fine roots and fine roots; 3 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 17N00200

Bs1--9 to 17 centimeters (3.5 to 6.7 inches); dark brown (7.5YR 3/4) sandy loam; weak fine subangular blocky structure; friable; very fine roots and fine roots; 2 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 2 percent nonflat subrounded indurated 250 to 600-millimeter Mixed rock fragments and 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; clear irregular boundary. Lab sample # 17N00201

Bs2--17 to 30 centimeters (6.7 to 11.8 inches); brown (7.5YR 4/4) gravelly sandy loam; weak medium subangular blocky structure; friable; fine roots; 2 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 250 to 600-millimeter Mixed rock fragments and 15 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; gradual wavy boundary. Lab sample # 17N00202

Bs3--30 to 56 centimeters (11.8 to 22.0 inches); dark brown (7.5YR 3/4) gravelly sandy loam; weak medium subangular blocky structure; friable; medium roots; 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 25 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; gradual wavy boundary. Lab sample # 17N00203

Bs4--56 to 78 centimeters (22.0 to 30.7 inches); brown (7.5YR 4/4) very gravelly sandy loam; weak coarse subangular blocky structure; friable; 6 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 30 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; gradual wavy boundary. Lab sample # 17N00204

Cd--78 to 100 centimeters (30.7 to 39.4 inches); brown (7.5YR 4/4) very gravelly loamy sand; structureless massive; firm; 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 40 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00205

PEDON DESCRIPTION -- NEON Site STEI

Print Date: Apr 2 2018
Description Date: Sep 13 2016
Describer: Michael Whited
NEON Plot ID: STEI_006

Site ID: S2016WI099006

Pedon ID: S2016WI099006

Site Note: This pedon is for the NEON sampling project at the STEI_006 site. 12 meters and 40 degrees from the SW 40m X 40m corner to the center of the soil pit.

Pedon Note: Many worms present; Free water seep at 92cm
Lab Source ID: KSSL
Lab Pedon #: 17N0032
Soil Name as Described/Sampled: Springstead
Classification: Sandy, mixed, frigid Oxyaquic Haplorthods

Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:

State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: on backslope of side slope of moraine on till plain
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 57 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 12 cm.
albic horizon 4 to 12 cm.
spodic horizon 12 to 57 cm.
lithologic discontinuity 57 to 100 cm.
densic materials 57 to 100 cm.
densic contact 57 to 57 cm.

Country:
State: Wisconsin
County: Price
MLRA: 90A -- Wisconsin and Minnesota Thin Loess and Till, Northern Part
Soil Survey Area: WI099 -- Price County, Wisconsin
10-RHI -- Rhinelander, Wisconsin
Map Unit: 744B -- Peeksville fine sandy loam, 0 to 4 percent slopes, very stony

Pit Location: This pedon is for the NEON sampling project at the STEI_006 site. 12 meters and 40 degrees from the SW 40m X 40m corner to the center of the soil pit.

Quad Name: Pike Lake SE, Wisconsin
Std Latitude: 45.8174500
Std Longitude: 90.0785300

Latitude: 45 degrees 49 minutes 2.82 seconds north
Longitude: 90 degrees 4 minutes 42.70 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover: Tree cover
Secondary Earth Cover: Hardwoods
Existing Vegetation: beaked hazelnut, hophornbeam, interrupted fern, northern red oak, Pennsylvania sedge, quaking aspen, red maple, white ash
Parent Material: loamy alluvium over sandy till
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments: 0.0 percent nonflat subangular indurated 250- to 600-millimeter Mixed rock fragments

Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
57	100	densic material	Noncemented

Cont. Site ID: S2016WI099006 **Pedon ID:** S2016WI099006

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
4.0	503.0	332						moderately well		

A--0 to 4 centimeters (0.0 to 1.6 inches); very dark brown (7.5YR 2.5/2) fine sand; moderate fine granular, and moderate medium granular structure; friable; medium roots and fine roots; gradual broken boundary. Lab sample # 17N00169

A/E--4 to 12 centimeters (1.6 to 4.7 inches); dark brown (7.5YR 3/2) fine sand; weak fine subangular blocky, and moderate medium granular structure; friable; medium roots and fine roots and coarse roots; clear wavy boundary. Lab sample # 17N00170. 25% uncoated sand grains, mixed by earthworms

Bhs--12 to 27 centimeters (4.7 to 10.6 inches); very dark brown (7.5YR 2.5/3) loamy fine sand; weak medium subangular blocky structure; friable; medium roots and fine roots; 1 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 2 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 17N00171. 2% small ortstein pieces

Bs1--27 to 48 centimeters (10.6 to 18.9 inches); dark brown (7.5YR 3/4) gravelly loamy fine sand; weak medium subangular blocky structure; friable; fine roots; 2 percent nonflat subrounded indurated 250 to 600-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 15 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 17N00172

Bs2--48 to 57 centimeters (18.9 to 22.4 inches); brown (7.5YR 4/4) gravelly sand; moderate medium subangular blocky, and structureless single grain; very friable; 11 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 20 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 17N00173

2BCd--57 to 75 centimeters (22.4 to 29.5 inches); strong brown (7.5YR 4/6) very gravelly loamy sand; structureless massive; firm; 20 percent medium distinct 5YR 4/6), moist, masses of oxidized iron; 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 40 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; gradual wavy boundary. Lab sample # 17N00174

2Cd1--75 to 92 centimeters (29.5 to 36.2 inches); brown (7.5YR 4/3) very gravelly loamy sand; structureless massive; firm; 2 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 35 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; gradual wavy boundary. Lab sample # 17N00175. darkness may be from Manganese.

2Cd2--92 to 100 centimeters (36.2 to 39.4 inches); brown (7.5YR 4/3) gravelly loamy sand; structureless massive; firm; 5 percent medium prominent 5YR 4/6), moist, masses of oxidized iron; 2 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 30 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00176. darkness may be from Manganese; few pockets of LS material

PEDON DESCRIPTION -- NEON Site STEI

Print Date: Apr 2 2018

Description Date: Sep 14 2016

Describer: Mike England

NEON Plot ID: STEI_008

Site ID: S2016WI099008

Pedon ID: S2016WI099008

Site Note: This pedon is for the NEON sampling project at the STEI_008 site. 2 meters and 20 degrees from the SW 40m X 40m corner to the center of the soil pit.

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 17N0034

Soil Name as Described/Sampled: Pence

Classification: Sandy-skeletal, mixed, frigid Typic Haplorthods

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: taxadjunct

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of side slope of drainageway on till plain

Upslope Shape: linear

Cross Slope Shape: concave

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 23 cm.
albic horizon 8 to 23 cm.
albic materials 8 to 16 cm.
spodic materials 23 to 62 cm.
spodic horizon 23 to 62 cm.

Country:

State: Wisconsin

County: Price

MLRA: 90A -- Wisconsin and Minnesota Thin Loess and Till, Northern Part

Soil Survey Area: WI099 -- Price County, Wisconsin
10-RHI -- Rhinelander, Wisconsin

Map Unit: 9012D -- Sayner-Lindquist complex, 15 to 30 percent slopes

Pit Location: This pedon is for the NEON sampling project at the STEI_008 site. 2 meters and 20 degrees from the SW 40m X 40m corner to the center of the soil pit.

Quad Name: Pike Lake SE, Wisconsin

Std Latitude: 45.8023500

Std Longitude: 90.0623400

Latitude: 45 degrees 48 minutes 8.45 seconds north

Longitude: 90 degrees 3 minutes 44.42 seconds west

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover: Tree cover

Secondary Earth Cover: Intermixed conifers and hardwoods

Existing Vegetation: balsam fir, hophornbeam, paper birch, red maple, red pine, white ash

Parent Material: sandy and gravelly outwash

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2016WI099008 **Pedon ID:** S2016WI099008

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
4.0	495.0	95						somewhat excessively		

A--0 to 8 centimeters (0.0 to 3.1 inches); very dark brown (7.5YR 2.5/2) fine sandy loam; weak medium granular structure; very friable; very fine roots and medium roots and fine roots and coarse roots; clear wavy boundary. Lab sample # 17N00184. 30% uncoated sand grains

E--8 to 16 centimeters (3.1 to 6.3 inches); brown (7.5YR 5/2) fine sand; structureless single grain; loose; very fine roots and medium roots and fine roots and coarse roots; gradual irregular boundary. Lab sample # 17N00185

EB--16 to 23 centimeters (6.3 to 9.1 inches); brown (7.5YR 4/3) loamy fine sand; weak medium subangular blocky structure; very friable; very fine roots and very coarse roots and fine roots and coarse roots; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; clear broken boundary. Lab sample # 17N00186

Bhs--23 to 36 centimeters (9.1 to 14.2 inches); dark reddish brown (5YR 3/3) fine sand, loamy fine sand; weak medium subangular blocky structure; very friable; very fine roots and medium roots and fine roots; 15 percent moderately cemented ortstein nodules and 2 percent strongly cemented ortstein nodules; 3 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 250 to 600-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 17N00187

Bs1--36 to 51 centimeters (14.2 to 20.1 inches); brown (7.5YR 4/4) very stony fine sand; weak medium subangular blocky structure; very friable; very fine roots and very coarse roots and medium roots and fine roots and coarse roots; 5 percent moderately cemented ortstein nodules; 6 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 10 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 20 percent nonflat subrounded indurated 250 to 600-millimeter Mixed rock fragments; gradual wavy boundary. Lab sample # 17N00188

Bs2--51 to 62 centimeters (20.1 to 24.4 inches); dark brown (7.5YR 3/4) very stony loamy fine sand; weak medium subangular blocky structure; very friable; very fine roots and medium roots and fine roots; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 20 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 20 percent nonflat subrounded indurated 250 to 600-millimeter Mixed rock fragments; gradual wavy boundary. Lab sample # 17N00189

BC--62 to 100 centimeters (24.4 to 39.4 inches); strong brown (7.5YR 4/6) very gravelly sand; structureless single grain; loose; 1 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 40 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00190

PEDON DESCRIPTION -- NEON Site STEI

Print Date: Apr 2 2018

Description Date: Sep 14 2016

Describer: Ryan Bevernitz

NEON Plot ID: STEI_010

Site ID: S2016WI099010

Pedon ID: S2016WI099010

Site Note: This pedon is for the NEON sampling project at the STEI_010 site. 17 meters and 20 degrees from the SW 40m X 40m corner to the center of the soil pit.

Pedon Note: Free water at 55cm; 2Cd at 108cm, GR-SL, unsure of the density, but water is being perched.

Lab Source ID: KSSL

Lab Pedon #: 17N0044

Soil Name as Described/Sampled: Pesabic

Classification: Coarse-loamy, mixed, superactive, frigid Alfic Epiaquods

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on talf ground moraine on till plain

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 15 cm.
spodic horizon 15 to 30 cm.
glossic horizon 30 to 75 cm.
argillic horizon 54 to 100 cm.

Country:

State: Wisconsin

County: Price

MLRA: 90A -- Wisconsin and Minnesota Thin Loess and Till, Northern Part

Soil Survey Area: WI099 -- Price County, Wisconsin
10-RHI -- Rhinelander, Wisconsin

Map Unit: 3456A -- Magnor, very stony and Magnor silt loams, 0 to 4 percent slopes

Pit Location: This pedon is for the NEON sampling project at the STEI_010 site. 17 meters and 20 degrees from the SW 40m X 40m corner to the center of the soil pit.

Quad Name: Pike Lake SE, Wisconsin

Std Latitude: 45.7876800

Std Longitude: 90.1043200

Latitude: 45 degrees 47 minutes 15.64 seconds north

Longitude: 90 degrees 6 minutes 15.55 seconds west

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation: Aster family, beaked hazelnut, bloodroot, common ladyfern, grass, native, northern red oak, Pennsylvania sedge, sugar maple, white ash

Parent Material: loamy alluvium and/or loess over coarse-loamy till

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2016WI099010 **Pedon ID:** S2016WI099010

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
2.0	530.0	300						somewhat poorly		

A--0 to 15 centimeters (0.0 to 5.9 inches); very dark gray (7.5YR 3/1) loam; moderate medium granular structure; friable; very fine roots and medium roots and fine roots; clear smooth boundary. Lab sample # 17N00236

Bhs--15 to 23 centimeters (5.9 to 9.1 inches); dark brown (7.5YR 3/3) fine sandy loam; moderate medium subangular blocky structure; friable; very fine roots and medium roots and fine roots and coarse roots; gradual smooth boundary. Lab sample # 17N00237

Bs--23 to 30 centimeters (9.1 to 11.8 inches); dark brown (7.5YR 3/4) fine sandy loam; moderate medium subangular blocky, and moderate coarse subangular blocky structure; friable; medium roots and fine roots; gradual smooth boundary. Lab sample # 17N00238

E/B--30 to 54 centimeters (11.8 to 21.3 inches); 85 percent brown (7.5YR 5/3) and 15 percent brown (7.5YR 4/4) sandy loam; moderate medium subangular blocky, and moderate coarse subangular blocky structure; friable; fine roots; many very fine vesicular pores; 1 percent fine faint 10YR 5/2), moist, iron depletions and 10 percent medium distinct 7.5YR 5/6), moist, and 7.5YR 4/6), moist, masses of oxidized iron; gradual wavy boundary. Lab sample # 17N00239

B/E--54 to 75 centimeters (21.3 to 29.5 inches); 85 percent brown (7.5YR 4/4) and 15 percent brown (7.5YR 5/3) sandy loam; strong medium subangular blocky, and strong coarse subangular blocky structure; friable; fine roots; many very fine vesicular pores; 10 percent medium distinct 7.5YR 5/6), moist, masses of oxidized iron and 10 percent medium distinct 10YR 5/2), moist, iron depletions; 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments; gradual wavy boundary. Lab sample # 17N00240

Bt--75 to 100 centimeters (29.5 to 39.4 inches); brown (7.5YR 4/4) sandy loam; moderate medium subangular blocky structure; friable; 25 percent medium prominent 7.5YR 5/6), moist, masses of oxidized iron and 25 percent medium prominent 10YR 6/2), moist, iron depletions; 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00241

PEDON DESCRIPTION -- NEON Site STEI

Print Date: Apr 2 2018
Description Date: Sep 13 2016
Describer: Mike Rokus
NEON Plot ID: STEI_011
Site ID: S2016WI099011
Pedon ID: S2016WI099011
Site Note: less than .01% stones which are exposed mostly in tree tips; This pedon is for the NEON sampling project at the STEI_011 site. 6 meters and 20 degrees from the SW 40m X 40m corner to the center of the soil pit.
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 17N0043
Soil Name as Described/Sampled: Newot
Classification: Loamy-skeletal, mixed, superactive, frigid Typic Haplorthods
Soil Name as Correlated:
Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: taxadjunct
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: on backslope of side slope of moraine on till plain
Upslope Shape: convex
Cross Slope Shape: linear
Particle Size Control Section: 25 to 73 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 14 cm.
spodic horizon 14 to 73 cm.
densic materials 73 to 100 cm.

Country:
State: Wisconsin
County: Price
MLRA: 90A -- Wisconsin and Minnesota Thin Loess and Till, Northern Part
Soil Survey Area: WI099 -- Price County, Wisconsin
10-RHI -- Rhinelander, Wisconsin
Map Unit: 644D -- Shanagolden fine sandy loam, 15 to 30 percent slopes, very stony
Pit Location: This pedon is for the NEON sampling project at the STEI_011 site. 6 meters and 20 degrees from the SW 40m X 40m corner to the center of the soil pit.
Quad Name: Pike Lake SE, Wisconsin
Std Latitude: 45.8048400
Std Longitude: 90.0748600
Latitude: 45 degrees 48 minutes 17.42 seconds north
Longitude: 90 degrees 4 minutes 29.49 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:
Primary Earth Cover: Tree cover
Secondary Earth Cover: Hardwoods
Existing Vegetation: American basswood, Canada mayflower, leatherwood, northern red oak, Pennsylvania sedge, sugar maple, white ash
Parent Material: coarse-loamy till
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
73	100	densic material	Noncemented

Cont. Site ID: S2016WI099011 **Pedon ID:** S2016WI099011

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
6.0	523.0	60						well		

A--0 to 14 centimeters (0.0 to 5.5 inches); very dark gray (10YR 3/1) loam; weak medium granular structure; very friable; very fine roots and medium roots and fine roots; 2 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 10 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 17N00231

Bs1--14 to 28 centimeters (5.5 to 11.0 inches); dark brown (7.5YR 3/4) very cobbly sandy loam; weak fine subangular blocky structure; friable; medium roots and fine roots; 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 30 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 17N00232

Bs2--28 to 41 centimeters (11.0 to 16.1 inches); brown (7.5YR 4/4) very cobbly sandy loam; weak medium subangular blocky structure; friable; medium roots and fine roots; 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 30 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments; gradual smooth boundary. Lab sample # 17N00233

Bs3--41 to 73 centimeters (16.1 to 28.7 inches); brown (7.5YR 4/3) gravelly sandy loam; weak medium subangular blocky, and weak coarse subangular blocky structure; friable; 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 25 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 17N00234

2Cd--73 to 100 centimeters (28.7 to 39.4 inches); brown (7.5YR 5/3) very gravelly loamy coarse sand; structureless massive; firm; 2 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 35 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00235

PEDON DESCRIPTION -- NEON Site STEI

Print Date: Apr 2 2018

Description Date: Sep 14 2016

Describer: Ryan Bevernitz

NEON Plot ID: STEI_012

Site ID: S2016WI099012

Pedon ID: S2016WI099012

Site Note: This pedon is for the NEON sampling project at the STEI_012 site. 6 meters and 15 degrees from the SW 40m X 40m corner to the center of the soil pit.

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 17N0038

Soil Name as Described/Sampled: Newot

Classification: Coarse-loamy, mixed, superactive, frigid Alfic Haplorthods

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of side slope of ground moraine on till plain

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 25 to 78 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 13 cm.
albic horizon 7 to 13 cm.
spodic horizon 13 to 44 cm.
glossic horizon 44 to 78 cm.
argillic horizon 65 to 78 cm.
densic materials 78 to 100 cm.

Country:

State: Wisconsin

County: Price

MLRA: 90A -- Wisconsin and Minnesota Thin Loess and Till, Northern Part

Soil Survey Area: WI099 -- Price County, Wisconsin
10-RHI -- Rhinelander, Wisconsin

Map Unit: 847B -- Newood fine sandy loam, drumlins, 2 to 6 percent slopes, very stony

Pit Location: This pedon is for the NEON sampling project at the STEI_012 site. 6 meters and 15 degrees from the SW 40m X 40m corner to the center of the soil pit.

Quad Name: Pike Lake SE, Wisconsin

Std Latitude: 45.7857000

Std Longitude: 90.0483000

Latitude: 45 degrees 47 minutes 8.52 seconds north

Longitude: 90 degrees 2 minutes 53.87 seconds west

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation: American basswood, bloodroot, blue cohosh, eastern leatherwood, feathery false lily of the valley, hophornbeam, northern red oak, Pennsylvania sedge, sugar maple, white ash, wild sarsaparilla, woodfern

Parent Material: coarse-loamy till

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 0.5 percent nonflat subrounded indurated 250- to 600-millimeter Mixed rock fragments

Description database: KSSL

Cont. Site ID: S2016WI099012 **Pedon ID:** S2016WI099012

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
78	100	densic material	Noncemented

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
4.0	517.0	245						well		

A--0 to 7 centimeters (0.0 to 2.8 inches); very dark gray (10YR 3/1) fine sandy loam; moderate medium granular structure; friable; very fine roots and fine roots; 2 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 17N00206

E--7 to 13 centimeters (2.8 to 5.1 inches); dark grayish brown (10YR 4/2) fine sandy loam; weak medium platy structure; friable; very fine roots and medium roots and fine roots; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments; gradual irregular boundary. Lab sample # 17N00207

Bhs--13 to 26 centimeters (5.1 to 10.2 inches); dark brown (7.5YR 3/3) fine sandy loam; moderate medium subangular blocky structure; friable; very fine roots and medium roots and fine roots; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 8 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments; gradual smooth boundary. Lab sample # 17N00208

Bs--26 to 44 centimeters (10.2 to 17.3 inches); dark brown (7.5YR 3/4) sandy loam; weak medium subangular blocky structure; friable; medium roots and fine roots; 2 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; gradual smooth boundary. Lab sample # 17N00209

E/B--44 to 65 centimeters (17.3 to 25.6 inches); 85 percent brown (7.5YR 5/3) and 15 percent brown (7.5YR 4/4) sandy loam; moderate coarse subangular blocky structure; firm; fine roots; 2 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; gradual wavy boundary. Lab sample # 17N00210

B/E--65 to 78 centimeters (25.6 to 30.7 inches); 70 percent brown (7.5YR 4/4) and 30 percent brown (7.5YR 5/3) sandy loam; moderate coarse subangular blocky structure; firm; 15 percent fine faint 7.5YR 4/4), moist,; 2 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 17N00211

BCd--78 to 100 centimeters (30.7 to 39.4 inches); brown (7.5YR 4/4) gravelly loamy sand; moderate medium platy, and structureless massive; firm; 1 percent nonflat subrounded indurated 250 to 600-millimeter Mixed rock fragments and 2 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 16 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00212

PEDON DESCRIPTION -- NEON Site STEI

Print Date: Apr 2 2018

Description Date: Sep 13 2016

Describer: Mike England

NEON Plot ID: STEI_015

Site ID: S2016WI099015

Pedon ID: S2016WI099015

Site Note: This pedon is for the NEON sampling project at the STEI_015 site. 5 meters and 8 degrees from the SW 40m X 40m corner to the center of the soil pit.

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 17N0033

Soil Name as Described/Sampled: Padus

Classification: Loamy-skeletal, mixed, superactive, frigid Alfic Haplorthods

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: taxadjunct

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on summit of interfluve of esker on till plain

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 14 cm.
albic horizon 5 to 14 cm.
spodic horizon 14 to 67 cm.
argillic horizon 67 to 84 cm.
lithologic discontinuity 84 to 100 cm.

Country:

State: Wisconsin

County: Price

MLRA: 90A -- Wisconsin and Minnesota Thin Loess and Till, Northern Part

Soil Survey Area: WI099 -- Price County, Wisconsin
10-RHI -- Rhinelander, Wisconsin

Map Unit: 182D -- Padus sandy loam, 15 to 35 percent slopes

Pit Location: This pedon is for the NEON sampling project at the STEI_015 site. 5 meters and 8 degrees from the SW 40m X 40m corner to the center of the soil pit.

Quad Name: Pike Lake SE, Wisconsin

Std Latitude: 45.8107600

Std Longitude: 90.0998800

Latitude: 45 degrees 48 minutes 38.73 seconds north

Longitude: 90 degrees 5 minutes 59.56 seconds west

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation: American basswood, bloodroot, grass, native, hophornbeam, interrupted fern, red maple, white ash

Parent Material: loamy glaciofluvial deposits over sandy and gravelly outwash

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2016WI099015 **Pedon ID:** S2016WI099015

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
5.0	510.0	280						well		

A--0 to 5 centimeters (0.0 to 2.0 inches); black (7.5YR 2.5/1) loam; moderate fine granular structure; friable; very fine roots and fine roots and coarse roots; 2 percent flat subangular indurated 2 to 150-millimeter Mixed rock fragments and 2 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; gradual wavy boundary. Lab sample # 17N00177

AE--5 to 14 centimeters (2.0 to 5.5 inches); very dark gray (7.5YR 3/1) fine sandy loam; strong medium granular structure; friable; very fine roots and medium roots and fine roots and coarse roots; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments; clear broken boundary. Lab sample # 17N00178. 30% uncoated sand grains

Bhs--14 to 27 centimeters (5.5 to 10.6 inches); dark brown (7.5YR 3/3) fine sandy loam; weak medium subangular blocky structure; friable; very fine roots and medium roots and fine roots and coarse roots; 2 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 17N00179

Bs1--27 to 39 centimeters (10.6 to 15.4 inches); brown (7.5YR 4/3) very cobbly fine sandy loam; strong medium subangular blocky structure; friable; very fine roots and medium roots and fine roots and coarse roots; 10 percent nonflat subrounded indurated 250 to 600-millimeter Mixed rock fragments and 15 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 20 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; gradual wavy boundary. Lab sample # 17N00180

Bs2--39 to 67 centimeters (15.4 to 26.4 inches); brown (7.5YR 4/4) very cobbly loamy fine sand; moderate medium subangular blocky structure; friable; fine roots; 5 percent nonflat subrounded indurated 250 to 600-millimeter Mixed rock fragments and 15 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 25 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; gradual wavy boundary. Lab sample # 17N00181

Bt--67 to 84 centimeters (26.4 to 33.1 inches); dark yellowish brown (10YR 4/4) gravelly sandy loam; moderate medium subangular blocky structure; firm; 15 percent faint 10YR 4/4), moist, clay films; 12 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 20 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 17N00182

2C--84 to 100 centimeters (33.1 to 39.4 inches); brown (10YR 4/3) extremely gravelly loamy coarse sand; structureless single grain; firm; 10 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 60 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00183

PEDON DESCRIPTION -- NEON Site STEI

Print Date: Apr 2 2018

Description Date: Sep 13 2016

Describer: Ryan Bevernitz

NEON Plot ID: STEI_017

Site ID: S2016WI099017

Pedon ID: S2016WI099017

Site Note: This pedon is for the NEON sampling project at the STEI_017 site. 10 meters and 80 degrees from the SW 40m X 40m corner to the center of the soil pit.

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 17N0042

Soil Name as Described/Sampled: Newot

Classification: Loamy-skeletal, mixed, superactive, frigid Typic Haplorthods

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: taxadjunct

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of side slope of ground moraine on till plain

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 25 to 72 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 16 cm.
albic horizon 9 to 16 cm.
spodic horizon 16 to 72 cm.
densic materials 72 to 100 cm.

Country:

State: Wisconsin

County: Price

MLRA: 90A -- Wisconsin and Minnesota Thin Loess and Till, Northern Part

Soil Survey Area: WI099 -- Price County, Wisconsin
10-RHI -- Rhinelander, Wisconsin

Map Unit: 9013A -- Tipler-Manitowish complex, 0 to 3 percent slopes

Pit Location: This pedon is for the NEON sampling project at the STEI_017 site. 10 meters and 80 degrees from the SW 40m X 40m corner to the center of the soil pit.

Quad Name: Pike Lake SE, Wisconsin

Std Latitude: 45.8220700

Std Longitude: 90.0933300

Latitude: 45 degrees 49 minutes 19.45 seconds north

Longitude: 90 degrees 5 minutes 35.98 seconds west

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation: American basswood, eastern leatherwood, hophornbeam, northern red oak, sugar maple, white ash

Parent Material: loamy till over dense loamy basal till

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
72	100	densic material	Noncemented

Cont. Site ID: S2016WI099017 **Pedon ID:** S2016WI099017

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
7.0	508.0	295						moderately well		

A--0 to 9 centimeters (0.0 to 3.5 inches); very dark brown (10YR 2/2) fine sandy loam; weak medium granular structure; friable; very fine roots and medium roots and fine roots and coarse roots; 2 percent nonflat subrounded indurated 250 to 600-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 17N00225

E--9 to 16 centimeters (3.5 to 6.3 inches); brown (7.5YR 4/2) fine sandy loam; moderate medium subangular blocky structure; friable; very fine roots and medium roots and fine roots and coarse roots; 2 percent nonflat subrounded indurated 250 to 600-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments; clear broken boundary. Lab sample # 17N00226

Bhs--16 to 47 centimeters (6.3 to 18.5 inches); very dark brown (7.5YR 2.5/3) extremely stony fine sandy loam; moderate medium subangular blocky structure; friable; medium roots and fine roots and coarse roots; 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 25 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 40 percent nonflat subrounded indurated 250 to 600-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 17N00227

Bs1--47 to 59 centimeters (18.5 to 23.2 inches); dark brown (7.5YR 3/4) extremely stony sandy loam; weak medium subangular blocky structure; friable; fine roots; 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 25 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 40 percent nonflat subrounded indurated 250 to 600-millimeter Mixed rock fragments; gradual smooth boundary. Lab sample # 17N00228

2Bs2--59 to 72 centimeters (23.2 to 28.3 inches); brown (7.5YR 4/4) extremely gravelly loamy sand; weak medium subangular blocky structure; firm; 10 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 60 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; gradual smooth boundary. Lab sample # 17N00229

2BCd--72 to 100 centimeters (28.3 to 39.4 inches); brown (7.5YR 4/3) very gravelly sandy loam; weak medium subangular blocky structure; firm; 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 40 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00230

PEDON DESCRIPTION -- NEON Site STEI

Print Date: Apr 2 2018
Description Date: Sep 12 2016
Describer: Ryan Bevernitz
NEON Plot ID: STEI_019

Site ID: S2016WI099019

Pedon ID: S2016WI099019

Site Note: This pedon is for the NEON sampling project at the STEI_019 site. 4 meters and 25 degrees from the SW 40m X 40m corner to the center of the soil pit.

Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 17N0031
Soil Name as Described/Sampled: Springstead
Classification: Sandy, mixed, frigid Oxyaquic Haplorthods

Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division:
Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:
Geomorphic Setting: on backslope of side slope of moraine on till plain
Upslope Shape: convex
Cross Slope Shape: convex
Particle Size Control Section: 25 to 81 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 14 cm.
spodic horizon 14 to 55 cm.
densic materials 81 to 100 cm.

Country:
State: Wisconsin
County: Price
MLRA: 90A -- Wisconsin and Minnesota Thin Loess and Till, Northern Part
Soil Survey Area: WI099 -- Price County, Wisconsin
10-RHI -- Rhinelander, Wisconsin
Map Unit: 974D -- Sayner-Pence-Vilas complex, 15 to 30 percent slopes
Pit Location: This pedon is for the NEON sampling project at the STEI_019 site. 4 meters and 25 degrees from the SW 40m X 40m corner to the center of the soil pit.
Quad Name: Pike Lake SE, Wisconsin
Std Latitude: 45.8303800
Std Longitude: 90.0752400

Latitude: 45 degrees 49 minutes 49.36 seconds north
Longitude: 90 degrees 4 minutes 30.86 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover: Tree cover
Secondary Earth Cover: Intermixed conifers and hardwoods
Existing Vegetation: balsam fir, quaking aspen, red maple, white ash
Parent Material: loamy glaciofluvial deposits over dense sandy basal till
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
81	100	densic material	Noncemented

Cont. Site ID: S2016WI099019 **Pedon ID:** S2016WI099019

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
6.0	491.0	312						moderately well		

A--0 to 9 centimeters (0.0 to 3.5 inches); very dark brown (10YR 2/2) fine sandy loam; weak medium granular structure; very friable; very fine roots and medium roots and fine roots; gradual irregular boundary. Lab sample # 17N00162

AE--9 to 14 centimeters (3.5 to 5.5 inches); very dark grayish brown (10YR 3/2) fine sandy loam; weak medium subangular blocky structure; very friable; very fine roots and medium roots and fine roots; gradual broken boundary. Lab sample # 17N00163

Bs1--14 to 28 centimeters (5.5 to 11.0 inches); dark brown (7.5YR 3/4) loamy fine sand; weak medium subangular blocky structure; friable; very fine roots and medium roots and fine roots; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 17N00164

Bs2--28 to 43 centimeters (11.0 to 16.9 inches); strong brown (7.5YR 4/6) loamy sand; weak medium subangular blocky, and weak coarse subangular blocky structure; friable; very fine roots and fine roots; 2 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; gradual smooth boundary. Lab sample # 17N00165

Bs3--43 to 55 centimeters (16.9 to 21.7 inches); dark yellowish brown (10YR 4/6) loamy sand; weak medium subangular blocky structure; friable; medium roots and fine roots; 2 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 17N00166

BC--55 to 81 centimeters (21.7 to 31.9 inches); brown (7.5YR 4/4) loamy sand; weak medium subangular blocky structure; friable; medium roots and fine roots and coarse roots; 2 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 17N00167

2Cd--81 to 100 centimeters (31.9 to 39.4 inches); reddish brown (5YR 4/4) very gravelly loamy sand; structureless massive; firm; fine roots; 5 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 30 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 17N00168. platy structure from deposition

PEDON DESCRIPTION -- NEON Site STEI

Print Date: Apr 2 2018

Description Date: Sep 12 2016

Describer: Michael Whited

NEON Plot ID: STEI_022

Site ID: S2016WI099022

Pedon ID: S2016WI099022

Site Note: This pedon is for the NEON sampling project at the STEI_022 site. 11.4 meters and 45 degrees from the SW 40m X 40m corner to the center of the soil pit.

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 17N0041

Soil Name as Described/Sampled: Cathro

Classification: Coarse-loamy, mixed, superactive, frigid Humaqueptic Endoaquents

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: taxadjunct

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on dip depression on till plain

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: histic epipedon 0 to 25 cm.
hemic soil materials 0 to 5 cm.
sapric soil materials 2 to 25 cm.
weatherable minerals 25 to 100 cm.

Country:

State: Wisconsin

County: Price

MLRA: 90A -- Wisconsin and Minnesota Thin Loess and Till, Northern Part

Soil Survey Area: WI099 -- Price County, Wisconsin
10-RHI -- Rhinelander, Wisconsin

Map Unit: 405A -- Lupton, Cathro, and Tawas soils, 0 to 1 percent slopes

Pit Location: This pedon is for the NEON sampling project at the STEI_022 site. 11.4 meters and 45 degrees from the SW 40m X 40m corner to the center of the soil pit.

Quad Name: Pike Lake SE, Wisconsin

Std Latitude: 45.8043690

Std Longitude: 90.0523000

Latitude: 45 degrees 48 minutes 15.72 seconds north

Longitude: 90 degrees 3 minutes 8.28 seconds west

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover: Tree cover

Secondary Earth Cover: Swamp

Existing Vegetation: balsam fir, black ash, dogwood, interrupted fern, paper birch, red maple, speckled alder, tamarack

Parent Material: woody organic material over loamy alluvium

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2016WI099022 **Pedon ID:** S2016WI099022

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
0.0	490.0							very poorly		

Oe--0 to 5 centimeters (0.0 to 2.0 inches); black (N 2/), mucky peat; . Lab sample # 17N00221

Oa--5 to 25 centimeters (2.0 to 9.8 inches); black (7.5YR 2.5/1) muck; . Lab sample # 17N00222

Cg--25 to 54 centimeters (9.8 to 21.3 inches); dark gray (10YR 4/1) sandy loam; 15 percent medium distinct 10YR 5/2), moist, iron depletions and 20 percent medium distinct 7.5YR 5/8), moist, masses of oxidized iron; 2 percent nonflat subrounded indurated 2 to 76-millimeter Mixed rock fragments. Lab sample # 17N00223

C--54 to 100 centimeters (21.3 to 39.4 inches); brown (10YR 4/3) sandy loam; 3 percent nonflat subrounded indurated 2 to 76-millimeter Mixed rock fragments. Lab sample # 17N00224

PEDON DESCRIPTION -- NEON Site STEI

Print Date: Apr 2 2018
Description Date: Sep 15 2016
Describer: Michael England
NEON Plot ID: STEI_024

Site ID: S2016WI099024

Pedon ID: S2016WI099024

Site Note: This pedon is for the NEON sampling project at the STEI_024 site. 10.5 meters and 45 degrees from the SW 40m X 40m corner to the center of the soil pit.

Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 17N0036
Soil Name as Described/Sampled: Loxley
Classification: Dysic, frigid Typic Haplosaprists

Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:

State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: on dip bog on till plain
Upslope Shape: concave
Cross Slope Shape: concave
Particle Size Control Section: 0 to 130 cm.
Description origin: NASIS
Diagnostic Features: histic epipedon to cm.
aquic conditions 0 to 100 cm.
fibric soil materials 0 to 10 cm.
sapric soil materials 10 to 100 cm.

Country:
State: Wisconsin
County: Price
MLRA: 90A -- Wisconsin and Minnesota Thin Loess and Till, Northern Part
Soil Survey Area: WI099 -- Price County, Wisconsin
10-RHI -- Rhinelander, Wisconsin
Map Unit: 9051A -- Minocqua, Cable, and Pleine soils, 0 to 2 percent slopes, very stony
Pit Location: This pedon is for the NEON sampling project at the STEI_024 site. 10.5 meters and 45 degrees from the SW 40m X 40m corner to the center of the soil pit.
Quad Name: Pike Lake SE, Wisconsin
Std Latitude: 45.8359300
Std Longitude: 90.0728300

Latitude: 45 degrees 50 minutes 9.34 seconds north
Longitude: 90 degrees 4 minutes 22.18 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover: Tree cover
Secondary Earth Cover: Conifers
Existing Vegetation: black spruce, blueberry, bog laurel, bunchberry dogwood, creeping snowberry, ironwood, Labrador tea, leatherleaf, red maple, Royal Fern family, sedge, speckled alder, sphagnum, starflower, tamarack
Parent Material: woody organic material
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2016WI099024 **Pedon ID:** S2016WI099024

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
0.0	489.0							very poorly		

Oi--0 to 10 centimeters (0.0 to 3.9 inches); dark brown (10YR 3/3) peat; very fine roots and very coarse roots and fine roots and coarse roots; . Lab sample # 17N00197

Oa1--10 to 81 centimeters (3.9 to 31.9 inches); very dark brown (7.5YR 2/2) muck; . Lab sample # 17N00198

Oa2--81 to 100 centimeters (31.9 to 39.4 inches); black (7.5YR 2.5/1) muck; . Lab sample # 17N00199

PEDON DESCRIPTION -- NEON Site STEI

Print Date: Apr 2 2018

Description Date: Sep 14 2016

Describer: Michael England

NEON Plot ID: STEI_026

Site ID: S2016WI099026

Pedon ID: S2016WI099026

Site Note: This pedon is for the NEON sampling project at the STEI_026 site. .8 meters and 45 degrees from the SW 40m X 40m corner to the center of the soil pit.

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 17N0035

Soil Name as Described/Sampled: Worcester

Classification: Coarse-loamy, mixed, frigid Oxyaquic Dystrudepts

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: taxadjunct

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on dip till plain
on dip drainageway

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 21 cm.
cambic horizon 21 to 76 cm.

Country:

State: Wisconsin

County: Price

MLRA: 90A -- Wisconsin and Minnesota Thin Loess and Till, Northern Part

Soil Survey Area: WI099 -- Price County, Wisconsin
10-RHI -- Rhinelander, Wisconsin

Map Unit: 182B -- Padus sandy loam, 0 to 6 percent slopes

Pit Location: This pedon is for the NEON sampling project at the STEI_026 site. .8 meters and 45 degrees from the SW 40m X 40m corner to the center of the soil pit.

Quad Name: Pike Lake SE, Wisconsin

Std Latitude: 45.7935300

Std Longitude: 90.0966300

Latitude: 45 degrees 47 minutes 36.70 seconds north

Longitude: 90 degrees 5 minutes 47.86 seconds west

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover: Tree cover

Secondary Earth Cover: Intermixed conifers and hardwoods

Existing Vegetation: black cherry, goldenrod, interrupted fern, tamarack, Virginia creeper

Parent Material: loamy alluvium

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2016WI099026 **Pedon ID:** S2016WI099026

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
0.0	518.0							somewhat poorly		

A--0 to 9 centimeters (0.0 to 3.5 inches); very dark gray (10YR 3/1) silt loam; moderate fine granular structure; friable; very fine roots and medium roots and fine roots; clear wavy boundary. Lab sample # 17N00191

AB--9 to 21 centimeters (3.5 to 8.3 inches); very dark gray (10YR 3/1) and brown (7.5YR 4/4) loam; weak fine subangular blocky parts to weak fine granular structure; friable; very fine roots and medium roots and fine roots; clear wavy boundary. Lab sample # 17N00192

Bw1--21 to 35 centimeters (8.3 to 13.8 inches); brown (7.5YR 4/4) loam; weak coarse subangular blocky structure; friable; very fine roots and medium roots and fine roots; gradual wavy boundary. Lab sample # 17N00193

Bw2--35 to 47 centimeters (13.8 to 18.5 inches); brown (7.5YR 4/3) loam; weak thin platy, and weak medium subangular blocky structure; friable; very fine roots and medium roots and fine roots; 3 percent medium faint 7.5YR 5/8), moist, masses of oxidized iron; gradual wavy boundary. Lab sample # 17N00194

Bw3--47 to 76 centimeters (18.5 to 29.9 inches); brown (7.5YR 4/4) fine sandy loam; weak medium platy parts to moderate medium subangular blocky structure; friable; very fine roots and fine roots; 6 percent medium faint 7.5YR 5/8), moist, masses of oxidized iron; gradual wavy boundary. Lab sample # 17N00195

C--76 to 100 centimeters (29.9 to 39.4 inches); brown (7.5YR 4/3) loamy fine sand, fine sandy loam, silt loam; structureless massive; firm; 1 percent coarse faint 7.5YR 5/8), moist, masses of oxidized iron; 1 percent very fine platy ferromagnesian minerals. Lab sample # 17N00196. texture is in pockets