# PEDON DESCRIPTION -- NEON Site BART

**Print Date:** Oct 11 2017
**Description Date:** May 11 2016
**Describer:** Roger DeKett
**NEON Plot ID:** BART_018
**Site ID:** S2016NH003001

**Pedon ID:** S2016NH003001
**Site Note:**
**Pedon Note:** evidence of tree throw in profile
**Lab Source ID:** KSSL
**Lab Pedon #:** 16N1100
**Soil Name as Described/Sampled:** Wilmington
**Classification:** Loamy, isotic, frigid, shallow Typic Endoaquods

**Soil Name as Correlated:**

**Classification:**
**Pedon Type:** undefined observation
**Pedon Purpose:** research site
**Taxon Kind:** series
**Associated Soils:**
**Physiographic Division:** Appalachian Highlands
**Physiographic Province:** New England Province

**Physiographic Section:** White Mountain section
**State Physiographic Area:**
**Local Physiographic Area:**
**Geomorphic Setting:** on backslope of mountainbase of mountain on backslope of mountainbase of mountains
**Upslope Shape:** linear
**Cross Slope Shape:** linear
**Particle Size Control Section:** 13 to 49 cm.
**Description origin:** Pedon PC 6.2
**Diagnostic Features:** ochric epipedon 0 to 23 cm.
spodic horizon 23 to 33 cm.
densic contact 49 to cm.

**Country:** United States
**State:** New Hampshire
**County:** Carroll
**MLRA:** 143 -- Northeastern Mountains
**Soil Survey Area:** NH605 -- White Mountain National Forest, New Hampshire and Maine
12-STJ -- Saint Johnsbury, Vermont
**Map Unit:**
**Pit Location:**
**Quad Name:** Bartlett, New Hampshire
**Std Latitude:** 44.0585778
**Std Longitude:** -71.2781944

**Latitude:** 44 degrees 3 minutes 30.88 seconds north
**Longitude:** 71 degrees 16 minutes 41.50 seconds west
**Datum:** WGS84
**UTM Zone:** 19
**UTM Easting:** 317526 meters
**UTM Northing:** 4880902 meters

**Primary Earth Cover:** Tree cover
**Secondary Earth Cover:** Intermixed conifers and hardwoods
**Existing Vegetation:**
**Parent Material:** lodgment 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 |
|---|---|---|---|
| 49 | | densic material | Noncemented |

**Cont. Site ID:** S2016NH003001 **Pedon ID:** S2016NH003001

| 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 | 330.0 | 10 | | | | | | poorly | | |

Oa--0 to 13 centimeters (0.0 to 5.1 inches); black (7.5YR 2.5/1) muck; massive; friable; many very fine roots and common medium roots and many fine roots and common coarse roots; very strongly acid, pH 5.0, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04933

E/B--13 to 23 centimeters (5.1 to 9.1 inches); bouldery fine sandy loam; weak fine subangular blocky structure; friable; many very fine roots and many medium roots and many fine roots and common coarse roots; 30 percent medium distinct 7.5YR 4/6) iron-manganese masses; 10 percent nonflat subangular indurated 600-millimeter Igneous rock fragments and 10 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions; clear wavy boundary. Lab sample # 16N04934

Bs1--23 to 33 centimeters (9.1 to 13.0 inches); dark brown (7.5YR 3/4) bouldery fine sandy loam; weak fine subangular blocky structure; friable; common very fine roots and many medium roots and many fine roots and few coarse roots; 30 percent fine distinct 5YR 4/6) iron-manganese masses and 30 percent medium prominent 2.5Y 5/2) iron depletions; 10 percent nonflat subangular indurated 600-millimeter Igneous rock fragments and 10 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments and 10 percent nonflat subangular indurated 250 to 600-millimeter Igneous rock fragments; strongly acid, pH 5.3, pH indicator solutions; gradual wavy boundary. Lab sample # 16N04935

Bs2--33 to 49 centimeters (13.0 to 19.3 inches); dark brown (10YR 3/3) very fine sandy loam; weak fine subangular blocky structure; friable; common very fine roots and common medium roots and many fine roots; 30 percent coarse distinct 2.5Y 5/2) iron depletions; 13 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04936. includes some buried O horizon

Cd--49 to 100 centimeters (19.3 to 39.4 inches); light olive brown (2.5Y 5/3) fine sandy loam; weak medium platy structure; firm; 30 percent medium faint 2.5Y 6/2) iron depletions and 30 percent coarse prominent 10YR 4/6) iron-manganese masses; 1 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 11 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.4, pH indicator solutions. Lab sample # 16N04937

# PEDON DESCRIPTION -- NEON Site BART

**Print Date:** Oct 11 2017
**Description Date:** May 17 2016
**Describer:** Roger DeKett
**NEON Plot ID:** BART_081
**Site ID:** S2016NH003002

**Pedon ID:** S2016NH003002
**Site Note:**
**Pedon Note:**
**Lab Source ID:** KSSL
**Lab Pedon #:** 16N1101
**Soil Name as Described/Sampled:** Adirondack
**Classification:** Coarse-loamy, isotic, frigid Aquic Haplorthods

**Soil Name as Correlated:**

**Classification:**
**Pedon Type:** undefined observation
**Pedon Purpose:** research site
**Taxon Kind:** taxadjunct
**Associated Soils:**
**Physiographic Division:** Appalachian Highlands
**Physiographic Province:** New England Province

**Physiographic Section:** White Mountain section

**State Physiographic Area:**
**Local Physiographic Area:**
**Geomorphic Setting:** microlow on backslope of mountainflank of mountain microlow on backslope of mountainflank of mountains
**Upslope Shape:** linear
**Cross Slope Shape:** convex
**Particle Size Control Section:** 34 to 109 cm.

**Description origin:** Pedon PC 6.2
**Diagnostic Features:** ochric epipedon 0 to 13 cm.
albic horizon 9 to 13 cm.
spodic horizon 13 to 27 cm.

**Country:** United States
**State:** New Hampshire
**County:** Carroll
**MLRA:** 143 -- Northeastern Mountains
**Soil Survey Area:** NH605 -- White Mountain National Forest, New Hampshire and Maine
12-STJ -- Saint Johnsbury, Vermont
**Map Unit:**
**Pit Location:**
**Quad Name:** Bartlett, New Hampshire
**Std Latitude:** 44.0606139
**Std Longitude:** -71.2631639

**Latitude:** 44 degrees 3 minutes 38.21 seconds north
**Longitude:** 71 degrees 15 minutes 47.39 seconds west
**Datum:** WGS84
**UTM Zone:** 19
**UTM Easting:** 318736 meters
**UTM Northing:** 4881095 meters

**Primary Earth Cover:** Tree cover
**Secondary Earth Cover:** Intermixed conifers and hardwoods
**Existing Vegetation:** American beech, eastern hemlock, oak, paper birch, red spruce
**Parent Material:** melt-out till
**Bedrock Kind:**
**Bedrock Depth:**
**Bedrock Hardness:**
**Bedrock Fracture Interval:**
**Surface Fragments:** 3.0 percent indurated 250 Granite fragments
**Description database:** KSSL

**Cont. Site ID:** S2016NH003002 **Pedon ID:** S2016NH003002

| Slope (%) | Elevation (meters) | Aspect (deg) | MAAT (C) | MSAT (C) | MWAT (C) | MAP (mm) | Frost-Free Days | Drainage Class | Slope Length (meters) | Upslope Length (meters) |
|---|---|---|---|---|---|---|---|---|---|---|
| 40.0 | 420.0 | 250 | | | | | | somewhat poorly | | |

Oa--0 to 9 centimeters (0.0 to 3.5 inches); very dusky red (10R 2.5/2) highly decomposed plant material; massive; friable; many very fine roots and many medium roots and many fine roots and many coarse roots; extremely acid, pH 3.9, pH indicator solutions; abrupt smooth boundary. Lab sample # 16N04938

E--9 to 13 centimeters (3.5 to 5.1 inches); gray (5YR 6/1) cobbly fine sandy loam; weak fine granular structure; friable; common medium roots and common fine roots; 5 percent nonflat subangular indurated 250 to 600-millimeter Igneous rock fragments and 9 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments and 15 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments; extremely acid, pH 4.2, pH indicator solutions; abrupt smooth boundary. Lab sample # 16N04939

Bhs--13 to 18 centimeters (5.1 to 7.1 inches); dusky red (2.5YR 3/2) cobbly fine sandy loam; weak medium granular structure; friable by iron; many very fine roots and many medium roots and many fine roots and common coarse roots; 5 percent nonflat subangular indurated 250 to 600-millimeter Igneous rock fragments and 6 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments and 15 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments; very strongly acid, pH 4.8, pH indicator solutions; clear wavy boundary. Lab sample # 16N04940. 5% cemented

Bs--18 to 27 centimeters (7.1 to 10.6 inches); brown (7.5YR 4/4) gravelly fine sandy loam; weak fine granular structure; friable; many very fine roots and many medium roots and many fine roots and common coarse roots; 10 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 20 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 5.0, pH indicator solutions; gradual wavy boundary. Lab sample # 16N04941

BC1--27 to 54 centimeters (10.6 to 21.3 inches); dark yellowish brown (10YR 4/6) gravelly fine sandy loam; weak fine subangular blocky structure; friable; common very fine roots and common medium roots and many fine roots; 30 percent medium faint 5YR 4/6) iron-manganese masses and 30 percent coarse prominent 2.5Y 6/2) iron depletions; 10 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 20 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 5.0, pH indicator solutions; clear wavy boundary. Lab sample # 16N04942

BC2--54 to 100 centimeters (21.3 to 39.4 inches); dark yellowish brown (10YR 4/4) cobbly fine sandy loam; weak fine subangular blocky structure; friable; few medium roots and few fine roots; 10 percent medium distinct 2.5Y 6/2) iron depletions and 30 percent medium prominent 10YR 5/8) masses of oxidized iron; 12 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments and 15 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions. Lab sample # 16N04943. at 100 cm there is a large root mass

# PEDON DESCRIPTION -- NEON Site BART

**Print Date:** Oct 11 2017
**Description Date:** May 19 2016
**Describer:** Roger DeKett
**NEON Plot ID:** BART_012
**Site ID:** S2016NH003003

**Pedon ID:** S2016NH003003
**Site Note:**
**Pedon Note:** broken buried E horizon
**Lab Source ID:** KSSL
**Lab Pedon #:** 16N1102
**Soil Name as Described/Sampled:** Danforth
**Classification:** Loamy-skeletal, mixed, active, frigid Typic Dystrudepts

**Soil Name as Correlated:**

**Classification:**
**Pedon Type:** undefined observation
**Pedon Purpose:** research site
**Taxon Kind:** taxadjunct
**Associated Soils:**
**Physiographic Division:** Appalachian Highlands
**Physiographic Province:** New England Province
**Physiographic Section:** White Mountain section
**State Physiographic Area:**
**Local Physiographic Area:**
**Geomorphic Setting:** on backslope of mountainflank of mountain on backslope of mountainflank of mountains
**Upslope Shape:** convex
**Cross Slope Shape:** linear
**Particle Size Control Section:** 28 to 103 cm.

**Description origin:** Pedon PC 6.2
**Diagnostic Features:** ochric epipedon 0 to 7 cm.
cambic horizon 7 to 29 cm.

**Country:** United States
**State:** New Hampshire
**County:** Carroll
**MLRA:** 143 -- Northeastern Mountains
**Soil Survey Area:** NH605 -- White Mountain National Forest, New Hampshire and Maine
12-STJ -- Saint Johnsbury, Vermont
**Map Unit:**
**Pit Location:**
**Quad Name:** Bartlett, New Hampshire
**Std Latitude:** 44.0462833
**Std Longitude:** -71.3165278

**Latitude:** 44 degrees 2 minutes 46.62 seconds north
**Longitude:** 71 degrees 18 minutes 59.50 seconds west
**Datum:** WGS84
**UTM Zone:** 19
**UTM Easting:** 314417 meters
**UTM Northing:** 4879622 meters

**Primary Earth Cover:** Tree cover
**Secondary Earth Cover:** Hardwoods
**Existing Vegetation:**
**Parent Material:** ablation till
**Bedrock Kind:**
**Bedrock Depth:**
**Bedrock Hardness:**
**Bedrock Fracture Interval:**
**Surface Fragments:** 3.0 percent indurated 250 Granite fragments

**Description database:** KSSL

**Cont. Site ID:** S2016NH003003 **Pedon ID:** S2016NH003003

| Slope (%) | Elevation (meters) | Aspect (deg) | MAAT (C) | MSAT (C) | MWAT (C) | MAP (mm) | Frost-Free Days | Drainage Class | Slope Length (meters) | Upslope Length (meters) |
|---|---|---|---|---|---|---|---|---|---|---|
| 12.0 | 577.0 | 115 | | | | | | well | | |

Oa--0 to 3 centimeters (0.0 to 1.2 inches); black (10YR 2/1) highly decomposed plant material; massive; friable; many very fine roots and many medium roots and many fine roots; very strongly acid, pH 4.8, pH indicator solutions; clear wavy boundary. Lab sample # 16N04944

A--3 to 7 centimeters (1.2 to 2.8 inches); dark brown (7.5YR 3/2) gravelly fine sandy loam; weak fine granular structure; friable; many very fine roots and many medium roots and many fine roots and common coarse roots; 2 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 15 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 5.0, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04945

Bw1--7 to 29 centimeters (2.8 to 11.4 inches); dark yellowish brown (10YR 4/4) gravelly fine sandy loam; weak medium platy structure; friable; many very fine roots and common medium roots and many fine roots and few coarse roots; 10 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 15 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions; gradual wavy boundary. Lab sample # 16N04946

Bw2--29 to 52 centimeters (11.4 to 20.5 inches); dark yellowish brown (10YR 4/4) cobbly fine sandy loam; weak medium subangular blocky structure; friable; few very fine roots and few medium roots and common fine roots; 2 percent nonflat subrounded indurated 250 to 600-millimeter Igneous rock fragments and 15 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments and 15 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments; strongly acid, pH 5.4, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04947

C--52 to 100 centimeters (20.5 to 39.4 inches); dark yellowish brown (10YR 4/4) extremely cobbly loamy coarse sand; single grain; loose; few fine roots; 10 percent nonflat subrounded indurated 250 to 600-millimeter Igneous rock fragments and 25 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 35 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.4, pH indicator solutions. Lab sample # 16N04948

# PEDON DESCRIPTION -- NEON Site BART

**Print Date:** Oct 11 2017
**Description Date:** May 23 2016
**Describer:** Jessica Philippe
**NEON Plot ID:** BART_062
**Site ID:** S2016NH003004

**Pedon ID:** S2016NH003004
**Site Note:**
**Pedon Note:**
**Lab Source ID:** KSSL
**Lab Pedon #:** 16N1103
**Soil Name as Described/Sampled:** Monadnock or Berkshire
**Classification:**

**Soil Name as Correlated:**

**Classification:**
**Pedon Type:** undefined observation
**Pedon Purpose:** research site
**Taxon Kind:**
**Associated Soils:**
**Physiographic Division:** Appalachian Highlands
**Physiographic Province:** New England Province

**Physiographic Section:** White Mountain section
**State Physiographic Area:**
**Local Physiographic Area:**
**Geomorphic Setting:** on backslope of mountainflank of mountain on backslope of mountainflank of mountains
**Upslope Shape:** linear
**Cross Slope Shape:** linear
**Particle Size Control Section:** 38 to 100 cm.
**Description origin:** Pedon PC 6.2
**Diagnostic Features:** ochric epipedon 0 to 36 cm.
albic horizon 13 to 36 cm.
spodic horizon 36 to 62 cm.

**Country:** United States
**State:** New Hampshire
**County:** Carroll
**MLRA:** 143 -- Northeastern Mountains
**Soil Survey Area:** NH605 -- White Mountain National Forest, New Hampshire and Maine
12-STJ -- Saint Johnsbury, Vermont
**Map Unit:**
**Pit Location:**
**Quad Name:** Bartlett, New Hampshire
**Std Latitude:** 44.0572667
**Std Longitude:** -71.3061306

**Latitude:** 44 degrees 3 minutes 26.16 seconds north
**Longitude:** 71 degrees 18 minutes 22.07 seconds west
**Datum:** WGS84
**UTM Zone:** 19
**UTM Easting:** 315284 meters
**UTM Northing:** 4880819 meters

**Primary Earth Cover:** Tree cover
**Secondary Earth Cover:** Intermixed conifers and hardwoods
**Existing Vegetation:** American beech
**Parent Material:** ablation till
**Bedrock Kind:**
**Bedrock Depth:**
**Bedrock Hardness:**
**Bedrock Fracture Interval:**
**Surface Fragments:**
**Description database:** KSSL

**Cont. Site ID:** S2016NH003004 **Pedon ID:** S2016NH003004

| Slope (%) | Elevation (meters) | Aspect (deg) | MAAT (C) | MSAT (C) | MWAT (C) | MAP (mm) | Frost-Free Days | Drainage Class | Slope Length (meters) | Upslope Length (meters) |
|---|---|---|---|---|---|---|---|---|---|---|
| 25.0 | 407.0 | 100 | | | | | | well | | |

Oa--0 to 13 centimeters (0.0 to 5.1 inches); black (7.5YR 2.5/1) highly decomposed plant material; massive; friable; common very fine roots and common medium roots and many fine roots and few coarse roots; 2 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 4.8, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04949

E--13 to 36 centimeters (5.1 to 14.2 inches); grayish brown (10YR 5/2) very gravelly fine sandy loam; weak fine subangular blocky structure; friable; many very fine roots and few medium roots and common fine roots and few coarse roots; 2 percent nonflat subrounded indurated 250 to 600-millimeter Igneous rock fragments and 10 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 27 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.1, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04950

Bs1--36 to 62 centimeters (14.2 to 24.4 inches); strong brown (7.5YR 4/6) fine sandy loam; weak fine subangular blocky structure; friable; few very fine roots and few medium roots and few fine roots; 2 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 2 percent nonflat subrounded indurated 250 to 600-millimeter Igneous rock fragments and 9 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 5.0, pH indicator solutions; clear wavy boundary. Lab sample # 16N04951

Bs2--62 to 100 centimeters (24.4 to 39.4 inches); dark yellowish brown (10YR 4/6) cobbly fine sandy loam; friable; few very fine roots and few medium roots and few fine roots; 5 percent nonflat subrounded indurated 250 to 600-millimeter Igneous rock fragments and 10 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 17 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.4, pH indicator solutions. Lab sample # 16N04952

# PEDON DESCRIPTION -- NEON Site BART

**Print Date:** Oct 11 2017
**Description Date:** May 31 2016
**Describer:** Roger DeKett
**NEON Plot ID:** BART_027
**Site ID:** S2016NH003005

**Pedon ID:** S2016NH003005
**Site Note:**
**Pedon Note:**
**Lab Source ID:** KSSL
**Lab Pedon #:** 16N1104
**Soil Name as Described/Sampled:** Danforth
**Classification:** Loamy-skeletal, isotic, frigid Typic Haplorthods

**Soil Name as Correlated:**

**Classification:**
**Pedon Type:** undefined observation
**Pedon Purpose:** research site
**Taxon Kind:** series
**Associated Soils:**
**Physiographic Division:** Appalachian Highlands
**Physiographic Province:** New England Province
**Physiographic Section:** White Mountain section
**State Physiographic Area:**
**Local Physiographic Area:**
**Geomorphic Setting:** microslope on backslope of mountainflank of mountain
microslope on backslope of mountainflank of mountains
**Upslope Shape:** convex
**Cross Slope Shape:** convex
**Particle Size Control Section:** 55 to 130 cm.
**Description origin:** Pedon PC 6.2
**Diagnostic Features:** folistic epipedon 0 to 30 cm.
albic horizon 30 to 35 cm.
spodic horizon 35 to 47 cm.

**Country:** United States
**State:** New Hampshire
**County:** Carroll
**MLRA:** 143 -- Northeastern Mountains
**Soil Survey Area:** NH605 -- White Mountain National Forest, New Hampshire and Maine
12-STJ -- Saint Johnsbury, Vermont
**Map Unit:**
**Pit Location:**
**Quad Name:** Bartlett, New Hampshire
**Std Latitude:** 44.0579083
**Std Longitude:** -71.2618806

**Latitude:** 44 degrees 3 minutes 28.47 seconds north
**Longitude:** 71 degrees 15 minutes 42.77 seconds west
**Datum:** WGS84
**UTM Zone:** 19
**UTM Easting:** 318831 meters
**UTM Northing:** 4880792 meters

**Primary Earth Cover:** Tree cover
**Secondary Earth Cover:** Conifers
**Existing Vegetation:** eastern hemlock, red spruce
**Parent Material:** ablation till
**Bedrock Kind:**

**Bedrock Depth:**

**Bedrock Hardness:**
**Bedrock Fracture Interval:**
**Surface Fragments:**
**Description database:** KSSL

**Cont. Site ID:** S2016NH003005 **Pedon ID:** S2016NH003005

| Slope (%) | Elevation (meters) | Aspect (deg) | MAAT (C) | MSAT (C) | MWAT (C) | MAP (mm) | Frost-Free Days | Drainage Class | Slope Length (meters) | Upslope Length (meters) |
|---|---|---|---|---|---|---|---|---|---|---|
| 42.0 | 436.0 | 335 | | | | | | well | | |

Oa1--0 to 24 centimeters (0.0 to 9.4 inches); black (5YR 2.5/1) highly decomposed plant material; massive; friable; many very fine roots and many medium roots and many fine roots and many coarse roots; extremely acid, pH 4.0, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04953. decomposed log makes up 10% of horizon

Oa2--24 to 30 centimeters (9.4 to 11.8 inches); reddish black (2.5YR 2.5/1) highly decomposed plant material; massive; friable; many very fine roots and many medium roots and many fine roots and many coarse roots; extremely acid, pH 4.0, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04954

E--30 to 35 centimeters (11.8 to 13.8 inches); gray (7.5YR 6/1) fine sandy loam; weak fine subangular blocky structure; friable; common very fine roots and common medium roots and many fine roots; 5 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; extremely acid, pH 4.4, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04955

Bhs--35 to 47 centimeters (13.8 to 18.5 inches); fine sandy loam; weak medium subangular blocky structure; friable by iron; common very fine roots and many medium roots and many fine roots; 1 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 7 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 4.8, pH indicator solutions; clear wavy boundary. Lab sample # 16N04956. 30% cemented

BC--47 to 73 centimeters (18.5 to 28.7 inches); dark yellowish brown (10YR 4/4) stony fine sandy loam; weak fine subangular blocky structure; friable; common medium roots and common fine roots; 1 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 7 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments and 20 percent nonflat subrounded indurated 250 to 600-millimeter Igneous rock fragments; very strongly acid, pH 5.0, pH indicator solutions; clear wavy boundary. Lab sample # 16N04957

C--73 to 100 centimeters (28.7 to 39.4 inches); light olive brown (2.5Y 5/4) very stony fine sandy loam; massive; friable; 10 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 15 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments and 20 percent nonflat subrounded indurated 250 to 600-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions. Lab sample # 16N04958. consistence is firm in place but friable in hand

# PEDON DESCRIPTION -- NEON Site BART

**Print Date:** Oct 11 2017
**Description Date:** Jun 2 2016
**Describer:** Roger DeKett
**NEON Plot ID:** BART_030
**Site ID:** S2016NH003006

**Pedon ID:** S2016NH003006
**Site Note:**
**Pedon Note:** average rock fragments 56% in ps control section
**Lab Source ID:** KSSL
**Lab Pedon #:** 16N1105
**Soil Name as Described/Sampled:** Danforth
**Classification:** Coarse-loamy over sandy or sandy-skeletal, isotic over mixed, frigid Typic Haplorthods
**Soil Name as Correlated:**

**Classification:**
**Pedon Type:** undefined observation
**Pedon Purpose:** research site
**Taxon Kind:** taxadjunct
**Associated Soils:**
**Physiographic Division:** Appalachian Highlands
**Physiographic Province:** New England Province
**Physiographic Section:** White Mountain section
**State Physiographic Area:**
**Local Physiographic Area:**
**Geomorphic Setting:** microslope on backslope of mountainflank of mountain
microslope on backslope of mountainflank of mountains
**Upslope Shape:** convex
**Cross Slope Shape:** convex
**Particle Size Control Section:** 43 to 118 cm.
**Description origin:** Pedon PC 6.2
**Diagnostic Features:** folistic epipedon 0 to 18 cm.
albic horizon 18 to 36 cm.
spodic horizon 36 to 50 cm.
ortstein 36 to 50 cm.

**Country:** United States
**State:** New Hampshire
**County:** Carroll
**MLRA:** 143 -- Northeastern Mountains
**Soil Survey Area:** NH605 -- White Mountain National Forest, New Hampshire and Maine
12-STJ -- Saint Johnsbury, Vermont
**Map Unit:**
**Pit Location:**
**Quad Name:** Bartlett, New Hampshire
**Std Latitude:** 44.0537083
**Std Longitude:** -71.3080528

**Latitude:** 44 degrees 3 minutes 13.35 seconds north
**Longitude:** 71 degrees 18 minutes 28.99 seconds west
**Datum:** WGS84
**UTM Zone:** 19
**UTM Easting:** 315119 meters
**UTM Northing:** 4880428 meters

**Primary Earth Cover:** Tree cover
**Secondary Earth Cover:** Conifers
**Existing Vegetation:**
**Parent Material:** ablation till
**Bedrock Kind:**
**Bedrock Depth:**
**Bedrock Hardness:**
**Bedrock Fracture Interval:**
**Surface Fragments:**
**Description database:** KSSL

**Cont. Site ID:** S2016NH003006 **Pedon ID:** S2016NH003006

| Slope (%) | Elevation (meters) | Aspect (deg) | MAAT (C) | MSAT (C) | MWAT (C) | MAP (mm) | Frost-Free Days | Drainage Class | Slope Length (meters) | Upslope Length (meters) |
|---|---|---|---|---|---|---|---|---|---|---|
| 43.0 | 523.0 | 360 | | | | | | well | | |

Oe--0 to 4 centimeters (0.0 to 1.6 inches); black (10YR 2/1) moderately decomposed plant material; massive; friable; many very fine roots and many medium roots and many fine roots; extremely acid, pH 4.4, pH indicator solutions; clear wavy boundary. Lab sample # 16N04959

Oa--4 to 18 centimeters (1.6 to 7.1 inches); black (10YR 2/1) highly decomposed plant material; massive; friable; many very fine roots and many medium roots and many fine roots and many coarse roots; extremely acid, pH 4.0, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04960

E--18 to 36 centimeters (7.1 to 14.2 inches); gray (10YR 5/1) cobbly loamy sand; weak fine granular structure; friable; many very fine roots and common medium roots and many fine roots; 5 percent nonflat subrounded indurated 250 to 600-millimeter Igneous rock fragments and 10 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments and 10 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments; very strongly acid, pH 4.8, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04961

Bhs--36 to 50 centimeters (14.2 to 19.7 inches); cobbly fine sandy loam; weak medium subangular blocky structure; firm by iron; common very fine roots and common medium roots and common fine roots; 2 percent nonflat subrounded indurated 250 to 600-millimeter Igneous rock fragments and 10 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 15 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 4.8, pH indicator solutions; gradual wavy boundary. Lab sample # 16N04962. 70% cemented by iron

BC--50 to 76 centimeters (19.7 to 29.9 inches); dark yellowish brown (10YR 4/6) very cobbly loamy sand; 10 percent coarse prominent (5YR 3/4) mottles; weak fine subangular blocky structure; friable; common medium roots and common fine roots; 20 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments and 35 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions; gradual wavy boundary. Lab sample # 16N04963. iron stains

C--76 to 100 centimeters (29.9 to 39.4 inches); dark yellowish brown (10YR 4/4) extremely cobbly loamy sand; 10 percent coarse distinct (5YR 3/4) mottles; massive; loose; few fine roots; 2 percent nonflat subrounded indurated 250 to 600-millimeter Igneous rock fragments and 25 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments and 35 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments; strongly acid, pH 5.4, pH indicator solutions. Lab sample # 16N04964. iron stains

# PEDON DESCRIPTION -- NEON Site BART

**Print Date:** Oct 11 2017
**Description Date:** Jun 7 2016
**Describer:** Roger DeKett
**NEON Plot ID:** BART_019
**Site ID:** S2016NH003007

**Pedon ID:** S2016NH003007
**Site Note:**
**Pedon Note:**
**Lab Source ID:** KSSL
**Lab Pedon #:** 16N1106
**Soil Name as Described/Sampled:** Monadnock
**Classification:** Coarse-loamy over sandy or sandy-skeletal, isotic over mixed, frigid Typic Haplorthods
**Soil Name as Correlated:**

**Classification:**
**Pedon Type:** undefined observation
**Pedon Purpose:** research site
**Taxon Kind:** series
**Associated Soils:**
**Physiographic Division:** Appalachian Highlands
**Physiographic Province:** New England Province

**Physiographic Section:** White Mountain section

**State Physiographic Area:**
**Local Physiographic Area:**
**Geomorphic Setting:** microslope on backslope of mountainbase of mountain
microslope on backslope of mountainbase of mountains
**Upslope Shape:** convex
**Cross Slope Shape:** convex
**Particle Size Control Section:** 34 to 109 cm.
**Description origin:** Pedon PC 6.2
**Diagnostic Features:** ochric epipedon 0 to 12 cm.
albic horizon 9 to 12 cm.
spodic horizon 12 to 34 cm.

**Country:** United States
**State:** New Hampshire
**County:** Carroll
**MLRA:** 143 -- Northeastern Mountains
**Soil Survey Area:** NH605 -- White Mountain National Forest, New Hampshire and Maine
12-STJ -- Saint Johnsbury, Vermont
**Map Unit:**
**Pit Location:**
**Quad Name:** Bartlett, New Hampshire
**Std Latitude:** 44.0692361
**Std Longitude:** -71.2859611

**Latitude:** 44 degrees 4 minutes 9.25 seconds north
**Longitude:** 71 degrees 17 minutes 9.46 seconds west
**Datum:** WGS84
**UTM Zone:** 19
**UTM Easting:** 316937 meters
**UTM Northing:** 4882103 meters

**Primary Earth Cover:** Tree cover
**Secondary Earth Cover:** Intermixed conifers and hardwoods
**Existing Vegetation:** American beech, eastern hemlock, sugar maple
**Parent Material:** ablation till
**Bedrock Kind:**

**Bedrock Depth:**

**Bedrock Hardness:**
**Bedrock Fracture Interval:**
**Surface Fragments:**
**Description database:** KSSL

**Cont. Site ID:** S2016NH003007 **Pedon ID:** S2016NH003007

| Slope (%) | Elevation (meters) | Aspect (deg) | MAAT (C) | MSAT (C) | MWAT (C) | MAP (mm) | Frost-Free Days | Drainage Class | Slope Length (meters) | Upslope Length (meters) |
|---|---|---|---|---|---|---|---|---|---|---|
| 10.0 | 263.0 | 320 | | | | | | well | | |

Oa--0 to 9 centimeters (0.0 to 3.5 inches); black (10YR 2/1) highly decomposed plant material; massive; friable; many very fine roots and many medium roots and many fine roots and few coarse roots; extremely acid, pH 4.2, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04965

E--9 to 12 centimeters (3.5 to 4.7 inches); gray (10YR 6/1) fine sandy loam; weak fine granular structure; friable; common very fine roots and common medium roots and common fine roots; 4 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 4.6, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04966

Bhs--12 to 34 centimeters (4.7 to 13.4 inches); fine sandy loam; weak medium subangular blocky structure; firm by iron; many very fine roots and many medium roots and many fine roots and many coarse roots; 2 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 10 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions; clear wavy boundary. Lab sample # 16N04967. 50% cemented

Bs--34 to 57 centimeters (13.4 to 22.4 inches); dark yellowish brown (10YR 4/6) gravelly fine sandy loam; weak medium subangular blocky structure; friable; common very fine roots and common medium roots and common fine roots; 10 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 17 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions; clear wavy boundary. Lab sample # 16N04968

BC--57 to 79 centimeters (22.4 to 31.1 inches); olive brown (2.5Y 4/4) gravelly fine sandy loam; weak medium subangular blocky structure; friable; few medium roots and few fine roots; 5 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 25 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.4, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04969

C--79 to 100 centimeters (31.1 to 39.4 inches); olive brown (2.5Y 4/3) loamy fine sand; massive; friable; few medium roots and few fine roots and few coarse roots; 7 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.4, pH indicator solutions. Lab sample # 16N04970

# PEDON DESCRIPTION -- NEON Site BART

**Print Date:** Oct 11 2017
**Description Date:** Jun 10 2016
**Describer:** Roger DeKett
**NEON Plot ID:** BART_023
**Site ID:** S2016NH003008

**Pedon ID:** S2016NH003008
**Site Note:**
**Pedon Note:**
**Lab Source ID:** KSSL
**Lab Pedon #:** 16N1107
**Soil Name as Described/Sampled:** Rawsonville
**Classification:** Coarse-loamy, isotic, frigid Typic Haplohumods

**Soil Name as Correlated:**

**Classification:**
**Pedon Type:** undefined observation
**Pedon Purpose:** research site
**Taxon Kind:** series
**Associated Soils:**
**Physiographic Division:** Appalachian Highlands
**Physiographic Province:** New England Province

**Physiographic Section:** White Mountain section

**State Physiographic Area:**
**Local Physiographic Area:**
**Geomorphic Setting:** microslope on backslope of mountainflank of mountain
microslope on backslope of mountainflank of mountains
**Upslope Shape:** convex
**Cross Slope Shape:** convex
**Particle Size Control Section:** 48 to 80 cm.
**Description origin:** Pedon PC 6.2
**Diagnostic Features:** folistic epipedon 0 to 23 cm.
albic horizon 23 to 29 cm.
spodic horizon 29 to 80 cm.
lithic contact 80 to cm.

**Country:** United States
**State:** New Hampshire
**County:** Carroll
**MLRA:** 143 -- Northeastern Mountains
**Soil Survey Area:** NH605 -- White Mountain National Forest, New Hampshire and Maine
12-STJ -- Saint Johnsbury, Vermont
**Map Unit:**
**Pit Location:**
**Quad Name:** Bartlett, New Hampshire
**Std Latitude:** 44.0491917
**Std Longitude:** -71.2635972

**Latitude:** 44 degrees 2 minutes 57.09 seconds north
**Longitude:** 71 degrees 15 minutes 48.95 seconds west
**Datum:** WGS84
**UTM Zone:** 19
**UTM Easting:** 318666 meters
**UTM Northing:** 4879828 meters

**Primary Earth Cover:** Tree cover
**Secondary Earth Cover:** Intermixed conifers and hardwoods
**Existing Vegetation:** eastern hemlock, oak, paper birch, red spruce, sugar maple
**Parent Material:** supraglacial till
**Bedrock Kind:** Igneous rock

**Bedrock Depth:**

**Bedrock Hardness:** indurated
**Bedrock Fracture Interval:**
**Surface Fragments:**
**Description database:** KSSL

| Top Depth (cm) | Bottom Depth (cm) | Restriction Kind | Restriction Hardness |
|---|---|---|---|
| 80 | | bedrock, lithic | Indurated |

**Cont. Site ID:** S2016NH003008 **Pedon ID:** S2016NH003008

| Slope (%) | Elevation (meters) | Aspect (deg) | MAAT (C) | MSAT (C) | MWAT (C) | MAP (mm) | Frost-Free Days | Drainage Class | Slope Length (meters) | Upslope Length (meters) |
|---|---|---|---|---|---|---|---|---|---|---|
| 52.0 | 509.0 | 282 | | | | | | well | | |

Oa--0 to 23 centimeters (0.0 to 9.1 inches); black (10YR 2/1) highly decomposed plant material; massive; friable; many very fine roots and many medium roots and many fine roots and many coarse roots; extremely acid, pH 4.0, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04971

E--23 to 29 centimeters (9.1 to 11.4 inches); gray (7.5YR 5/1) gravelly fine sandy loam; weak fine granular structure; friable; many very fine roots and many medium roots and many fine roots; 2 percent nonflat subangular indurated 250 to 600-millimeter Igneous rock fragments and 5 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 20 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 4.8, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04972

Bhs1--29 to 37 centimeters (11.4 to 14.6 inches); reddish black (10R 2.5/1) gravelly fine sandy loam; weak fine granular structure; friable; strongly smeary; many very fine roots and many medium roots and many fine roots and many coarse roots; 17 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 5.0, pH indicator solutions; gradual wavy boundary. Lab sample # 16N04973

Bhs2--37 to 64 centimeters (14.6 to 25.2 inches); very dusky red (2.5YR 2.5/2) gravelly fine sandy loam; weak fine subangular blocky structure; friable; strongly smeary; common very fine roots and many medium roots and common fine roots; 17 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions; gradual wavy boundary. Lab sample # 16N04974

Bhs3--64 to 80 centimeters (25.2 to 31.5 inches); dark reddish brown (5YR 3/3) gravelly fine sandy loam; weak fine subangular blocky structure; friable; strongly smeary; common very fine roots and many medium roots and common fine roots; 17 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions; abrupt smooth boundary. Lab sample # 16N04975

R--80 to 200 centimeters (31.5 to 78.7 inches); bedrock; .

**PEDON DESCRIPTION -- NEON Site BART**

**Print Date:** Oct 11 2017
**Description Date:** Jun 14 2016
**Describer:** Roger DeKett
**NEON Plot ID:** BART_024
**Site ID:** S2016NH003009

**Pedon ID:** S2016NH003009
**Site Note:**
**Pedon Note:**
**Lab Source ID:** KSSL
**Lab Pedon #:** 16N1108
**Soil Name as Described/Sampled:** Knob Lock
**Classification:** Dysic, frigid Lithic Udifolists

**Soil Name as Correlated:**

**Classification:**
**Pedon Type:** undefined observation
**Pedon Purpose:** research site
**Taxon Kind:** series
**Associated Soils:**
**Physiographic Division:** Appalachian Highlands
**Physiographic Province:** New England Province
**Physiographic Section:** White Mountain section
**State Physiographic Area:**
**Local Physiographic Area:**
**Geomorphic Setting:** microslope on backslope of mountainflank of mountain
microslope on backslope of mountainflank of mountains
**Upslope Shape:** convex
**Cross Slope Shape:** convex
**Particle Size Control Section:**
**Description origin:** Pedon PC 6.2
**Diagnostic Features:** folistic epipedon 0 to 14 cm.
albic horizon 14 to 20 cm.
lithic contact 20 to cm.

**Country:** United States
**State:** New Hampshire
**County:** Carroll
**MLRA:** 143 -- Northeastern Mountains
**Soil Survey Area:** NH605 -- White Mountain National Forest, New Hampshire and Maine
12-STJ -- Saint Johnsbury, Vermont
**Map Unit:**
**Pit Location:**
**Quad Name:** Bartlett, New Hampshire
**Std Latitude:** 44.0529528
**Std Longitude:** -71.2635972

**Latitude:** 44 degrees 3 minutes 10.63 seconds north
**Longitude:** 71 degrees 15 minutes 48.95 seconds west
**Datum:** WGS84
**UTM Zone:** 19
**UTM Easting:** 318678 meters
**UTM Northing:** 4880245 meters

**Primary Earth Cover:** Tree cover
**Secondary Earth Cover:** Conifers
**Existing Vegetation:** eastern hemlock, red spruce
**Parent Material:** supraglacial till
**Bedrock Kind:** Igneous rock

**Bedrock Depth:** 20 centimeters

**Bedrock Hardness:** indurated
**Bedrock Fracture Interval:**
**Surface Fragments:**
**Description database:** KSSL

| Top Depth (cm) | Bottom Depth (cm) | Restriction Kind | Restriction Hardness |
|---|---|---|---|
| 20 | | bedrock, lithic | Indurated |

**Cont. Site ID:** S2016NH003009 **Pedon ID:** S2016NH003009

| Slope (%) | Elevation (meters) | Aspect (deg) | MAAT (C) | MSAT (C) | MWAT (C) | MAP (mm) | Frost-Free Days | Drainage Class | Slope Length (meters) | Upslope Length (meters) |
|---|---|---|---|---|---|---|---|---|---|---|
| 55.0 | 444.0 | 345 | | | | | | well | | |

Oa--0 to 14 centimeters (0.0 to 5.5 inches); black (7.5YR 2.5/1) highly decomposed plant material; massive; friable; many very fine roots and common very coarse roots and many medium roots and many fine roots and many coarse roots; extremely acid, pH 4.0, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04976

E--14 to 20 centimeters (5.5 to 7.9 inches); very gravelly loamy sand; single grain; loose; common very fine roots and common very coarse roots and many medium roots and many fine roots and many coarse roots; 50 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; extremely acid, pH 4.2, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04977. E horizon is mixed with Cr

R--20 to 200 centimeters (7.9 to 78.7 inches); indurated Igneous rock bedrock; . granite bedrock

**PEDON DESCRIPTION -- NEON Site BART**

**Print Date:** Oct 11 2017
**Description Date:** Jun 16 2016
**Describer:** Roger DeKett
**NEON Plot ID:** BART_015
**Site ID:** S2016NH003010

**Pedon ID:** S2016NH003010
**Site Note:**
**Pedon Note:**
**Lab Source ID:** KSSL
**Lab Pedon #:** 16N1109
**Soil Name as Described/Sampled:** Marlow
**Classification:** Coarse-loamy, isotic, frigid Oxyaquic Haplorthods

**Soil Name as Correlated:**

**Classification:**
**Pedon Type:** undefined observation
**Pedon Purpose:** research site
**Taxon Kind:** series
**Associated Soils:**
**Physiographic Division:** Appalachian Highlands
**Physiographic Province:** New England Province

**Physiographic Section:** White Mountain section

**State Physiographic Area:**
**Local Physiographic Area:**
**Geomorphic Setting:** microslope on backslope of mountainflank of mountain
microslope on backslope of mountainflank of mountains
**Upslope Shape:** convex
**Cross Slope Shape:** convex
**Particle Size Control Section:** 45 to 61 cm.
**Description origin:** Pedon PC 6.2
**Diagnostic Features:** folistic epipedon 0 to 20 cm.
albic horizon 20 to 25 cm.
spodic horizon 25 to 61 cm.
densic contact 61 to cm.

**Country:** United States
**State:** New Hampshire
**County:** Carroll
**MLRA:** 143 -- Northeastern Mountains
**Soil Survey Area:** NH605 -- White Mountain National Forest, New Hampshire and Maine
12-STJ -- Saint Johnsbury, Vermont
**Map Unit:**
**Pit Location:**
**Quad Name:** Bartlett, New Hampshire
**Std Latitude:** 44.0428917
**Std Longitude:** -71.2729000

**Latitude:** 44 degrees 2 minutes 34.41 seconds north
**Longitude:** 71 degrees 16 minutes 22.44 seconds west
**Datum:** WGS84
**UTM Zone:** 19
**UTM Easting:** 317902 meters
**UTM Northing:** 4879149 meters

**Primary Earth Cover:** Tree cover
**Secondary Earth Cover:** Intermixed conifers and hardwoods
**Existing Vegetation:** American beech, eastern hemlock, sugar maple
**Parent Material:** lodgment 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 |
|---|---|---|---|
| 61 | | densic material | Noncemented |

**Cont. Site ID:** S2016NH003010 **Pedon ID:** S2016NH003010

| Slope (%) | Elevation (meters) | Aspect (deg) | MAAT (C) | MSAT (C) | MWAT (C) | MAP (mm) | Frost-Free Days | Drainage Class | Slope Length (meters) | Upslope Length (meters) |
|---|---|---|---|---|---|---|---|---|---|---|
| 12.0 | 455.0 | 305 | | | | | | well | | |

Oa--0 to 20 centimeters (0.0 to 7.9 inches); highly decomposed plant material; massive; friable; many very fine roots and common very coarse roots and many medium roots and many fine roots and many coarse roots; extremely acid, pH 4.0, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04978

E--20 to 25 centimeters (7.9 to 9.8 inches); gray (7.5YR 5/1) fine sandy loam; weak fine subangular blocky structure; friable; common very fine roots and many medium roots and common fine roots and common coarse roots; 1 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 7 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 4.6, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04979

Bhs1--25 to 38 centimeters (9.8 to 15.0 inches); fine sandy loam; weak fine subangular blocky structure; firm by iron; common very fine roots and many medium roots and many fine roots and common coarse roots; 1 percent nonflat subangular indurated 250 to 600-millimeter Igneous rock fragments and 2 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 7 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; extremely acid, pH 4.0, pH indicator solutions; gradual wavy boundary. Lab sample # 16N04980. 20% cemented

Bhs2--38 to 61 centimeters (15.0 to 24.0 inches); dark reddish brown (2.5YR 3/3) gravelly fine sandy loam; weak fine subangular blocky structure; firm by iron; common very fine roots and few medium roots and common fine roots; 2 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 2 percent nonflat subangular indurated 250 to 600-millimeter Igneous rock fragments and 20 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 4.8, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04981. 40% cemented

Cd--61 to 100 centimeters (24.0 to 39.4 inches); olive brown (2.5Y 4/4) gravelly fine sandy loam; weak thin platy structure; firm; 30 percent coarse faint 7.5YR 4/4) iron-manganese masses; 2 percent nonflat subangular indurated 250 to 600-millimeter Igneous rock fragments and 5 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 25 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 5.0, pH indicator solutions. Lab sample # 16N04982

# PEDON DESCRIPTION -- NEON Site BART

**Print Date:** Oct 11 2017
**Description Date:** Jun 20 2016
**Describer:** Roger DeKett
**NEON Plot ID:** BART_010
**Site ID:** S2016NH003011

**Pedon ID:** S2016NH003011
**Site Note:**
**Pedon Note:** weighted average 44% rock frags on pscs
**Lab Source ID:** KSSL
**Lab Pedon #:** 16N1110
**Soil Name as Described/Sampled:** Marlow
**Classification:** Loamy-skeletal, isotic, frigid Oxyaquic Haplorthods

**Soil Name as Correlated:**

**Classification:**
**Pedon Type:** undefined observation
**Pedon Purpose:** research site
**Taxon Kind:** taxadjunct
**Associated Soils:**
**Physiographic Division:** Appalachian Highlands
**Physiographic Province:** New England Province
**Physiographic Section:** White Mountain section

**State Physiographic Area:**
**Local Physiographic Area:**
**Geomorphic Setting:** microslope on backslope of mountainflank of mountain
microslope on backslope of mountainflank of mountains
**Upslope Shape:** convex
**Cross Slope Shape:** convex
**Particle Size Control Section:** 29 to 88 cm.
**Description origin:** Pedon PC 6.2
**Diagnostic Features:** ochric epipedon 0 to 12 cm.
albic horizon 4 to 12 cm.
spodic horizon 12 to 34 cm.
densic contact 88 to cm.

**Country:** United States
**State:** New Hampshire
**County:** Carroll
**MLRA:** 143 -- Northeastern Mountains
**Soil Survey Area:** NH605 -- White Mountain National Forest, New Hampshire and Maine
12-STJ -- Saint Johnsbury, Vermont
**Map Unit:**
**Pit Location:**
**Quad Name:** Bartlett, New Hampshire
**Std Latitude:** 44.0500028
**Std Longitude:** -71.2667639

**Latitude:** 44 degrees 3 minutes 0.01 seconds north
**Longitude:** 71 degrees 16 minutes 0.35 seconds west
**Datum:** WGS84
**UTM Zone:** 19
**UTM Easting:** 318416 meters
**UTM Northing:** 4879925 meters

**Primary Earth Cover:** Tree cover
**Secondary Earth Cover:** Hardwoods
**Existing Vegetation:** American beech, oak, sugar maple, yellow birch
**Parent Material:** lodgment 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 |
|---|---|---|---|
| 88 | | densic material | Noncemented |

**Cont. Site ID:** S2016NH003011 **Pedon ID:** S2016NH003011

| Slope (%) | Elevation (meters) | Aspect (deg) | MAAT (C) | MSAT (C) | MWAT (C) | MAP (mm) | Frost-Free Days | Drainage Class | Slope Length (meters) | Upslope Length (meters) |
|---|---|---|---|---|---|---|---|---|---|---|
| 33.0 | 443.0 | 232 | | | | | | well | | |

Oe--0 to 4 centimeters (0.0 to 1.6 inches); black (5YR 2.5/1) moderately decomposed plant material; massive; friable; many very fine roots and common medium roots and many fine roots and common coarse roots; very strongly acid, pH 4.6, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04983

E--4 to 12 centimeters (1.6 to 4.7 inches); gray (10YR 5/1) very cobbly fine sandy loam; weak fine granular structure; friable; many very fine roots and many medium roots and many fine roots and many coarse roots; 3 percent nonflat subangular indurated 250 to 600-millimeter Igneous rock fragments and 15 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 20 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 4.8, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04984

Bhs--12 to 19 centimeters (4.7 to 7.5 inches); very dusky red (2.5YR 2.5/2) cobbly fine sandy loam; weak fine subangular blocky structure; friable; many very fine roots and many medium roots and many fine roots and common coarse roots; 3 percent nonflat subangular indurated 250 to 600-millimeter Igneous rock fragments and 10 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 15 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 4.8, pH indicator solutions; gradual wavy boundary. Lab sample # 16N04985

Bs--19 to 34 centimeters (7.5 to 13.4 inches); very cobbly fine sandy loam; weak fine subangular blocky structure; friable by iron; common very fine roots and common medium roots and many fine roots and few coarse roots; 3 percent nonflat subangular indurated 250 to 600-millimeter Igneous rock fragments and 15 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 20 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions; gradual wavy boundary. Lab sample # 16N04986. 30% cemented

BC--34 to 88 centimeters (13.4 to 34.6 inches); olive brown (2.5Y 4/3) very cobbly fine sandy loam; weak fine subangular blocky structure; friable; common very fine roots and common medium roots and common fine roots; 1 percent nonflat subangular indurated 250 to 600-millimeter Igneous rock fragments and 20 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 25 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04987

Cd--88 to 100 centimeters (34.6 to 39.4 inches); olive brown (2.5Y 4/3) very cobbly fine sandy loam; weak thin platy structure; very firm; few fine roots top of horizon; 1 percent nonflat subangular indurated 250 to 600-millimeter Igneous rock fragments and 20 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 25 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 5.0, pH indicator solutions. Lab sample # 16N04988

# PEDON DESCRIPTION -- NEON Site BART

**Print Date:** Oct 11 2017
**Description Date:** Jun 21 2016
**Describer:** Roger DeKett
**NEON Plot ID:** BART_005
**Site ID:** S2016NH003012

**Pedon ID:** S2016NH003012
**Site Note:**
**Pedon Note:** weighted average 55% rock frags on pscs
**Lab Source ID:** KSSL
**Lab Pedon #:** 16N1111
**Soil Name as Described/Sampled:** Series Not determined
**Classification:**

**Soil Name as Correlated:**

**Classification:**
**Pedon Type:** undefined observation
**Pedon Purpose:** research site
**Taxon Kind:**
**Associated Soils:**
**Physiographic Division:** Appalachian Highlands
**Physiographic Province:** New England Province

**Physiographic Section:** White Mountain section

**State Physiographic Area:**
**Local Physiographic Area:**
**Geomorphic Setting:** microslope on toeslope of mountainbase of mountain microslope on toeslope of mountainbase of mountains
**Upslope Shape:** linear
**Cross Slope Shape:** linear
**Particle Size Control Section:** 47 to 122 cm.
**Description origin:** Pedon PC 6.2
**Diagnostic Features:** histic epipedon 0 to 22 cm.
albic horizon 22 to 29 cm.
spodic horizon 29 to 76 cm.

**Country:** United States
**State:** New Hampshire
**County:** Carroll
**MLRA:** 143 -- Northeastern Mountains
**Soil Survey Area:** NH605 -- White Mountain National Forest, New Hampshire and Maine
12-STJ -- Saint Johnsbury, Vermont
**Map Unit:**
**Pit Location:**
**Quad Name:** Bartlett, New Hampshire
**Std Latitude:** 44.0546111
**Std Longitude:** -71.2824361

**Latitude:** 44 degrees 3 minutes 16.60 seconds north
**Longitude:** 71 degrees 16 minutes 56.77 seconds west
**Datum:** WGS84
**UTM Zone:** 19
**UTM Easting:** 317174 meters
**UTM Northing:** 4880471 meters

**Primary Earth Cover:** Tree cover
**Secondary Earth Cover:** Intermixed conifers and hardwoods
**Existing Vegetation:** American beech, balsam fir, eastern hemlock, hobblebush, sugar maple, yellow birch
**Parent Material:** outwash
**Bedrock Kind:**
**Bedrock Depth:**
**Bedrock Hardness:**
**Bedrock Fracture Interval:**
**Surface Fragments:**
**Description database:** KSSL

| Top Depth (cm) | Bottom Depth (cm) | Restriction Kind | Restriction Hardness |
|---|---|---|---|
| 29 | 76 | ortstein | Very strongly cemented |

**Cont. Site ID:** S2016NH003012 **Pedon ID:** S2016NH003012

| 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 | 329.0 | 360 | | | | | | somewhat poorly | | |

Oa--0 to 22 centimeters (0.0 to 8.7 inches); black (10YR 2/1) highly decomposed plant material; friable; many very fine roots and common very coarse roots and many medium roots and many fine roots and many coarse roots; extremely acid, pH 4.0, pH indicator solutions; abrupt smooth boundary. Lab sample # 16N04989

E--22 to 29 centimeters (8.7 to 11.4 inches); gray (7.5YR 5/1) very gravelly fine sandy loam; weak fine granular structure; friable; common very fine roots and few medium roots and common fine roots and few coarse roots; 10 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 30 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; extremely acid, pH 4.2, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04990

Bhs1--29 to 36 centimeters (11.4 to 14.2 inches); very gravelly sandy loam; weak fine subangular blocky structure; very firm by iron; few medium roots and common fine roots and few coarse roots; 10 percent coarse prominent 5YR 4/6) iron-manganese masses; 15 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 40 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 4.6, pH indicator solutions; gradual wavy boundary. Lab sample # 16N04991. 80% cemented

Bhs2--36 to 76 centimeters (14.2 to 29.9 inches); very gravelly fine sandy loam; weak fine granular structure; very firm by iron; few medium roots and few fine roots; 10 percent coarse distinct 7.5YR 4/6) iron-manganese masses and 10 percent coarse distinct 7.5YR 5/3) iron depletions; 15 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 40 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 5.0, pH indicator solutions; clear wavy boundary. Lab sample # 16N04992. 80% cemented

C--76 to 100 centimeters (29.9 to 39.4 inches); dark yellowish brown (10YR 4/4) very gravelly coarse sand; single grain; loose; 20 percent medium prominent 10YR 5/8) masses of oxidized iron; 15 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 40 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions. Lab sample # 16N04993. thin band of vfs at top of horizon

# PEDON DESCRIPTION -- NEON Site BART

**Print Date:** Oct 11 2017
**Description Date:** Jun 22 2016
**Describer:** Roger DeKett
**NEON Plot ID:** BART_004
**Site ID:** S2016NH003013

**Pedon ID:** S2016NH003013
**Site Note:**
**Pedon Note:** average rock frag 31% in pscs
**Lab Source ID:** KSSL
**Lab Pedon #:** 16N1112
**Soil Name as Described/Sampled:** Marlow
**Classification:** Coarse-loamy, isotic, frigid Oxyaquic Haplorthods

**Soil Name as Correlated:**

**Classification:**
**Pedon Type:** undefined observation
**Pedon Purpose:** research site
**Taxon Kind:** series
**Associated Soils:**
**Physiographic Division:** Appalachian Highlands
**Physiographic Province:** New England Province

**Physiographic Section:** White Mountain section

**State Physiographic Area:**
**Local Physiographic Area:**
**Geomorphic Setting:** microslope on backslope of mountainflank of mountain
microslope on backslope of mountainflank of mountains
**Upslope Shape:** convex
**Cross Slope Shape:** linear
**Particle Size Control Section:** 42 to 77 cm.
**Description origin:** Pedon PC 6.2
**Diagnostic Features:** folistic epipedon 0 to 17 cm.
albic horizon 17 to 20 cm.
spodic horizon 20 to 77 cm.

**Country:** United States
**State:** New Hampshire
**County:** Carroll
**MLRA:** 143 -- Northeastern Mountains
**Soil Survey Area:** NH605 -- White Mountain National Forest, New Hampshire and Maine
12-STJ -- Saint Johnsbury, Vermont
**Map Unit:**
**Pit Location:**
**Quad Name:** Bartlett, New Hampshire
**Std Latitude:** 44.0415583
**Std Longitude:** -71.2871583

**Latitude:** 44 degrees 2 minutes 29.61 seconds north
**Longitude:** 71 degrees 17 minutes 13.77 seconds west
**Datum:** WGS84
**UTM Zone:** 19
**UTM Easting:** 316756 meters
**UTM Northing:** 4879032 meters

**Primary Earth Cover:** Tree cover
**Secondary Earth Cover:** Intermixed conifers and hardwoods
**Existing Vegetation:** eastern hemlock, red spruce, sugar maple, yellow birch
**Parent Material:** lodgment till
**Bedrock Kind:**

**Bedrock Depth:**

**Bedrock Hardness:**
**Bedrock Fracture Interval:**
**Surface Fragments:**
**Description database:** KSSL

**Cont. Site ID:** S2016NH003013 **Pedon ID:** S2016NH003013

| Slope (%) | Elevation (meters) | Aspect (deg) | MAAT (C) | MSAT (C) | MWAT (C) | MAP (mm) | Frost-Free Days | Drainage Class | Slope Length (meters) | Upslope Length (meters) |
|---|---|---|---|---|---|---|---|---|---|---|
| 25.0 | 534.0 | 295 | | | | | | well | | |

Oa--0 to 17 centimeters (0.0 to 6.7 inches); highly decomposed plant material; massive; friable; many very fine roots and few very coarse roots and many medium roots and many fine roots and many coarse roots; very strongly acid, pH 4.8, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04994

E--17 to 20 centimeters (6.7 to 7.9 inches); gray (7.5YR 5/1) gravelly loamy fine sand; weak fine subangular blocky structure; friable; common very fine roots and many medium roots and many fine roots and few coarse roots; 5 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 15 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 4.9, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04995

Bhs1--20 to 25 centimeters (7.9 to 9.8 inches); reddish black (2.5YR 2.5/1) gravelly fine sandy loam; weak medium subangular blocky structure; firm by iron; many very fine roots and many medium roots and many fine roots and many coarse roots; 5 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 25 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions; clear irregular boundary. Lab sample # 16N04996. 30% cemented

Bhs2--25 to 77 centimeters (9.8 to 30.3 inches); dark reddish brown (5YR 3/3) gravelly fine sandy loam; weak fine subangular blocky structure; friable; common very fine roots and common medium roots and common fine roots; 2 percent nonflat subangular indurated 250 to 600-millimeter Igneous rock fragments and 5 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 25 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N04997

Cd--77 to 100 centimeters (30.3 to 39.4 inches); dark yellowish brown (10YR 4/4) gravelly sandy loam; firm; few fine roots between peds; 20 percent coarse distinct 7.5YR 4/6) iron-manganese masses; 5 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 25 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; strongly acid, pH 5.4, pH indicator solutions. Lab sample # 16N04998

**PEDON DESCRIPTION -- NEON Site BART**

**Print Date:** Oct 11 2017
**Description Date:** Jun 23 2016
**Describer:** Jessica Philippe
**NEON Plot ID:** BART_013
**Site ID:** S2016NH003014

**Pedon ID:** S2016NH003014
**Site Note:**
**Pedon Note:**
**Lab Source ID:** KSSL
**Lab Pedon #:** 16N1113
**Soil Name as Described/Sampled:** Marlow
**Classification:** Coarse-loamy, isotic, frigid Oxyaquic Haplorthods

**Soil Name as Correlated:**

**Classification:**
**Pedon Type:** undefined observation
**Pedon Purpose:** research site
**Taxon Kind:** series
**Associated Soils:**
**Physiographic Division:** Appalachian Highlands
**Physiographic Province:** New England Province
**Physiographic Section:** White Mountain section

**State Physiographic Area:**
**Local Physiographic Area:**
**Geomorphic Setting:** microslope on backslope of mountainflank of mountain
microslope on backslope of mountainflank of mountains
**Upslope Shape:** convex
**Cross Slope Shape:** convex
**Particle Size Control Section:** 48 to 70 cm.
**Description origin:** Pedon PC 6.2
**Diagnostic Features:** folistic epipedon 0 to 23 cm.
albic horizon 23 to 35 cm.
spodic horizon 35 to 70 cm.
densic contact 70 to cm.

**Country:** United States
**State:** New Hampshire
**County:** Carroll
**MLRA:** 143 -- Northeastern Mountains
**Soil Survey Area:** NH605 -- White Mountain National Forest, New Hampshire and Maine
12-STJ -- Saint Johnsbury, Vermont
**Map Unit:**
**Pit Location:**
**Quad Name:** Bartlett, New Hampshire
**Std Latitude:** 44.0419028
**Std Longitude:** -71.2778639

**Latitude:** 44 degrees 2 minutes 30.85 seconds north
**Longitude:** 71 degrees 16 minutes 40.31 seconds west
**Datum:** WGS84
**UTM Zone:** 19
**UTM Easting:** 317502 meters
**UTM Northing:** 4879050 meters

**Primary Earth Cover:** Tree cover
**Secondary Earth Cover:** Hardwoods
**Existing Vegetation:** American beech, hobblebush, sugar maple
**Parent Material:** lodgment 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 |
|---|---|---|---|
| 70 | | densic material | Noncemented |

**Cont. Site ID:** S2016NH003014 **Pedon ID:** S2016NH003014

| Slope (%) | Elevation (meters) | Aspect (deg) | MAAT (C) | MSAT (C) | MWAT (C) | MAP (mm) | Frost-Free Days | Drainage Class | Slope Length (meters) | Upslope Length (meters) |
|---|---|---|---|---|---|---|---|---|---|---|
| 35.0 | 447.0 | 90 | | | | | | well | | |

Oa--0 to 23 centimeters (0.0 to 9.1 inches); black (10YR 2/1) highly decomposed plant material; massive; friable; common very fine roots and few very coarse roots and few medium roots and common fine roots and few coarse roots; extremely acid, pH 4.0, pH indicator solutions; clear wavy boundary. Lab sample # 16N04999. significant tree throw evident in Oa

E--23 to 35 centimeters (9.1 to 13.8 inches); brown (7.5YR 4/2) very fine sandy loam; weak fine subangular blocky structure; friable; few very fine roots and few medium roots and few fine roots; 2 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 4 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 4.8, pH indicator solutions; clear irregular boundary. Lab sample # 16N05000. pocket of B material just above E horizon

Bhs--35 to 40 centimeters (13.8 to 15.7 inches); dark reddish brown (5YR 2.5/2) very fine sandy loam; weak medium angular blocky structure; friable; few very fine roots and few fine roots; 4 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 5.0, pH indicator solutions; clear irregular boundary. Lab sample # 16N05001

Bs--40 to 70 centimeters (15.7 to 27.6 inches); dark brown (7.5YR 3/4) very fine sandy loam; weak medium subangular blocky structure; friable; few very fine roots and few fine roots; 2 percent nonflat subangular indurated 250 to 600-millimeter Igneous rock fragments and 5 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments and 6 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 5.0, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N05002

Cd--70 to 100 centimeters (27.6 to 39.4 inches); olive brown (2.5Y 4/4) cobbly very fine sandy loam; weak thick platy structure; firm; few very fine roots between peds; 10 percent medium prominent 10YR 5/8) masses of oxidized iron; 2 percent nonflat subangular indurated 250 to 600-millimeter Igneous rock fragments and 9 percent nonflat subangular indurated 2 to 75-millimeter Igneous rock fragments and 10 percent nonflat subangular indurated 75 to 250-millimeter Igneous rock fragments; strongly acid, pH 5.2, pH indicator solutions. Lab sample # 16N05003

# PEDON DESCRIPTION -- NEON Site BART

**Print Date:** Oct 11 2017
**Description Date:** Jun 24 2016
**Describer:** Roger DeKett
**NEON Plot ID:** BART_011
**Site ID:** S2016NH003015

**Pedon ID:** S2016NH003015
**Site Note:**
**Pedon Note:** 2Cd not sampled because it is below 100cm.; average rock frag 40% in pscs
**Lab Source ID:** KSSL
**Lab Pedon #:** 16N1114
**Soil Name as Described/Sampled:** Series Not Determined
**Classification:**

**Soil Name as Correlated:**

**Classification:**
**Pedon Type:** undefined observation
**Pedon Purpose:** research site
**Taxon Kind:**
**Associated Soils:**
**Physiographic Division:** Appalachian Highlands
**Physiographic Province:** New England Province

**Physiographic Section:** White Mountain section

**State Physiographic Area:**
**Local Physiographic Area:**
**Geomorphic Setting:** microslope on backslope of mountainflank of mountain
microslope on backslope of mountainflank of mountains
**Upslope Shape:** convex
**Cross Slope Shape:** convex
**Particle Size Control Section:** 34 to 100 cm.
**Description origin:** Pedon PC 6.2
**Diagnostic Features:** ochric epipedon 0 to 15 cm.
albic horizon 9 to 15 cm.
spodic horizon 15 to 24 cm.
densic contact 100 to cm.

**Country:** United States
**State:** New Hampshire
**County:** Carroll
**MLRA:** 143 -- Northeastern Mountains
**Soil Survey Area:** NH605 -- White Mountain National Forest, New Hampshire and Maine
12-STJ -- Saint Johnsbury, Vermont
**Map Unit:**
**Pit Location:**

**Quad Name:** Bartlett, New Hampshire

**Std Latitude:** 44.0499167
**Std Longitude:** -71.2964500

**Latitude:** 44 degrees 2 minutes 59.70 seconds north
**Longitude:** 71 degrees 17 minutes 47.22 seconds west
**Datum:** WGS84
**UTM Zone:** 19
**UTM Easting:** 316037 meters
**UTM Northing:** 4879981 meters

**Primary Earth Cover:** Tree cover
**Secondary Earth Cover:** Intermixed conifers and hardwoods
**Existing Vegetation:** American beech, eastern hemlock, sugar maple, yellow birch
**Parent Material:** ablation till over lodgment 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 |
|---|---|---|---|
| 100 | | densic material | Noncemented |

**Cont. Site ID:** S2016NH003015 **Pedon ID:** S2016NH003015

| Slope (%) | Elevation (meters) | Aspect (deg) | MAAT (C) | MSAT (C) | MWAT (C) | MAP (mm) | Frost-Free Days | Drainage Class | Slope Length (meters) | Upslope Length (meters) |
|---|---|---|---|---|---|---|---|---|---|---|
| 40.0 | 388.0 | 330 | | | | | | moderately well | | |

Oa--0 to 9 centimeters (0.0 to 3.5 inches); reddish black (2.5YR 2.5/1) highly decomposed plant material; massive; friable; many very fine roots and few very coarse roots and many medium roots and many fine roots and common coarse roots; extremely acid, pH 4.0, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N05004

E--9 to 15 centimeters (3.5 to 5.9 inches); gray (7.5YR 6/1) fine sandy loam; weak fine subangular blocky structure; friable; common very fine roots and few medium roots and common fine roots; 13 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; extremely acid, pH 4.2, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N05005

Bhs--15 to 24 centimeters (5.9 to 9.4 inches); very dusky red (2.5YR 2.5/2) fine sandy loam; weak fine granular structure; friable; moderately smeary; common very fine roots and common medium roots and common fine roots and few coarse roots; 13 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; extremely acid, pH 4.0, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N05006

Bs--24 to 55 centimeters (9.4 to 21.7 inches); dark yellowish brown (10YR 3/4) gravelly fine sandy loam; weak fine granular structure; friable; common medium roots and common fine roots; 5 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 25 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 5.0, pH indicator solutions; gradual wavy boundary. Lab sample # 16N05007

BC--55 to 100 centimeters (21.7 to 39.4 inches); dark yellowish brown (10YR 4/4) very gravelly fine sandy loam; weak thin platy structure; friable; few medium roots and common fine roots; 10 percent medium prominent 5Y 5/1) iron depletions and 10 percent medium distinct 10YR 4/6) iron-manganese masses; 15 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 30 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 5.0, pH indicator solutions; abrupt smooth boundary. Lab sample # 16N05008

2Cd--100 to 125 centimeters (39.4 to 49.2 inches); olive gray (5Y 5/2) gravelly fine sandy loam; weak thin platy structure; firm; 10 percent medium prominent 10YR 4/6) iron-manganese masses; 5 percent nonflat subrounded indurated 75 to 250-millimeter Igneous rock fragments and 15 percent nonflat subrounded indurated 2 to 75-millimeter Igneous rock fragments; very strongly acid, pH 4.8, pH indicator solutions. includes bands of organic matter that are very smeary