

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 15 2018
Describer: D.Mulligan
NEON Plot ID: TOOL_002
Site ID: S2018AK185102

Country: United States
State: Alaska
County: North Slope Borough
MLRA: 245 -- Arctic Foothills
Soil Survey Area: AK681 -- Arctic Foothills Major Land Resource Area
 1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude: 68.6277980
Std Longitude: -149.3476570

Pedon ID: S2018AK185102
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 19N0034
Soil Name as Described/Sampled: TS_ Historthel
Classification:
Soil Name as Correlated:
Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind:
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: on backslope of None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS
Diagnostic Features: histic epipedon 0 to 23 cm.
 redox concentrations 23 to 54 cm.
 reduced matrix 33 to 72 cm.
 permafrost 54 to 100 cm.

Latitude:
Longitude:
Datum:
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
54	100	permafrost	Very strongly cemented

Cont. Site ID: S2018AK185102

Pedon ID: S2018AK185102

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	846.0	157								

Oi--0 to 7 centimeters (0.0 to 2.8 inches); very dark brown (7.5YR 2.5/2) rubbed peat; many very fine roots and common medium roots and many fine roots; clear broken boundary. Lab sample # 19N00197

Oe--7 to 23 centimeters (2.8 to 9.1 inches); black (10YR 2/1) rubbed mucky peat; many very fine roots and many medium roots and common fine roots; clear wavy boundary. Lab sample # 19N00198

Bw--23 to 33 centimeters (9.1 to 13.0 inches); yellowish brown (10YR 5/4) broken face gravelly silt loam; weak medium subangular blocky structure; many very fine roots and common medium roots and common fine roots; 10 percent medium faint irregular 2.5Y 5/2), moist, iron depletions with clear boundaries Throughout; 20 percent nonflat rounded very strongly cemented 2 to 75-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 19N00199

Cg--33 to 54 centimeters (13.0 to 21.3 inches); grayish brown (2.5Y 5/2) broken face gravelly silt loam; massive; common medium roots and common fine roots; 15 percent medium distinct irregular masses of oxidized iron with clear boundaries Throughout; 1 percent nonflat rounded indurated 75 to 250-millimeter Mixed rock fragments and 5 percent nonflat rounded indurated 5 to 75-millimeter Mixed rock fragments and 20 percent nonflat rounded indurated 2 to 5-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 19N00200

Cf1--54 to 72 centimeters (21.3 to 28.3 inches); dark grayish brown (2.5Y 4/2) broken face gravelly silt loam; massive; 2 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 5 to 75-millimeter Mixed rock fragments and 20 percent nonflat subrounded indurated 2 to 5-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 19N00201

Cf2--72 to 100 centimeters (28.3 to 39.4 inches); grayish brown (2.5Y 5/2) broken face extremely gravelly sandy loam; massive; 20 percent nonflat subrounded indurated 5 to 75-millimeter Mixed rock fragments and 20 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 30 percent nonflat subrounded indurated 2 to 5-millimeter Mixed rock fragments. Lab sample # 19N00202

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 15 2018
Describer: J. Paul
NEON Plot ID: TOOL_003
Site ID: S2018AK185103

Pedon ID: S2018AK185103

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 19N0035

Soil Name as Described/Sampled: SS_ Hemistel

Classification:

Soil Name as Correlated:

Classification:

Pedon Type:

Pedon Purpose: research site

Taxon Kind:

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on shoulder of None Assigned

Upslope Shape: linear

Cross Slope Shape: convex

Particle Size Control Section:

Description origin: NASIS

Diagnostic Features: sapric soil materials 0 to 6 cm.
hemic soil materials 6 to 39 cm.
sapric soil materials 39 to 100 cm.
permafrost 39 to 100 cm.

Country: United States

State: Alaska

County: North Slope Borough

MLRA: 245 -- Arctic Foothills

Soil Survey Area: AK681 -- Arctic Foothills Major
Land Resource Area
1-FAI -- Fairbanks, Alaska

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 68.6401170

Std Longitude: -149.6429000

Latitude:

Longitude:

Datum:

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation:

Parent Material:

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2018AK185103

Pedon ID: S2018AK185103

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	711.0	10								

Oa--0 to 6 centimeters (0.0 to 2.4 inches); black (5YR 2.5/1) rubbed muck; many very fine roots and common medium roots and common fine roots; abrupt smooth boundary. Lab sample # 19N00203

Oe1--6 to 20 centimeters (2.4 to 7.9 inches); very dark brown (7.5YR 2.5/2) rubbed mucky peat; many very fine roots and common medium roots and common fine roots; clear smooth boundary. Lab sample # 19N00204

Oe2--20 to 39 centimeters (7.9 to 15.4 inches); very dark brown (7.5YR 2.5/3) rubbed mucky peat; many very fine roots and common medium roots and common fine roots; abrupt smooth boundary. Lab sample # 19N00205

Oaf1--39 to 60 centimeters (15.4 to 23.6 inches); very dark brown (7.5YR 2.5/2) rubbed muck; clear smooth boundary. Lab sample # 19N00206

Oaf2--60 to 75 centimeters (23.6 to 29.5 inches); dark brown (7.5YR 3/4) rubbed muck; clear smooth boundary. Lab sample # 19N00207

Oaf3--75 to 100 centimeters (29.5 to 39.4 inches); dark brown (7.5YR 3/3) rubbed muck; . Lab sample # 19N00208

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 16 2018
Describer: D. Mulligan
NEON Plot ID: TOOL_008
Site ID: S2018AK185108

Pedon ID: S2018AK185108

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 19N0036

Soil Name as Described/Sampled: TD_Aquorthel

Classification:

Soil Name as Correlated:

Classification:

Pedon Type:

Pedon Purpose: research site

Taxon Kind:

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on shoulder of None Assigned

Upslope Shape: linear

Cross Slope Shape: convex

Particle Size Control Section:

Description origin: NASIS

Diagnostic Features: reduced matrix 28 to 100 cm.
redox concentrations 67 to 100 cm.
permafrost 67 to 100 cm.

Country: United States

State: Alaska

County: North Slope Borough

MLRA: 245 -- Arctic Foothills

Soil Survey Area: AK681 -- Arctic Foothills Major
Land Resource Area

1-FAI -- Fairbanks, Alaska

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 68.5611110

Std Longitude: -149.5105490

Latitude:

Longitude:

Datum:

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation:

Parent Material:

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

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	860.0	301								

Oe--0 to 13 centimeters (0.0 to 5.1 inches); very dark brown (7.5YR 2.5/2) rubbed moderately decomposed plant material; many very fine roots and many medium roots and common fine roots and common coarse roots; abrupt smooth boundary. Lab sample # 19N00209

A--13 to 16 centimeters (5.1 to 6.3 inches); 7.5YR 3/ (7.5YR 3/), broken face very gravelly silt loam; weak medium granular structure; friable, slightly sticky, nonplastic; many very fine roots and common medium roots and common fine roots; 5 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 45 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; clear broken boundary. Lab sample # 19N00210

Bw--16 to 28 centimeters (6.3 to 11.0 inches); yellowish brown (10YR 5/4) broken face very gravelly silt loam; weak medium subangular blocky structure; friable, slightly sticky, nonplastic; common very fine roots and common medium roots and common fine roots and common coarse roots; 10 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 45 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 19N00211

Bg--28 to 67 centimeters (11.0 to 26.4 inches); dark gray (10YR 4/1) broken face very gravelly silty clay loam; weak medium subangular blocky structure; firm, moderately sticky, moderately plastic; common medium roots and common fine roots; 5 percent fine prominent irregular 7.5YR 4/6), moist, masses of oxidized iron with sharp boundaries Throughout and 10 percent medium distinct irregular 10YR 4/4), moist, masses of oxidized iron with clear boundaries Throughout; 10 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 45 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 19N00212

Cf--67 to 100 centimeters (26.4 to 39.4 inches); dark gray (10YR 4/1) broken face very gravelly silty clay loam; massive; rigid, moderately sticky, moderately plastic; 5 percent fine prominent irregular 7.5YR 4/6), moist, masses of oxidized iron with sharp boundaries Throughout and 10 percent medium distinct irregular 10YR 4/4), moist, masses of oxidized iron with clear boundaries Throughout; 10 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 45 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 19N00213

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 14 2018
Describer: D. Mulligan
NEON Plot ID: TOOL_009
Site ID: S2018AK185109

Pedon ID: S2018AK185109

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 19N0037

Soil Name as Described/Sampled: TS_Historthel

Classification:

Soil Name as Correlated:

Classification:

Pedon Type:

Pedon Purpose: research site

Taxon Kind:

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on toeslope of None Assigned

Upslope Shape:

Cross Slope Shape:

Particle Size Control Section:

Description origin: NASIS

Diagnostic Features: histic epipedon 0 to 22 cm.
reduced matrix 22 to 100 cm.
redox concentrations 22 to 31 cm.
permafrost 31 to 100 cm.

Country: United States

State: Alaska

County: North Slope Borough

MLRA: 245 -- Arctic Foothills

Soil Survey Area: AK681 -- Arctic Foothills Major
Land Resource Area

1-FAI -- Fairbanks, Alaska

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 68.6272210

Std Longitude: -149.3246810

Latitude:

Longitude:

Datum:

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation:

Parent Material:

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2018AK185109

Pedon ID: S2018AK185109

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	855.0	265								

Oe--0 to 22 centimeters (0.0 to 8.7 inches); very dark brown (7.5YR 2.5/2) rubbed mucky peat; many very fine roots and many medium roots and many fine roots and common coarse roots; clear smooth boundary. Lab sample # 19N00214

Cg--22 to 31 centimeters (8.7 to 12.2 inches); dark gray (2.5Y 4/1) broken face silt loam; friable, slightly sticky, nonplastic; many very fine roots and common medium roots and common fine roots and common coarse roots; 10 percent medium prominent irregular masses of oxidized iron with clear boundaries Throughout; 5 percent nonflat subangular indurated 2 to 5-millimeter Mixed rock fragments and 7 percent nonflat subangular indurated 5 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00215

Cfg--31 to 100 centimeters (12.2 to 39.4 inches); dark gray (2.5Y 4/1) broken face silt loam; rigid, slightly sticky, nonplastic; 5 percent nonflat subangular indurated 2 to 5-millimeter Mixed rock fragments and 7 percent nonflat subangular indurated 5 to 75-millimeter Mixed rock fragments. Lab sample # 19N00216

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 16 2018
Describer: S. Schmit
NEON Plot ID: TOOL_011
Site ID: S2018AK185111

Pedon ID: S2018AK185111

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 19N0038

Soil Name as Described/Sampled: OW_Sapristel

Classification:

Soil Name as Correlated:

Classification:

Pedon Type:

Pedon Purpose: research site

Taxon Kind:

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on toeslope of None Assigned

Upslope Shape: concave

Cross Slope Shape: concave

Particle Size Control Section:

Description origin: NASIS

Diagnostic Features: hemic soil materials 7 to 45 cm.
sapric soil materials 45 to 90 cm.

Country: United States

State: Alaska

County: North Slope Borough

MLRA: 245 -- Arctic Foothills

Soil Survey Area: AK681 -- Arctic Foothills Major
Land Resource Area

1-FAI -- Fairbanks, Alaska

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 68.6258666

Std Longitude: -149.5916611

Latitude:

Longitude:

Datum:

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation:

Parent Material:

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2018AK185111

Pedon ID: S2018AK185111

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	727.0									

A--0 to 7 centimeters (0.0 to 2.8 inches); 2.5Y 3/4 (2.5Y 3/4) broken face silt loam; weak medium granular structure; friable, nonsticky, nonplastic; common very fine roots and common medium roots and common fine roots; abrupt smooth boundary. Lab sample # 19N00217

Oe--7 to 45 centimeters (2.8 to 17.7 inches); very dark brown (7.5YR 2.5/2) rubbed mucky peat; many very fine roots and common fine roots; gradual smooth boundary. Lab sample # 19N00218

Oa--45 to 90 centimeters (17.7 to 35.4 inches); very dark brown (10YR 2/2) rubbed muck; many very fine roots and common fine roots; 3 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 19N00219

Of--90 to 100 centimeters (35.4 to 39.4 inches); .

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 14 2018
Describer: J. Paul
NEON Plot ID: TOOL_013
Site ID: S2018AK185113

Pedon ID: S2018AK185113

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 19N0039

Soil Name as Described/Sampled: TS_Gelaquept

Classification:

Soil Name as Correlated:

Classification:

Pedon Type:

Pedon Purpose: research site

Taxon Kind:

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of None Assigned

Upslope Shape:

Cross Slope Shape:

Particle Size Control Section:

Description origin: NASIS

Diagnostic Features: histic epipedon 0 to 31 cm.
reduced matrix 31 to 100 cm.
redox concentrations 31 to 55 cm.

Country: United States

State: Alaska

County: North Slope Borough

MLRA: 245 -- Arctic Foothills

Soil Survey Area: AK681 -- Arctic Foothills Major
Land Resource Area
1-FAI -- Fairbanks, Alaska

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 68.6150930

Std Longitude: -149.3352250

Latitude:

Longitude:

Datum:

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation:

Parent Material:

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2018AK185113

Pedon ID: S2018AK185113

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	867.0	240								

Oi--0 to 17 centimeters (0.0 to 6.7 inches); peat; many very fine roots and common medium roots and common fine roots; clear wavy boundary. Lab sample # 19N00220

Oa--17 to 31 centimeters (6.7 to 12.2 inches); very dark brown (7.5YR 2.5/3) rubbed muck; common very fine roots and common fine roots; abrupt wavy boundary. Lab sample # 19N00221

Cg1--31 to 55 centimeters (12.2 to 21.7 inches); dark grayish brown (2.5Y 4/2) broken face very cobbly silt loam; 16 percent clay; friable, slightly sticky, nonplastic; common very fine roots; 30 percent medium prominent irregular 7.5YR 4/4) masses of oxidized iron; 15 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 30 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00222

Cg2--55 to 140 centimeters (21.7 to 55.1 inches); very dark grayish brown (2.5Y 3/2) broken face extremely stony sandy loam; 12 percent clay; friable, slightly sticky, nonplastic; common fine roots; 15 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 20 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 40 percent nonflat subangular indurated 250 to 600-millimeter Mixed rock fragments. Lab sample # 19N00223

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 15 2018
Describer: J, Paul
NEON Plot ID: TOOL_017
Site ID: S2018AK185117

Pedon ID: S2018AK185117
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 19N0040
Soil Name as Described/Sampled: SS_Gelaquepts
Classification:
Soil Name as Correlated:
Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind:
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: on shoulder of None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS
Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: North Slope Borough
MLRA: 245 -- Arctic Foothills
Soil Survey Area: AK681 -- Arctic Foothills Major Land Resource Area
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude: 68.6049990
Std Longitude: -149.4926775

Latitude:
Longitude:
Datum:
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

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	984.0	266								

Oi--0 to 7 centimeters (0.0 to 2.8 inches); dark brown (7.5YR 3/3) rubbed bouldery moderately decomposed plant material; many very fine roots and common medium roots and common fine roots; 5 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 5 percent nonflat subangular indurated 250 to 600-millimeter Mixed rock fragments and 10 percent nonflat subangular indurated 600 to 1200-millimeter Mixed rock fragments and 10 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00224

A--7 to 17 centimeters (2.8 to 6.7 inches); very dark brown (7.5YR 2.5/3) broken face very bouldery silt loam; 7 percent clay; friable, nonsticky, nonplastic; common very fine roots and common fine roots; 5 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 5 percent nonflat subangular indurated 250 to 600-millimeter Mixed rock fragments and 10 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 15 percent nonflat subangular indurated 600 to 1200-millimeter Mixed rock fragments; abrupt irregular boundary. Lab sample # 19N00225

A/Bwjj--17 to 38 centimeters (6.7 to 15.0 inches); 60 percent dark brown (7.5YR 3/3) broken face and 40 percent dark yellowish brown (10YR 3/6) broken face very bouldery silt loam; 7 percent clay; friable, nonsticky, nonplastic; common very fine roots and common medium roots and common fine roots; 10 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 10 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 15 percent nonflat subangular indurated 250 to 600-millimeter Mixed rock fragments and 15 percent nonflat subangular indurated 600 to 1200-millimeter Mixed rock fragments; clear irregular boundary. Lab sample # 19N00226, 19N00428

BCw--38 to 91 centimeters (15.0 to 35.8 inches); dark yellowish brown (10YR 3/4) broken face very bouldery silt loam; 10 percent clay; friable, slightly sticky, nonplastic; common very fine roots and common fine roots; 10 percent nonflat subangular indurated 250 to 600-millimeter Mixed rock fragments and 15 percent nonflat subangular indurated 600 to 1200-millimeter Mixed rock fragments and 15 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 15 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments; very abrupt irregular boundary. Lab sample # 19N00227

C--91 to 110 centimeters (35.8 to 43.3 inches); stones; 10 percent nonflat subangular indurated 600 to 1200-millimeter Mixed rock fragments and 15 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 15 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 50 percent nonflat subangular indurated 250 to 600-millimeter Mixed rock fragments.

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 16 2018
Describer: J. Paul
NEON Plot ID: TOOL_018
Site ID: S2018AK185118

Pedon ID: S2018AK185118
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 19N0041
Soil Name as Described/Sampled: TD_ Gelaquent
Classification:
Soil Name as Correlated:
Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind:
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS
Diagnostic Features: reduced matrix 8 to 100 cm.
redox concentrations 8 to 35 cm.

Country: United States
State: Alaska
County: North Slope Borough
MLRA: 245 -- Arctic Foothills
Soil Survey Area: AK681 -- Arctic Foothills Major
Land Resource Area
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude: 68.6298770
Std Longitude: -149.5758130

Latitude:
Longitude:
Datum:
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2018AK185118

Pedon ID: S2018AK185118

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	761.0	290								

Oa--0 to 8 centimeters (0.0 to 3.1 inches); very dark brown (7.5YR 2.5/2) rubbed highly decomposed plant material; common very fine roots and many medium roots and common fine roots; clear wavy boundary. Lab sample # 19N00228

Cg1--8 to 35 centimeters (3.1 to 13.8 inches); dark grayish brown (2.5Y 4/2) broken face extremely gravelly sandy clay loam; 28 percent clay; friable, moderately sticky, slightly plastic; common very fine roots and common medium roots and common fine roots; 25 percent medium prominent irregular 7.5YR 4/4), moist, masses of oxidized iron with clear boundaries Throughout; 25 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 50 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00229

Cg2--35 to 110 centimeters (13.8 to 43.3 inches); dark gray (2.5Y 4/1) broken face extremely gravelly sandy clay loam; 32 percent clay; firm, moderately sticky, slightly plastic; 30 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 60 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 19N00230

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 14 2018
Describer: S. Schmit
NEON Plot ID: TOOL_019
Site ID: S2018AK185119

Pedon ID: S2018AK185119

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 19N0042

Soil Name as Described/Sampled: TS_ Historthel

Classification:

Soil Name as Correlated:

Classification:

Pedon Type:

Pedon Purpose: research site

Taxon Kind:

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of None Assigned

Upslope Shape:

Cross Slope Shape:

Particle Size Control Section:

Description origin: NASIS

Diagnostic Features: histic epipedon 0 to 34 cm.
cryoturbation 66 to 100 cm.
permafrost 66 to 100 cm.

Country: United States

State: Alaska

County: North Slope Borough

MLRA: 245 -- Arctic Foothills

Soil Survey Area: AK681 -- Arctic Foothills Major
Land Resource Area
1-FAI -- Fairbanks, Alaska

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 68.6313465

Std Longitude: -149.3634368

Latitude:

Longitude:

Datum:

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation:

Parent Material:

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2018AK185119

Pedon ID: S2018AK185119

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	821.0	265								

Oi--0 to 12 centimeters (0.0 to 4.7 inches); black (5YR 2.5/1) rubbed peat; many very fine roots and common medium roots and common fine roots; clear smooth boundary. Lab sample # 19N00231

Oe--12 to 34 centimeters (4.7 to 13.4 inches); black (10YR 2/1) rubbed mucky peat; many very fine roots and common fine roots; abrupt wavy boundary. Lab sample # 19N00232

Bw1--34 to 46 centimeters (13.4 to 18.1 inches); very dark grayish brown (10YR 3/2) broken face silt loam; 12 percent clay; weak medium granular structure; friable, slightly sticky, nonplastic; common very fine roots and common fine roots; 5 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00233

Bw2--46 to 66 centimeters (18.1 to 26.0 inches); very dark grayish brown (10YR 3/2) broken face cobbly silt loam; 12 percent clay; weak coarse subangular blocky structure; friable, slightly sticky, nonplastic; common very fine roots and common fine roots; 5 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 10 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments; clear irregular boundary. Lab sample # 19N00234

Cjff--66 to 100 centimeters (26.0 to 39.4 inches); silt loam; 8 percent clay; massive; rigid, slightly sticky, nonplastic; . Lab sample # 19N00235

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 15 2018
Describer: J. Paul
NEON Plot ID: TOOL_020
Site ID: S2018AK185120

Pedon ID: S2018AK185120

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 19N0043

Soil Name as Described/Sampled: TP_ Gelaquept

Classification:

Soil Name as Correlated:

Classification:

Pedon Type:

Pedon Purpose: research site

Taxon Kind:

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: None Assigned

Upslope Shape:

Cross Slope Shape:

Particle Size Control Section:

Description origin: NASIS

Diagnostic Features: reduced matrix 10 to 75 cm.
redox concentrations 10 to 75 cm.
cambic horizon 10 to 40 cm.

Country: United States

State: Alaska

County: North Slope Borough

MLRA: 245 -- Arctic Foothills

Soil Survey Area: AK681 -- Arctic Foothills Major
Land Resource Area
1-FAI -- Fairbanks, Alaska

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 68.6356530

Std Longitude: -149.6533070

Latitude:

Longitude:

Datum:

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation:

Parent Material:

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2018AK185120

Pedon ID: S2018AK185120

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
8.0	726.0	10								

Oa--0 to 10 centimeters (0.0 to 3.9 inches); very dark brown (7.5YR 2.5/2) rubbed muck; many very fine roots and common medium roots and common fine roots; clear smooth boundary. Lab sample # 19N00236

Bg--10 to 40 centimeters (3.9 to 15.7 inches); very dark gray (2.5Y 3/1) broken face cobbly silt loam; 15 percent clay; friable, slightly sticky, slightly plastic; common very fine roots and common medium roots and common fine roots; 20 percent medium distinct irregular 2.5Y 4/4), moist, masses of oxidized iron with diffuse boundaries Throughout; 10 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 20 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00237

Cg1--40 to 75 centimeters (15.7 to 29.5 inches); very dark gray (2.5Y 3/1) broken face very cobbly silt loam; 24 percent clay; firm, moderately sticky, moderately plastic; common fine roots; 5 percent medium prominent irregular 10YR 5/6), moist, masses of oxidized iron with clear boundaries Throughout and 10 percent medium distinct irregular 2.5Y 4/4), moist, masses of oxidized iron with diffuse boundaries Throughout; 15 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 20 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments; abrupt smooth boundary. Lab sample # 19N00238

Oab--75 to 80 centimeters (29.5 to 31.5 inches); very dark brown (10YR 2/2) rubbed muck; common fine roots; abrupt wavy boundary. Lab sample # 19N00239

Cg2--80 to 105 centimeters (31.5 to 41.3 inches); very dark gray (N 3/), broken face very cobbly silt loam; 22 percent clay; firm, moderately sticky, slightly plastic; 10 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 25 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments. Lab sample # 19N00240

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 14 2018
Describer: S. Schmit
NEON Plot ID: TOOL_022
Site ID: S2018AK185122

Pedon ID: S2018AK185122

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 19N0044

Soil Name as Described/Sampled: TS_Aquorthel

Classification:

Soil Name as Correlated:

Classification:

Pedon Type:

Pedon Purpose: research site

Taxon Kind:

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of None Assigned

Upslope Shape:

Cross Slope Shape:

Particle Size Control Section:

Description origin: NASIS

Diagnostic Features: ? to ? cm.

Country: United States

State: Alaska

County: North Slope Borough

MLRA: 245 -- Arctic Foothills

Soil Survey Area: AK681 -- Arctic Foothills Major
Land Resource Area
1-FAI -- Fairbanks, Alaska

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 68.6368436

Std Longitude: -149.3566527

Latitude:

Longitude:

Datum:

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation:

Parent Material:

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2018AK185122

Pedon ID: S2018AK185122

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	846.0	238								

Oe--0 to 11 centimeters (0.0 to 4.3 inches); very dark brown (7.5YR 2.5/2) rubbed mucky peat; many very fine roots and common medium roots and common fine roots; abrupt smooth boundary. Lab sample # 19N00241

Bw--11 to 24 centimeters (4.3 to 9.4 inches); brown (10YR 4/3) broken face silt loam; 10 percent clay; weak medium granular structure; friable, nonsticky, nonplastic; common very fine roots and common fine roots; 40 percent medium faint irregular 10YR 4/6), moist, masses of oxidized iron with diffuse boundaries Throughout; 5 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00242

BC--24 to 40 centimeters (9.4 to 15.7 inches); very dark grayish brown (10YR 3/2) broken face silt loam; 10 percent clay; friable, nonsticky, nonplastic; common fine roots; 5 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00243

Cjff--40 to 100 centimeters (15.7 to 39.4 inches); very dark grayish brown (10YR 3/2) broken face silt loam; 10 percent clay; rigid, nonsticky, nonplastic; 5 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments. Lab sample # 19N00244

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 14 2018
Describer: J. Paul
NEON Plot ID: TOOL_023
Site ID: S2018AK185123

Pedon ID: S2018AK185123

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 19N0045

Soil Name as Described/Sampled: TC_ Haplogelept

Classification:

Soil Name as Correlated:

Classification:

Pedon Type:

Pedon Purpose: research site

Taxon Kind:

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on shoulder of None Assigned

Upslope Shape:

Cross Slope Shape:

Particle Size Control Section:

Description origin: NASIS

Diagnostic Features: to cm.

ochric epipedon 0 to 9 cm.
cambic horizon 9 to 27 cm.

Country: United States

State: Alaska

County: North Slope Borough

MLRA: 245 -- Arctic Foothills

Soil Survey Area: AK681 -- Arctic Foothills Major
Land Resource Area

1-FAI -- Fairbanks, Alaska

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 68.6151280

Std Longitude: -149.3306140

Latitude:

Longitude:

Datum:

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation:

Parent Material:

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2018AK185123

Pedon ID: S2018AK185123

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
18.0	889.0	272								

Oa--0 to 1 centimeters (0.0 to 0.4 inches); very dark brown (7.5YR 2.5/2) rubbed highly decomposed plant material; common very fine roots and many medium roots and common fine roots; abrupt wavy boundary.

E/A--1 to 9 centimeters (0.4 to 3.5 inches); 70 percent brown (7.5YR 4/3) broken face and 30 percent very dusky red (7.5R 2.5/3) broken face stony stony silt loam; 10 percent clay; weak medium subangular blocky structure; very friable, nonsticky, nonplastic; common very fine roots and common medium roots and common fine roots; 5 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 10 percent nonflat subangular indurated 250 to 600-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 19N00245

Bw--9 to 27 centimeters (3.5 to 10.6 inches); brown (7.5YR 4/4) broken face extremely stony fine sandy loam; 8 percent clay; weak fine subangular blocky structure; very friable, nonsticky, nonplastic; common very fine roots and common medium roots; 10 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 25 percent nonflat subangular indurated 250 to 600-millimeter Mixed rock fragments and 25 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 19N00246

BC--27 to 60 centimeters (10.6 to 23.6 inches); dark yellowish brown (10YR 4/4) broken face extremely stony fine sandy loam; 6 percent clay; weak medium subangular blocky structure; very friable, nonsticky, nonplastic; common fine roots; 20 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 25 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 30 percent nonflat subangular indurated 250 to 600-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00247

C--60 to 105 centimeters (23.6 to 41.3 inches); brown (10YR 4/3) broken face extremely stony loamy sand; 3 percent clay; massive; very friable, nonsticky, nonplastic; 25 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 30 percent nonflat subangular indurated 250 to 600-millimeter Mixed rock fragments and 30 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 19N00248

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 15 2018
Describer: D. Mulligan
NEON Plot ID: TOOL_028
Site ID: S2018AK185128

Country: United States
State: Alaska
County: North Slope Borough
MLRA: 245 -- Arctic Foothills
Soil Survey Area: AK681 -- Arctic Foothills Major Land Resource Area
 1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude: 68.5637150
Std Longitude: -149.4954280

Pedon ID: S2018AK185128
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 19N0046
Soil Name as Described/Sampled: TD_Historthel
Classification:
Soil Name as Correlated:
Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind:
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: on footslope of None Assigned
Upslope Shape: linear
Cross Slope Shape: concave
Particle Size Control Section:
Description origin: NASIS
Diagnostic Features: histic epipedon 0 to 25 cm.
 redox depletions with chroma 2 or less 25 to 37 cm.
 reduced matrix 37 to 100 cm.
 redox concentrations 48 to 100 cm.
 permafrost 48 to 100 cm.

Latitude:
Longitude:
Datum:
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
48	100	permafrost	

Cont. Site ID: S2018AK185128

Pedon ID: S2018AK185128

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	817.0	258								

Oe--0 to 14 centimeters (0.0 to 5.5 inches); very dark brown (7.5YR 2.5/2) rubbed cobbly mucky peat; many very fine roots and many medium roots and many fine roots; 10 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 22 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 19N00249

Oe--14 to 25 centimeters (5.5 to 9.8 inches); black (7.5YR 2.5/1) rubbed very cobbly mucky peat; many very fine roots and common medium roots and many fine roots and common coarse roots; 20 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 30 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments; abrupt smooth boundary. Lab sample # 19N00250

Bg--25 to 37 centimeters (9.8 to 14.6 inches); yellowish brown (10YR 5/4) broken face extremely cobbly silt loam; weak medium subangular blocky structure; friable, slightly sticky, nonplastic; common very fine roots and common medium roots and common fine roots; 10 percent medium distinct irregular iron depletions with clear boundaries Throughout; 30 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 35 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments; diffuse smooth boundary. Lab sample # 19N00251

Cg--37 to 48 centimeters (14.6 to 18.9 inches); dark gray (10YR 4/1) broken face extremely cobbly silt loam; massive; friable, slightly sticky, nonplastic; common fine roots; 5 percent fine prominent irregular masses of oxidized iron with clear boundaries Throughout and 10 percent medium distinct irregular masses of oxidized iron with diffuse boundaries Throughout; 30 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 35 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments; abrupt wavy boundary. Lab sample # 19N00252

Cfg--48 to 100 centimeters (18.9 to 39.4 inches); dark gray (10YR 4/1) broken face extremely cobbly silt loam; massive; 5 percent fine prominent irregular masses of oxidized iron with clear boundaries Throughout and 10 percent medium distinct irregular masses of oxidized iron with diffuse boundaries Throughout; 30 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 35 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments. Lab sample # 19N00253

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 16 2018
Describer: S. Schmit
NEON Plot ID: TOOL_031
Site ID: S2018AK185131

Country: United States
State: Alaska
County: North Slope Borough
MLRA: 245 -- Arctic Foothills
Soil Survey Area: AK681 -- Arctic Foothills Major Land Resource Area
 1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude: 68.5999883
Std Longitude: -149.5010235

Pedon ID: S2018AK185131
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 19N0047
Soil Name as Described/Sampled: SS_Aquiturbels
Classification:
Soil Name as Correlated:
Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind:
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: on backslope of None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS
Diagnostic Features: glacic layer to cm.
 reduced matrix 21 to 110 cm.
 permafrost 35 to 110 cm.
 cryoturbation 35 to 65 cm.
 glacic layer 65 to 110 cm.

Latitude:
Longitude:
Datum:
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
35	110	permafrost	

Cont. Site ID: S2018AK185131

Pedon ID: S2018AK185131

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	927.0	288								

Oe--0 to 14 centimeters (0.0 to 5.5 inches); very dark brown (7.5YR 2.5/2) rubbed peat; many very fine roots throughout and common medium roots and common fine roots; clear smooth boundary. Lab sample # 19N00254

Bw--14 to 21 centimeters (5.5 to 8.3 inches); 70 percent 10YR 2.5/3 (10YR 2.5/3) broken face and 30 percent brown (7.5YR 4/3) broken face silt loam; 6 percent clay; weak medium granular structure; friable, nonsticky, nonplastic; common very fine roots and common fine roots; abrupt smooth boundary. Lab sample # 19N00255

Bg--21 to 35 centimeters (8.3 to 13.8 inches); dark grayish brown (10YR 4/2) broken face silt loam; 7 percent clay; weak medium subangular blocky structure; friable, nonsticky, nonplastic; common very fine roots and common fine roots; 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00256

Cjifg--35 to 65 centimeters (13.8 to 25.6 inches); 90 percent very dark grayish brown (10YR 3/2) broken face and 10 percent very dark brown (10YR 2/2) broken face silt loam; 8 percent clay; massive; rigid, nonsticky, nonplastic; 1 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00257

Cf--65 to 110 centimeters (25.6 to 43.3 inches); dark grayish brown (10YR 4/2) broken face silt loam; massive; 2 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 19N00258

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 16 2018
Describer: D. Mulligan
NEON Plot ID: TOOL_032
Site ID: S2018AK185132

Pedon ID: S2018AK185132

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 19N0048

Soil Name as Described/Sampled: TD_Gelaquepts

Classification:

Soil Name as Correlated:

Classification:

Pedon Type:

Pedon Purpose: research site

Taxon Kind:

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on footslope of None Assigned

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section:

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 12 cm.
cambic horizon 12 to 32 cm.
reduced matrix 32 to 120 cm.
redox concentrations 32 to 56 cm.

Country: United States

State: Alaska

County: North Slope Borough

MLRA: 245 -- Arctic Foothills

Soil Survey Area: AK681 -- Arctic Foothills Major
Land Resource Area

1-FAI -- Fairbanks, Alaska

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 68.5656930

Std Longitude: -149.5082390

Latitude:

Longitude:

Datum:

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation:

Parent Material:

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

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	868.0	271								

Oe--0 to 12 centimeters (0.0 to 4.7 inches); very dark brown (7.5YR 2.5/2) rubbed extremely cobbly mucky peat; many very fine roots and many medium roots and many fine roots and common coarse roots; 10 percent nonflat subangular indurated 250 to 600-millimeter Mixed rock fragments and 25 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 45 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments; abrupt smooth boundary. Lab sample # 19N00259

Bw--12 to 32 centimeters (4.7 to 12.6 inches); dark yellowish brown (10YR 4/4) broken face extremely cobbly silt loam; 8 percent clay; weak medium subangular blocky structure; friable, nonsticky, nonplastic; many very fine roots and common medium roots and many fine roots; 5 percent nonflat subangular indurated 250 to 600-millimeter Mixed rock fragments and 30 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments and 45 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00260

Bg--32 to 56 centimeters (12.6 to 22.0 inches); dark gray (10YR 4/1) broken face extremely gravelly silty clay loam; 15 percent clay; weak medium subangular blocky structure; firm, slightly sticky, slightly plastic; many very fine roots and common medium roots and common fine roots; 5 percent fine prominent irregular 7.5YR 4/6), moist, masses of oxidized iron with clear boundaries Throughout and 15 percent medium distinct irregular 10YR 4/4), moist, masses of oxidized iron with diffuse boundaries Throughout; 2 percent nonflat subangular indurated 250 to 600-millimeter Mixed rock fragments and 30 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 50 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00261

2C--56 to 120 centimeters (22.0 to 47.2 inches); extremely gravelly loamy sand; 4 percent clay; structureless massive; very friable, nonsticky, nonplastic; 30 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 40 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 19N00262

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 16 2018
Describer: D. Mulligan
NEON Plot ID: TOOL_035
Site ID: S2018AK185135

Country: United States
State: Alaska
County: North Slope Borough
MLRA: 245 -- Arctic Foothills
Soil Survey Area: AK681 -- Arctic Foothills Major Land Resource Area
 1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude: 68.5763590
Std Longitude: -149.5139090

Pedon ID: S2018AK185135
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 19N0049
Soil Name as Described/Sampled: SS_Aquiturbels

Latitude:
Longitude:
Datum:
UTM Zone:
UTM Easting:
UTM Northing:

Classification:
Soil Name as Correlated:
Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind:
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: on footslope of None Assigned
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section:
Description origin: NASIS

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Diagnostic Features: ochric epipedon 0 to 13 cm.
 cambic horizon 13 to 28 cm.
 reduced matrix 28 to 100 cm.
 redox depletions with chroma 2 or less 28 to 50 cm.
 permafrost 50 to 100 cm.
 cryoturbation 50 to 100 cm.

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
50	100	permafrost	

Cont. Site ID: S2018AK185135

Pedon ID: S2018AK185135

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	860.0	278								

Oe--0 to 13 centimeters (0.0 to 5.1 inches); very dark brown (7.5YR 2.5/2) rubbed mucky peat; many very fine roots and common medium roots and many fine roots; abrupt wavy boundary. Lab sample # 19N00263

Bw--13 to 28 centimeters (5.1 to 11.0 inches); yellowish brown (10YR 5/4) broken face silt loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; many very fine roots and common medium roots and common fine roots; 12 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; gradual smooth boundary. Lab sample # 19N00264

Cg--28 to 50 centimeters (11.0 to 19.7 inches); dark gray (10YR 4/1) broken face silty clay loam; structureless massive; firm, slightly sticky, nonplastic; common fine roots; 5 percent fine prominent irregular 7.5YR 4/6), moist, masses of oxidized iron with clear boundaries Throughout and 15 percent coarse distinct irregular 10YR 4/4), moist, masses of oxidized iron with diffuse boundaries Throughout; 12 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00265

C/Ojff--50 to 100 centimeters (19.7 to 39.4 inches); 70 percent dark gray (10YR 4/1) broken face and 30 percent black (10YR 2/1) broken face silty clay loam, mucky peat; structureless massive; rigid, slightly sticky, slightly plastic; 5 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 19N00266

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 15 2018
Describer: D. Mulligan
NEON Plot ID: TOOL_036
Site ID: S2018Ak185136

Country: United States
State: Alaska
County: North Slope Borough
MLRA: 245 -- Arctic Foothills
Soil Survey Area: AK681 -- Arctic Foothills Major Land Resource Area
 1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude: 68.5641680
Std Longitude: -149.5228070

Pedon ID: S2018AK185136
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 19N0050
Soil Name as Described/Sampled: TD_Aquorthels
Classification:
Soil Name as Correlated:
Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind:
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: on footslope of None Assigned
Upslope Shape: linear
Cross Slope Shape: concave
Particle Size Control Section:
Description origin: NASIS

Latitude:
Longitude:
Datum:
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Diagnostic Features: ochric epipedon 0 to 19 cm.
 cambic horizon 19 to 31 cm.
 redox depletions with chroma 2 or less 19 to 31 cm.
 reduced matrix 31 to 100 cm.
 redox depletions with chroma 2 or less 31 to 100 cm.
 permafrost 47 to 100 cm.

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
47	100	permafrost	

Cont. Site ID: S2018Ak185136

Pedon ID: S2018AK185136

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	832.0	254								

Oe--0 to 12 centimeters (0.0 to 4.7 inches); dark brown (7.5YR 3/2) rubbed mucky peat; many very fine roots and many medium roots and many fine roots and common coarse roots; abrupt wavy boundary. Lab sample # 19N00267

A--12 to 19 centimeters (4.7 to 7.5 inches); very dark brown (10YR 2/2) broken face gravelly fine sandy loam; weak fine granular structure; friable, nonsticky, nonplastic; many very fine roots and common medium roots and common fine roots and common coarse roots; 2 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 14 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; abrupt wavy boundary. Lab sample # 19N00268

Bg--19 to 31 centimeters (7.5 to 12.2 inches); brown (10YR 5/3) broken face and yellowish brown (10YR 5/6) broken face gravelly silt loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; many very fine roots and common medium roots and common fine roots; 15 percent medium distinct irregular iron depletions Throughout; 5 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 16 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 19N00269

Cg--31 to 47 centimeters (12.2 to 18.5 inches); gray (2.5Y 5/1) broken face very gravelly silt loam; structureless massive; friable, nonsticky, nonplastic; common medium roots and common fine roots; 25 percent coarse prominent irregular 10YR 5/6), moist, masses of oxidized iron Throughout; 15 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 25 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 19N00270

Cfg--47 to 100 centimeters (18.5 to 39.4 inches); gray (2.5Y 5/1) broken face very gravelly silt loam; structureless massive; rigid, nonsticky, nonplastic; 15 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 25 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 19N00271

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 15 2018
Describer: J. Paul
NEON Plot ID: TOOL_071
Site ID: S2018AK185171

Country: United States
State: Alaska
County: North Slope Borough
MLRA: 245 -- Arctic Foothills
Soil Survey Area: AK681 -- Arctic Foothills Major Land Resource Area
 1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude: 68.5998796
Std Longitude: -149.5105660

Pedon ID: S2018AK185171
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 19N0051
Soil Name as Described/Sampled: SS_Aquorthel
Classification:
Soil Name as Correlated:
Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind:
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: on footslope of None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 23 cm.
 reduced matrix 23 to 103 cm.
 redox concentrations 23 to 36 cm.
 permafrost 52 to 105 cm.

Latitude:
Longitude:
Datum:
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
52	105	permafrost	

Cont. Site ID: S2018AK185171

Pedon ID: S2018AK185171

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
9.0	891.0	258								

Oi--0 to 13 centimeters (0.0 to 5.1 inches); very dark brown (7.5YR 2.5/2) rubbed peat; many very fine roots and common medium roots and common fine roots and common coarse roots; abrupt smooth boundary. Lab sample # 19N00272

A--13 to 23 centimeters (5.1 to 9.1 inches); dark brown (7.5YR 3/2) broken face mucky silt loam; weak medium granular structure; friable, nonsticky, nonplastic; many very fine roots and common fine roots; clear smooth boundary. Lab sample # 19N00273

Bg--23 to 36 centimeters (9.1 to 14.2 inches); gravelly silt loam; weak coarse subangular blocky structure; friable, nonsticky, nonplastic; common very fine roots and common fine roots; 40 percent medium distinct irregular 7.5YR 4/4), moist, masses of oxidized iron with diffuse boundaries Throughout; 5 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 15 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00274

Cg--36 to 52 centimeters (14.2 to 20.5 inches); dark grayish brown (10YR 4/2) broken face silt loam; weak thin platy structure; firm, slightly sticky, nonplastic; common very fine roots and common fine roots; 5 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00275

Cf--52 to 105 centimeters (20.5 to 41.3 inches); very dark grayish brown (10YR 3/2) broken face silt loam; massive; rigid, slightly sticky, nonplastic; 2 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments; clear smooth boundary. Lab sample # 19N00276

PEDON DESCRIPTION -- NEON Site TOOL

Print Date: Nov 13 2018
Description Date: Aug 16 2018
Describer: J. Paul
NEON Plot ID: TOOL_072
Site ID: S2018AK185172

Country: United States
State: Alaska
County: North Slope Borough
MLRA: 245 -- Arctic Foothills
Soil Survey Area: AK681 -- Arctic Foothills Major Land Resource Area
 1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude: 68.6187380
Std Longitude: -149.3399890

Pedon ID: S2018AK185172
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 19N0052
Soil Name as Described/Sampled: TS_Histoturbels
Classification:
Soil Name as Correlated:
Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind:
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: on backslope of None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS
Diagnostic Features: histic epipedon 0 to 35 cm.
 cryoturbation 20 to 50 cm.
 reduced matrix 35 to 100 cm.
 permafrost 50 to 100 cm.

Latitude:
Longitude:
Datum:
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
50	100	permafrost	

Cont. Site ID: S2018AK185172

Pedon ID: S2018AK185172

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
9.0	870.0	240								

Oe--0 to 20 centimeters (0.0 to 7.9 inches); very dark brown (7.5YR 2.5/3) rubbed mucky peat; many very fine roots and many medium roots and common fine roots and common coarse roots; clear wavy boundary. Lab sample # 19N00277

Oajj/Bwj--20 to 35 centimeters (7.9 to 13.8 inches); 60 percent very dark brown (7.5YR 2.5/2) broken face and 40 percent dark yellowish brown (10YR 4/4) broken face muck, gravelly silt loam; weak fine granular structure; very friable, nonsticky, nonplastic; common very fine roots and common medium roots and common fine roots; 5 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 10 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; clear irregular boundary. Lab sample # 19N00429, 19N00278

Bgjj/Oaj--35 to 50 centimeters (13.8 to 19.7 inches); 75 percent dark grayish brown (10YR 4/2) broken face and 25 percent very dark brown (7.5YR 2.5/2) broken face gravelly silt loam, muck; weak thin lenticular structure; firm, nonsticky, nonplastic; common fine roots; 5 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 15 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 19N00279

Cgjff/Wf/Oa--50 to 100 centimeters (19.7 to 39.4 inches); 90 percent dark grayish brown (2.5Y 4/2) broken face and 10 percent black (10YR 2/1) broken face gravelly silt loam, muck; rigid, nonsticky, nonplastic; 5 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 15 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; 20.0 percent Visible Ice; clear smooth boundary. Lab sample # 19N00280