PEDON DESCRIPTION -- NEON Site ONAQ

Print Date: Apr 2 2018
Description Date: Nov 9 2016
Describer: Lewis, Randy
NEON Plot ID: ONAQ_004
Site ID: S2016UT045004

Pedon ID: S2016UT045004

Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 17N0537
Soil Name as Described/Sampled: Sevy
Classification: Fine-loamy, mixed, superactive, mesic Xeric Calciargids

Soil Name as Correlated:

Classification:
Pedon Type: correlates to named soil
Pedon Purpose: research site
Taxon Kind: series
Associated Soils: Taylorsflat
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Great Basin

State Physiographic Area:

Local Physiographic Area: Rush Valley
Geomorphic Setting: on toeslope of interfluve of fan remnant on toeslope of interfluve of piedmont slope
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 13 to 56 cm.

Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 13 cm.
argillic horizon 13 to 56 cm.
calcic horizon 29 to 100 cm.

Country: United States
State: Utah
County: Tooele
MLRA: 28A -- Great Salt Lake Area
Soil Survey Area: UT611 -- Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties
8-OGD -- Ogden, Utah
Map Unit: 24 -- Hiko Peak-Taylorsflat complex, 1 to 15 percent slopes
Pit Location:
Quad Name: Faust, Utah
Std Latitude: 40.1858111
Std Longitude: -112.4726750

Latitude: 40 degrees 11 minutes 8.92 seconds north
Longitude: 112 degrees 28 minutes 21.63 seconds west
Datum: WGS84
UTM Zone: 12
UTM Easting: 374632 meters
UTM Northing: 4449421 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: alyssum, cheatgrass, crested wheatgrass, Sandberg bluegrass, shadscale saltbush, squirreltail, Utah juniper, Wyoming big sagebrush
Parent Material: alluvium derived from metamorphic and sedimentary rock
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments: 5.0 percent nonflat subrounded indurated 2- to 75-millimeter Sedimentary rock fragments
Description database: KSSL

Cont. Site ID: S2016UT045004 **Pedon ID:** S2016UT045004

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
4.0	1,717.0	102	9.5			279	125	well		

A1--0 to 7 centimeters (0.0 to 2.8 inches); brown (10YR 5/3) fine sandy loam, brown (10YR 4/3), moist; 60 percent sand; 24 percent silt; 16 percent clay; weak fine granular, and weak very fine granular structure; soft, very friable, slightly sticky, nonplastic; many very fine roots throughout and many fine roots throughout; many very fine low-continuity interstitial and many fine low-continuity interstitial pores; 5 percent nonflat subrounded indurated 5 to 20-millimeter Sedimentary rock fragments and 5 percent nonflat subrounded indurated 2 to 5-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; moderately alkaline, pH 8.4, pH indicator solutions; abrupt smooth boundary. Lab sample # 17N02751

A2--7 to 13 centimeters (2.8 to 5.1 inches); brown (10YR 5/3) loam, brown (10YR 4/3), moist; 45 percent sand; 43 percent silt; 12 percent clay; weak medium subangular blocky parts to weak fine subangular blocky, and weak medium subangular blocky parts to weak very fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; many very fine roots throughout and few medium roots throughout and many fine roots throughout; many very fine moderate-continuity tubular and few fine moderate-continuity tubular pores; 5 percent nonflat subrounded indurated 5 to 20-millimeter Sedimentary rock fragments and 5 percent nonflat subrounded indurated 2 to 5-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; strongly alkaline, pH 8.8, pH indicator solutions; clear smooth boundary. Lab sample # 17N02752

Bt--13 to 29 centimeters (5.1 to 11.4 inches); yellowish brown (10YR 5/4) clay loam, dark yellowish brown (10YR 4/4), moist; 40 percent sand; 28 percent silt; 32 percent clay; strong coarse prismatic parts to strong medium angular blocky, and strong coarse prismatic parts to strong fine angular blocky, and strong coarse prismatic parts to strong very fine angular blocky structure; very hard, very firm, moderately sticky, moderately plastic; common very fine roots throughout and few fine roots throughout; common very fine moderate-continuity tubular pores; 60 percent prominent clay films on all faces of peds; 5 percent nonflat subrounded indurated 5 to 20-millimeter Sedimentary rock fragments and 5 percent nonflat subrounded indurated 2 to 5-millimeter Sedimentary rock fragments; noneffervescent, by HCl, 1 normal; strongly alkaline, pH 9.0, pH indicator solutions; gradual wavy boundary. Lab sample # 17N02753

Btk--29 to 56 centimeters (11.4 to 22.0 inches); light yellowish brown (10YR 6/4) clay loam, yellowish brown (10YR 5/4), moist; 40 percent sand; 30 percent silt; 30 percent clay; strong medium angular blocky parts to strong fine angular blocky, and strong medium angular blocky parts to strong very fine angular blocky structure; hard, firm, moderately sticky, moderately plastic; few very fine roots throughout and few fine roots throughout; common very fine moderate-continuity tubular and few fine moderate-continuity tubular pores; 60 percent distinct clay films on all faces of peds; carbonate, finely disseminated throughout and 15 percent fine distinct irregular carbonate masses throughout and 10 percent fine distinct pendular weakly cemented carbonate concretions on bottom of rock fragments and 15 percent medium distinct irregular carbonate masses throughout; 5 percent nonflat subrounded indurated 5 to 20-millimeter Sedimentary rock fragments and 5 percent nonflat subangular indurated 2 to 5-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; very strongly alkaline, pH 9.2, pH indicator solutions; gradual wavy boundary. Lab sample # 17N02754

Ck--56 to 100 centimeters (22.0 to 39.4 inches); light yellowish brown (10YR 6/4) extremely gravelly fine sandy loam, brown (10YR 5/3), moist; 60 percent sand; 23 percent silt; 17 percent clay; massive; very hard, firm, slightly sticky, slightly plastic; few very fine roots throughout; few very fine low-continuity tubular pores; carbonate, finely disseminated and 30 percent fine distinct pendular weakly cemented carbonate concretions around rock fragments and 10 percent very fine distinct irregular carbonate masses throughout; 5 percent nonflat subrounded indurated 75 to 250-millimeter Sedimentary rock fragments and 15 percent nonflat subrounded indurated 5 to 20-millimeter Sedimentary rock fragments and 15 percent nonflat subrounded indurated 2 to 5-millimeter Sedimentary rock fragments and 30 percent nonflat subrounded indurated 20 to 75-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; strongly alkaline, pH 8.8, pH indicator solutions. Lab sample # 17N02755

PEDON DESCRIPTION -- NEON Site ONAQ

Print Date: Apr 2 2018
Description Date: Nov 8 2016
Describer: Lewis, Randy
NEON Plot ID: ONAQ_008
Site ID: S2016UT045008

Pedon ID: S2016UT045008

Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 17N0534
Soil Name as Described/Sampled: Sterling
Classification: Loamy-skeletal, mixed, superactive, mesic Typic Calcixerolls

Soil Name as Correlated:

Classification:
Pedon Type: correlates to named soil
Pedon Purpose: research site
Taxon Kind: series
Associated Soils: Borvant
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Great Basin

State Physiographic Area:

Local Physiographic Area: Rush Valley
Geomorphic Setting: on backslope of side slope of fan remnant on backslope of side slope of piedmont slope
Upslope Shape: convex
Cross Slope Shape: linear
Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS
Diagnostic Features: mollic epipedon 0 to 18 cm.
calcic horizon 18 to 100 cm.

Country: United States
State: Utah
County: Tooele
MLRA: 28A -- Great Salt Lake Area
Soil Survey Area: UT611 -- Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties
8-OGD -- Ogden, Utah
Map Unit: 7 -- Borvant gravelly loam, 2 to 15 percent slopes
Pit Location:
Quad Name: Onaqui Mountains South, Utah
Std Latitude: 40.1583972
Std Longitude: -112.5213500
Latitude: 40 degrees 9 minutes 30.23 seconds north
Longitude: 112 degrees 31 minutes 16.86 seconds west
Datum: WGS84
UTM Zone: 12
UTM Easting: 370436 meters
UTM Northing: 4446448 meters
Primary Earth Cover: Tree cover
Secondary Earth Cover: Other tree cover
Existing Vegetation: alyssum, bluebunch wheatgrass, cheatgrass, Sandberg bluegrass, Utah juniper
Parent Material: alluvium derived from metamorphic and sedimentary rock
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments: 45.0 percent nonflat angular indurated 2- to 75-millimeter Sedimentary rock fragments and 5.0 percent nonflat angular indurated 75- to 250-millimeter Sedimentary rock fragments and 2.0 percent nonflat angular indurated 250- to 600-millimeter Sedimentary rock fragments
Description database: KSSL

Cont. Site ID: S2016UT045008 **Pedon ID:** S2016UT045008

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
44.0	1,803.0	210	9.5			330	120	well		

A--0 to 18 centimeters (0.0 to 7.1 inches); brown (10YR 4/3) very gravelly loam, dark brown (10YR 3/3), moist; 45 percent sand; 30 percent silt; 25 percent clay; weak thin platy parts to moderate very fine granular, and weak thin platy parts to moderate fine granular structure; soft, friable, slightly sticky, slightly plastic; many very fine roots throughout and common medium roots throughout and many fine roots throughout and common coarse roots throughout; many very fine low-continuity tubular and many fine low-continuity tubular pores; 5 percent nonflat angular indurated 2 to 5-millimeter Sedimentary rock fragments and 10 percent nonflat angular indurated 20 to 75-millimeter Sedimentary rock fragments and 10 percent nonflat angular indurated 75 to 250-millimeter Sedimentary rock fragments and 15 percent nonflat angular indurated 5 to 20-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; moderately alkaline, pH 8.2, pH indicator solutions; clear smooth boundary. Lab sample # 17N02741

ABk--18 to 41 centimeters (7.1 to 16.1 inches); brown (10YR 5/3) very gravelly loam, brown (10YR 4/3), moist; 45 percent sand; 32 percent silt; 23 percent clay; moderate medium subangular blocky parts to moderate fine subangular blocky, and moderate medium subangular blocky parts to moderate very fine subangular blocky structure; hard, firm, slightly sticky, slightly plastic; common very fine roots throughout and few medium roots throughout and common fine roots throughout and few coarse roots throughout; many very fine moderate-continuity tubular and few medium moderate-continuity tubular and common fine moderate-continuity tubular pores; carbonate, finely disseminated throughout and 10 percent fine distinct pendular weakly cemented carbonate concretions on bottom of rock fragments; 5 percent nonflat angular indurated 2 to 5-millimeter Sedimentary rock fragments and 10 percent nonflat angular indurated 75 to 250-millimeter Sedimentary rock fragments and 10 percent nonflat angular indurated 20 to 75-millimeter Sedimentary rock fragments and 15 percent nonflat angular indurated 5 to 20-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; moderately alkaline, pH 8.2, pH indicator solutions; clear wavy boundary. Lab sample # 17N02742

Bk--41 to 70 centimeters (16.1 to 27.6 inches); pale brown (10YR 6/3) very gravelly loam, brown (10YR 5/3), moist; 45 percent sand; 32 percent silt; 23 percent clay; moderate medium angular blocky parts to moderate fine subangular blocky, and moderate medium angular blocky parts to moderate very fine subangular blocky structure; very hard, firm, slightly sticky, slightly plastic; few very fine roots throughout and few medium roots throughout and few fine roots throughout and few coarse roots throughout; common very fine moderate-continuity tubular and few medium moderate-continuity tubular and few fine moderate-continuity tubular and few coarse moderate-continuity tubular pores; carbonate, finely disseminated throughout and 30 percent fine distinct pendular strongly cemented carbonate concretions around rock fragments and 30 percent very fine distinct irregular carbonate masses throughout; 5 percent nonflat angular indurated 2 to 5-millimeter Sedimentary rock fragments and 15 percent nonflat angular indurated 75 to 250-millimeter Sedimentary rock fragments and 15 percent nonflat angular indurated 20 to 75-millimeter Sedimentary rock fragments and 20 percent nonflat angular indurated 5 to 20-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; moderately alkaline, pH 8.2, pH indicator solutions; gradual wavy boundary. Lab sample # 17N02743

Ck--70 to 100 centimeters (27.6 to 39.4 inches); pale brown (10YR 6/3) extremely gravelly loam, brown (10YR 5/3), moist; 45 percent sand; 34 percent silt; 21 percent clay; massive; very hard, firm, slightly sticky, slightly plastic; few very fine roots throughout and few fine roots throughout; few very fine moderate-continuity tubular and few fine moderate-continuity tubular pores; carbonate, finely disseminated throughout and 30 percent fine distinct pendular strongly cemented carbonate concretions around rock fragments and 30 percent very fine distinct irregular carbonate masses throughout; 10 percent nonflat angular indurated 2 to 5-millimeter Sedimentary rock fragments and 15 percent nonflat angular indurated 75 to 250-millimeter Sedimentary rock fragments and 15 percent nonflat angular indurated 20 to 75-millimeter Sedimentary rock fragments and 25 percent nonflat angular indurated 5 to 20-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; moderately alkaline, pH 8.2, pH indicator solutions. Lab sample # 17N02744

PEDON DESCRIPTION -- NEON Site ONAQ

Print Date: Apr 2 2018
Description Date: Nov 7 2016
Describer: Lewis, Randy
NEON Plot ID: ONAQ_011
Site ID: S2016UT045011

Pedon ID: S2016UT045011

Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 17N0531
Soil Name as Described/Sampled: Taylorsflat
Classification: Fine-loamy, mixed, superactive, mesic Xeric Haplocalcids

Soil Name as Correlated:

Classification:
Pedon Type: correlates to named soil
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Great Basin

State Physiographic Area:

Local Physiographic Area: Rush Valley
Geomorphic Setting: on toeslope of base slope of fan remnant on toeslope of base slope of piedmont slope
Upslope Shape: linear
Cross Slope Shape: convex
Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 24 cm.
calcic horizon 24 to 87 cm.

Country: United States
State: Utah
County: Tooele
MLRA: 28A -- Great Salt Lake Area
Soil Survey Area: UT611 -- Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties
8-OGD -- Ogden, Utah
Map Unit: 65 -- Taylorsflat loam, saline, 0 to 3 percent slopes
Pit Location:
Quad Name: Faust, Utah
Std Latitude: 40.1507611
Std Longitude: -112.4560222

Latitude: 40 degrees 9 minutes 2.74 seconds north
Longitude: 112 degrees 27 minutes 21.68 seconds west
Datum: WGS84
UTM Zone: 12
UTM Easting: 375986 meters
UTM Northing: 4445507 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: alyssum, cheatgrass, clasping pepperweed, greasewood, rubber rabbitbrush, squirreltail, tumblemustard, Wyoming big sagebrush
Parent Material: alluvium derived from metamorphic and sedimentary rock
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments: 2.0 percent nonflat subrounded indurated 2- to 75-millimeter Sedimentary rock fragments

Description database: KSSL

Cont. Site ID: S2016UT045011 **Pedon ID:** S2016UT045011

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	1,617.0	138	9.5			279	125	well		

A1--0 to 8 centimeters (0.0 to 3.1 inches); pale brown (10YR 6/3) fine sandy loam, brown (10YR 4/3), moist; 60 percent sand; 23 percent silt; 17 percent clay; weak thin platy parts to moderate fine subangular blocky, and weak thin platy parts to moderate very fine subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; many very fine roots throughout and few fine roots throughout; many very fine low-continuity tubular and few fine low-continuity tubular pores; 2 percent nonflat subrounded indurated 5 to 20-millimeter Sedimentary rock fragments; strong effervescence, by HCl, 1 normal; moderately alkaline, pH 8.4, pH indicator solutions; clear smooth boundary. Lab sample # 17N02726

A2--8 to 24 centimeters (3.1 to 9.4 inches); pale brown (10YR 6/3) fine sandy loam, brown (10YR 5/3), moist; 60 percent sand; 21 percent silt; 19 percent clay; weak medium subangular blocky parts to moderate fine subangular blocky, and weak medium subangular blocky parts to moderate very fine subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; common very fine roots throughout and common fine roots throughout; many very fine moderate-continuity tubular and few fine moderate-continuity tubular pores; 2 percent nonflat subrounded indurated 5 to 20-millimeter Sedimentary rock fragments; strong effervescence, by HCl, 1 normal; moderately alkaline, pH 8.4, pH indicator solutions; clear wavy boundary. Lab sample # 17N02727

Bk--24 to 46 centimeters (9.4 to 18.1 inches); light yellowish brown (10YR 6/4) very fine sandy loam, brown (10YR 5/3), moist; 55 percent sand; 26 percent silt; 19 percent clay; moderate medium subangular blocky parts to moderate fine subangular blocky, and moderate medium subangular blocky parts to moderate very fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine roots throughout and few medium roots throughout and common fine roots throughout and few coarse roots throughout; common very fine moderate-continuity tubular and few fine moderate-continuity tubular pores; carbonate, finely disseminated and 1 percent fine distinct pendular weakly cemented carbonate concretions around rock fragments; 5 percent nonflat subrounded indurated 5 to 20-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; very strongly alkaline, pH 9.2, pH indicator solutions; gradual wavy boundary. Lab sample # 17N02728

Ck--46 to 87 centimeters (18.1 to 34.3 inches); light yellowish brown (10YR 6/4) silt loam, yellowish brown (10YR 5/4), moist; 25 percent sand; 55 percent silt; 20 percent clay; massive; slightly hard, very friable, slightly sticky, slightly plastic; few very fine roots throughout and few medium roots throughout and few fine roots throughout; few very fine moderate-continuity tubular pores; carbonate, finely disseminated and 1 percent fine distinct pendular weakly cemented carbonate concretions around rock fragments; 5 percent nonflat subrounded indurated 5 to 20-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; very strongly alkaline, pH 9.2, pH indicator solutions; gradual wavy boundary. Lab sample # 17N02729

C--87 to 100 centimeters (34.3 to 39.4 inches); light yellowish brown (10YR 6/4) very fine sandy loam, yellowish brown (10YR 5/4), moist; 55 percent sand; 31 percent silt; 14 percent clay; massive; soft, very friable, slightly sticky, slightly plastic; few very fine roots throughout and few fine roots throughout; few very fine moderate-continuity tubular pores; 5 percent nonflat subrounded indurated 5 to 20-millimeter Sedimentary rock fragments; strong effervescence, by HCl, 1 normal; very strongly alkaline, pH 9.2, pH indicator solutions. Lab sample # 17N02730

PEDON DESCRIPTION -- NEON Site ONAQ

Print Date: Apr 2 2018
Description Date: Nov 10 2016
Describer: Lewis, Randy
NEON Plot ID: ONAQ_012
Site ID: S2016UT045012

Pedon ID: S2016UT045012

Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 17N0541
Soil Name as Described/Sampled: Onaqui
Classification: Loamy-skeletal, mixed, superactive, frigid Lithic Haploxerolls

Soil Name as Correlated:

Classification:
Pedon Type: correlates to named soil
Pedon Purpose: research site
Taxon Kind: series
Associated Soils: Lodar, Lundy
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Great Basin

State Physiographic Area:

Local Physiographic Area: Onaqui Mountains
Geomorphic Setting: on backslope of mountainflank of mountain slope on backslope of mountainflank of mountains
Upslope Shape: convex
Cross Slope Shape: convex
Particle Size Control Section: 25 to 42 cm.

Description origin: NASIS

Country: United States
State: Utah
County: Tooele
MLRA: 28A -- Great Salt Lake Area
Soil Survey Area: UT611 -- Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties
8-OGD -- Ogden, Utah
Map Unit: 47 -- Podmor-Onaqui-Rock outcrop association, 20 to 60 percent slopes
Pit Location:
Quad Name: Onaqui Mountains South, Utah
Std Latitude: 40.1847667
Std Longitude: -112.5294694

Latitude: 40 degrees 11 minutes 5.16 seconds north
Longitude: 112 degrees 31 minutes 46.09 seconds west
Datum: WGS84
UTM Zone: 12
UTM Easting: 369795 meters
UTM Northing: 4449387 meters

Primary Earth Cover: Tree cover
Secondary Earth Cover: Other tree cover
Existing Vegetation: antelope bitterbrush, antelope bitterbrush, bluebunch wheatgrass, bluebunch wheatgrass, broom snakeweed, broom snakeweed, cheatgrass, cheatgrass, little combseed, madwort, madwort, mountain big sagebrush, mountain big sagebrush, plains pricklypear, pricklypear, rock goldenrod, Sandberg bluegrass, Sandberg bluegrass, Utah juniper, Utah juniper
Parent Material: colluvium and/or slope alluvium derived from limestone
Bedrock Kind: Limestone
Bedrock Depth: 42 centimeters
Bedrock Hardness: indurated
Bedrock Fracture Interval:
Surface Fragments: 40.0 percent nonflat angular indurated 2- to 75-millimeter Limestone fragments and 15.0 percent nonflat angular indurated 75- to 250-millimeter Limestone fragments and 10.0 percent nonflat angular indurated 250- to 600-millimeter Limestone fragments and 5.0 percent nonflat angular indurated 600- to 1000-millimeter Limestone fragments

Description database: KSSL

Cont. Site ID: S2016UT045012 **Pedon ID:** S2016UT045012

Diagnostic Features: mollic epipedon 0 to 42 cm.
lithic contact 42 to 67 cm.

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
42	67	bedrock, lithic	Indurated

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
34.0	2,057.0	144	6.7			381	80	well		

A1--0 to 17 centimeters (0.0 to 6.7 inches); dark grayish brown (10YR 4/2) very cobbly loam, very dark grayish brown (10YR 3/2), moist; 40 percent sand; 44 percent silt; 16 percent clay; moderate very fine granular, and moderate fine granular structure; soft, friable, slightly sticky, slightly plastic; many very fine roots throughout and few fine roots throughout; many very fine low-continuity tubular and many very fine low-continuity interstitial and few fine low-continuity tubular and few fine low-continuity interstitial pores; 5 percent nonflat angular indurated 250 to 600-millimeter Limestone fragments and 5 percent nonflat angular indurated 2 to 5-millimeter Limestone fragments and 5 percent nonflat angular indurated 20 to 75-millimeter Limestone fragments and 10 percent nonflat angular indurated 5 to 20-millimeter Limestone fragments and 20 percent nonflat angular indurated 75 to 250-millimeter Limestone fragments; slight effervescence, by HCl, 1 normal; moderately alkaline, pH 8.2, pH indicator solutions; clear smooth boundary. Lab sample # 17N02764

A2--17 to 42 centimeters (6.7 to 16.5 inches); brown (10YR 4/3) extremely cobbly silt loam, dark brown (10YR 3/3), moist; 20 percent sand; 55 percent silt; 25 percent clay; weak medium subangular blocky parts to moderate fine granular, and weak medium subangular blocky parts to moderate very fine granular structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine roots throughout and few fine roots throughout; few very fine moderate-continuity tubular and few fine moderate-continuity tubular pores; 5 percent nonflat angular indurated 250 to 600-millimeter Limestone fragments and 5 percent nonflat angular indurated 2 to 5-millimeter Limestone fragments and 5 percent nonflat angular indurated 20 to 75-millimeter Limestone fragments and 10 percent nonflat angular indurated 5 to 20-millimeter Limestone fragments and 45 percent nonflat angular indurated 75 to 250-millimeter Limestone fragments; slight effervescence, by HCl, 1 normal; moderately alkaline, pH 8.2, pH indicator solutions; abrupt irregular boundary. Lab sample # 17N02765

R--42 to 67 centimeters (16.5 to 26.4 inches); indurated Limestone bedrock; .

PEDON DESCRIPTION -- NEON Site ONAQ

Print Date: Apr 2 2018
Description Date: Nov 7 2016
Describer: Lewis, Randy
NEON Plot ID: ONAQ_015
Site ID: S2016UT045015

Pedon ID: S2016UT045015

Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 17N0532
Soil Name as Described/Sampled: Taylorsflat
Classification: Fine-loamy, mixed, superactive, mesic Xeric Haplocalcids

Soil Name as Correlated:

Classification:
Pedon Type: correlates to named soil
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Great Basin

State Physiographic Area:

Local Physiographic Area: Rush Valley
Geomorphic Setting: on summit of interfluve of fan remnant
on summit of interfluve of piedmont slope
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 100 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 9 cm.
calcic horizon 9 to 100 cm.

Country: United States
State: Utah
County: Tooele
MLRA: 28A -- Great Salt Lake Area
Soil Survey Area: UT611 -- Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties
8-OGD -- Ogden, Utah
Map Unit: 64 -- Taylorsflat loam, 1 to 5 percent slopes
Pit Location:
Quad Name: Faust, Utah
Std Latitude: 40.1516583
Std Longitude: -112.4782417

Latitude: 40 degrees 9 minutes 5.97 seconds north
Longitude: 112 degrees 28 minutes 41.67 seconds west
Datum: WGS84
UTM Zone: 12
UTM Easting: 374095 meters
UTM Northing: 4445638 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: alyssum, cheatgrass, squirreltail, tumblemustard, Wyoming big sagebrush
Parent Material: alluvium derived from metamorphic and sedimentary rock
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2016UT045015 **Pedon ID:** S2016UT045015

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
4.0	1,668.0	146	9.5			279	125	well		

A--0 to 9 centimeters (0.0 to 3.5 inches); pale brown (10YR 6/3) loam, brown (10YR 4/3), moist; 40 percent sand; 40 percent silt; 20 percent clay; moderate fine granular, and moderate very fine granular structure; soft, very friable, slightly sticky, slightly plastic; many very fine roots throughout and few medium roots throughout and many fine roots throughout; many very fine low-continuity tubular and few medium low-continuity tubular and many fine low-continuity tubular pores; strong effervescence, by HCl, 1 normal; strongly alkaline, pH 8.8, pH indicator solutions; clear smooth boundary. Lab sample # 17N02731

Bk1--9 to 41 centimeters (3.5 to 16.1 inches); pale brown (10YR 6/3) loam, brown (10YR 5/3), moist; 40 percent sand; 41 percent silt; 19 percent clay; moderate medium subangular blocky parts to moderate fine subangular blocky, and moderate medium subangular blocky parts to moderate very fine subangular blocky structure; moderately hard, firm, slightly sticky, slightly plastic; many very fine roots throughout and few medium roots throughout and many fine roots throughout; many very fine moderate-continuity tubular and few medium moderate-continuity tubular and many fine moderate-continuity tubular pores; carbonate, finely disseminated; violent effervescence, by HCl, 1 normal; strongly alkaline, pH 8.8, pH indicator solutions; clear wavy boundary. Lab sample # 17N02732

Bk2--41 to 68 centimeters (16.1 to 26.8 inches); light yellowish brown (10YR 6/4) loam, yellowish brown (10YR 5/4), moist; 40 percent sand; 41 percent silt; 19 percent clay; weak medium subangular blocky, and weak fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine roots throughout and few medium roots throughout and common fine roots throughout; common very fine moderate-continuity tubular and common fine moderate-continuity tubular pores; carbonate, finely disseminated; violent effervescence, by HCl, 1 normal; strongly alkaline, pH 8.8, pH indicator solutions; clear wavy boundary. Lab sample # 17N02733

Ck1--68 to 89 centimeters (26.8 to 35.0 inches); light yellowish brown (10YR 6/4) loam, yellowish brown (10YR 5/4), moist; 45 percent sand; 38 percent silt; 17 percent clay; massive; slightly hard, very friable, slightly sticky, slightly plastic; common very fine roots throughout; common very fine moderate-continuity tubular and common fine moderate-continuity tubular pores; carbonate, finely disseminated; violent effervescence, by HCl, 1 normal; strongly alkaline, pH 8.8, pH indicator solutions; gradual wavy boundary. Lab sample # 17N02734

Ck2--89 to 100 centimeters (35.0 to 39.4 inches); light yellowish brown (10YR 6/4) gravelly sandy clay loam, yellowish brown (10YR 5/4), moist; 60 percent sand; 19 percent silt; 21 percent clay; massive; slightly hard, friable, slightly sticky, slightly plastic; few very fine roots throughout; common very fine moderate-continuity tubular and common fine moderate-continuity tubular pores; carbonate, finely disseminated and 10 percent fine distinct pendular weakly cemented carbonate concretions on bottom of rock fragments; 5 percent nonflat subrounded indurated 2 to 5-millimeter Sedimentary rock fragments and 5 percent nonflat subrounded indurated 20 to 75-millimeter Sedimentary rock fragments and 20 percent nonflat subrounded indurated 5 to 25-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; strongly alkaline, pH 8.6, pH indicator solutions. Lab sample # 17N02735

PEDON DESCRIPTION -- NEON Site ONAQ

Print Date: Apr 2 2018
Description Date: Nov 9 2016
Describer: Lewis, Randy
NEON Plot ID: ONAQ_018
Site ID: S2016UT045018

Pedon ID: S2016UT045018

Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 17N0538
Soil Name as Described/Sampled: Strevell
Classification: Coarse-loamy, mixed, superactive, mesic Xeric Haplocalcids

Soil Name as Correlated:

Classification:
Pedon Type: correlates to named soil
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:

Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Great Basin

State Physiographic Area:

Local Physiographic Area: Rush Valley
Geomorphic Setting: on toeslope of interfluve of fan remnant on toeslope of interfluve of piedmont slope
Upslope Shape: linear
Cross Slope Shape: concave
Particle Size Control Section: 25 to 100 cm.
Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 23 cm.
calcic horizon 23 to 100 cm.

Country: United States
State: Utah
County: Tooele
MLRA: 28A -- Great Salt Lake Area
Soil Survey Area: UT611 -- Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties
8-OGD -- Ogden, Utah
Map Unit: 64 -- Taylorsflat loam, 1 to 5 percent slopes
Pit Location:
Quad Name: Faust, Utah
Std Latitude: 40.1972028
Std Longitude: -112.4380278

Latitude: 40 degrees 11 minutes 49.93 seconds north
Longitude: 112 degrees 26 minutes 16.90 seconds west
Datum: WGS84
UTM Zone: 12
UTM Easting: 377602 meters
UTM Northing: 4450637 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: alyssum, broom snakeweed, cheatgrass, Wyoming big sagebrush
Parent Material: alluvium derived from metamorphic and sedimentary rock
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2016UT045018 **Pedon ID:** S2016UT045018

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	1,637.0	80	9.5			279	125	well		

A1--0 to 12 centimeters (0.0 to 4.7 inches); brown (10YR 5/3) fine sandy loam, brown (10YR 4/3), moist; 70 percent sand; 16 percent silt; 14 percent clay; moderate fine granular, and moderate very fine granular structure; soft, very friable, slightly sticky, slightly plastic; many very fine roots throughout and common fine roots throughout; common very fine low-continuity tubular and few fine low-continuity tubular pores; 5 percent nonflat angular indurated 5 to 20-millimeter Sedimentary rock fragments; strong effervescence, by HCl, 1 normal; moderately alkaline, pH 8.4, pH indicator solutions; clear smooth boundary. Lab sample # 17N02756

A2--12 to 23 centimeters (4.7 to 9.1 inches); brown (10YR 5/3) fine sandy loam, brown (10YR 4/3), moist; 65 percent sand; 18 percent silt; 17 percent clay; weak medium subangular blocky parts to moderate fine subangular blocky, and weak medium subangular blocky parts to moderate very fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; many very fine roots throughout and few fine roots throughout; common very fine low-continuity tubular and few fine low-continuity tubular pores; carbonate, finely disseminated; 5 percent nonflat angular indurated 5 to 20-millimeter Sedimentary rock fragments; strong effervescence, by HCl, 1 normal; strongly alkaline, pH 8.6, pH indicator solutions; clear wavy boundary. Lab sample # 17N02757

Bkk--23 to 57 centimeters (9.1 to 22.4 inches); very pale brown (10YR 7/3) sandy loam, pale brown (10YR 6/3), moist; 70 percent sand; 15 percent silt; 15 percent clay; strong medium platy structure; very hard, firm, slightly sticky, nonplastic; few very fine roots throughout and few fine roots throughout; few very fine moderate-continuity tubular pores; carbonate, finely disseminated throughout and 50 percent coarse prominent irregular weakly cemented carbonate nodules throughout and 10 percent fine distinct irregular carbonate masses throughout and 15 percent medium distinct pendular weakly cemented carbonate concretions around rock fragments and 10 percent very fine distinct irregular carbonate masses throughout; 5 percent nonflat angular indurated 5 to 20-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; strongly alkaline, pH 8.6, pH indicator solutions; gradual wavy boundary. Lab sample # 17N02758

Ck1--57 to 83 centimeters (22.4 to 32.7 inches); very pale brown (10YR 7/3) very gravelly fine sandy loam, pale brown (10YR 6/3), moist; 65 percent sand; 21 percent silt; 14 percent clay; massive; hard, firm, slightly sticky, nonplastic; few very fine roots throughout and few fine roots throughout; few very fine moderate-continuity tubular pores; carbonate, finely disseminated throughout and 10 percent fine distinct irregular carbonate masses throughout and 15 percent medium distinct pendular weakly cemented carbonate concretions around rock fragments and 10 percent very fine distinct irregular carbonate masses throughout; 10 percent nonflat angular indurated 75 to 250-millimeter Sedimentary rock fragments and 10 percent nonflat angular indurated 2 to 5-millimeter Sedimentary rock fragments and 10 percent nonflat angular indurated 20 to 75-millimeter Sedimentary rock fragments and 20 percent nonflat angular indurated 5 to 20-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; strongly alkaline, pH 8.6, pH indicator solutions; gradual irregular boundary. Lab sample # 17N02759

Ck2--83 to 100 centimeters (32.7 to 39.4 inches); light yellowish brown (10YR 6/4) gravelly fine sandy loam, yellowish brown (10YR 5/4), moist; 65 percent sand; 20 percent silt; 15 percent clay; massive; slightly hard, friable, slightly sticky, slightly plastic; few very fine roots throughout; few very fine moderate-continuity tubular pores; carbonate, finely disseminated and 5 percent fine distinct pendular weakly cemented carbonate concretions around rock fragments; 2 percent nonflat angular indurated 2 to 5-millimeter Sedimentary rock fragments and 3 percent nonflat angular indurated 20 to 75-millimeter Sedimentary rock fragments and 5 percent nonflat angular indurated 75 to 250-millimeter Sedimentary rock fragments and 5 percent nonflat angular indurated 5 to 20-millimeter Sedimentary rock fragments; strong effervescence, by HCl, 1 normal; strongly alkaline, pH 8.8, pH indicator solutions. Lab sample # 17N02760

PEDON DESCRIPTION -- NEON Site ONAQ

Print Date: Apr 2 2018
Description Date: Nov 8 2016
Describer: Lewis, Randy
NEON Plot ID: ONAQ_024
Site ID: S2016UT045024

Pedon ID: S2016UT045024

Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 17N0533
Soil Name as Described/Sampled: Taylorsflat
Classification: Fine-loamy, mixed, superactive, mesic Xeric Haplocalcids

Soil Name as Correlated:

Classification:
Pedon Type: correlates to named soil
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Great Basin

State Physiographic Area:

Local Physiographic Area: Rush Valley
Geomorphic Setting: on summit of interfluve of fan remnant
on summit of interfluve of piedmont slope
Upslope Shape: linear
Cross Slope Shape: convex
Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 8 cm.
calcic horizon 8 to 100 cm.

Country: United States
State: Utah
County: Tooele
MLRA: 28A -- Great Salt Lake Area
Soil Survey Area: UT611 -- Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties
8-OGD -- Ogden, Utah
Map Unit: 64 -- Taylorsflat loam, 1 to 5 percent slopes
Pit Location:
Quad Name: Faust, Utah
Std Latitude: 40.1599389
Std Longitude: -112.4851722

Latitude: 40 degrees 9 minutes 35.78 seconds north
Longitude: 112 degrees 29 minutes 6.62 seconds west
Datum: WGS84
UTM Zone: 12
UTM Easting: 373520 meters
UTM Northing: 4446567 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: alyssum, cheatgrass, crested wheatgrass, Wyoming big sagebrush
Parent Material: alluvium derived from metamorphic and sedimentary rock
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments: 1.0 percent nonflat subrounded indurated 2- to 75-millimeter Sedimentary rock fragments

Description database: KSSL

Cont. Site ID: S2016UT045024 **Pedon ID:** S2016UT045024

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	1,698.0	340	9.5			279	125	well		

A--0 to 8 centimeters (0.0 to 3.1 inches); pale brown (10YR 6/3) loam, brown (10YR 4/3), moist; 40 percent sand; 43 percent silt; 17 percent clay; weak thin platy parts to weak very fine granular structure; soft, very friable, slightly sticky, slightly plastic; many very fine roots throughout and many fine roots throughout; many very fine low-continuity tubular and common fine low-continuity tubular pores; strong effervescence, by HCl, 1 normal; moderately alkaline, pH 8.2, pH indicator solutions; clear smooth boundary. Lab sample # 17N02736

Bk1--8 to 33 centimeters (3.1 to 13.0 inches); light yellowish brown (10YR 6/4) loam, brown (10YR 5/3), moist; 33 percent sand; 48 percent silt; 19 percent clay; moderate medium subangular blocky parts to moderate fine subangular blocky, and moderate medium subangular blocky parts to moderate very fine subangular blocky structure; moderately hard, friable, slightly sticky, slightly plastic; many very fine roots throughout and common fine roots throughout; many very fine moderate-continuity tubular and common fine moderate-continuity tubular pores; carbonate, finely disseminated; strong effervescence, by HCl, 1 normal; moderately alkaline, pH 8.4, pH indicator solutions; clear wavy boundary. Lab sample # 17N02737

Bk2--33 to 56 centimeters (13.0 to 22.0 inches); light yellowish brown (10YR 6/4) loam, yellowish brown (10YR 5/4), moist; 35 percent sand; 45 percent silt; 20 percent clay; weak coarse prismatic parts to weak medium subangular blocky, and weak coarse prismatic parts to weak fine subangular blocky structure; moderately hard, friable, slightly sticky, slightly plastic; common very fine roots throughout and common fine roots throughout; many very fine moderate-continuity tubular and common fine moderate-continuity tubular pores; carbonate, finely disseminated and 1 percent fine distinct irregular carbonate masses; violent effervescence, by HCl, 1 normal; moderately alkaline, pH 8.4, pH indicator solutions; clear wavy boundary. Lab sample # 17N02738

Ck1--56 to 82 centimeters (22.0 to 32.3 inches); light yellowish brown (10YR 6/4) loam, yellowish brown (10YR 5/4), moist; 35 percent sand; 43 percent silt; 22 percent clay; massive; moderately hard, friable, slightly sticky, slightly plastic; common very fine roots throughout and few fine roots throughout; common very fine moderate-continuity tubular and few fine moderate-continuity tubular pores; carbonate, finely disseminated; violent effervescence, by HCl, 1 normal; very strongly alkaline, pH 9.2, pH indicator solutions; gradual wavy boundary. Lab sample # 17N02739

Ck2--82 to 100 centimeters (32.3 to 39.4 inches); light yellowish brown (10YR 6/4) loam, dark yellowish brown (10YR 4/4), moist; 35 percent sand; 44 percent silt; 21 percent clay; massive; moderately hard, friable, slightly sticky, slightly plastic; few very fine roots throughout; common very fine moderate-continuity tubular and few fine moderate-continuity tubular pores; carbonate, finely disseminated and 10 percent fine distinct pendular weakly cemented carbonate concretions around rock fragments; 5 percent nonflat subrounded indurated 5 to 20-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; very strongly alkaline, pH 9.2, pH indicator solutions. Lab sample # 17N02740

PEDON DESCRIPTION -- NEON Site ONAQ

Print Date: Apr 2 2018
Description Date: Nov 9 2016
Describer: Lewis, Randy
NEON Plot ID: ONAQ_025
Site ID: S2016UT045025

Pedon ID: S2016UT045025

Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 17N0536
Soil Name as Described/Sampled: Benning
Classification: Fine-loamy, mixed, superactive, mesic Pachic Calcixerolls

Soil Name as Correlated:

Classification:
Pedon Type: taxadjunct to the series
Pedon Purpose: research site
Taxon Kind: taxadjunct
Associated Soils: Borvant
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Great Basin

State Physiographic Area:

Local Physiographic Area: Rush Valley
Geomorphic Setting: on footslope of interfluve of fan remnant
on footslope of interfluve of piedmont slope
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 100 cm.
Description origin: NASIS
Diagnostic Features: mollic epipedon 0 to 62 cm.
calcic horizon 47 to 100 cm.

Country: United States
State: Utah
County: Tooele
MLRA: 28A -- Great Salt Lake Area
Soil Survey Area: UT611 -- Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties
8-OGD -- Ogden, Utah
Map Unit: 7 -- Borvant gravelly loam, 2 to 15 percent slopes
Pit Location:
Quad Name: Onaqui Mountains South, Utah
Std Latitude: 40.1454389
Std Longitude: -112.5386806

Latitude: 40 degrees 8 minutes 43.58 seconds north
Longitude: 112 degrees 32 minutes 19.25 seconds west
Datum: WGS84
UTM Zone: 12
UTM Easting: 368935 meters
UTM Northing: 4445035 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: bluebunch wheatgrass, cheatgrass, Indian ricegrass, madwort, small burnet, Wyoming big sagebrush, yellow rabbitbrush
Parent Material: alluvium derived from metamorphic and sedimentary rock
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2016UT045025 **Pedon ID:** S2016UT045025

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	1,824.0	20	8.3			381	120	well		

A1--0 to 14 centimeters (0.0 to 5.5 inches); brown (10YR 4/3) loam, very dark brown (10YR 2/2), moist; 35 percent sand; 42 percent silt; 23 percent clay; moderate very fine granular, and moderate fine granular structure; soft, friable, slightly sticky, slightly plastic; many very fine roots throughout and few medium roots throughout and many fine roots throughout; many very fine low-continuity tubular and many fine low-continuity tubular pores; 5 percent nonflat angular indurated 5 to 20-millimeter Sedimentary rock fragments; slight effervescence, by HCl, 1 normal; slightly alkaline, pH 7.8, pH indicator solutions; clear smooth boundary. Lab sample # 17N02747

A2--14 to 47 centimeters (5.5 to 18.5 inches); brown (10YR 4/3) clay loam, dark brown (10YR 3/3), moist; 35 percent sand; 37 percent silt; 28 percent clay; moderate medium subangular blocky parts to moderate fine granular, and moderate medium subangular blocky parts to moderate very fine granular structure; moderately hard, firm, moderately sticky, moderately plastic; many very fine roots throughout and few medium roots throughout and many fine roots throughout and few coarse roots throughout; many very fine moderate-continuity tubular and common fine moderate-continuity tubular pores; 5 percent nonflat angular indurated 5 to 20-millimeter Sedimentary rock fragments; strong effervescence, by HCl, 1 normal; moderately alkaline, pH 8.0, pH indicator solutions; clear wavy boundary. Lab sample # 17N02748

ABk--47 to 62 centimeters (18.5 to 24.4 inches); brown (10YR 4/3) loam, dark brown (10YR 3/3), moist; 35 percent sand; 40 percent silt; 25 percent clay; moderate medium angular blocky, and moderate fine subangular blocky structure; slightly hard, firm, slightly sticky, slightly plastic; common very fine roots throughout and few medium roots throughout and few fine roots throughout and few coarse roots throughout; common very fine moderate-continuity tubular and few fine moderate-continuity tubular pores; carbonate, finely disseminated throughout and 5 percent fine distinct pendular weakly cemented carbonate concretions on bottom of rock fragments and 2 percent fine distinct irregular carbonate masses throughout and 3 percent very fine distinct irregular carbonate masses throughout; 5 percent nonflat angular indurated 5 to 20-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; moderately alkaline, pH 8.2, pH indicator solutions; gradual wavy boundary. Lab sample # 17N02749

Bk--62 to 100 centimeters (24.4 to 39.4 inches); brown (10YR 5/3) clay loam, brown (10YR 4/3), moist; 35 percent sand; 35 percent silt; 30 percent clay; moderate medium subangular blocky parts to moderate fine subangular blocky, and moderate medium subangular blocky parts to moderate very fine subangular blocky structure; moderately hard, firm, moderately sticky, moderately plastic; few very fine roots throughout and few medium roots throughout and few fine roots throughout; few very fine moderate-continuity tubular and few fine moderate-continuity tubular pores; carbonate, finely disseminated throughout and 5 percent fine distinct pendular weakly cemented carbonate concretions around rock fragments and 5 percent fine distinct irregular carbonate masses throughout and 10 percent very fine distinct irregular carbonate masses throughout; 5 percent nonflat angular indurated 5 to 20-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; moderately alkaline, pH 8.2, pH indicator solutions. Lab sample # 17N02750

PEDON DESCRIPTION -- NEON Site ONAQ

Print Date: Apr 2 2018
Description Date: Nov 9 2016
Describer: Crossland, Keith
NEON Plot ID: ONAQ_029
Site ID: S2016UT045029

Pedon ID: S2016UT045029

Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 17N0539
Soil Name as Described/Sampled: Borvant
Classification: Loamy-skeletal, carbonatic, mesic, shallow Petrocalcic Calcixerepts
Soil Name as Correlated:

Classification:
Pedon Type: taxadjunct to the series
Pedon Purpose: research site
Taxon Kind: taxadjunct
Associated Soils: Borvant
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Great Basin

State Physiographic Area:

Local Physiographic Area: Rush Valley
Geomorphic Setting: on summit of interfluve of fan remnant on summit of interfluve of piedmont slope
Upslope Shape: linear
Cross Slope Shape: convex
Particle Size Control Section: 0 to 22 cm.

Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 6 cm.
calcic horizon 6 to 22 cm.
petrocalcic horizon 22 to 56 cm.

Country: United States
State: Utah
County: Tooele
MLRA: 28A -- Great Salt Lake Area
Soil Survey Area: UT611 -- Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties
8-OGD -- Ogden, Utah
Map Unit: 7 -- Borvant gravelly loam, 2 to 15 percent slopes
Pit Location:
Quad Name: Faust, Utah
Std Latitude: 40.2196139
Std Longitude: -112.4733944

Latitude: 40 degrees 13 minutes 10.61 seconds north
Longitude: 112 degrees 28 minutes 24.22 seconds west
Datum: WGS84
UTM Zone: 12
UTM Easting: 374633 meters
UTM Northing: 4453174 meters

Primary Earth Cover: Tree cover
Secondary Earth Cover: Other tree cover
Existing Vegetation: black sagebrush, bluebunch wheatgrass, cheatgrass, Indian ricegrass, Utah juniper
Parent Material: alluvium derived from metamorphic and sedimentary rock
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments: 60.0 percent nonflat subrounded indurated 2- to 75-millimeter Sedimentary rock fragments and 10.0 percent nonflat subrounded indurated 75- to 250-millimeter Sedimentary rock fragments
Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
22	56	petrocalcic	Strongly cemented

Cont. Site ID: S2016UT045029 **Pedon ID:** S2016UT045029

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	1,731.0	80	8.3			330	120	well		

A--0 to 6 centimeters (0.0 to 2.4 inches); pale brown (10YR 6/3) gravelly loam, brown (10YR 4/3), moist; 35 percent sand; 44 percent silt; 21 percent clay; moderate thin platy parts to moderate very fine granular structure; soft, very friable, slightly sticky, moderately plastic; many very fine roots throughout and few fine roots throughout; many very fine low-continuity interstitial pores; 5 percent nonflat subrounded indurated 2 to 5-millimeter Sedimentary rock fragments and 5 percent nonflat subrounded indurated 20 to 75-millimeter Sedimentary rock fragments and 10 percent nonflat subrounded indurated 5 to 20-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; moderately alkaline, pH 8.2, pH indicator solutions; clear smooth boundary. Lab sample # 17N02761

Bk--6 to 22 centimeters (2.4 to 8.7 inches); very pale brown (10YR 7/3) very gravelly loam, yellowish brown (10YR 5/4), moist; 35 percent sand; 45 percent silt; 20 percent clay; strong fine angular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; many very fine roots throughout and few medium roots throughout and common fine roots throughout; common very fine low-continuity interstitial pores; carbonate, finely disseminated throughout and 10 percent fine distinct irregular carbonate masses throughout and 10 percent medium distinct pendular strongly cemented carbonate concretions around rock fragments; 10 percent nonflat subrounded indurated 2 to 5-millimeter Sedimentary rock fragments and 10 percent nonflat subrounded indurated 20 to 75-millimeter Sedimentary rock fragments and 20 percent nonflat subrounded indurated 5 to 20-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; moderately alkaline, pH 8.4, pH indicator solutions; abrupt wavy boundary. Lab sample # 17N02762

Bkkm--22 to 56 centimeters (8.7 to 22.0 inches); white (10YR 8/1) cemented very cobbly material, very pale brown (10YR 8/3), moist; Strongly cemented by carbonates; 5 percent fine distinct irregular silica concretions and 45 percent fine faint irregular carbonate masses; 5 percent nonflat subrounded indurated 2 to 5-millimeter Sedimentary rock fragments and 5 percent nonflat subrounded indurated 20 to 75-millimeter Sedimentary rock fragments and 15 percent nonflat subrounded indurated 5 to 20-millimeter Sedimentary rock fragments and 20 percent nonflat subrounded indurated 75 to 250-millimeter Sedimentary rock fragments; violent effervescence, by HCl, 1 normal; moderately alkaline, pH 8.4, pH indicator solutions.

PEDON DESCRIPTION -- NEON Site ONAQ

Print Date: Apr 2 2018
Description Date: Nov 9 2016
Describer: Bodily, Jedd
NEON Plot ID: ONAQ_030
Site ID: S2016UT045030

Pedon ID: S2016UT045030

Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 17N0540
Soil Name as Described/Sampled: Onaqui
Classification: Loamy-skeletal, mixed, superactive, mesic Lithic Haploxerolls
Soil Name as Correlated:

Classification:
Pedon Type: taxadjunct to the series
Pedon Purpose: research site
Taxon Kind: taxadjunct
Associated Soils: Lodar, Lundy
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Great Basin

State Physiographic Area:

Local Physiographic Area: Onaqui Mountains
Geomorphic Setting: on backslope of mountainflank of mountain slope on backslope of mountainflank of mountains
Upslope Shape: linear
Cross Slope Shape: convex
Particle Size Control Section: 0 to 14 cm.

Description origin: NASIS
Diagnostic Features: mollic epipedon 0 to 14 cm.

Country: United States
State: Utah
County: Tooele
MLRA: 28A -- Great Salt Lake Area
Soil Survey Area: UT611 -- Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties
8-OGD -- Ogden, Utah
Map Unit: 38 -- Lodar-Lundy-Rock outcrop association, 30 to 60 percent slopes
Pit Location:
Quad Name: Onaqui Mountains South, Utah
Std Latitude: 40.2014778
Std Longitude: -112.5139111

Latitude: 40 degrees 12 minutes 5.32 seconds north
Longitude: 112 degrees 30 minutes 50.08 seconds west
Datum: WGS84
UTM Zone: 12
UTM Easting: 371151 meters
UTM Northing: 4451219 meters

Primary Earth Cover: Tree cover
Secondary Earth Cover: Other tree cover
Existing Vegetation: Mexican cliffrose, Utah juniper
Parent Material: colluvium and/or slope alluvium derived from limestone
Bedrock Kind: Limestone
Bedrock Depth: 14 centimeters
Bedrock Hardness: indurated
Bedrock Fracture Interval:
Surface Fragments: 30.0 percent nonflat subangular indurated 2- to 75-millimeter Sedimentary rock fragments and 30.0 percent nonflat subangular indurated 75- to 250-millimeter Sedimentary rock fragments and 15.0 percent nonflat subangular indurated 250- to 600-millimeter Sedimentary rock fragments
Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
14	39	bedrock, lithic	Indurated

Cont. Site ID: S2016UT045030 **Pedon ID:** S2016UT045030

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
27.0	1,964.0	174	8.3			381	100	well		

A--0 to 14 centimeters (0.0 to 5.5 inches); brown (10YR 5/3) very gravelly silt loam, dark brown (10YR 3/3), moist; 20 percent sand; 58 percent silt; 22 percent clay; moderate medium subangular blocky structure; soft, friable, slightly sticky, moderately plastic; many very fine roots throughout and few fine roots throughout; many very fine low-continuity tubular pores; 25 percent fine distinct pendular weakly cemented carbonate concretions on bottom of rock fragments; 5 percent nonflat subangular indurated 2 to 5-millimeter Sedimentary rock fragments and 10 percent nonflat subangular indurated 20 to 75-millimeter Sedimentary rock fragments and 10 percent nonflat subangular indurated 5 to 20-millimeter Sedimentary rock fragments and 15 percent nonflat subangular indurated 75 to 250-millimeter Sedimentary rock fragments; very slight effervescence, by HCl, 1 normal; neutral, pH 7.0, pH indicator solutions; abrupt wavy boundary. Lab sample # 17N02763

R--14 to 39 centimeters (5.5 to 15.4 inches); indurated Limestone bedrock; .

PEDON DESCRIPTION -- NEON Site ONAQ

Print Date: Apr 2 2018
Description Date: Nov 8 2016
Describer: Lewis, Randy
NEON Plot ID: ONAQ_032
Site ID: S2016UT045032

Pedon ID: S2016UT045032

Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 17N0535
Soil Name as Described/Sampled: Jardal
Classification: Loamy-skeletal, carbonatic, mesic Petrocalcic Palexerolls

Soil Name as Correlated:

Classification:
Pedon Type: correlates to named soil
Pedon Purpose: research site
Taxon Kind: series
Associated Soils: Lodar, Lundy
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Great Basin

State Physiographic Area:

Local Physiographic Area: Onaqui Mountains
Geomorphic Setting: on backslope of mountainflank of mountain slope on backslope of mountainflank of mountains
Upslope Shape: linear
Cross Slope Shape: convex
Particle Size Control Section: 25 to 88 cm.

Description origin: NASIS

Diagnostic Features: mollic epipedon 0 to 28 cm.
calcic horizon 28 to 88 cm.
petrocalcic horizon 88 to 100 cm.

Country: United States
State: Utah
County: Tooele
MLRA: 28A -- Great Salt Lake Area
Soil Survey Area: UT611 -- Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties
8-OGD -- Ogden, Utah
Map Unit: 38 -- Lodar-Lundy-Rock outcrop association, 30 to 60 percent slopes
Pit Location:
Quad Name: Onaqui Mountains South, Utah
Std Latitude: 40.1522056
Std Longitude: -112.5379889

Latitude: 40 degrees 9 minutes 7.94 seconds north
Longitude: 112 degrees 32 minutes 16.76 seconds west
Datum: WGS84
UTM Zone: 12
UTM Easting: 369007 meters
UTM Northing: 4445785 meters

Primary Earth Cover: Tree cover
Secondary Earth Cover: Other tree cover
Existing Vegetation: bluebunch wheatgrass, Indian ricegrass, madwort, Mexican cliffrose, Utah juniper
Parent Material: colluvium and/or slope alluvium derived from limestone
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments: 30.0 percent nonflat angular indurated 2- to 75-millimeter Limestone fragments and 10.0 percent nonflat angular indurated 75- to 250-millimeter Limestone fragments and 15.0 percent nonflat angular indurated 250- to 600-millimeter Limestone fragments and 1.0 percent nonflat angular indurated 600- to 1000-millimeter Limestone fragments

Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
88	100	petrocalcic	Very strongly cemented

Cont. Site ID: S2016UT045032 **Pedon ID:** S2016UT045032

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	1,879.0	196	8.3			381	100	well		

Ak--0 to 28 centimeters (0.0 to 11.0 inches); brown (10YR 4/3) gravelly loam, dark brown (10YR 3/3), moist; 35 percent sand; 41 percent silt; 24 percent clay; moderate medium subangular blocky parts to moderate very fine granular, and moderate medium subangular blocky parts to moderate fine granular structure; slightly hard, firm, slightly sticky, slightly plastic; many very fine roots throughout and many medium roots throughout and many fine roots throughout and few coarse roots throughout; many very fine low-continuity tubular and many fine low-continuity tubular pores; 10 percent medium prominent pendular very strongly cemented carbonate concretions on bottom of rock fragments; 5 percent nonflat angular indurated 2 to 5-millimeter Limestone fragments and 5 percent nonflat angular indurated 20 to 75-millimeter Limestone fragments and 10 percent nonflat angular indurated 5 to 20-millimeter Limestone fragments and 10 percent nonflat angular indurated 75 to 250-millimeter Limestone fragments; strong effervescence, by HCl, 1 normal; strongly alkaline, pH 8.6, pH indicator solutions; clear wavy boundary. Lab sample # 17N02745

Bkk--28 to 88 centimeters (11.0 to 34.6 inches); very pale brown (10YR 7/4) extremely gravelly sandy clay loam, light yellowish brown (10YR 6/4), moist; 40 percent sand; 39 percent silt; 21 percent clay; massive; very hard, very firm, Very weakly cemented, slightly sticky, slightly plastic; many very fine roots throughout and many medium roots throughout and many fine roots throughout and few coarse roots throughout; few very fine moderate-continuity tubular pores; carbonate, finely disseminated throughout and 25 percent coarse distinct pendular very strongly cemented carbonate concretions around rock fragments; 5 percent nonflat angular indurated 2 to 5-millimeter Limestone fragments and 10 percent nonflat angular indurated 20 to 75-millimeter Limestone fragments and 10 percent nonflat angular indurated 75 to 250-millimeter Limestone fragments and 10 percent nonflat angular indurated 5 to 20-millimeter Limestone fragments and 20 percent nonflat angular indurated 20 to 75-millimeter Carbonate concretions and 20 percent nonflat angular indurated 5 to 20-millimeter Carbonate concretions; violent effervescence, by HCl, 1 normal; strongly alkaline, pH 8.6, pH indicator solutions; abrupt irregular boundary. Lab sample # 17N02746

Bkkm--88 to 100 centimeters (34.6 to 39.4 inches); light gray (10YR 7/2) cemented very gravelly material, light brownish gray (10YR 6/2), moist; massive; Very strongly cemented by carbonates; 5 percent nonflat angular indurated 2 to 5-millimeter Limestone fragments and 10 percent nonflat angular indurated 20 to 75-millimeter Limestone fragments and 10 percent nonflat angular indurated 5 to 20-millimeter Limestone fragments and 10 percent nonflat angular indurated 75 to 250-millimeter Limestone fragments, by HCl, 1 normal.