PEDON DESCRIPTION -- NEON Site OAES

Print Date: Sep 3 2017
Description Date: Jan 28 2016
Describer: Tyson Morley
NEON Plot ID: OAES_002

Site ID: S2016OK149002
Pedon ID: S2016OK149002
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0506
Soil Name as Described/Sampled: Cordell
Classification: Loamy, mixed, active, thermic Lithic Haplustepts

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: series
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: 0 to 26 cm.
Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 11 cm.
cambic horizon 11 to 26 cm.
lithic contact 26 to cm.

Country:
State: Oklahoma
County: Washita
MLRA: 78C -- Central Rolling Red Plains, Eastern Part
Soil Survey Area:
Map Unit:
Pit Location:
Quad Name: Dill City NE, Oklahoma
Std Latitude: 35.4198500
Std Longitude: -99.0523700

Latitude: 35 degrees 25 minutes 11.40 seconds north
Longitude: 99 degrees 3 minutes 8.53 seconds west
Datum: WGS84
UTM Zone: 14
UTM Easting: 495246 meters
UTM Northing: 3919604 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
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
26		bedrock, lithic	Strongly cemented

Cont. Site ID: S2016OK149002 **Pedon ID:** S2016OK149002

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

A--0 to 11 centimeters (0.0 to 4.3 inches); reddish brown (2.5YR 4/4) silty clay loam, dark reddish brown (2.5YR 3/4), moist; weak medium subangular blocky structure; soft, friable; very fine roots throughout and fine roots throughout; 2 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; very slight effervescence; gradual smooth boundary. Lab sample # 16N02123

Bw--11 to 26 centimeters (4.3 to 10.2 inches); reddish brown (2.5YR 4/4) silty clay loam, dark reddish brown (2.5YR 3/4), moist; moderate medium subangular blocky structure; soft, friable; very fine roots throughout and fine roots throughout; 10 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; very slight effervescence; abrupt smooth boundary. Lab sample # 16N02124

R--26 to 200 centimeters (10.2 to 78.7 inches); reddish brown (2.5YR 5/4) bedrock, reddish brown (2.5YR 4/4), moist; fine roots top of horizon; very slight effervescence.

PEDON DESCRIPTION -- NEON Site OAES

Print Date: Sep 3 2017
Description Date: Jan 27 2016
Describer: Tyson Morley
NEON Plot ID: OAES_003

Site ID: S2016OK149003
Pedon ID: S2016OK149003
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0507
Soil Name as Described/Sampled: Cordell-LIKE
Classification: Loamy, mixed, active, thermic Lithic Ustorthents

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: taxadjunct
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: 0 to 10 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 10 cm.
lithic contact 10 to cm.

Country:
State: Oklahoma
County: Washita
MLRA: 78C -- Central Rolling Red Plains, Eastern Part
Soil Survey Area:
Map Unit:
Pit Location:
Quad Name: Dill City NE, Oklahoma
Std Latitude: 35.4122500
Std Longitude: -99.0696600

Latitude: 35 degrees 0 minutes 0.00 seconds north
Longitude: 99 degrees 4 minutes 10.77 seconds west
Datum: WGS84
UTM Zone: 14
UTM Easting: 493644 meters
UTM Northing: 3873045 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
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
10		bedrock, lithic	Strongly cemented

Cont. Site ID: S2016OK149003 **Pedon ID:** S2016OK149003

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

A--0 to 10 centimeters (0.0 to 3.9 inches); red (2.5YR 4/6) silty clay loam, dark red (2.5YR 3/6), dry; moderate medium subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 10 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; very slight effervescence; abrupt wavy boundary. Lab sample # 16N02125

R--10 to 200 centimeters (3.9 to 78.7 inches); red (2.5YR 4/6) bedrock, red (2.5YR 5/6), dry; top of horizon; slight effervescence.

PEDON DESCRIPTION -- NEON Site OAES

Print Date: Sep 3 2017
Description Date: Jan 27 2016
Describer: Tyson Morley
NEON Plot ID: OAES_004

Site ID: S2016OK149004
Pedon ID: S2016OK149004
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0508
Soil Name as Described/Sampled: Obaro
Classification: Fine-silty, mixed, superactive, thermic Typic Haplustepts

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: series
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: 25 to 100 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 38 cm.
cambic horizon 38 to 100 cm.

Country:
State: Oklahoma
County: Washita
MLRA: 78C -- Central Rolling Red Plains, Eastern Part
Soil Survey Area:
Map Unit:
Pit Location:
Quad Name: Dill City NE, Oklahoma
Std Latitude: 35.4122778
Std Longitude: -99.0852778

Latitude: 35 degrees 24 minutes 44.20 seconds north
Longitude: 99 degrees 5 minutes 7.00 seconds west
Datum: WGS84
UTM Zone: 14
UTM Easting: 492257 meters
UTM Northing: 3918768 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2016OK149004 **Pedon ID:** S2016OK149004

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

A--0 to 18 centimeters (0.0 to 7.1 inches); reddish brown (2.5YR 4/4) silty clay loam, dark reddish brown (2.5YR 3/4), moist; moderate medium subangular blocky structure; slightly hard, firm; very fine roots throughout and fine roots throughout; 5 percent fine worm casts throughout; noneffervescent; clear smooth boundary. Lab sample # 16N02126

BA--18 to 38 centimeters (7.1 to 15.0 inches); reddish brown (2.5YR 4/4) silty clay loam, dark reddish brown (2.5YR 3/4), moist; weak medium prismatic structure; slightly hard, firm; very fine roots throughout and fine roots throughout; 15 percent worm casts throughout; 2 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; noneffervescent; gradual smooth boundary. Lab sample # 16N02127

Bw1--38 to 65 centimeters (15.0 to 25.6 inches); reddish brown (2.5YR 5/4) silty clay loam, reddish brown (2.5YR 4/4), moist; weak medium prismatic parts to moderate medium subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 10 percent worm casts throughout; 2 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; very slight effervescence; gradual smooth boundary. Lab sample # 16N02128

Bw2--65 to 100 centimeters (25.6 to 39.4 inches); red (2.5YR 5/6) silty clay loam, red (2.5YR 4/6), moist; weak medium prismatic parts to moderate medium subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 2 percent nonflat subrounded strongly cemented 2 to 20-millimeter Shale fragments; very slight effervescence. Lab sample # 16N02129

PEDON DESCRIPTION -- NEON Site OAES

Print Date: Sep 3 2017
Description Date: Feb 10 2016
Describer: Tyson Morley
NEON Plot ID: OAES_005

Site ID: S2016OK149005
Pedon ID: S2016OK149005
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0509
Soil Name as Described/Sampled: Cordell
Classification: Loamy, mixed, active, thermic Lithic Haplustepts

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: series
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: 25 to 38 cm.
Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 11 cm.
cambic horizon 11 to 38 cm.
lithic contact 38 to cm.

Country:
State: Oklahoma
County: Washita
MLRA: 78C -- Central Rolling Red Plains, Eastern Part
Soil Survey Area:
Map Unit:
Pit Location:
Quad Name: Dill City NE, Oklahoma
Std Latitude: 35.4044500
Std Longitude: -99.0800278

Latitude: 35 degrees 24 minutes 16.02 seconds north
Longitude: 99 degrees 4 minutes 48.10 seconds west
Datum: WGS84
UTM Zone: 14
UTM Easting: 492733 meters
UTM Northing: 3917900 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
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
38		bedrock, lithic	Strongly cemented

Cont. Site ID: S2016OK149005 **Pedon ID:** S2016OK149005

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

A--0 to 11 centimeters (0.0 to 4.3 inches); reddish brown (2.5YR 4/4) silty clay loam, dark reddish brown (2.5YR 3/4), moist; strong medium granular structure; soft, very friable; very fine roots throughout and fine roots throughout; noneffervescent; clear smooth boundary. Lab sample # 16N02130

Bw1--11 to 27 centimeters (4.3 to 10.6 inches); reddish brown (2.5YR 4/4) silty clay loam, dark reddish brown (2.5YR 3/4), moist; moderate medium subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 2 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; noneffervescent; clear smooth boundary. Lab sample # 16N02131

Bw2--27 to 38 centimeters (10.6 to 15.0 inches); red (2.5YR 4/6) silty clay loam, dark red (2.5YR 3/6), moist; moderate medium subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 2 percent nonflat subrounded strongly cemented 2 to 20-millimeter Shale fragments; noneffervescent; abrupt smooth boundary. Lab sample # 16N02132

R--38 to 200 centimeters (15.0 to 78.7 inches); red (2.5YR 5/6) bedrock, red (2.5YR 4/6), moist; fine roots top of horizon; noneffervescent.

PEDON DESCRIPTION -- NEON Site OAES

Print Date: Sep 3 2017
Description Date: Jan 28 2016
Describer: Tyson Morley
NEON Plot ID: OAES_007

Site ID: S2016OK149007
Pedon ID: S2016OK149007
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0510
Soil Name as Described/Sampled: Cordell-like
Classification: Loamy, mixed, active, thermic Lithic Ustorthents

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: taxadjunct
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: 0 to 15 cm.
Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 15 cm.
paralithic materials 15 to 30 cm.
lithic contact 30 to cm.

Country:
State: Oklahoma
County: Washita
MLRA: 78C -- Central Rolling Red Plains, Eastern Part
Soil Survey Area:
Map Unit:
Pit Location:
Quad Name: Dill City NE, Oklahoma
Std Latitude: 35.4199889
Std Longitude: -99.0576972

Latitude: 35 degrees 25 minutes 11.96 seconds north
Longitude: 99 degrees 3 minutes 27.71 seconds west
Datum: WGS84
UTM Zone: 14
UTM Easting: 494762 meters
UTM Northing: 3919621 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
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
15	30	bedrock, paralithic	Moderately cemented
30		bedrock, lithic	Very strongly cemented

Cont. Site ID: S2016OK149007 **Pedon ID:** S2016OK149007

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

A--0 to 15 centimeters (0.0 to 5.9 inches); dark reddish brown (2.5YR 3/4) silty clay loam, reddish brown (2.5YR 4/4), dry; weak medium subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 7 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; noneffervescent; abrupt smooth boundary. Lab sample # 16N02133

Cr--15 to 30 centimeters (5.9 to 11.8 inches); dark red (2.5YR 3/6) bedrock, red (2.5YR 4/6), dry; fine roots in cracks; very slight effervescence; abrupt smooth boundary. Lab sample # 16N02134

R--30 to 200 centimeters (11.8 to 78.7 inches); bedrock; top of horizon; very slight effervescence.

PEDON DESCRIPTION -- NEON Site OAES

Print Date: Sep 3 2017
Description Date: Jan 27 2016
Describer: Tyson Morley
NEON Plot ID: OAES_010

Site ID: S2016OK149010
Pedon ID: S2016OK149010
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0511
Soil Name as Described/Sampled: Obaro
Classification: Fine-silty, mixed, superactive, thermic Typic Haplustepts

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: series
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: 25 to 100 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 38 cm.
cambic horizon 38 to 100 cm.

Country:
State: Oklahoma
County: Washita
MLRA: 78C -- Central Rolling Red Plains, Eastern Part
Soil Survey Area:
Map Unit:
Pit Location:
Quad Name: Dill City NE, Oklahoma
Std Latitude: 35.3990778
Std Longitude: -99.0604000

Latitude: 35 degrees 23 minutes 56.68 seconds north
Longitude: 99 degrees 3 minutes 37.44 seconds west
Datum: WGS84
UTM Zone: 14
UTM Easting: 494515 meters
UTM Northing: 3917302 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2016OK149010 **Pedon ID:** S2016OK149010

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

A--0 to 18 centimeters (0.0 to 7.1 inches); reddish brown (2.5YR 4/4) silty clay loam, dark reddish brown (2.5YR 3/4), moist; weak medium subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 30 percent worm casts throughout; noneffervescent; gradual smooth boundary. Lab sample # 16N02135

BA--18 to 38 centimeters (7.1 to 15.0 inches); reddish brown (2.5YR 4/4) silty clay loam, dark reddish brown (2.5YR 3/4), moist; moderate medium subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 30 percent worm casts throughout; 2 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; noneffervescent; gradual smooth boundary. Lab sample # 16N02136

Bw1--38 to 68 centimeters (15.0 to 26.8 inches); reddish brown (2.5YR 5/4) clay loam, reddish brown (2.5YR 4/4), moist; moderate medium subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 25 percent worm casts throughout; 2 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; very slight effervescence; gradual smooth boundary. Lab sample # 16N02137

Bw2--68 to 100 centimeters (26.8 to 39.4 inches); reddish brown (2.5YR 5/4) clay loam, reddish brown (2.5YR 4/4), moist; moderate medium subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 15 percent worm casts throughout; 2 percent nonflat subrounded strongly cemented 2 to 5-millimeter Shale fragments; very slight effervescence. Lab sample # 16N02138

PEDON DESCRIPTION -- NEON Site OAES

Print Date: Sep 3 2017
Description Date: Jan 27 2016
Describer: Tyson Morley
NEON Plot ID: OAES_012

Site ID: S2016OK149012
Pedon ID: S2016OK149012
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0512
Soil Name as Described/Sampled: Cordell
Classification: Loamy, mixed, active, thermic Lithic Haplustepts

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: series
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: 0 to 17 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 6 cm.
cambic horizon 6 to 17 cm.

Country:
State: Oklahoma
County: Washita
MLRA: 78C -- Central Rolling Red Plains, Eastern Part
Soil Survey Area:
Map Unit:
Pit Location:
Quad Name: Dill City NE, Oklahoma
Std Latitude: 35.4028000
Std Longitude: -99.0647694

Latitude: 35 degrees 24 minutes 10.08 seconds north
Longitude: 99 degrees 3 minutes 53.17 seconds west
Datum: WGS84
UTM Zone: 14
UTM Easting: 494119 meters
UTM Northing: 3917716 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
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
17		bedrock, lithic	Strongly cemented

Cont. Site ID: S2016OK149012 **Pedon ID:** S2016OK149012

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

A--0 to 6 centimeters (0.0 to 2.4 inches); red (2.5YR 4/6) silt loam, dark red (2.5YR 3/6), moist; weak medium granular structure; soft, very friable; very fine roots throughout and fine roots throughout; 5 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; 475.0 ml Compliant Cavity; very slight effervescence; clear smooth boundary. Lab sample # 16N02139

Bw--6 to 17 centimeters (2.4 to 6.7 inches); red (2.5YR 4/6) very gravelly silt loam, dark red (2.5YR 3/6), moist; weak fine subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 35 percent nonflat subrounded strongly cemented 2 to 75-millimeter Shale fragments; 315.0 ml Compliant Cavity; very slight effervescence; abrupt smooth boundary. Lab sample # 16N02140

R--17 to 200 centimeters (6.7 to 78.7 inches); red (2.5YR 4/6) bedrock, dark red (2.5YR 3/6), moist; fine roots top of horizon; slight effervescence.

PEDON DESCRIPTION -- NEON Site OAES

Print Date: Sep 3 2017
Description Date: Jan 26 2016
Describer: Tyson Morley
NEON Plot ID: OAES_014

Site ID: S2016OK149014
Pedon ID: S2016OK149014
Site Note:
Pedon Note: Free water was observed starting at 70cm. This is due to lateral flow of snow melt water due to extremely wet conditions. This is rare and no wetness indicators were observed in the soil profile.
Lab Source ID: KSSL
Lab Pedon #: 16N0513
Soil Name as Described/Sampled: Obaro
Classification: Fine-silty, mixed, superactive, thermic Typic Haplustepts

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: series
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: 25 to 84 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 28 cm.
cambic horizon 28 to 84 cm.
lithic contact 84 to cm.

Country:
State: Oklahoma
County: Washita
MLRA: 78C -- Central Rolling Red Plains, Eastern Part
Soil Survey Area:
Map Unit:
Pit Location:

Quad Name: Dill City NE, Oklahoma

Std Latitude: 35.3996889
Std Longitude: -99.0580694

Latitude: 35 degrees 23 minutes 58.88 seconds north
Longitude: 99 degrees 3 minutes 29.05 seconds west
Datum: WGS84
UTM Zone: 14
UTM Easting: 494727 meters
UTM Northing: 3917370 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
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
84		bedrock, lithic	Strongly cemented

Cont. Site ID: S2016OK149014 **Pedon ID:** S2016OK149014

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

A--0 to 28 centimeters (0.0 to 11.0 inches); silt loam, dark reddish brown (2.5YR 3/3), moist; strong medium granular structure; soft, very friable; fine roots throughout; 3 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; very slight effervescence; gradual smooth boundary. Lab sample # 16N02141

Bw1--28 to 55 centimeters (11.0 to 21.7 inches); clay loam, dark reddish brown (2.5YR 3/4), moist; weak medium subangular blocky structure; soft, very friable; very fine roots throughout; 5 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; very slight effervescence; gradual smooth boundary. Lab sample # 16N02142

Bw2--55 to 84 centimeters (21.7 to 33.1 inches); clay loam, dark red (2.5YR 3/6), moist; weak medium subangular blocky structure; soft, very friable; very fine roots throughout; 10 percent nonflat subrounded strongly cemented 2 to 20-millimeter Shale fragments; very slight effervescence; abrupt smooth boundary. Lab sample # 16N02143

R--84 to 200 centimeters (33.1 to 78.7 inches); red (2.5YR 5/6) bedrock, red (2.5YR 4/6), moist; fine roots top of horizon; .

PEDON DESCRIPTION -- NEON Site OAES

Print Date: Sep 3 2017
Description Date: Jan 28 2016
Describer: Tyson Morley
NEON Plot ID: OAES_015

Site ID: S2016OK149015
Pedon ID: S2016OK149015
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0514
Soil Name as Described/Sampled: Cordell-like
Classification: Loamy, mixed, active, thermic Typic Haplustepts

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: series
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: 25 to 46 cm.
Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 20 cm.
cambic horizon 20 to 46 cm.
paralithic materials 46 to 58 cm.
lithic contact 58 to cm.

Country:
State: Oklahoma
County: Washita
MLRA: 78C -- Central Rolling Red Plains, Eastern Part
Soil Survey Area:
Map Unit:
Pit Location:
Quad Name: Dill City NE, Oklahoma
Std Latitude: 35.4211400
Std Longitude: -99.0528300

Latitude: 35 degrees 25 minutes 16.10 seconds north
Longitude: 99 degrees 3 minutes 10.18 seconds west
Datum: WGS84
UTM Zone: 14
UTM Easting: 495204 meters
UTM Northing: 3919749 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
Existing Vegetation:
Parent Material:
Bedrock Kind: Calcareous shale
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
46	58	bedrock, paralithic	Moderately cemented
58		bedrock, lithic	Very strongly cemented

Cont. Site ID: S2016OK149015 **Pedon ID:** S2016OK149015

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

A--0 to 20 centimeters (0.0 to 7.9 inches); reddish brown (2.5YR 4/4) silty clay loam, dark reddish brown (2.5YR 3/4), moist; weak medium subangular blocky parts to moderate medium granular structure; soft, friable; very fine roots throughout and fine roots throughout; 12 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; very slight effervescence; clear smooth boundary. Lab sample # 16N02144

Bw--20 to 46 centimeters (7.9 to 18.1 inches); reddish brown (2.5YR 5/4) silty clay loam, reddish brown (2.5YR 4/4), moist; moderate medium subangular blocky structure; soft, friable; very fine roots throughout and fine roots throughout; 3 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; very slight effervescence; abrupt smooth boundary. Lab sample # 16N02145

Cr--46 to 58 centimeters (18.1 to 22.8 inches); reddish brown (2.5YR 5/4) bedrock, reddish brown (2.5YR 4/4), moist; fine roots in cracks; very slight effervescence; abrupt smooth boundary. Lab sample # 16N02146

R--58 to 200 centimeters (22.8 to 78.7 inches); reddish brown (2.5YR 5/4) bedrock, reddish brown (2.5YR 4/4), moist; fine roots top of horizon; very slight effervescence.

PEDON DESCRIPTION -- NEON Site OAES

Print Date: Sep 3 2017
Description Date: Feb 9 2016
Describer: Tyson Morley
NEON Plot ID: OAES_016

Site ID: S2016OK149016
Pedon ID: S2016OK149016
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0515
Soil Name as Described/Sampled: Cordell
Classification: Loamy, mixed, active, thermic Lithic Haplustepts

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: series
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: 0 to 28 cm.
Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 8 cm.
cambic horizon 8 to 28 cm.
lithic contact 28 to cm.

Country:
State: Oklahoma
County: Washita
MLRA: 78C -- Central Rolling Red Plains, Eastern Part
Soil Survey Area:
Map Unit:
Pit Location:
Quad Name:
Std Latitude: 35.4107111
Std Longitude: -99.0692889

Latitude: 35 degrees 24 minutes 38.56 seconds north
Longitude: 99 degrees 4 minutes 9.44 seconds west
Datum: WGS84
UTM Zone: 14
UTM Easting: 493709 meters
UTM Northing: 3918593 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
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
28		bedrock, lithic	Strongly cemented

Cont. Site ID: S2016OK149016 **Pedon ID:** S2016OK149016

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

A--0 to 8 centimeters (0.0 to 3.1 inches); reddish brown (2.5YR 4/4) silty clay loam, dark reddish brown (2.5YR 3/4), moist; moderate fine subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 1 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; noneffervescent; clear smooth boundary. Lab sample # 16N02147

Bw--8 to 28 centimeters (3.1 to 11.0 inches); reddish brown (2.5YR 4/4) silty clay loam, dark reddish brown (2.5YR 3/4), moist; moderate medium subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 10 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; noneffervescent; abrupt smooth boundary. Lab sample # 16N02148

R--28 to 200 centimeters (11.0 to 78.7 inches); red (2.5YR 5/6) bedrock, red (2.5YR 4/6), moist; fine roots top of horizon; very slight effervescence.

PEDON DESCRIPTION -- NEON Site OAES

Print Date: Sep 3 2017
Description Date: Feb 10 2016
Describer: Tyson Morley
NEON Plot ID: OAES_019

Site ID: S2016OK149019
Pedon ID: S2016OK149019
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0516
Soil Name as Described/Sampled: Cordell-Eroded
Classification: Loamy, mixed, active, thermic Lithic Ustorthents

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: taxadjunct
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: 0 to 11 cm.
Description origin: NASIS
Diagnostic Features: ? to ? cm.

Country:
State: Oklahoma
County: Washita
MLRA: 78C -- Central Rolling Red Plains, Eastern Part
Soil Survey Area:
Map Unit:
Pit Location:
Quad Name: Dill City NE, Oklahoma
Std Latitude: 35.4039083
Std Longitude: -99.0773778

Latitude: 35 degrees 24 minutes 14.07 seconds north
Longitude: 99 degrees 4 minutes 38.56 seconds west
Datum: WGS84
UTM Zone: 14
UTM Easting: 492974 meters
UTM Northing: 3917839 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2016OK149019 **Pedon ID:** S2016OK149019

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

Ap--0 to 11 centimeters (0.0 to 4.3 inches); dark reddish brown (2.5YR 3/4) gravelly loam, reddish brown (2.5YR 4/4), dry; weak medium subangular blocky parts to moderate medium granular structure; soft, very friable; very fine roots throughout and fine roots throughout; 20 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; noneffervescent; gradual wavy boundary. Lab sample # 16N02149

Cr--11 to 20 centimeters (4.3 to 7.9 inches); red (2.5YR 4/6) bedrock, red (2.5YR 5/6), dry; fine roots in cracks; very slight effervescence; abrupt smooth boundary. Lab sample # 16N02150

R--20 to 200 centimeters (7.9 to 78.7 inches); red (2.5YR 4/6) bedrock, red (2.5YR 5/6), dry; top of horizon; very slight effervescence.

PEDON DESCRIPTION -- NEON Site OAES

Print Date: Sep 3 2017
Description Date: Jan 25 2016
Describer: Tyson Morley
NEON Plot ID: OAES_020

Site ID: S2016OK149020
Pedon ID: S2016OK149020
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0517
Soil Name as Described/Sampled: Cordell
Classification: Loamy, mixed, active, thermic Lithic Haplustepts

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: series
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: 0 to 18 cm.
Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 7 cm.
cambic horizon 7 to 18 cm.
paralithic materials 18 to 30 cm.
lithic contact 30 to cm.

Country:
State: Oklahoma
County: Washita
MLRA: 78C -- Central Rolling Red Plains, Eastern Part
Soil Survey Area:
Map Unit:
Pit Location:
Quad Name: Dill City NE, Oklahoma
Std Latitude: 35.4014500
Std Longitude: -99.0562000

Latitude: 35 degrees 24 minutes 5.22 seconds north
Longitude: 99 degrees 3 minutes 22.32 seconds west
Datum: WGS84
UTM Zone: 14
UTM Easting: 494897 meters
UTM Northing: 3917565 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
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
30		bedrock, lithic	Strongly cemented

Cont. Site ID: S2016OK149020 **Pedon ID:** S2016OK149020

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

A--0 to 7 centimeters (0.0 to 2.8 inches); reddish brown (2.5YR 4/4) silty clay loam, dark reddish brown (2.5YR 3/4), moist; moderate medium subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 2 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; very slight effervescence; clear smooth boundary. Lab sample # 16N02151

Bw/Cr--7 to 18 centimeters (2.8 to 7.1 inches); red (2.5YR 4/6) extremely gravelly silty clay loam, dark red (2.5YR 3/6), moist; weak fine angular blocky structure; soft, very friable; very fine roots throughout; 2 percent organic stains on vertical faces of peds; 80 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; slight effervescence; gradual wavy boundary. Lab sample # 16N02152

Cr--18 to 30 centimeters (7.1 to 11.8 inches); red (2.5YR 4/6) bedrock, dark red (2.5YR 3/6), moist; very fine roots in cracks; slight effervescence; abrupt smooth boundary. Lab sample # 16N02153

R--30 to 200 centimeters (11.8 to 78.7 inches); reddish brown (2.5YR 5/4) bedrock, reddish brown (2.5YR 4/4), moist; fine roots top of horizon; slight effervescence.

PEDON DESCRIPTION -- NEON Site OAES

Print Date: Sep 3 2017
Description Date: Jan 28 2016
Describer: Tyson Morley
NEON Plot ID: OAES_025

Site ID: S2016OK149025
Pedon ID: S2016OK149025
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0518
Soil Name as Described/Sampled: Cordell-LIKE
Classification: Loamy, mixed, active, thermic Lithic Ustorthents

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: taxadjunct
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: 0 to 21 cm.
Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 21 cm.
paralithic materials 21 to 37 cm.
lithic contact 37 to cm.

Country:
State: Oklahoma
County: Washita
MLRA: 78C -- Central Rolling Red Plains, Eastern Part
Soil Survey Area:
Map Unit:
Pit Location:
Quad Name: Dill City NE, Oklahoma
Std Latitude: 35.4189000
Std Longitude: -99.0472000

Latitude: 35 degrees 25 minutes 8.04 seconds north
Longitude: 99 degrees 2 minutes 49.90 seconds west
Datum: WGS84
UTM Zone: 14
UTM Easting: 495715 meters
UTM Northing: 3919500 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
Existing Vegetation:
Parent Material:
Bedrock Kind: Shale
Bedrock Depth:
Bedrock Hardness: strongly cemented
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
37		bedrock, lithic	Strongly cemented

Cont. Site ID: S2016OK149025 **Pedon ID:** S2016OK149025

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

A--0 to 21 centimeters (0.0 to 8.3 inches); dark red (2.5YR 3/6) silty clay loam, red (2.5YR 4/6), dry; weak medium subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 2 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; noneffervescent; abrupt wavy boundary. Lab sample # 16N02154

Cr--21 to 37 centimeters (8.3 to 14.6 inches); red (2.5YR 4/6) bedrock, red (2.5YR 5/6), dry; fine roots in cracks; very slight effervescence; abrupt smooth boundary. Lab sample # 16N02155

R--37 to 200 centimeters (14.6 to 78.7 inches); red (2.5YR 4/6) bedrock, red (2.5YR 5/6), dry; top of horizon; very slight effervescence.

PEDON DESCRIPTION -- NEON Site OAES

Print Date: Sep 3 2017
Description Date: Jan 28 2016
Describer: Tyson Morley
NEON Plot ID: OAES_029

Site ID: S2016OK149029
Pedon ID: S2016OK149029
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0519
Soil Name as Described/Sampled: Obaro
Classification: Fine-silty, mixed, superactive, thermic Typic Haplustepts

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: series
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: 25 to 58 cm.
Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 16 cm.
cambic horizon 16 to 58 cm.
paralithic materials 42 to 58 cm.
lithic contact 58 to 79 cm.
79 to cm.

Country:
State: Oklahoma
County: Washita
MLRA: 78C -- Central Rolling Red Plains, Eastern Part
Soil Survey Area:
Map Unit:
Pit Location:
Quad Name: Dill City NE, Oklahoma
Std Latitude: 35.4155400
Std Longitude: -99.0489980

Latitude: 35 degrees 24 minutes 55.94 seconds north
Longitude: 99 degrees 2 minutes 56.32 seconds west
Datum: WGS84
UTM Zone: 14
UTM Easting: 495553 meters
UTM Northing: 3919128 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
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
79		bedrock, lithic	Strongly cemented

Cont. Site ID: S2016OK149029 **Pedon ID:** S2016OK149029

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

A--0 to 16 centimeters (0.0 to 6.3 inches); reddish brown (2.5YR 4/4) loam, dark reddish brown (2.5YR 3/4), moist; moderate medium subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 3 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; very slight effervescence; clear smooth boundary. Lab sample # 16N02156

Bw--16 to 42 centimeters (6.3 to 16.5 inches); reddish brown (2.5YR 5/4) gravelly silty clay loam, reddish brown (2.5YR 4/4), moist; moderate medium subangular blocky parts to moderate fine granular structure; soft, very friable; very fine roots throughout and fine roots throughout; 25 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; slight effervescence; clear smooth boundary. Lab sample # 16N02157

Bw/Cr--42 to 58 centimeters (16.5 to 22.8 inches); reddish brown (2.5YR 5/4) gravelly silty clay loam, reddish brown (2.5YR 4/4), moist; moderate medium subangular blocky parts to moderate fine granular structure; soft, very friable; very fine roots throughout; 30 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; slight effervescence; abrupt smooth boundary. Lab sample # 16N02158

Cr--58 to 79 centimeters (22.8 to 31.1 inches); reddish brown (2.5YR 5/4) bedrock, reddish brown (2.5YR 4/4), moist; very fine roots in cracks; slight effervescence; abrupt smooth boundary. Lab sample # 16N02159

R--79 to 200 centimeters (31.1 to 78.7 inches); reddish brown (2.5YR 5/4) bedrock, reddish brown (2.5YR 4/4), moist; fine roots top of horizon; slight effervescence.

PEDON DESCRIPTION -- NEON Site OAES

Print Date: Sep 3 2017
Description Date: Feb 10 2016
Describer: Tyson Morley
NEON Plot ID: OAES_030

Site ID: S2016OK149030
Pedon ID: S2016OK149030
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0520
Soil Name as Described/Sampled: Cordell
Classification: Loamy, mixed, active, thermic Lithic Haplustepts

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: series
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: 0 to 25 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 8 cm.
cambic horizon 8 to 25 cm.
lithic contact 25 to cm.

Country:
State: Oklahoma
County: Washita
MLRA: 78C -- Central Rolling Red Plains, Eastern Part
Soil Survey Area:
Map Unit:
Pit Location:
Quad Name: Dill City NE, Oklahoma
Std Latitude: 35.4098889
Std Longitude: -99.0712778

Latitude: 35 degrees 24 minutes 35.60 seconds north
Longitude: 99 degrees 4 minutes 16.60 seconds west
Datum: WGS84
UTM Zone: 14
UTM Easting: 493528 meters
UTM Northing: 3918502 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
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
25		bedrock, lithic	Strongly cemented

Cont. Site ID: S2016OK149030 **Pedon ID:** S2016OK149030

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

A--0 to 8 centimeters (0.0 to 3.1 inches); reddish brown (2.5YR 4/4) gravelly silty clay loam, dark reddish brown (2.5YR 3/4), moist; weak medium subangular blocky parts to weak medium granular structure; soft, very friable; very fine roots throughout and fine roots throughout; 15 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; noneffervescent; clear smooth boundary. Lab sample # 16N02160

Bw--8 to 25 centimeters (3.1 to 9.8 inches); reddish brown (2.5YR 4/4) gravelly silty clay loam, dark reddish brown (2.5YR 3/4), moist; moderate medium subangular blocky structure; soft, very friable; very fine roots throughout and fine roots throughout; 20 percent nonflat subrounded strongly cemented 2 to 25-millimeter Shale fragments; noneffervescent; abrupt smooth boundary. Lab sample # 16N02161

R--25 to 200 centimeters (9.8 to 78.7 inches); red (2.5YR 4/6) bedrock, dark red (2.5YR 3/6), moist; fine roots top of horizon; noneffervescent.