PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 3 2016
Describer: Greg Cates
NEON Plot ID: JORN_030

Site ID: S2016NM013001

Pedon ID: S2016NM013001
Site Note:
Pedon Note:
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Nations
Classification: Coarse-loamy, mixed, superactive, thermic Typic Petrocalcids
Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland

State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on toeslope of tread of piedmont
on toeslope of tread of fan piedmont
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 58 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 18 cm.
cambic horizon 13 to 58 cm.
petrocalcic horizon 58 to cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: WH -- Wink-Harrisburg association
Pit Location:
Quad Name: Summerford Mountain, New Mexico
Std Latitude: 32.5992722
Std Longitude: -106.8596111

Latitude: 32 degrees 35 minutes 57.38 seconds north
Longitude: 106 degrees 51 minutes 34.60 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 325489 meters
UTM Northing: 3608391 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
Existing Vegetation: black grama, broom snakeweed, bush muhly, honey mesquite, mesa dropseed, purple threeawn, soaptree yucca, Torrey's jointfir
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: MLRA08_Phoenix

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
58		petrocalcic	Indurated

Cont. Site ID: S2016NM013001 **Pedon ID:** S2016NM013001

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
0.0	1,336.0	92	16.0			193	210	well		

A--0 to 13 centimeters (0.0 to 5.1 inches); brown (7.5YR 5/4) broken face sandy loam, dark brown (7.5YR 3/4) broken face, moist; 75 percent sand; 17 percent silt; 8 percent clay; weak medium subangular blocky structure; soft, very friable, Noncemented, nonsticky, nonplastic; many very fine roots throughout; common very fine dendritic tubular pores; carbonate, finely disseminated throughout; 2 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 3 percent nonflat subangular indurated 2 to 75-millimeter Petrocalcic fragments; slight effervescence, by HCl, 1 normal; clear smooth boundary.

Bw--13 to 41 centimeters (5.1 to 16.1 inches); brown (7.5YR 4/4) broken face sandy loam, dark brown (7.5YR 3/4) broken face, moist; 75 percent sand; 13 percent silt; 12 percent clay; weak medium subangular blocky structure; slightly hard, friable, Noncemented, nonsticky, nonplastic; many very fine roots throughout and common medium roots throughout and common fine roots throughout; common very fine dendritic tubular pores; carbonate, finely disseminated throughout; 3 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat subangular indurated 2 to 75-millimeter Petrocalcic fragments; strong effervescence, by HCl, 1 normal; clear smooth boundary.

Bk--41 to 58 centimeters (16.1 to 22.8 inches); brown (7.5YR 5/4) broken face sandy clay loam, brown (7.5YR 4/4) broken face, moist; 65 percent sand; 14 percent silt; 21 percent clay; moderate medium subangular blocky structure; moderately hard, firm, Noncemented, slightly sticky, slightly plastic; common fine roots throughout; common very fine dendritic tubular pores; carbonate, finely disseminated throughout and 3 percent fine faint threadlike carbonate masses throughout; 4 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 10 percent nonflat subangular indurated 2 to 75-millimeter Petrocalcic fragments; violent effervescence, by HCl, 1 normal; abrupt smooth boundary.

Bkkm--58 to 100 centimeters (22.8 to 39.4 inches); cemented material; Indurated; .

PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 3 2016
Describer: Dave White
NEON Plot ID: JORN_018

Site ID: S2016NM013002

Pedon ID: S2016NM013002
Site Note:
Pedon Note:
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Pajarito
Classification: Coarse-loamy, mixed, superactive, thermic Typic Haplocambids
Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland

State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on toeslope of tread of piedmont
on toeslope of tread of fan piedmont
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 100 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 18 cm.
cambic horizon 15 to 100 cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: WP -- Wink-Pintura complex
Pit Location:
Quad Name: Summerford Mountain, New Mexico
Std Latitude: 32.6206639
Std Longitude: -106.8450694

Latitude: 32 degrees 37 minutes 14.39 seconds north
Longitude: 106 degrees 50 minutes 42.25 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 326895 meters
UTM Northing: 3610739 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: broom snakeweed, honey mesquite, mesa dropseed
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: MLRA08_Phoenix

Cont. Site ID: S2016NM013002 **Pedon ID:** S2016NM013002

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
1.0	1,323.0	230	16.0			193	210	well		

A--0 to 15 centimeters (0.0 to 5.9 inches); strong brown (7.5YR 4/6) broken face sandy loam, brown (7.5YR 4/3) broken face, moist; 75 percent sand; 13 percent silt; 12 percent clay; moderate medium subangular blocky, and moderate fine subangular blocky structure; slightly hard, friable, Noncemented, nonsticky, nonplastic; common medium roots throughout and common fine roots throughout; common very fine irregular and common fine irregular pores; noneffervescent, by HCl, 1 normal; gradual smooth boundary.

Bw--15 to 40 centimeters (5.9 to 15.7 inches); yellowish red (5YR 4/6) broken face sandy loam, reddish brown (5YR 4/4) broken face, moist; 75 percent sand; 9 percent silt; 16 percent clay; moderate medium subangular blocky structure; moderately hard, friable, Noncemented, nonsticky, nonplastic; many fine roots throughout; few medium irregular pores; noneffervescent, by HCl, 1 normal; gradual smooth boundary.

Bk--40 to 100 centimeters (15.7 to 39.4 inches); strong brown (7.5YR 4/6) broken face sandy loam, brown (7.5YR 4/4) broken face, moist; 70 percent sand; 12 percent silt; 18 percent clay; moderate medium subangular blocky structure; moderately hard, friable, Noncemented, nonsticky, nonplastic; common fine roots throughout; few very fine irregular pores; carbonate, finely disseminated and 2 percent fine faint threadlike carbonate masses throughout; slight effervescence, by HCl, 1 normal.

PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 4 2016
Describer: Dave White
NEON Plot ID: JORN_010

Site ID: S2016NM013003

Pedon ID: S2016NM013003
Site Note:
Pedon Note:
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Nations
Classification: Coarse-loamy, mixed, superactive, thermic, shallow Typic Petrocalcids
Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: taxadjunct
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland

State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on toeslope of tread of piedmont
on toeslope of tread of fan piedmont
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 10 to 34 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 18 cm.
cambic horizon 8 to 34 cm.
petrocalcic horizon 34 to cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: WP -- Wink-Pintura complex
Pit Location:
Quad Name: Seldon Canyon NE, New Mexico
Std Latitude: 32.6282056
Std Longitude: -106.8481000

Latitude: 32 degrees 37 minutes 41.54 seconds north
Longitude: 106 degrees 50 minutes 53.16 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 326625 meters
UTM Northing: 3611580 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: broom snakeweed, honey mesquite, mesa dropseed
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: MLRA08_Phoenix

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
34		petrocalcic	Indurated

Cont. Site ID: S2016NM013003 **Pedon ID:** S2016NM013003

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
1.0	1,324.0	90	16.0			193	210	well		

A--0 to 8 centimeters (0.0 to 3.1 inches); yellowish red (5YR 4/6) broken face loamy fine sand, dark reddish brown (5YR 3/4) broken face, moist; 80 percent sand; 15 percent silt; 5 percent clay; weak fine subangular blocky structure; soft, very friable, Noncemented, slightly sticky, nonplastic; few very fine roots throughout; many very fine irregular pores; noneffervescent, by HCl, 1 normal; clear smooth boundary.

Bw--8 to 34 centimeters (3.1 to 13.4 inches); yellowish red (5YR 4/6) broken face sandy loam, dark reddish brown (5YR 3/4) broken face, moist; 70 percent sand; 15 percent silt; 15 percent clay; moderate medium subangular blocky structure; moderately hard, friable, Noncemented, slightly sticky, nonplastic; few very fine roots throughout and few medium roots throughout; many fine irregular pores; noneffervescent, by HCl, 1 normal; very abrupt smooth boundary.

Bkkm--34 to 100 centimeters (13.4 to 39.4 inches); cemented material; Indurated by carbonates; .

PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 4 2016
Describer: Dave White
NEON Plot ID: JORN_006

Site ID: S2016NM013004

Pedon ID: S2016NM013004
Site Note:
Pedon Note:
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Nations
Classification: Coarse-loamy, mixed, superactive, thermic Calcic Petrocalcids
Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: taxadjunct
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland

State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on toeslope of tread of piedmont on toeslope of tread of fan piedmont
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 64 cm.

Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 18 cm.
cambic horizon 4 to 27 cm.
calcic horizon 27 to 64 cm.
petrocalcic horizon 64 to cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: OP -- Onite-Pajarito association
Pit Location:
Quad Name: Summerford Mountain, New Mexico
Std Latitude: 32.5904250
Std Longitude: -106.8246750

Latitude: 32 degrees 35 minutes 25.53 seconds north
Longitude: 106 degrees 49 minutes 28.83 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 328751 meters
UTM Northing: 3607353 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: black grama, honey mesquite, soaptree yucca
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments: 5.0 percent nonflat subangular indurated 2- to 72-millimeter Petrocalcic fragments
Description database: MLRA08_Phoenix

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
64		petrocalcic	Indurated

Cont. Site ID: S2016NM013004 **Pedon ID:** S2016NM013004

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	1,330.0	30	16.0			193	210	well		

A--0 to 4 centimeters (0.0 to 1.6 inches); brown (7.5YR 4/4) broken face sandy loam, dark brown (7.5YR 3/4) broken face, moist; 75 percent sand; 14 percent silt; 11 percent clay; weak fine subangular blocky structure; soft, very friable, Noncemented, slightly sticky, nonplastic; common very fine roots throughout; many very fine interstitial pores; 3 percent fine distinct irregular indurated cemented carbonate nodules throughout; noneffervescent, by HCl, 1 normal; clear smooth boundary.

Bk1--4 to 27 centimeters (1.6 to 10.6 inches); strong brown (7.5YR 5/6) broken face sandy loam, dark brown (7.5YR 3/4) broken face, moist; 70 percent sand; 16 percent silt; 14 percent clay; moderate medium subangular blocky structure; soft, very friable, Noncemented, nonsticky, nonplastic; common very fine roots throughout and common medium roots throughout and common fine roots throughout; common very fine tubular pores; carbonate, finely disseminated throughout and 2 percent fine distinct irregular indurated cemented carbonate nodules throughout; violent effervescence, by HCl, 1 normal; gradual smooth boundary.

Bk2--27 to 64 centimeters (10.6 to 25.2 inches); yellowish red (5YR 4/6) broken face sandy loam, reddish brown (5YR 4/4) broken face, moist; 70 percent sand; 16 percent silt; 14 percent clay; moderate medium subangular blocky structure; soft, very friable, Noncemented, slightly sticky, nonplastic; common fine roots throughout; common very fine tubular pores; carbonate, finely disseminated throughout and 3 percent fine distinct irregular indurated cemented carbonate nodules throughout and 8 percent fine distinct irregular carbonate masses throughout; violent effervescence, by HCl, 1 normal; abrupt smooth boundary.

Bkkm--64 centimeters (25.2 inches); cemented material; Indurated by carbonates; .

PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 4 2016
Describer: Dave White
NEON Plot ID: JORN_005

Site ID: S2016NM013005

Pedon ID: S2016NM013005
Site Note:
Pedon Note:
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Atoka
Classification: Fine-loamy, mixed, superactive, thermic Typic Petrocalcids

Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland

State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on toeslope of tread of piedmont
on toeslope of tread of fan piedmont
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 90 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 18 cm.
cambic horizon 8 to 90 cm.
petrocalcic horizon 90 to cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: SH -- Simona-Harrisburg association
Pit Location:
Quad Name: Summerford Mountain, New Mexico
Std Latitude: 32.5755528
Std Longitude: -106.8035083

Latitude: 32 degrees 34 minutes 31.99 seconds north
Longitude: 106 degrees 48 minutes 12.63 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 330710 meters
UTM Northing: 3605670 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: black grama, honey mesquite, soaptree yucca
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: MLRA08_Phoenix

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
90		petrocalcic	Indurated

Cont. Site ID: S2016NM013005 **Pedon ID:** S2016NM013005

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	1,326.0	172	16.0			193	210	well		

A--0 to 8 centimeters (0.0 to 3.1 inches); strong brown (7.5YR 4/6) broken face sandy loam, dark brown (7.5YR 3/4) broken face, moist; 70 percent sand; 19 percent silt; 11 percent clay; weak fine subangular blocky structure; soft, very friable, Noncemented, nonsticky, nonplastic; common very fine roots throughout; many fine irregular pores; noneffervescent, by HCl, 1 normal; clear smooth boundary.

Bw1--8 to 28 centimeters (3.1 to 11.0 inches); reddish brown (5YR 4/4) broken face sandy loam, reddish brown (5YR 4/3) broken face, moist; 75 percent sand; 10 percent silt; 15 percent clay; moderate medium subangular blocky structure; slightly hard, friable, Noncemented, nonsticky, nonplastic; common very fine roots throughout and common fine roots throughout; common fine irregular pores; noneffervescent, by HCl, 1 normal; gradual smooth boundary.

Bw2--28 to 58 centimeters (11.0 to 22.8 inches); yellowish red (5YR 5/6) broken face sandy clay loam, reddish brown (5YR 4/4) broken face, moist; 70 percent sand; 9 percent silt; 21 percent clay; moderate medium subangular blocky structure; slightly hard, friable, Noncemented, slightly sticky, moderately plastic; common fine roots throughout; common fine tubular pores; noneffervescent, by HCl, 1 normal; gradual smooth boundary.

Bk--58 to 90 centimeters (22.8 to 35.4 inches); yellowish red (5YR 5/6) broken face sandy clay loam, yellowish red (5YR 4/6) broken face, moist; 65 percent sand; 12 percent silt; 23 percent clay; moderate medium subangular blocky structure; slightly hard, friable, Noncemented, slightly sticky, moderately plastic; common fine roots throughout; common fine tubular pores; carbonate, finely disseminated throughout and 8 percent very fine distinct threadlike carbonate concretions throughout; slight effervescence, by HCl, 1 normal; abrupt smooth boundary.

Bkkm--90 centimeters (35.4 inches); cemented material; Indurated by carbonates; .

PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 5 2016
Describer: Greg Cates
NEON Plot ID: JORN_042

Site ID: S2016NM013006

Pedon ID: S2016NM013006
Site Note:
Pedon Note:
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Wink
Classification: Coarse-loamy, mixed, superactive, thermic Typic Haplocalcids
Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland

State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on backslope of riser of piedmont on backslope of riser of fan piedmont
Upslope Shape: linear
Cross Slope Shape: convex
Particle Size Control Section: 25 to 100 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 18 cm.
cambic horizon 8 to 58 cm.
calcic horizon 58 to 100 cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: WP -- Wink-Pintura complex
Pit Location:
Quad Name: Summerford Mountain, New Mexico
Std Latitude: 32.5898417
Std Longitude: -106.8405806

Latitude: 32 degrees 35 minutes 23.43 seconds north
Longitude: 106 degrees 50 minutes 26.09 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 327257 meters
UTM Northing: 3607314 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
Existing Vegetation: black grama, honey mesquite
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: MLRA08_Phoenix

Cont. Site ID: S2016NM013006 **Pedon ID:** S2016NM013006

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	1,327.0	90	16.0			193	210	somewhat excessively		

A--0 to 8 centimeters (0.0 to 3.1 inches); reddish brown (5YR 5/4) broken face loamy sand, reddish brown (5YR 4/4) broken face, moist; 90 percent sand; 3 percent silt; 7 percent clay; weak thin platy, and structureless single grain; loose, loose, Noncemented, nonsticky, nonplastic; many fine roots throughout; many fine interstitial pores; 3 percent fine distinct irregular indurated cemented carbonate nodules throughout; noneffervescent, by HCl, 1 normal; clear smooth boundary.

Bk1--8 to 58 centimeters (3.1 to 22.8 inches); reddish brown (5YR 5/4) broken face sandy loam, reddish brown (5YR 4/3) broken face, moist; 80 percent sand; 10 percent silt; 10 percent clay; weak fine subangular blocky structure; slightly hard, very friable, Noncemented, nonsticky, nonplastic; common fine roots throughout; common very fine dendritic tubular pores; carbonate, finely disseminated throughout and 3 percent fine distinct irregular indurated cemented carbonate nodules throughout and 3 percent medium distinct irregular indurated cemented carbonate nodules throughout; slight effervescence, by HCl, 1 normal; clear smooth boundary.

Bk2--58 to 100 centimeters (22.8 to 39.4 inches); light reddish brown (5YR 6/4) broken face gravelly sandy loam, reddish brown (5YR 5/4) broken face, moist; 75 percent sand; 11 percent silt; 14 percent clay; weak fine subangular blocky structure; slightly hard, very friable, Noncemented, nonsticky, nonplastic; carbonate, finely disseminated throughout and 15 percent fine distinct irregular indurated cemented carbonate nodules throughout and 5 percent medium distinct irregular indurated cemented carbonate nodules throughout; strong effervescence, by HCl, 1 normal.

PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 5 2016
Describer: Greg Cates
NEON Plot ID: JORN_044

Site ID: S2016NM013007

Pedon ID: S2016NM013007
Site Note:
Pedon Note:
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Simona
Classification: Loamy, mixed, superactive, thermic, shallow Typic Petrocalcids
Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland

State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on toeslope of tread of fan piedmont on toeslope of tread of piedmont
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 40 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 18 cm.
cambic horizon 4 to 40 cm.
petrocalcic horizon 40 to cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: WP -- Wink-Pintura complex
Pit Location:
Quad Name: Summerford Mountain, New Mexico
Std Latitude: 32.5893306
Std Longitude: -106.8414972

Latitude: 32 degrees 35 minutes 21.59 seconds north
Longitude: 106 degrees 50 minutes 29.39 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 327170 meters
UTM Northing: 3607259 meters

Primary Earth Cover: Grass/herbaceous cover
Secondary Earth Cover: Grassland rangeland
Existing Vegetation: black grama, fourwing saltbush, honey mesquite, mesa dropseed, purple threeawn, soaptree yucca
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: MLRA08_Phoenix

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
40		petrocalcic	Indurated

Cont. Site ID: S2016NM013007 **Pedon ID:** S2016NM013007

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	1,327.0	0	16.0			193	210	somewhat excessively		

A--0 to 4 centimeters (0.0 to 1.6 inches); reddish brown (5YR 5/4) broken face loamy sand, reddish brown (5YR 4/3) broken face, moist; 85 percent sand; 7 percent silt; 8 percent clay; weak fine subangular blocky structure; loose, loose, Noncemented, nonsticky, nonplastic; common fine roots throughout; many fine interstitial pores; 3 percent fine distinct spherical indurated cemented carbonate nodules throughout; noneffervescent, by HCl, 1 normal; clear smooth boundary.

Bk--4 to 40 centimeters (1.6 to 15.7 inches); reddish brown (5YR 5/3) broken face sandy loam, dark reddish brown (5YR 3/3) broken face, moist; 80 percent sand; 8 percent silt; 12 percent clay; moderate medium subangular blocky, and moderate coarse subangular blocky structure; slightly hard, friable, Noncemented, nonsticky, nonplastic; common very fine roots throughout and common fine roots throughout; common fine dendritic tubular pores; carbonate, finely disseminated throughout and 5 percent fine distinct spherical indurated cemented carbonate nodules throughout and 2 percent fine faint irregular carbonate masses throughout; strong effervescence, by HCl, 1 normal; abrupt smooth boundary.

Bkkm--40 centimeters (15.7 inches); cemented material; Indurated by carbonates; .

PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 5 2016
Describer: Dave White
NEON Plot ID: JORN_023

Site ID: S2016NM013008

Pedon ID: S2016NM013008
Site Note:
Pedon Note:
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Berino
Classification: Fine-loamy, mixed, superactive, thermic Typic Calciargids

Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland

State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on toeslope of tread of fan piedmont
on toeslope of tread of piedmont
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 46 to 96 cm.

Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 18 cm.
cambic horizon 5 to 46 cm.
calcic horizon 46 to 100 cm.
argillic horizon 46 to 96 cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: OR -- Onite-Pintura complex
Pit Location:
Quad Name: Summerford Mountain, New Mexico
Std Latitude: 32.6221500
Std Longitude: -106.8162806

Latitude: 32 degrees 37 minutes 19.74 seconds north
Longitude: 106 degrees 48 minutes 58.61 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 329599 meters
UTM Northing: 3610857 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: fourwing saltbush, honey mesquite, low woollygrass, mesa dropseed, soaptree yucca
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments: 2.0 percent nonflat subrounded indurated 2- to 75-millimeter Mixed rock fragments

Description database: MLRA08_Phoenix

Cont. Site ID: S2016NM013008 **Pedon ID:** S2016NM013008

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
0.0	1,331.0	0	16.0			193	210	well		

A--0 to 5 centimeters (0.0 to 2.0 inches); yellowish red (5YR 5/6) broken face sandy loam, yellowish red (5YR 4/6) broken face, moist; 75 percent sand; 16 percent silt; 9 percent clay; weak fine subangular blocky structure; slightly hard, friable, Noncemented, nonsticky, nonplastic; common very fine roots throughout; many fine irregular pores; noneffervescent, by HCl, 1 normal; clear smooth boundary.

Bw1--5 to 20 centimeters (2.0 to 7.9 inches); yellowish red (5YR 4/6) broken face sandy loam, dark reddish brown (5YR 3/4) broken face, moist; 75 percent sand; 13 percent silt; 12 percent clay; moderate medium subangular blocky structure; slightly hard, friable, Noncemented, slightly sticky, nonplastic; common very fine roots throughout and common fine roots throughout; many fine tubular pores; noneffervescent, by HCl, 1 normal; gradual smooth boundary.

Bw2--20 to 46 centimeters (7.9 to 18.1 inches); yellowish red (5YR 4/6) broken face sandy loam, dark reddish brown (5YR 3/4) broken face, moist; 75 percent sand; 13 percent silt; 12 percent clay; moderate medium subangular blocky structure; hard, firm, Noncemented, moderately sticky, nonplastic; common fine roots throughout and common coarse roots throughout; many fine irregular pores; noneffervescent, by HCl, 1 normal; gradual smooth boundary.

Btk--46 to 100 centimeters (18.1 to 39.4 inches); yellowish red (5YR 5/6) broken face sandy clay loam, yellowish red (5YR 4/6) broken face, moist; 65 percent sand; 11 percent silt; 24 percent clay; moderate medium subangular blocky structure; hard, firm, Noncemented, moderately sticky, moderately plastic; common fine roots throughout; many fine irregular pores; 5 percent faint clay films on all faces of peds; carbonate, finely disseminated throughout and 8 percent fine distinct threadlike carbonate masses throughout; strong effervescence, by HCl, 1 normal.

PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 5 2016
Describer: Greg Cates
NEON Plot ID: JORN_012

Site ID: S2016NM013009

Pedon ID: S2016NM013009
Site Note:
Pedon Note:
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Wink
Classification: Coarse-loamy, mixed, superactive, thermic Typic Haplocalcids
Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland

State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on toeslope of tread of piedmont
on toeslope of tread of fan piedmont
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 100 cm.
Description origin: NASIS
Diagnostic Features: cambic horizon 7 to 59 cm.
calcic horizon 59 to 100 cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: OR -- Onite-Pintura complex
Pit Location:
Quad Name: Summerford Mountain, New Mexico
Std Latitude: 32.6173333
Std Longitude: -106.8142778

Latitude: 32 degrees 37 minutes 2.40 seconds north
Longitude: 106 degrees 48 minutes 51.40 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 329778 meters
UTM Northing: 3610320 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: bush muhly, honey mesquite, low woollygrass, mesa dropseed
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: MLRA08_Phoenix

Cont. Site ID: S2016NM013009 **Pedon ID:** S2016NM013009

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
1.0	1,328.0	110	16.0			193	210	somewhat excessively		

C--0 to 7 centimeters (0.0 to 2.8 inches); reddish brown (5YR 4/4) broken face sandy loam, dark reddish brown (5YR 3/4) broken face, moist; 70 percent sand; 22 percent silt; 8 percent clay; structureless single grain; loose, loose, Noncemented, nonsticky, nonplastic; many very fine interstitial pores; noneffervescent, by HCl, 1 normal; abrupt smooth boundary.

2Bk1--7 to 59 centimeters (2.8 to 23.2 inches); reddish brown (5YR 4/4) broken face sandy loam, dark reddish brown (5YR 3/4) broken face, moist; 70 percent sand; 22 percent silt; 8 percent clay; moderate medium subangular blocky structure; soft, friable, Noncemented, nonsticky, nonplastic; common very fine roots throughout and common medium roots throughout and common fine roots throughout; common fine dendritic tubular pores; 3 percent medium distinct irregular carbonate masses throughout; slight effervescence, by HCl, 1 normal; gradual smooth boundary.

2Bk2--59 to 100 centimeters (23.2 to 39.4 inches); reddish brown (5YR 5/4) broken face sandy loam, reddish brown (5YR 4/4) broken face, moist; 70 percent sand; 18 percent silt; 12 percent clay; moderate fine subangular blocky, and moderate medium subangular blocky structure; soft, friable, Noncemented, moderately sticky, nonplastic; common very fine roots throughout; common fine dendritic tubular pores; 5 percent medium distinct irregular carbonate masses throughout; strong effervescence, by HCl, 1 normal.

PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 5 2016
Describer: Dave White
NEON Plot ID: JORN_029

Site ID: S2016NM013010

Pedon ID: S2016NM013010
Site Note:
Pedon Note:
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Calcic Petrocalcids
Classification: Fine-loamy, mixed, superactive, thermic Calcic Petrocalcids

Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: taxon above family
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland

State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on toeslope of tread of piedmont
on toeslope of tread of fan piedmont
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 70 cm.
Description origin: NASIS
Diagnostic Features: cambic horizon 8 to 34 cm.
calcic horizon 34 to 70 cm.
petrocalcic horizon 70 to cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: OR -- Onite-Pintura complex
Pit Location:
Quad Name: Summerford Mountain, New Mexico
Std Latitude: 32.6149639
Std Longitude: -106.8072694

Latitude: 32 degrees 36 minutes 53.87 seconds north
Longitude: 106 degrees 48 minutes 26.17 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 330431 meters
UTM Northing: 3610046 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: broom snakeweed, fourwing saltbush, honey mesquite, low woollygrass, mesa dropseed
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: MLRA08_Phoenix

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
70		petrocalcic	Indurated

Cont. Site ID: S2016NM013010 **Pedon ID:** S2016NM013010

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
0.0	1,332.0	0	16.0			193	210	well		

C--0 to 8 centimeters (0.0 to 3.1 inches); reddish brown (5YR 4/4) broken face sandy loam, dark reddish brown (5YR 3/4) broken face, moist; 75 percent sand; 16 percent silt; 9 percent clay; structureless single grain; loose, loose, Noncemented, nonsticky, nonplastic; few fine roots throughout; many very fine irregular pores; noneffervescent, by HCl, 1 normal; abrupt smooth boundary.

2Bw--8 to 34 centimeters (3.1 to 13.4 inches); reddish brown (5YR 4/4) broken face sandy loam, dark reddish brown (5YR 3/4) broken face, moist; 75 percent sand; 16 percent silt; 9 percent clay; weak fine subangular blocky structure; slightly hard, friable, Noncemented, nonsticky, nonplastic; common very fine roots throughout and common fine roots throughout; common fine tubular pores; noneffervescent, by HCl, 1 normal; gradual smooth boundary.

2Bk--34 to 70 centimeters (13.4 to 27.6 inches); yellowish red (5YR 4/6) broken face sandy clay loam, reddish brown (5YR 4/4) broken face, moist; 65 percent sand; 10 percent silt; 25 percent clay; moderate medium subangular blocky, and moderate fine subangular blocky structure; slightly hard, friable, Noncemented, slightly sticky, slightly plastic; few medium roots throughout and few fine roots throughout; common fine tubular pores; 2 percent fine distinct irregular carbonate masses throughout and 8 percent very fine distinct threadlike carbonate masses throughout; violent effervescence, by HCl, 1 normal; very abrupt smooth boundary.

2Bkkm--70 centimeters (27.6 inches); cemented material; Indurated by carbonates; .

PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 10 2016
Describer: Dave White
NEON Plot ID: JORN_003

Site ID: S2016NM013011

Pedon ID: S2016NM013011
Site Note:
Pedon Note:
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Nations
Classification: Coarse-loamy, mixed, superactive, thermic Typic Petrocalcids
Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland

State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on toeslope of tread of fan piedmont
on toeslope of tread of piedmont
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 80 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 18 cm.
cambic horizon 10 to 80 cm.
petrocalcic horizon 80 to cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: WP -- Wink-Pintura complex
Pit Location:
Quad Name: Summerford Mountain, New Mexico
Std Latitude: 32.6004361
Std Longitude: -106.8382722

Latitude: 32 degrees 36 minutes 1.57 seconds north
Longitude: 106 degrees 50 minutes 17.78 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 327494 meters
UTM Northing: 3608485 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: black grama, honey mesquite, mesa dropseed, sand dropseed, soaptree yucca
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: MLRA08_Phoenix

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
80		petrocalcic	Indurated

Cont. Site ID: S2016NM013011 **Pedon ID:** S2016NM013011

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
0.0	1,331.0	0	16.0			193	210	somewhat excessively		

A--0 to 10 centimeters (0.0 to 3.9 inches); reddish brown (5YR 5/4) broken face sandy loam, dark reddish brown (5YR 3/4) broken face, moist; 70 percent sand; 23 percent silt; 7 percent clay; weak fine subangular blocky structure; soft, very friable, Noncemented, nonsticky, nonplastic; common very fine roots throughout; many fine irregular pores; noneffervescent, by HCl, 1 normal; clear smooth boundary.

Bk1--10 to 30 centimeters (3.9 to 11.8 inches); reddish brown (5YR 4/4) broken face sandy loam, dark reddish brown (5YR 3/4) broken face, moist; 70 percent sand; 21 percent silt; 9 percent clay; weak fine subangular blocky structure; soft, very friable, Noncemented, nonsticky, nonplastic; common very fine roots throughout and common fine roots throughout; many fine irregular pores; carbonate, finely disseminated throughout and 3 percent fine prominent spherical indurated cemented carbonate nodules throughout and 3 percent very fine distinct irregular carbonate masses throughout; violent effervescence, by HCl, 1 normal; clear smooth boundary.

Bk2--30 to 80 centimeters (11.8 to 31.5 inches); reddish brown (5YR 4/4) broken face sandy loam, dark reddish brown (5YR 3/4) broken face, moist; 70 percent sand; 20 percent silt; 10 percent clay; moderate medium subangular blocky structure; soft, very friable, Noncemented, slightly sticky, nonplastic; common medium roots throughout and common fine roots throughout; many fine irregular pores; carbonate, finely disseminated throughout and 5 percent fine prominent spherical indurated cemented carbonate nodules throughout and 5 percent very fine distinct irregular carbonate masses throughout; violent effervescence, by HCl, 1 normal; abrupt smooth boundary.

Bkkm--80 centimeters (31.5 inches); cemented material; Indurated by carbonates; .

PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 10 2016
Describer: Dave White
NEON Plot ID: JORN_024

Site ID: S2016NM013012

Pedon ID: S2016NM013012
Site Note:
Pedon Note:
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Nations
Classification: Coarse-loamy, mixed, superactive, thermic Typic Petrocalcids
Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland

State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on toeslope of tread of fan piedmont
on toeslope of tread of piedmont
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 84 cm.
Description origin: NASIS
Diagnostic Features: cambic horizon 6 to 84 cm.
petrocalcic horizon 84 to cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: OP -- Onite-Pajarito association
Pit Location:
Quad Name: Summerford Mountain, New Mexico
Std Latitude: 32.6016750
Std Longitude: -106.8286750

Latitude: 32 degrees 36 minutes 6.03 seconds north
Longitude: 106 degrees 49 minutes 43.23 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 328397 meters
UTM Northing: 3608607 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: algerita, broom snakeweed, honey mesquite, low woollygrass, mesa dropseed, soaptree yucca, twinleaf senna
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: MLRA08_Phoenix

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
84		petrocalcic	Indurated

Cont. Site ID: S2016NM013012 **Pedon ID:** S2016NM013012

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
1.0	1,330.0	216	16.0			193	210	somewhat excessively		

C--0 to 6 centimeters (0.0 to 2.4 inches); yellowish red (5YR 4/6) broken face sandy loam, dark reddish brown (5YR 3/4) broken face, moist; 70 percent sand; 20 percent silt; 10 percent clay; structureless single grain; loose, loose, Noncemented, nonsticky, nonplastic; few very fine roots throughout; many very fine irregular pores; noneffervescent, by HCl, 1 normal; clear smooth boundary.

2Bw--6 to 30 centimeters (2.4 to 11.8 inches); yellowish red (5YR 4/6) broken face sandy loam, dark reddish brown (5YR 3/4) broken face, moist; 80 percent sand; 4 percent silt; 16 percent clay; moderate medium subangular blocky structure; moderately hard, friable, Noncemented, slightly sticky, nonplastic; common very fine roots throughout and common medium roots throughout and common fine roots throughout; common fine irregular pores; 1 percent fine prominent spherical indurated cemented carbonate nodules throughout and 2 percent fine distinct threadlike carbonate masses throughout; slight effervescence, by HCl, 1 normal; gradual smooth boundary.

2Bk--30 to 84 centimeters (11.8 to 33.1 inches); yellowish red (5YR 4/6) broken face sandy loam, reddish brown (5YR 4/4) broken face, moist; 80 percent sand; 2 percent silt; 18 percent clay; moderate medium subangular blocky structure; slightly hard, friable, Noncemented, moderately sticky, slightly plastic; few medium roots throughout and few fine roots throughout; common fine irregular pores; carbonate, finely disseminated throughout and 5 percent fine distinct threadlike carbonate masses throughout; strong effervescence, by HCl, 1 normal; very abrupt smooth boundary.

2Bkkm--84 centimeters (33.1 inches); cemented material; Indurated by carbonates; .

PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 10 2016
Describer: Dave White
NEON Plot ID: JORN_001

Site ID: S2016NM013013

Pedon ID: S2016NM013013
Site Note:
Pedon Note:
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Typic Petrocalcids
Classification: Fine-loamy, mixed, superactive, thermic, shallow Typic Petrocalcids
Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: taxon above family
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland

State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on toeslope of tread of piedmont
on toeslope of tread of fan piedmont
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 46 cm.
Description origin: NASIS
Diagnostic Features: cambic horizon 4 to 46 cm.
petrocalcic horizon 46 to cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: OR -- Onite-Pintura complex
Pit Location:
Quad Name: Summerford Mountain, New Mexico
Std Latitude: 32.6047750
Std Longitude: -106.8022167

Latitude: 32 degrees 36 minutes 17.19 seconds north
Longitude: 106 degrees 48 minutes 7.98 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 330886 meters
UTM Northing: 3608908 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: black grama, broom snakeweed, bush muhly, fourwing saltbush, honey mesquite, low woollygrass, mesa dropseed, streambed bristlegrass
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: MLRA08_Phoenix

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
46		petrocalcic	Indurated

Cont. Site ID: S2016NM013013 **Pedon ID:** S2016NM013013

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
0.0	1,326.0	0	16.0			193	210	well		

C--0 to 4 centimeters (0.0 to 1.6 inches); yellowish red (5YR 4/6) broken face sandy loam, reddish brown (5YR 4/4) broken face, moist; 75 percent sand; 16 percent silt; 9 percent clay; structureless single grain; loose, loose, Noncemented, nonsticky, nonplastic; many very fine interstitial pores; noneffervescent, by HCl, 1 normal; abrupt smooth boundary.

2Bk--4 to 46 centimeters (1.6 to 18.1 inches); yellowish red (5YR 5/6) broken face sandy clay loam, reddish brown (5YR 4/4) broken face, moist; 70 percent sand; 6 percent silt; 24 percent clay; moderate medium subangular blocky structure; hard, firm, Noncemented, slightly sticky, slightly plastic; common medium roots throughout and common fine roots throughout; common very fine tubular pores; carbonate, finely disseminated throughout and 2 percent fine distinct threadlike carbonate masses throughout; very slight effervescence, by HCl, 1 normal; very abrupt smooth boundary.

2Bkkm--46 centimeters (18.1 inches); cemented material; Indurated by carbonates; .

PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 10 2016
Describer: Dave White
NEON Plot ID: JORN_011

Site ID: S2016NM013014

Pedon ID: S2016NM013014
Site Note:
Pedon Note:
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Pajarito
Classification: Coarse-loamy, mixed, superactive, thermic Typic Haplocambids
Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland

State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on toeslope of tread of piedmont on toeslope of tread of fan piedmont
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 100 cm.
Description origin: NASIS
Diagnostic Features: cambic horizon 6 to 100 cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: OR -- Onite-Pintura complex
Pit Location:
Quad Name: Summerford Mountain, New Mexico
Std Latitude: 32.6065444
Std Longitude: -106.7939194

Latitude: 32 degrees 36 minutes 23.56 seconds north
Longitude: 106 degrees 47 minutes 38.11 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 331668 meters
UTM Northing: 3609091 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: fourwing saltbush, honey mesquite, mesa dropseed
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: MLRA08_Phoenix

Cont. Site ID: S2016NM013014 **Pedon ID:** S2016NM013014

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
1.0	1,329.0	140	16.0			193	210	somewhat excessively		

C--0 to 6 centimeters (0.0 to 2.4 inches); yellowish red (5YR 5/6) broken face loamy sand, yellowish red (5YR 4/6) broken face, moist; 85 percent sand; 7 percent silt; 8 percent clay; structureless single grain; loose, loose, Noncemented, nonsticky, nonplastic; many very fine interstitial pores; noneffervescent, by HCl, 1 normal; abrupt smooth boundary.

2Bk--6 to 40 centimeters (2.4 to 15.7 inches); yellowish red (5YR 4/6) broken face sandy loam, dark reddish brown (5YR 3/4) broken face, moist; 80 percent sand; 6 percent silt; 14 percent clay; moderate fine subangular blocky structure; slightly hard, friable, Noncemented, slightly sticky, nonplastic; common very fine roots throughout and common medium roots throughout and common fine roots throughout; common fine tubular pores; very slight effervescence, by HCl, 1 normal; gradual smooth boundary.

2Bk--40 to 100 centimeters (15.7 to 39.4 inches); reddish brown (5YR 5/4) broken face sandy loam, reddish brown (5YR 4/4) broken face, moist; 80 percent sand; 10 percent silt; 20 percent clay; moderate medium subangular blocky structure; slightly hard, friable, Noncemented, slightly sticky, nonplastic; common very fine roots throughout and common fine roots throughout; common fine tubular pores; carbonate, finely disseminated throughout and 2 percent fine distinct threadlike carbonate masses throughout; violent effervescence, by HCl, 1 normal.

PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 11 2016
Describer: Greg Cates
NEON Plot ID: JORN_016

Site ID: S2016NM013015

Pedon ID: S2016NM013015
Site Note:
Pedon Note:
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Simona
Classification: Loamy, mixed, superactive, thermic, shallow Typic Petrocalcids
Soil Name as Correlated:

Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland

State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on toeslope of tread of piedmont
on toeslope of tread of fan piedmont
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 44 cm.
Description origin: NASIS
Diagnostic Features: cambic horizon 5 to 44 cm.
petrocalcic horizon 44 to cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: SH -- Simona-Harrisburg association
Pit Location:
Quad Name: Summerford Mountain, New Mexico
Std Latitude: 32.5957611
Std Longitude: -106.8068833

Latitude: 32 degrees 35 minutes 44.74 seconds north
Longitude: 106 degrees 48 minutes 24.78 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 330431 meters
UTM Northing: 3607916 meters

Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: broom snakeweed, fourwing saltbush, honey mesquite, mesa dropseed, soaptree yucca
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: MLRA08_Phoenix

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
44		petrocalcic	Indurated

Cont. Site ID: S2016NM013015 **Pedon ID:** S2016NM013015

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
0.0	1,329.0	0	16.0			193	210	excessively		

C--0 to 5 centimeters (0.0 to 2.0 inches); yellowish red (5YR 5/6) crushed sand, reddish brown (5YR 4/4) crushed, moist; 95 percent sand; 2 percent silt; 3 percent clay; structureless single grain; loose, loose, Noncemented, nonsticky, nonplastic; many fine interstitial pores; noneffervescent, by HCl, 1 normal; abrupt smooth boundary.

2Bw--5 to 44 centimeters (2.0 to 17.3 inches); yellowish red (5YR 5/6) broken face loamy sand, reddish brown (5YR 4/4) broken face, moist; 85 percent sand; 8 percent silt; 7 percent clay; weak medium subangular blocky structure; soft, very friable, Noncemented, nonsticky, nonplastic; many fine roots throughout; common fine dendritic tubular pores; 2 percent fine distinct irregular indurated cemented carbonate nodules throughout; noneffervescent, by HCl, 1 normal; abrupt smooth boundary.

2Bkkm--44 centimeters (17.3 inches); cemented material; Indurated by carbonates; .

PEDON DESCRIPTION -- NEON Site JORN

Print Date: Mar 20 2018
Description Date: May 3 2016
Describer: Greg Cates
NEON Plot ID: JORN_007
Site ID: S2016NM013016
Pedon ID: S2016NM013016
Site Note: User Site ID S2016NM013000 was changed to S2016NM013016
Pedon Note: User Pedon ID S2016NM013000 was changed to S2016NM013016
Lab Source ID:
Lab Pedon #:
Soil Name as Described/Sampled: Bucklebar
Classification: Fine-loamy, mixed, superactive, thermic Typic Haplargids
Soil Name as Correlated:
Classification:
Pedon Type: undefined observation
Pedon Purpose: research site
Taxon Kind: series
Associated Soils:
Physiographic Division: Intermontane Plateaus
Physiographic Province: Basin and Range Province
Physiographic Section: Mexican Highland
State Physiographic Area:
Local Physiographic Area: Jornada Del Muerto
Geomorphic Setting: on toeslope of tread of piedmont
on toeslope of tread of fan piedmont
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 46 to 96 cm.
Description origin: NASIS
Diagnostic Features: cambic horizon 8 to 46 cm.
argillic horizon 46 to 100 cm.

Country: United States
State: New Mexico
County: Dona Ana
MLRA: 42 -- Southern Desertic Basins, Plains, and Mountains
Soil Survey Area: NM690 -- Dona Ana County Area, New Mexico
8-LAS -- Las Cruces, New Mexico
Map Unit: WH -- Wink-Harrisburg association
Pit Location:
Quad Name: Summerford Mountain, New Mexico
Std Latitude: 32.6077417
Std Longitude: -106.8571528
Latitude: 32 degrees 36 minutes 27.87 seconds north
Longitude: 106 degrees 51 minutes 25.75 seconds west
Datum: WGS84
UTM Zone: 13
UTM Easting: 325736 meters
UTM Northing: 3609326 meters
Primary Earth Cover: Shrub cover
Secondary Earth Cover: Shrubby rangeland
Existing Vegetation: broom snakeweed, fourwing saltbush, honey mesquite, mesa dropseed, soaptree yucca, Torrey's jointfir
Parent Material: eolian deposits and/or alluvium
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: MLRA08_Phoenix

Cont. Site ID: S2016NM013016 **Pedon ID:** S2016NM013016

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
1.0	1,330.0	45	16.0			193	210	well		

C--0 to 8 centimeters (0.0 to 3.1 inches); reddish brown (5YR 4/4) crushed loamy sand, dark reddish brown (5YR 3/3) crushed, moist; 85 percent sand; 11 percent silt; 4 percent clay; structureless single grain; loose, loose, Noncemented, nonsticky, nonplastic; many very fine interstitial pores; noneffervescent, by HCl, 1 normal; abrupt wavy boundary.

2Bw1--8 to 16 centimeters (3.1 to 6.3 inches); yellowish red (5YR 4/6) broken face loamy sand, dark reddish brown (5YR 3/4) broken face, moist; 85 percent sand; 9 percent silt; 6 percent clay; weak coarse subangular blocky structure; soft, very friable, Noncemented, nonsticky, nonplastic; common fine roots throughout; common fine dendritic tubular pores; noneffervescent, by HCl, 1 normal; clear smooth boundary.

2Bw2--16 to 46 centimeters (6.3 to 18.1 inches); red (2.5YR 4/6) broken face sandy loam, reddish brown (2.5YR 4/4) broken face, moist; 75 percent sand; 13 percent silt; 12 percent clay; moderate coarse subangular blocky parts to moderate medium subangular blocky structure; slightly hard, friable, Noncemented, nonsticky, nonplastic; common very fine roots throughout and common medium roots throughout and common fine roots throughout; common fine dendritic tubular pores; noneffervescent, by HCl, 1 normal; gradual smooth boundary.

2Bt--46 to 100 centimeters (18.1 to 39.4 inches); red (2.5YR 4/6) broken face sandy clay loam, reddish brown (2.5YR 4/4) broken face, moist; 65 percent sand; 3 percent silt; 32 percent clay; strong coarse subangular blocky structure; hard, firm, Noncemented, moderately sticky, moderately plastic; common fine roots throughout and common coarse roots throughout; common very fine dendritic tubular pores; 20 percent distinct clay films on all faces of peds; noneffervescent, by HCl, 1 normal.