

Pedon ID #: BL-1P						PEDON DESCRIPTION										
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface		Auger piles	
	12NS	0594870	4203340	6220	5/23/13	AD/ES		132	133	134	135	136	130/161	158/159		

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Backslope	40	1%	LV	Eolian	Sandstone & gypsum crystals	Very deep		O

Soil Surface	RF size	RF %	Biotic Crust Class	Notes	Veg Type	Code	Sporoculus	AERL mostly dry						
	% cover	45%	7%	grass										
	Mor	1%	1	Shrub										

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
	0	5	7.5YR 5/4	7.5YR 4/4		1	FAB gravel		40	VF	5	7.8	ST	1	m	LR	common	VF		
1	A1	0	5	7.5YR 5/4	7.5YR 4/4	SIL	1	FAB gravel	40	VF	5	7.8	ST	0	-	SLR	common	F		
2	A2	5	20	7.5YR 6/4	7.5YR 3/4	SIL	2	Mg gravel	40	VF	5	8.0	VE	1	VC	GR	common	VF		
3	BA	20	25	5YR 7/6	7.5YR 4/4	LS	1	Mg gravel	85	6VF 4000	5	8.0	VE	0	-	SUR	common	F		
4	B1	25	~40	7.5YR 5/4	7.5YR 4/4	LS	2	gravel Chamfer	85	50F 50C	5	8.0	VE	1	m	SBK	common	VF		
5	B2	~40	~95	7.5YAS 1/4	7.5YR 4/4	SL	10	gravel	55	FS	7	8.0	VE							
6	B3	~95	~150	5YR 7/4	7.5YR 4/4	SL	5	Chamfer	60	FS	7	8.0	VE							
7	Ah	~150	~188	7.5YR 6/4	7.5YR 4/4	LS	5	gravel	85	95F 50C	7	8.2	VE							
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	29	41	43	53	58	67	76	89	100	112	119	127	138	149	159	162	168	179	188	

General Location Notes	
• Chain Pin = 25m	
• Indicators = horizon breaks	

Pedon ID #:		PEDON DESCRIPTION													
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
12N	0594982	4202292	6158	7/6/13	RD/BS	B1-3P	H53	1454	1455	1456	1457	1461	1462	1463	

Geomorph.	Landform	Aspect (*)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	shoulder	170	4%	VL	colluvium residuum	sandstone	very deep		1

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	SPCR	OPCR	ATCR	BTCR				
	-	-			-		% cover	25	5	4	1				

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	7	5YR 6/4	5YR 4/4	FSL	-	-	-	60	F	5	7.8	SL	1	M	SBK	C	F		
2 B	7	65	5YR 6/4	5YR 4/4	FSL	-	-	-	65	F	5	8.0	ST	1	M	Gr	C	vF		
3 BC	65	114	5YR 7/4	5YR 5/4	FSL	-	-	-	75	F	10	8.6	ST	1	M	SBK	C	F		Medium to coarse sand
4 C	114	165+	5YR 7/4	5YR 5/4	m/co LS	6yr	2	F	80	M/CO	3	8.1	ST	1	-	-	-	-	-	
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20	21	22	23	24	25
	33	45	57	70	80	95	104	110	115	120	125	130	132	135	134	139	141	146	148	152	151	157	160	162	165

Just treading water
sand keeps falling in.

Pedon ID #:		PEDON DESCRIPTION													
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
12N		05946043	4200714	6187	7/6/13	AD/ES			1483	1484	1485	1486	1487	1479/1480	1481/1482

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	backslope	30	3%	LC	eolian alluvium	sandstone	Very Deep		O

Soil Surface	RF size	RF %	Biotic Crust Class	Notes	Veg Type	Code	B1A/B	S1C/A1C	A1C/A2C	D1P/P	K1A				
	% cover	% cover	% cover	% cover	% cover	% cover	% cover	% cover	% cover	% cover	% cover				
	Gr	1	1												

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots			P&V/Concent/Carb. Stage				
	(TOP)	(BC)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz					
						-	-	-						1	m	SBK	m	f					
1	A	0	6	7.5YR 6/4	7.5YR 4/4	FSL	-	-	55	F	7	7.6	SL	1	m	SBK	m	f					
2	B	6	12	7.5YR 6/4	7.5YR 5/4	FSL	Gr	1	F	-	-	55	F	7	7.8	ST	1	m	SBK	c	f		
3	B2	12	18	7.5YR 7/4	7.5YR 4/4	F/CO LS	Gr	4	F	Gr	2	m	75	F/CO	3	7.8	ST	2	m	SBK	f	f	
4	B3	18	30	7.5YR 6/4	7.5YR 4/4	FSL	Gr	1	F	Gr	1	m	65	F	10	7.8	SL	2	m	SBK	c	f	
5	B4	30	18	7.5YR 6/6	7.5YR 4/6	FSC	-	-	-	-	-	75	F	5				-	-	c	vf		
6																							
7																							
8																							
9																							
10																							

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	30	42	54	66	77	90	102	113	125	137	149	163	174	187						

General Location Notes

Pedon ID #:		PEDON DESCRIPTION															
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles			
12N	059S131	4200789	6177	7/19/13	AD+ES			1609	1610	1611	1612	1613	1645/1646	1647			

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Gully	40°	4%	L C	old alluvium	sandstone gypsum	Very deep		1

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Atcaz	Bog	Spur	% cover	15	25	10				
		O	O															

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
						-	-	-						-	-	-	-	-	-	
1 A	0	6	7.5YR 5/4	7.5YR 4/4	FSL	CH	4	-	55	F	5	6.8	ME	1	F	SBK	C	F		
2 B	6	20	7.5YR 5/6	7.5YR 4/4	FSL	-	-	-	65	F	5	7.6	SL	1	F	SBK	M	F		
3 B2	20	35	7.5YR 4/6	7.5YR 4/4	FSL	-	-	-	60	F	5	8.2	ST	2	F	SBK	C	F		
4 B3	35	100	7.5YR 7/4	7.5YR 5/6	FSL	-	-	-	70	F	5	8.4	VE							
5 B1	100	153	7.5YR 6/6	7.5YR 4/6	FSL	-	-	-	55	F	5	8.5	VE							
6 R	153+																			Carbonate layers on rocks
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	29	40	48	58	71	80	90	104	114	126	137	150	153							

fan into some
gypsum or the
very bottom

Pedon ID #:		PEDON DESCRIPTION																		
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles						
	12N	0594358	4201511	6168	7/8/13	AD+ES		1570	1571	1572	1573	1574	1535/1536	1537						
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material		Bedrock Geology				Soil Depth Class	Ecological Site	Carbonate Stage						
	summit	~70	3%	VV		eolian & residual		sandstone												
Soil Surface	RF size	RF %	Biotic Crust Class		Notes		Veg Type	Code	Begr	Arthr	Aher	Sper								
	G	1	O					% cover	30	10	10	15								

Pedon ID #:		PEDON DESCRIPTION																	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles					
	12N	0593678	4200706	6706	7/8/13	AD/ES			024	025	026	017	018	1544/1545	1546				
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class		Ecological Site		Carbonate Stage							
	<i>backslope</i>	0°	59°	LC		<i>eolian residuum</i>	<i>sandstone</i>	<i>deep</i>				I							
Soil Surface	RF size	RF %	Biotic Crust Class			Notes	Veg Type	Code	B052	A871	SPCR	Folld	Alcal	Chive					
	G	1	1					% cover	70	25	2	1	1	1					

Pedon ID #:	B1-8P	PEDON DESCRIPTION												
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White	N	E	S	W	Soil surface	Auger piles
	12N	0593684	4200986	6467	6/13	ADIES		1312	1344	1345	1346	1347	1470/1471	1472

General Location Notes

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	backslope? flat	320°	2%	LL	editian	Gypsum & sandstone	Very deep		0

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	SPCR	ATCAZ	LAOC3	KRAL				
	% cover	24	4	1	1										

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots			P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Sz	Type	Qty	Sz	Loc		
1	A	0	6	7,5426/4	7,5424/3	FLS	Gr	<1	F	80	F	7	7.8	SL	1	M	R	C	F	-
2	B	6	65	7,5427/4	5925/4	FSL	Gr	1	F	70	F	5	8.1	ST	1	M	W	F	VF	-
3	BC	65	113	7,5427/4	7,5424/4	FLS	Gr	<1	F	80	F	5	9.1	ST	2	M	SBK	C	VF	-
4	C	113	148	7,5427/4	7,5426/4	FLS	Gr	<1	F	80	F	5	8.1	ST	-	-	-	-	-	-
5	Ab	148+	-	7,5426/4	7,5424/4	FSL	Gr	<1	F	60	F	10	8.1	ST	-	-	-	-	-	-
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	34	46	60	73	90	99	110	123	135	149	162	173	184	192						

Pedon ID #:	B1-99					PEDON DESCRIPTION										
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers		Photos	White Board	N	E	S	W	Soil surface	Auger piles	General Location Notes
12N	0595302	4200.74	6208	7/19/13	AD/ES			1614	1615	1616	1617	1618	1642/1643	1644		
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology			Soil Depth Class	Ecological Site			Carbonate Stage			
	x slope	20°	5%	CV	olian alluvium	Sandstone			Very Deep				O			
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	B0012	SP01	A01A	A01C					
	gr	1	1				% cover	12	13	3	~					

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
						-	-	-						-	-	-	-	-	-	
1 A	0	4	7.5YR 6/4	7.5YR 4/4	FSL	-	-	-	50	F	5	7.6	VSL	1	F	SBK	M	F		Hydroplastic
2 B	4	20	5YR 5/6	5YR 4/4	FSL	Gr	1	M	-	60	F	5	7.8	VSL	1	F	SBK	C	F	
3 B2	20	46	5YR 6/4	5YR 5/6	FSL	Gr	1	F	-	55	F	5	8.0	ST	2	F	SBK	C	F	
4 B3	46	75	5YR 7/4	5YR 5/4	F/m	Gr	7	F	Gr	55	F/m	7	8.2	ST						
5 B4	75	100	5YR 6/4	5YR 4/4	FSL	Gr	8	M	-	60	F	7	8.2	ST						
6 B5	100	160	5YR 6/6	5YR 5/4	L	-	-	-	-	45	F	7	8.4	ST						
7 B6	160	180	5YR 7/4	5YR 5/4	FSL	G	1	F	-	55	F	10	8.6	VE						
8 R	180+																			
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	32	46	57	67	79	91	103	112	122	132	142	154	165	172	180					

Pedon ID #: BL-10P						PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers		Photos	White Board	N	E	S	W	Soil surface	Auger piles
	12N	0594815	4200931	691	5/24/13	AD + ES			191	192	193	194	195	217/218	216

Geomorph.	Landform	Aspect (*)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	shoulder	344°	2%	LV	olian residuum	Sandstone	shallow		O

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	BUGR	GUSA	KOLAZ	ARTR	HE1026				
	% cover	30	10	5	5		% cover	30	10	5	5	5				

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty		
1 A	0	4	7.5YR 5/4	7.5YR 3/3	SL	W	50	VF	5	7.8	VS			1	M	Gr	M	F	slightly hydrophobic
2 B1	4	21	5YR 5/6	5YR 4/4	SiL	G	5	F	30	VF	7	8.0	SL	2	M	AB	C	F	
3 B2	21	28	7.5YR 5/4	5YR 4/4	SL	G	5	F	75	F	15	8.0	ST	2	M	SB	M	F	
4 Cr	28	44	7.5YR 6/4	7.5YR 4/4	SL	G	25	C	70	F	5	8.2	VE	0		SGR	F	F	
5														1		BF	SBK	F	VF
6																			
7																			
8																			
9																			
10																			

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	33	39	46	44																

Shovel, too rocky for augers

General Location Notes	
• Pile in soil auger Photo that is surrounded by sticks - when I widened the hole	

Pedon ID #:				PEDON DESCRIPTION											General Location Notes			
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles				
12N	059395L	4201052	671	7/8/13	AD+ES		1508	1509	1510	1511	1512	1526/1527	1528					
Geomorph.	Landform	Aspect (*)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology		Soil Depth Class		Ecological Site		Carbonate Stage					
	Buckslope	350°	4%	L	L	eolian	sandstone	Very Deep					0					
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bogr	Kratz	opp	Lhac							
	-	0	0		% cover	30	10	5	5									

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty		
	0	7	7.5YR 6/4	7.5YR 4/4		-	-	-		55	F	5	7.6	vs	1	M	SBk	M F	
1	A	0	7	7.5YR 6/4	7.5YR 4/4	FSL	-	-	65	F	5	7.8	SL	2	F	SBk	C F		
2	B	7	43	7.5YR 6/4	7.5YR 4/4	FSL	-	-		F	5	7.8	SL	-	-	-	C VF		
3	Bl	43	94	5YR 7/4	5YR 5/4	FSL	6YR	1	F	60	F	5	8.2	st	-	-	-	-	
4	C	94	179+	5YR 7/3	5YR 5/4	LS	6YR	1	F		m	3	8.4	st					
5																			
6																			
7																			
8																			
9																			
10																			

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	33	43	56	68	80	94	111	121	132	145	150	159	167	179						

Pedon ID #: BZ-2P						PEDON DESCRIPTION											General Location Notes	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles				
12N	05950422	4700844	60173	7/19/13	AD+ES		1599	1600	1601	1602	1603	1639	1640	1641				
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class			Ecological Site			Carbonate Stage				
	shoulder	0°	4%	L V		residual eolian alluvium?	Sandstone	Very Deep						O				
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bgr	Arthropat	Atropat	Spud							
	G	1	2			% cover		25	15	10	15							

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
	0	4	7.5YR 6/4	7.5YR 5/4		FSL	CH	1	-	SD	F	5	7.8	VSL	1	F	SBK	M	F	
1	A	0	4	7.5YR 6/4	7.5YR 5/4	FSL	Gr	41	F	SD	F	5	7.8	VSL	1	F	Gr	C	VF	
2	B	4	28	5YR 7/6	5YR 5/4	FSL	Gr	41	F	SD	F	5	8.2	SL	1	F	SBK	C	F	
3	B2	28	40	5YR 7/6	5YR 5/6	FSL	-	-	-	SD	F	5	8.2	ST	1	F	SBK	M	VF	
4	C	40	99	5YR 9/3	5YR 7/4	LMS	-	-	-	SD	F	5	8.2	ST	-	-	-	C	VF	
5	Ab	99	128	5YR 6/8	5YR 5/6	FSL	-	-	-	SD	F	7	7.8	NE						
6	B	128	165	5YR 8/4	5YR 6/6	FSL	-	-	-	SD	F	5	8.4	VE						
7	C2	165	189+	5YR 9/1	5YR 7/4	F/m SL	-	-	-	SD	F	5	8.4	VE						
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	29	40	50	61	70	80	87	92	99	107	108	112	118	130	139	150	160	170	180	189

General Location Notes

- Pins: 25 m
- pH = Horizon break?

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Backslope	91°	1%	L V	edolian & residual	Sandstone (white)			
							Deep		I

Pedon ID #:					PEDON DESCRIPTION												General Location Notes		
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles					
	12N	0594103	420338L	4155	7/3/13	AD/BS		1363	1364	1365	1366	1367	1383/1384	1385					
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class			Ecological Site			Carbonate Stage						
	shoulder	W00	4%	LV	edian residuum	sandstone	Very deep						0						
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	BGR	SPCR	ARTZ									
	Gr	2	1		-	% cover	70	15	5										

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
	1 A	0	7	7.5YR 6/4		7.5YR 4/4	FSL	Gr						1	F	60	F	5	7.4	
2 B1	7	34	5YR 6/6	5YR 4/6	FSL	Gr	1	m	-	F	5	8.2	SL	1	F	Gr	C	VF		
3 B2	34	111	5YR 7/6	5YR 5/6	FSL	Gr	1	m	-	F	5	8.2	ST	-	M	SBK	C	F		
4 B3	111	165	5YR 8/4	5YR 6/6	FSL	-	-	-	70	F	5	8.6	ST	-	-	-	-	-		
5 B4	165	185	5YR 7/6	5YR 5/6	FSL	Gr	2	m	-	F	5	8.6	VE	-	-	-	-	-		
6 R	185+	~																		
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	34	42	50	66	77	91	101	109	120	133	145	153	163	172	180	186				

Pedon ID #:						PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
	12N	0597237	4201498	6158	6/7/13	AD8E3		788	789	790	791	792	841/842	843	

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Backslope	10	3	C C	olian	sandstone	Very Deep		1
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bugr KRI archive	
	0	F	I			% cover	30	10 15	

General Location Notes

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	6	7.5YR 6/4	7.5YR 4/4	VFSL				55	VF	S	7.2	NE	1	F	GR	M	F		
2 B1	6	18	7.5YR 6/6	7.5YR 4/4	VFSL				60	VF	S	8.0	SL	2	M	SBK	M	F		
3 B2	18	48	7.5YR 6/4	7.5YR 4/4	VFSL	GR	4/9	-	60	VF	S	8.0	ST	1	M	SBK	M	F		
4 C	48	148	7.5YR 7/4	7.5YR 5/4	Poorly sorted VFSL				70	F/VF	S	8.2	ST							
5 2Ab	148	175	7.5YR 5/4	7.5YR 4/4	VFSL				60	VF	23	8.2	VE							
6 2B	175+		7.5YR 6/4	7.5YR 6/6	L				50	F	18	8.6	VE							
7																				
8																				
9																				
10																				

Starting to develop
Caco₃ masses

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	25	36	48	56	66	77	85	96	108	120	128	139	154	160	175	181				

Pedon ID #:		PEDON DESCRIPTION												
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
	12N	0594265	4201744	612	6/22/13	AD/ES		1227	1228	1229	1230	1231	1241/1242	1243

General Location Notes

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	backslope	0	10%	CL	eolian	sandstone			

Classic Began (nearly buried A)

Pedon ID #:				PEDON DESCRIPTION												General Location Notes		
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles				
	12N	0594565	4203348	6164	5/14/13	AD/EJ/EB/KH/JL		093	094	095	096	097	098	099/100				
Geomorph.	Landform				Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class			Ecological Site		Carbonate Stage			
	BS	250°	3%	LC	eolian & alluvium					Very Deep					O			
Soil Surface	RF size	RF %	Biotic Crust Class		Notes		Veg Type 45%	Code 0947	% cover 10%	Bu	Sp	Sporobolus						
	MGr	1%	I							35%								

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	7	SYR6/4	SYR4/3	VFSL	-	1%	CH	75%	VF	11%	8.1	ST	W	TK-VK	Platy	Crasmon	VF	-	
2 BA	7	15	SYR6/6	SYR4/4	VFSL	-	1%	F Gr	75%	VF	12%	8.2	VE	W	M	SBK	F-MF	VF	-	
3 Bw	15	58	SYR6/4	SYR4/6	VFSL	-	1%	M Gr	75%	VF	10%	8.2	VE	W	M	SBK	F-MF	VF	-	
4																				
5																				
6																				
7																				
8																				
9 C	58	131	7.5YR6/4	7.5YR4/4	VFSL	-	1%	M Gr	70%	VF	12%	8.3	VE							
10 Ab	131	156	5YR5/4	5YR 3/4	L	-	-	-	50%	VF	18%	8.1	VE							

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	23	32	43	52	61	71	81	92	103	115	125	133	146	156						

Pedon ID #:		PEDON DESCRIPTION											General Location Notes			
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles		
	12N	0594939	4200585	6215	7/19/13	AD + ES		1619	1620	1621	1622	1623	1648/1649	1650		
	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site		Carbonate Stage					
Geomorph.	Backslope	100	5°	VL		sandstone	Sandstone	Shallow			I					
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bog	Arthropod							
	G	1	I			% cover	30	10	2							

Pedon ID #:		PEDON DESCRIPTION													
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
12N		0592589	4201185	6169	10/7/13	AD/ES		813	814	815	816	817	838/839	840	

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage						
	summit	210°	1%	VV	olian residuum	Sandstone	Very Deep		I						
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Book	Hedge	ARTR					
	Gr	<1%	I				% cover	25	5	5					

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
	1	A	0	5	7.5YR5/4	7.5YR3/4	VFSL	-	-	-	50	VF	5	6.4	NE	1	M	SBK	1	F
2	B1	5	20	7.5YR4/6	7.5YR3/4	L	-	-	-	45	VF	8	6.4	NE	1	F	Gr	C	VF	
3	B2	20	175	7.5YR6/4	7.5YR4/4	L	G	5	M	50	VF	8	8.2	ST	2	C	SBK	C	F	
4	CB	175	190	7.5YR7/4	7.5YR5/4	poorly sorted VFLS	G	5	M						1	M	SBK	F	F	Some calcos on ped surfaces
5					G	5	F	75	VF	3	8.6	VE								
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	28	37	48	58	69	80	94	102	111	122	132	143	154	164	174	183	190			

General Location Notes

Pedon ID #:		PEDON DESCRIPTION													General Location Notes	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles		
	12N	0594154	4203339	6184	7/3/17	AD+ES		1409	1410	1411	1412	1413	1386/1387	1388		
	Landform	Aspect (*)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site			Carbonate Stage				
Geomorph.	shoulder	310	4	VC		eolian	Sandstone	Moderately deep				1				
	RF size	RF %	Biotic Crust Class		Notes		Veg Type	Code	Bare	Grass	grvs	herbs	Arts	Aba		
Soil Surface	G	I	I				% cover	25	15	2	15	10	5			

Pedon ID #:		PEDON DESCRIPTION													General Location Notes	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles		
		12N	0594650	4201173	6202	7/19/13		1585	1586	1587	1588	1589	1630/1631	1632		
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology		Soil Depth Class		Ecological Site		Carbonate Stage			
	shoulder	~50°	4%	VV		eluvium + residuum	Sandstone		moderately deep				1			
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Boys	Aster/Artem/Koda/Hemis							
	G	10	0				% cover	10	10	10	10					

Pedon ID #:		PEDON DESCRIPTION												
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
12N	0595195	4200910	6161	3/19/13	AD+ES			104	1605	1606	1607	1608	1636/1637	1638

Geomorph.	Landform	Aspect (*)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Backslope	90°	2%	L L	elolian	sandstone	Very Deep		0

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bgr	app	Spec						
	% cover	30	5	10												

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
						-	-	-		F	5	7.6	SL	1	F	SBK	C	F		
1	A	0	5	7.5 YR 6/4	7.5 YR 4/4	FSL	-	-	50	F	5	7.6	SL	1	F	SBK	C	F		
2	B	5	13	7.5 YR 6/4	7.5 YR 4/4	VFSL	-	-	65	VF	10	8.0	ST	2	M	SBK	F	F		
3	B2	13	60	7.5 YR 7/4	7.5 YR 5/4	FSL	-	-	55	F	7	8.0	ST	2	F	SBK	F	F		
4	B3	60	135	7.5 YR 7/4	7.5 YR 6/4	FSL	-	-	50	F	5	8.2	ST		-	-	C	VF		
5	Bt	135	165	7.5 YR 6/4	7.5 YR 5/4	SIL	-	-	20	VF	20	8.2	ST							Clay films on red faces
6	Ab	165	188+	5 YR 6/6	5 YR 4/6	FSL	-	-	65	F	5	7.5	NE							
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	28	41	53	65	77	90	104	115	128	142	153	170	182	188						

Pedon ID #:				PEDON DESCRIPTION												General Location Notes		
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles				
12N	0594057	4201554	6147	5/29/12	AD+FS		1333	1334	1335	1336	1337	1338	1339	1340				
Geomorph.	Landform	Aspect (*)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class			Ecological Site		Carbonate Stage					
	Toeslope	100	5	LC		colluvium residuum	Sandstone	deep					0					
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bgr	Atr2	Opp	Hem2							
		0	0			% cover	25	5	10	15								

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	7	7.5YR 6/4	7.5YR 4/4	FSL	-	-	-	70	F	3	7.6	ME	1 F	SBK	C	F			
2 B	7	21	5YR 6/6	5YR 5/6	FSL	-	-	-	65	F	3	7.8	SL	1 F	Gr	F	VF			
3 B	21	127	5YR 7/6	5YR 5/6	FLS	Gr	2	F	70	F	3	8.2	ST	2 M	SBK	F	F			
4 Cr	127	148	5YR 8/3	5YR 6/4	LFS	Gr	7	F	75	F	3	8.6	ST							
5 R	148+					Gr	1	M												
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	30	39	48	58	71	82	93	106	115	126	128	140	148							

Pedon ID #: B3-5P						PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
124S	0555144	4200+23	6013	515/13	AD/BS			250	251	252	253	254	275/276	277	

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	gully	35°	1%	LC	folian alluvium	sandstone	Very deep		I

Soil Surface	RF size	RF %	Biotic Crust Class	Notes	Veg Type	Code	Sporoc.	olus	EUB	R	Saltsola				
	% cover	15%	3%	7%											
			O												

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	5	7.5YR 4/6	7.5YR 4/6	L				45	VF	15	7.8	ST	1	F	G-	F	VF	-	
2 Ap	5	14	7.5YR 5/4	7.5YR 4/4	L				50	VF	15	7.6	ST	2	H	P	F	F	-	
3 B	14	~49	7.5YR 4/4	7.5YR 3/4	VFSL				60	VF	18	7.8	SL	2	M	SBK	C	VF	-	
4 2B	~49	~64	7.5YR 5/4	7.5YR 4/4	L	m	5	Gr	35	VF	19	8.0	ST							
5 2B2	~64	~48	7.5YR 5/4	7.5YR 4/4	L				35	VF	18	8.0	ST							
6 3B	~48	178	7.5YR 6/6	7.5YR 4/6	VFSL				70	VF	7	8.2	ST							
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	26	35	49	56	64	76	80	97	108	116	125	134	146	156	167	178				

General Location Notes

Pedon ID #: B3-61						PEDON DESCRIPTION										General Location Notes	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles			
	12N	0594007	4203358	618	7/3/13	AD/BS		1359	1359	1360	1360	1362	1380/1381	1382			
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology		Soil Depth Class	Ecological Site			Carbonate Stage					
	shoulder	170°	40%	VV	ediar	sandstone	Very deep							1			
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	BGR	HED06	ARTY/O							
	Gr	1	-		-		% cover	25	5	10							

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty		Sz
1 A	0	5	7.5YR 6/4	7.5YR 4/3	FSL	-	-	-	70	F	5	7.6	VS	1 F	SBK	M	F		
2 B1	5	18	7.5YR 6/4	7.5YR 4/4	FSL	Gr	1	F	-	65	F	5	8.2	ST	1 F	Gr	C	VF	
3 Bt	18	80	5 YR 7/6	5 YR 5/6	FSL	Gr	1	M	-	55	F	18	8.2	ST	2 M	SBK	C	F	
4 B'	80	105	5 YR 7/6	5 YR 5/6	FSL	Gr	1	F	-	60	F	7	8.6	SL	1 F	SBK	F	F	
5 B'2	105	169	5 YR 8/4	5 YR 5/6	FSL	Gr	1	F	-	60	F	7	8.8	ST	1 F	SBK	C	VF	no visible clay filaments on pedes or lining pores
6 R	169+																		
7																			
8																			
9																			
10																			

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	27	40	52	63	75	88	99	109	122	135	146	156	162	169						

Pedon ID #:							PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles		
12N	0593986	4203252	6151	7/3/13	A0/5S		1404	1405	1406	1407	1408	1377/1378	1379			

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	shoulder	260	5	CC	olian residuum	sandstone	deep		O

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bare	Pisotia	GUSA	A2TH4	ATCA1					
	% cover	% cover	2	-	-		% cover	20	10	6	5	3					
	-	-	-	-	-												

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
	-	-	-	-		-	-	-						-	-	-	-	-	-	
1 A	0	6	7.5YR 6/6	7.5YR 4/3	FSL	-	-	-	65	F	3	7.6	ME	1	F	SBK	M	F		
2 B1	6	32	5YR 6/6	5YR 5/6	FSL	Gr	1	-	70	F	7	8.0	ST	2	M	SBK	C	F		
3 B2	32	68	5YR 8/4	5YR 6/4	FSL	-	-	-	70	F	5	8.2	ST	-	-	-	-	-	-	
4 B3	68	108	5YR 6/6	5YR 4/6	FSL	-	-	-	75	F	5	8.4	ST							
5 B4	108	135	5YR 7/4	5YR 5/6	LFS	Gr	4	F	80	F	3	8.4	ST							
6 R	135+																			
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	24	360	441	54	601	72	82	93	104	115	128	135								

Pedon ID #:				PEDON DESCRIPTION										
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
	12N	0594699	4200907	6162	5/23/13	AD/ES		164	165	166	167	168	162/163	189/190

General Location Notes

April's Bassa
PIAS = 25M
Indicators = horizon

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Teslope	240°	1%	LV	eolian	sandstone			

Photos mislabeled M3-9P

Pedon ID #:						PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
12N	0593915	42009879	6151	7813	ADES			1503	1504	1505	1506	1507	1523	1524	1525

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	backslope	35°	5%	LC	edolian	sandstone	very deep		0

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	BUS	OPP	HED	2					
	% cover	35	7	3												

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
	1	A	0	7	7.5YR25/1	7.5YR24/2	FSL	Gr 1	F	70	F	5	7.6	VS	1	m	Gr	m	F	-
2	B	7	24	7.5YR24/6	5YR25/4	FLS	Gr 1	F	80	F	5	8.4	ST	2	m	SBK	C	VF	-	
3	C	24	130	7.5YR27/4	5YR25/4	FLS	Gr 1	UF	80	F	5	8.4	ST	-	-	-	-	-	-	
4	Ab	130	188+	7.5YR26/6	7.5YR25/4	FLS	Gr 1	F	80	F	7	8.4	ST							
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	31	46	57	69	81	94	108	111	115	130	147	162	177	188						

Pedon ID #:				PEDON DESCRIPTION											
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers		Photos	White Board	N	E	S	W	Soil surface	Auger piles
12N	S 051521.0	4200440	6214	517513	10/15/13				306	307	308	309	310	331/333	332

General Location Notes

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Footslope	250°	5%	C V	aeolian residuum	sandstone	Shallow		1

Pedon ID #:	B4-3P		PEDON DESCRIPTION															
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles				
	12N	0594024	4203103	6160	7/3/13	AD+ES		1398	1399	1400	1401	1402	1371/1375	1376				
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class		Ecological Site		Carbonate Stage						
	shoulder	210	4	V	V	solian residuum	Sandstone	moderately				O						
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bgr	Pred	Artr	Areal	oppr	epvi	Health				
	6	1	1				% cover	35	5	15	5	2	2	5				

Pedon ID #:		PEDON DESCRIPTION														General Location Notes	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles			
	12N	0594640	4202458	6202	7/3/13	AD+ES		1424	1425	1426	1427	1428	1395/1396	1397			
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class			Ecological Site		Carbonate Stage				
	toeslope	220	5	LC		olian regiduum	sandstone	Very Deep					0				
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bog	few	Abund	Zoppo						
	6	1	0				% cover	25	10	3	5						

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	5	7.5YR 5/4	7.5YR 3/4	FSL	-	-	-	60	F	5	7.8	ST	1	F	SBK	C	F		
2 B	5	14	7.5YR 5/4	7.5YR 4/4	FSL	6V	1	F	60	F	7	8.2	ST	2	F	SBK	C	F		
3 B2	14	72	7.5YR 6/4	7.5YR 5/4	FSL	6V	1	F	60	F	5	8.2	VE	1	F	SBK	C	F		
4 B3	72	83	7.5YR 6/4	7.5YR 4/6	FSL	6V	1	F	75	F	5	8.4	VE							
5 B4	83	129	7.5YR 7/4	7.5YR 5/4	FSL	6V	1	F	70	F	5	8.6	VE							
6 B5	128	153	7.5YR 6/3	7.5YR 4/4	FSL	6V	1	F	65	F	3	8.4	ST							
7 R	153+																			
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	26	37	48	59	72	83	95	108	119	131	143	153								

Pedon ID #:		PEDON DESCRIPTION												
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
	12N	0594287	4203563	617073113	AD/ES			1414	1415	1414	1417	1418	1389/1390	1391

General Location Notes

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	shoulder	160°	6%	WV	eolian	Sandstone			

Pedon ID #: B4.7P						PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
12N	0595305	4200952	66605/25/13	66605/25/13	AD+FS			278	279	280	281	282	283/304	305/11	

Geomorph.	Landform	Aspect (")	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	summit	310°	1%	LL	eolian	sandstone	very deep		O

Soil Surface	RF size	RF %	Biotic Crust Class	Notes	Veg Type	Code	Bugr	Sparsoppt							
	—	—	I		% cover										

General Location Notes														
• April's GPS & Camera														
• Chain pins = 25m														
• pH indicator = horizon break														

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	5	10YR 6/4	7.5YR 4/3	SVFL				75	VF	5	7.4	NE	1 M	GR	F	M			
2 B1	5	19	7.5YR 6/6	7.5YR 4/4	SFL				75	F	+	8.0	VE	2 M	SBK	F	VF			
3 B2	19	92	7.5YR 6/4	7.5YR 4/6	SFL				75	F	+	8.0	VE	2 M	SBK	F	VF			
4 C	92	176	7.5YR 8/4	7.5YR 5/4	LFS				80	F	5	8.5	SE							
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20	Z1/Z2
	25	39	49	60	70	81	92	97	100	113	119	127	132	134	143	144	150	154	159	167	174/176

Pedon ID #: B4-8P						PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
	12N	05944510	4702193	6195	7/6/13	AD+ES		1434	1435	1436	1437	1438	1467/1468	1469	

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Summit	200	5%	VV	eolian	Sandstone	Very Deep		0

Soil Surface	RF size	RF %	Biotic Crust Class	Notes	Veg Type	Code	Spr	Al	Op						
	% cover	Gr	I	O		% cover	30	5	4	7					

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	
1 A	0	6	7.5YR 4/4	7.5YR 4/4	FSL	—	—	—	65	F	5	7.8	SL	1	F	SBK	C	F	
2 B1	6	18	7.5YR 6/4	7.5YR 4/4	FSL	Gr	1	M	60	F	5	8.0	ST	1	F	Gr	C	vF	
3 B2	18	112	7.5YR 7/4	7.5YR 5/4	FSL	Gr	1	F	70	F	5	8.2	ST	1	M	SBK	C	F	
4 B3	112	184+	7.5YR 7/4	7.5YR 5/4	FSL	Gr	1	F	65	F	5	8.2	ST	—	—	—	M	vF	
5																			
6																			
7																			
8																			
9																			
10																			

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	37	51	63	72	80	90	102	117	126	138	153	170	184							

General Location Notes	

Ignacio Leanto not Begany

6 Not sure which camera these were taken on

Pedon ID #:			PEDON DESCRIPTION											
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
	12N	0594845	4203301	6150	05/14/13	R. Mann		17	18	19	20	21	22	23

Geomorph.	Landform	Aspect	Slope (%)	Slope Shape	Parent Material	Bedrock Geology
	Ridge, Summit	230	1%	L, V	Eolian	Sandstone

Veg Type	Code	SNV	GOSA	ATCA	IUOS	ATIR	9100	GAGR	HELD	SPD	ACH	Cactus	OPER
	% cover	5%	1%	1%	1%	2%	30%	15%	10%	3%	2%	30%	3%

General Location Notes

Auger only went to 42cm, continue digging w/shovel. Widen hole + take additional prints. Horizons determined from auger or shovel hole.

Pedon ID #:				PEDON DESCRIPTION											
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
	12N	0592457	4701870	6139	6/5/13	AD ES			612	613	614	615	616	642/643	644
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class		Ecological Site		Carbonate Stage		General Location Notes	
	Backslope	110	12	C V		Volcanic Residuum	Sandstone	Shallow				O			
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bgr	Arct	Hem					
			Z				% cover	35	15	5					

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	4	7.5YR 6/4	7.5YR 4/4	VFSL	L	~	~	60	VF	5	6.6	N	0	F	G	C	C	F	
2 B	4	24	7.5YR 5/6	7.5YR 4/4	VFSL	L	~	~	60	VF	5	7.4	SL	0	M	SBK	C	VF		
3 C	24	40	7.5YR 7/6	7.5YR 5/6	FSL	GR	5		65	F	5	8.2	V	1	C	SBK	F	F		
4 R	40+													1	M	SBK	M	VF		
5														2	M	SBK	F	F		
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	26	38	40																	

Dug w/share!

Pedon ID #: IL1-3						PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
12N	0593083	4204282	6184	6/7/13	10+ES			979	980	981	982	983	1019/1021	1020	

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	xdeslope	270'	11.	LL	ediment / reg. debris	Sandstone	Very deep		(

Soil Surface	RF size	RF %	Biotic Crust Class	Notes	Veg Type	Code	Spur	gravel/cr							
	M6	1	3		% cover	40	10	5							

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	7	7.5YR 6/4	7.5YR 4/4	FSL	-	-	-	70	F	7	8.2	ST	1	M	SPK	M	F	-	
2 B	7	111	7.5YR 6/4	7.5YR 4/4	FSL	G	1	-	65	F	7	8.1	ST	1	C	SPK	C	F	-	
3 Bz	111	172	7.5YR 6/4	7.5YR 3/4	FSL	G	1	-	55	F	7	7.8	ST	-	-	-	-	-	-	carbonate coats on rock,
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	27	38	49	62	73	84	98	111	122	134	145	156	167	172						

Pedon ID #:				PEDON DESCRIPTION											General Location Notes	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles		
	12N	0593603	4203804	6163	6/9/13	AD/ES		1103	1104	1105	1106	1107	1022/1023	1024		
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class				Ecological Site			Carbonate Stage	
	backslope	110	4%	CC		edolian Residuum	sandstone	moderately deep							1	
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	BGR	ART	CHV	HEC	COL	OPPZ			
	Gir	1	Z				% cover	20	3	7	3	2				

Pedon ID # :		PEDON DESCRIPTION												
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
	12N	0597444	4204373	6154	6/7/17	AD + ES		879	880	881	882	883	847848	849

General Location Notes

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	backslope	W ¹⁰	4	UU	elolian Residuum	Sandstone			
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bugr HZodk ARER Spcr GUSA	
	—	0	Z			% cover	25	10 10 10 5	

→ Phenol red was unclear
but in the low 8's

Pedon ID #:							PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles		
12N	0592496	4201805	6158	6/5/13	AD2ES		587	588	589	590	591	645/646	647			

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Backslope	200	2	LV	edolian & Residuum	Sandstone	Deep		I

Soil Surface	RF size	RF %	Biotic Crust Class	Notes	Veg Type	Code	BUG	ART	ATC								
					% cover	35	2	2									
			Z														

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effr.	Structure			Roots			P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc		
	A	0	7	7.5YR5/4	7.5YR4/4	VFSL					70	VF	7	7.2	NE	2	M	R	C	F	
1																					
2	B1	7	20	7.5YR5/4	7.5YR4/4	FSL					70	F	7	8.0	ST	2	40	SBK	C	VF	F VF
3	B2	20	62	7.5YR5/4	5YR4/4	FSL					60	F	7	8.0	ST	2	20	SBK	C	VF	Few small calc masses in matrix ↑
4	BC	62	135	7.5YR6/4	7.5YR4/4	FSL					70	F	7	8.1	ST						" above "
5	C	135	148	7.5YR6/4	7.5YR5/4	COSL	GR 15				80	CO	5	8.3	VE						
6	R	148+																			
7																					
8																					
9																					
10																					

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	30	41	52	62	72	84	96	108	120	131	139	148								

General Location Notes

Pedon ID #:	IL 1-10 P						PEDON DESCRIPTION							
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
	12N	0594363	420369	6162	7/8/17	ES+AD		1565	1566	1567	1568	1569	1578/1539	1540
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology		Soil Depth Class		Ecological Site		Carbonate Stage	
	Toe slope	NW	12°	CC		eddy air residuum	sandstone		moderately deep				0	
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bgr	Spur	Artr	Aren	Krb2		
	G	2	I				% cover	30	15	2	5	2		

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Eff.	Structure			Roots			P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc		
	1	A	0	5	7.5YR26/4	7.5YR4/3	FSL	-	-	-	60	F	7	7.8	VS	1	Co	Gyr	C	F	-
2	B	5	74	7.5YR26/4	7.5YR4/4	FSL	G	2	F	60	F	7	8.1	ST	0	-	SGr	F	VF	-	
3	BC	74	95	7.5YR26/4	7.5YR5M	FSL	G	1	F	70	F	7	8.1	ST	2	M	Spk	C	VF	-	
4															-	-	-	-	-	-	
5															-	-	-	-	-	-	
6															-	-	-	-	-	-	
7															-	-	-	-	-	-	
8															-	-	-	-	-	-	
9															-	-	-	-	-	-	
10															-	-	-	-	-	-	

Pedon ID #:		PEDON DESCRIPTION																		
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles						
12N	0593826	420194	6109	6/24/13	AD+ES			1283	1284	1285	1286	1287	1288/1299	1300						
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material		Bedrock Geology	Soil Depth Class			Ecological Site		Carbonate Stage							
	Bankslope	280°	7%	VL	calcareous residue		Sandstone	Very shallow					0							
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bugt	Reco	Clay	As									
	G	10	5				% cover	20	10	5	5									
	Br	5																		
Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz							Grade	Sz	Type	Qty	Sz	
1	A	0	9	7.5YR 4/4	7.5YR 4/4 FSL		G	1	F	70	F	5	7.8	ST	1	M	SBK	F	F	
2	L	9+					G	2	m						~	~	—	F	VF	
3							CH	2												
4																				
5																				
6																				
7																				
8																				
9																				
10																				

General Location Notes

Pedon ID #:				PEDON DESCRIPTION										
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
12N	0592695	4201440	6105	6513	ADGBS		688	689	690	691	692	651/652	653	

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Backslope	260°	3%	LV	elolian Residuum	Sandstone	Moderately Deep		I

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Age		Altitude		LLW					
	% cover	25	5	10	5		% cover	25	5	10	5						

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	
1 A	0	5	7.5YR 6/4	7.5YR 3/4	VFSL	W	W	W	60	VF	S	7.6	5L	1	F	GR	M	F	
2 B	5	45	7.5YR 6/6	7.5YR 4/6	FSL	6	1	F	50	F	S	8.2	ST	1	F	SBK	M	VF	
3 Cr	43	58	2.5YR 7/4	2.5YR 5/4	COSL	G	5	F	55	Co	10	8.4	VE	1	C	SBK	C	F	
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	28	38	47	57	58															

General Location Notes

Pedon ID #: IL2-39						PEDON DESCRIPTION										General Location Notes	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles			
12N	0595166	4201175	6193	7/19/13	AD/ES		1594	1595	1596	1597	1598	1633	1634	1635			
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class			Ecological Site			Carbonate Stage				
	summit	90°	4%	VL	olian residuum	Sandstone	Very deep						O				
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	B062	AETIATAM	HETIHO	OPPR						
	-	-	D			% cover	20	5	2	2	1						

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
	1	A	0 4	7.5YR 6/4	7.5YR 4/4	FSL	-	-	55	F	7	6.4	NE	1	F	SBK	C	F		
2	B	4 24	7.5YR 6/4	7.5YR 4/4	FSL	-	-	-	60	F	7	6.6	NE	1	F	Gr	C	VF		
3	B2	24 34	7.5YR 6/6	7.5YR 4/6	FSL	-	-	-	50	F	5	7.6	SL	1	F	SBK	C	F		
4	B3	34 158	75YR 7/4	5 YR 5/4	FSL	-	-	-	50	F	5	8.2	ST							
5	Cr	158 187+	5YR 4/2	5YR 7/4	L	-	-	-	50	F/m	10	8.6	VE							
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	34	47	58	71	83	93	106	118	131	144	155	160	169	180	187					

Pedon ID #:				PEDON DESCRIPTION										
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
12N	0592707	4204317	6157	6/7/13	AD-ER			904	905	906	907	908	850/851	852

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	backslope	200	~	LC	eluvian	Sandstone	Shallow		1

Soil Surface	RF size	RF %	Biotic Crust Class	Notes	Veg Type	Code	SHC2	OPPR	BULR	HCC026					
	% cover	10	5	5	10	% cover									

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	8	7.5YR 5/4	7.5YR 3/3	FSL	Gn	1	-	VS	F	7	7.6	SC	1	M	SBK	C	F	CaCO ₃ on rocks	
2 B1	8	28	7.5YR 5/4	7.5YR 4/4	L	-	-	-	45	F	7	8.0	ST	1	M	SBK	M	F		
3 B2	28	43	7.5YR 5/4	7.5YR 4/4	FSL	Gn	1	-	60	F	70	8.2	ST	1	M	SBK	C	F	CaCO ₃ on rocks & at bottom of horizon (laminated bedrock)	
4 R	43 ⁺																			
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	43																			

dug w/ sharp shooter

Pedon ID #: IL2-SP						PEDON DESCRIPTION										General Location Notes	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers		Photos	White Board	N	E	S	W	Soil surface	Auger piles		
	12N	0593992	4201455	6135	6/24/13	LJ/ES			1338	1339	1340	1341	1342	1315/1316	1317		
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology			Soil Depth Class		Ecological Site		Carbonate Stage				
	<i>toeslope</i>	70	3	VV	eolian & overbank flow	sandstone			<i>very deep</i>				O				
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	SPCR	OPPR	FOLIS							
	—	—	O			% cover	20	2	5								

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	
1 A	0	6	7.5YR 1/4	7.5YR 1/4	FSL	—	—	—	70	F	5	7.6	NE	1 F	SBK	C	F	
2 B1	6	20	5YR 5/6	5YR 4/6	FSL	—	—	—	70	F	5	7.8	VS	1 F	Gr	C	VF	
3 B2	20	38	5YR 5/6	5YR 5/4	FSL	—	—	—	65	F	5	8.2	ST	1 M	SBK	F	F	
4 Ab1	38	75	5YR 4/4	5YR 5/4	SCL	—	—	—	50	F	30	8.2	ST					
5 C	75	142	5YR 8/4	5YR 6/6	LFS	—	—	—	80	F	5	8.2	ST					
6 Ab2	142	184.	5YR 6/4	5YR 9/4	CL	—	—	—	40	F	38	8.2	ST					<i>Slight clay firm in pores</i>
7																		
8																		
9																		
10																		

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	35	46	57	68	80	92	103	115	126	139	145	153	162	169	179	184				

Pedon ID #:	IL2-7P				
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date
	12N	0593354	4203449	6153	6/9/13 AD-ES

PEDON DESCRIPTION

Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
									1028	1029	1030	1031	1032	1004/1005

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Backslope	130	4%	LL	olian residuum	sandstone	moderately deep		1

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bgr	Artr	Juos	Fpri						
	% cover	25	30	10	5												

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	7	7.5YR5/4	7.5YR4/4	FSL	-	-	-	70	F	7	7.6	VS	1	m	Gv	MF	F		
2 B	7	22	5YR5/4	5YR4/4	FSL	-	-	-	70	F	7	7.6	SL	0	SBK	C	VF	F		
3 B2	22	32	7.5YR6/6	5YR4/4	FSL	UR	1	-	70	F	10	8.0	ST	2	m	SBK	C	VF		
4 BK	32	48	10YR7/3	7.5YR5/4	FSL	UR	1	-	70	F	7	8.6	VE							Grade is borderline 2+0.1 CaCO ₃ coats on rock CaCO ₃ coats on rock more CaCO ₃ than any other Calcs coats on rock Slightly less violent effe, than a layer above
5 C	48	59	7.5YR6/4	7.5YR5/4	FSL	UR	1	-	70	F	7	8.0	VE							
6 R	59+																			
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	30	39	48	58	59															

General Location Notes

Pedon ID #:				PEDON DESCRIPTION										
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
12N	0593099	4201511	6805	615/13	AP965			763	764	765	766	767	660/661	662

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Backslope	180	3%	CC	olian & residuum	sandstone	Shallow		1

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	BGR	SPCR	ARTK	ATCA	UPPR						
	% cover	20	10	5	3													
	Brachy	2																

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots		P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	
1 A	0	6	SYR 6/4	SYR 4/3	FSL	GR	1		60	F	5	7.0	NE	1	F	Gr	M	F	
2 B1	6	18	SYR 5/6	SYR 4/4	VFSL	GR	1	F	55	JF	5	7.6	ST	1	F	SBK	m	VF	
3 B2	18	40	SYR 6/6	SYR 4/4	VFSL	GR	1	F	55	VF	5	7.6	ST	1	F	SBK	F	F	
4 Cr	40	46	SYR 8/3	7.5YR 6/4	VFSL	CH	7	M	55	VF	5	8.2	VE						
5 R	46+																		
6																			
7																			
8																			
9																			
10																			

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	27	37	46																	

General Location Notes

Pedon ID #:		PEDON DESCRIPTION													
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
	12N	0593775	4203924	6131		AD+5S		1128	1129	1130	1131	1132	1025/1026	1027	
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage						
	backslope	W	10°	VU	residuum edbian	sandstone									
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	ATCAL	BOLY	KRLA	ARTZ				
	67%	2	2				% cover	5	25	10	10				
General Location Notes															

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage		
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc			
	1	A	0	8	754254	754234	FSL	Gr	1	-	75	F	5	7.8	SL	1	M	Gr	C	F	-	
2	B		8	56	7542464	54246	FSL	Gr	4	-	60	F	5	8.2	ST	0	-	Shr	F	VF	-	
3	R		56+													1	M	grk	F	C	-	
4																-	-	-	C	VF	-	
5																						
6																						
7																						
8																						
9																						
10																						

Pedon ID #:		PEDON DESCRIPTION												
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
	12N	0593791	4701918	6115	6/24/13	A0ES		1278	1279	1280	1281	1282	1295/1296	1297

General Location Notes

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	backslope	10°	5%	LC	oolian residuum	sandstone			
							moderately deep		O

Pedon ID #: IL3-1P						PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
	12N	0594726	4201276	6193	7/19/13	AO/BS		1580	1581	1582	1583	1584	1627	/1628	1629

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	backslope (plat)	70°	2%	LL	residuum eolian	Sandstone			
							shallow		1

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	BUL12	HERC12	ART12	GUSA						
	% cover	15	4	4	2												

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
						Gr	1	F												
1 A 0 6 7.5YR 5/4 7.5YR 3/4 Sil	Gr 1					40	F	S	7.6	SL				1 F	SBK	M	F			
2 B 6 16 5YR 5/4 5YR 4/4 Sil	Gr 2					40	F	7	7.8	SL				1 F	Gr	C	UF			
3 BC 16 34 5YR 6/4 5YR 4/4 Sil	Gr 1					40	F	7	8.1	ST				2 M	SBK	M	F			
4 R 34+	Gr 2													-	-	-	M	VF		
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	34																			

General Location Notes

PEDON DESCRIPTION														
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
		12N	0597614	4201876	6184	6/5/13		502	503	504	505	506	639/640	641

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Backslope	200°	6%	LV	edian	Sandstone	Very deep		0

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bugt	ARR	opp	SPOT				
	% cover	40%	10%	1%	2%										

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc		
1 A	0	5	104R5/4	104R3/4	LS				75	F	5	7.6	NE	1	F	GR	C	F			
2 B1	5	130	7.54R5/6	7.54R4/4	LS	GRL	2%		80	F	5	8.2	VE	1	F	SBK	F	VF			
3 B2	130	181	7.54R6/4	7.54R5/4	LS				80	F	5	8.4	VE	1	C	SBK	C	VF			
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	25	39	51	62	72	83	94	106	117	126	136	147	157	168	181					

General Location Notes

Pedon ID #:							PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface		Auger piles	
	12N	0592589	4204348	6154	6/7/13	ADGES		853	854	855	856	857	844/845	846		

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Backslope	308	5%	LV	edolian	sandstone	Deep		1

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	BGR SP&P (APTHdead)											
	%	%	3	3			% cover	20	15	5									

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty		
1 A	0	6	7.5YR 6/4	7.5YR 4/4	VFSL	=	=	=	65	VF	5	7.4	NE	1 F	SBK	M	F		
2 B1	6	30	7.5YR 7/4	7.5YR 5/4	VFSL	-	-	-	75	VF	5	8.0	ST	2 C	SBK	M	VF		
3 B2	30	90	7.5YR 7/4	7.5YR 5/4	VFSL	Gr 7	M								-	-	-	-	Calcareous coatings on rocks
4 B3	90	124	7.5YR 7/6	7.5YR 5/6	VFSL	Gr 3	F		75	VF	7	8.2	ST	-	-	-	-	-	
5 B4	124		7.5YR 7/6	7.5YR 5/6	VFSL	Gr 2	F		70	VF	7	8.4	ST	-	-	-	-	-	
6						-	-	-											
7																			
8																			
9																			
10																			

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	30	41	52	64	73	84	95	105	117	130	140	152	164	174	183	188				

General Location Notes

Pedon ID #:		IL3-4P														
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	PEDON DESCRIPTION		Soil surface					Auger piles	
	12N	0594737	4200317	6253	5/23/13	AD/ES		White Board	N	E	S	W	108/129	126/127/130/131		

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	shoulder	14°	3%	VV	Bolian	sandstone	Deep		I

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	BOUR HEFORO	ARTL CHVI	% cover	35%	10%
	—	—	3									

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
						—	—	—						1	m	GR	Com	VF		
1	A ₁	0	4	7.5YR 5/4	7.5YR 3/4	SL	—	—	35	F	12	6.6	none	2	m	SBK	Com	VF		
2	A ₂	4	14	7.5YR 4/6	7.5YR 3/4	L	—	—	50	F	12	6.6	none	2	m	SBK	Com	VF		
3	A ₃	14	27	7.5YR 4/6	7.5YR 3/4	L	—	—	45	F	12	6.6	none	2	m	SBK	Com	VF		
4	AB	~27	~40	7.5YR 5/4	7.5YR 4/4	SL	—	—	70	F	18	7.4	SL							
5	B ₁	~40	~52	7.5YR 6/4	7.5YR 4/6	SL	1	CH	70	F	12	7.6	VE							
6	B ₂	~52	~86	7.5YR 6/4	7.5YR 4/4	L	1	CH	50	F	15	7.6	VE							
7	B ₃	~86	~100	7.5YR 6/4	7.5YR 4/6	SL	1	CH	75	F	19	7.6	VE							
8	C	~100	~138	7.5YR 6/4	7.5YR 4/6	SL	5	CH	60	F	15	8.2	VE							carbonate nodules
9	C _r	~138	146	7.5YR 6/6	7.5YR 4/6	SL	30	CH	75	90% 100%	10	8.2	ST							carbonate nodules
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	23cm	31cm	41cm	48cm	55	58	64	69	80	84	93	99	109	117	123	132	146			

General Location Notes	
• April's Camera	
• PH indicators used as 25m marks.	
• Sticks used as horizon breakers	

PEDON DESCRIPTION														
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
	12N	0592934	4201495	6199	10/3/13	ADSES		713	714	715	716	717	654/655/656	

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Shoulder	180°	5%	LL	edolian residuum	sandstone	Moderately deep		1

Soil Surface	RF size	RF %	Biotic Crust Class	Notes	Veg Type	Code	BGR	ART	SPCK						
	-	-	1	-		% cover	40	10	S						

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	
1 A	0	7	7.5YR5/4	7.5YR4/3	FSL	W	W	W	70	F	7	7.6	NE	1	6Z	M	C	F	
2 B	7	42	7.5YR5/6	5YR4/4	FSL	W	W	W	70	F	7	8.0	ST	2	Co	SBK	F	F	
3 Cr	42	74	5YR7/3	2.5YR5/4	FSL	G	15	C	70	F	7	8.3	VE	3	Co	SBK	C	VF	
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	31	39	43	53	63	74														

General Location Notes

Pedon ID #:		IL 3-10P												
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
	12N	0592752	4204041	6186	6/9/13	AD+ES		929	930	931	932	933	1016/1017	1018

PEDON DESCRIPTION

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology
	backslope	190	5	L V	colluvium regolith	Sandstone

Soil Depth Class	Ecological Site	Carbonate Stage
Very deep		1

Soil Surface	RF size	RF %	Biotic Crust Class	Notes
	—	0	4	

Veg Type	Code	Bry	Oppr	Atr	Chri	Atre
	% cover	35%	20%	15%	5%	10%

General Location Notes

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	7	7.5YR 6/4	7.5YR 4/3	FSL	Gr	1	—	55	F	S	7.0	V	1	F	SBk	M	F		
2 B	7	58	7.5YR 7/4	7.5YR 5/4	FSL	Gr	1	—	70	F	S	8.1	SL	1	C	SBk	C	F		
3 B2	58	120	7.5YR 7/4	7.5YR 5/4	FSL	Gr	1	—	65	F	S	8.2	ST	—	—	—	—	—	—	
4 C	120	152	7.5YR 8/4	7.5YR 5/6	COSL	Gr	3	—	70	CO	S	8.4	ST							
5 C2	152	154	5YR 7/4	5YR 4/4	VFSL	—	—	—	75	VF	7	8.6	VE							caco3 layer on ped
6 R	154+																			
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	26	38	50	58	71	81	95	106	115	125	136	147	154							

Pedon ID #:		PEDON DESCRIPTION																General Location Notes	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles					
12N	0594445	4202837	6128	21613	ADIES			1448	1449	1450	1451	1452	1404/1405	1406					
Geomorph.	Landform	Aspect (*)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology		Soil Depth Class		Ecological Site		Carbonate Stage						
	Summit	240°	5%	VV		Aeolian colluvium	Sandstone		Very deep				0						
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	BUGF	SPGR	ACTP	ATAN	PDID							
	CH	1	2				% cover	15	10	7	5	3							

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc		
						-	-	-						-	-	-	-	-	-		
1	A	0	7	7.5 YR 7/4	7.5 YR 5/4	FSL	Gr	1	F	70	F	5	7.8	SL	1	F	SBK	M	F		
2	B	7	70	7.5 YR 7/4	7.5 YR 5/4	FSL	Gr	1	F	70	F	5	8.2	ST	-	-	-	Gr	M	VF	
3	B2	70	138	7.5 YR 9/4	7.5 YR 6/4	FSL	Gr	1	M	65	F	5	8.4	ST	-	-	-	-	-	-	
4	BC	138	165+	7.5 YR 8/4	7.5 YR 6/4	n/c LS	Gr	1	F	80	M	5	8.4	ST							Medium to coarse sand
5																					
6																					
7																					
8																					
9																					
10																					

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20	21	22	23	24	25
	32	44	56	67	72	79	89	97	110	124	138	148	147	151	153	154	155	156	153	157	160	158	160	165	

Pedon ID #:							PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles		
12N	0594630	4201361	6177	7/19/13	40/ES			1575	1576	1577	1578	1579	1624/1625	16716		

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Shoulder	60°	8%	VL	edolian residuum	sandstone			
							shallow		1

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	BUG	RSPCR	USUSA	KRLUR	ATCAZ	AETR2/0			
	% cover	10	1					15	4	2	2	1	1			

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	6	7.5TR5/4	7.5 YR 3/4	Si:L	Gr	3	F	40	F	3	7.8	SL	1	F	SBK	M	F		
2 B	6	25	5YR 6/4	5YR 4/4	L	Gr	5	F/M		F	15	8.1	st	1	F	Gr	M	VF		
3 R	25+					Co	15	-	35	F	15			-	-	-	M	VF		
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	25																			

General Location Notes

Pedon ID #: TL 4-48							PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface		Auger piles	
	12N	0593028	4201580	6213	6/4/03	AD+ES		738	739	740	741	742	657/658	659		

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Backslope	200	5	CL	Colluvium & residual	Sandstone	Very Shallow		1

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bry	opp	Gusa						
	Gr	3%	(o)				% cover	20	5	10						
	Gravel	3%														
	Stones	3%														
	Bedrock ~7%															

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	7	SYR 7/6	5 YRS 1/4	(?) SL	G	5		65	VFG C6	7	7.6	SL	1	M	Gr	F	F		
2 Cr	7	15	SYR 6/6	5 YRS 1/4	(?) SL	CH	20		70	VFG C6	7	7.8	ST	2	M	SBK	F	F		calcium carbonate on bottom of rocks
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	15																			

General Location Notes

Pedon ID #:		PEDON DESCRIPTION												
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
	12N	0593983	4201833	6138	6/29/17	AD+ES		1273	1274	1275	1276	1277	1291/1292	1294

General Location Notes

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	shoulder	80°	8%	V V	edian residuum	Sandstone			
	G	15		/			very shallow		1

Pedon ID #: IL4-7P						PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
12N	0593866	4203334	6132	7/3/13	A0 + E5			1353	1354	1355	1356	1357	1358/1361	1370	

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	lummit	180	1	V V	eolian	Sandstone	Very Deep		0

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Dogr	Atra	Artr	Sper						
							% cover	30	5	15	10						
	①	1															

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage			
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty				
	1	A	0	6	7.5YR 5/4	7.5YR 3/4	PSL	-	-	-	60	F	3	7.4	VSL	1	M	SBK	C	F	
2	B1	6	110	5YR 6/4	5YR 4/4	FSL	Gr	1	F	-	60	F	7	8.2	ST	1	F	GR	F	VF	
3	B2	110	165	SYR 7/3	5YR 5/3	FSL	CM	1	-	-	60	F	10	8.2	ST	1	M	SBK	C	F	
4	B3	165	190+	5YR 7/4	5YR 4/4	FSL	Gr	1	F	-	65	F	10	8.2	ST	-	--	-	-	-	
5																					
6																					
7																					
8																					
9																					
10																					

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	31	46	55	67	78	90	103	114	127	139	150	161	172	184	190					

General Location Notes

Pedon ID #:		PEDON DESCRIPTION													
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
12N	0594530	4202978	1496	7/5/15	10/15	IL4-8	1439	1440	1441	1442	1443	1444/1445	1446/1447		

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	backslope	260°	11%	VV	residuum	sandstone	very shallow		0

Soil Surface	RF size	RF %	Biotic Crust Class	Notes	Veg Type	Code	P100	J100	F100						
	% cover	10	7	3											

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
	0	10	7.5YR 7/4	7.5YR 5/4		G	2	F						L	F	SL	SBK	M	VF	
1	A	0	10	7.5YR 7/4	FSL	G	1	C	70	F	5	8.1	SL	L	-	-	-	F	F	
2	R	10+																		
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	10																			

General Location Notes

Pedon ID #:							PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface		Auger piles	
	12N	0593203	4204044	6220	6/9/13	AD+ES		1078	1079	1080	1081	1082	1010/1011	1012		

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Buck slope	90	10	V V	eolian	Sandstone	Very Deep		1

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bgr	opp	Artr	ATL					
	% cover	25	10	10	5		% cover									

General Location Notes

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage		
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty			
						G	1	F						1	M	SBK	M	F		
1	A	0	7	7.5YR 1/4	7.5YR 4/4	VFSL			60	VF	3	7.4	SL	1	F	Gr	M	VF	Calcs coatings on rocks	
2	B	7	102	7.5YR 7/6	7.5YR 5/6	VFSL			65	VF	3	8.0	ST	2	C	SBK	M	F		
3	C	102	109	7.5YR 8/2	7.5YR 5/4	VFSL			70	VF	3	8.2	ST	-	-	-	-	-		
4	C2	109	180+	7.5YR 8/3	7.5YR 5/4	VFSL	G	3	M	75	VF	3	8.4	VE						
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	32	41	51	74	84	93	100	108	111	118	129	132	14	152	154	170	176	180		

Pedon ID #:						PEDON DESCRIPTION										
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface		Auger piles	
	12N	0594307	4200622	6203	5/28/13	ES/AO		506	507	508	509	510	511/512	533		

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	summit	191	37°	CC	edian	sandstone	very deep		0

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	SPCP	SOUP	ATCA	LALA	ARTR	LAOC3			
	% cover	20	10	3												
	Gy	<1	0													

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1	A	0	8	7.5YR 6/4	7.5YR 4/3	LFS			80	F	7	7.8	VS	1	M	Gy	C	F		
2	BA	8	70	7.5YR 6/4	7.5YR 4/4	FSL	Gy	1	F	-	75	F	7	8.2	SL	~	F	SBk	F	F
3	B	70	122	7.5YR 7/4	7.5YR 5/1	FSL	Gy	1	-	-	65	F	10	8.2	ST	-	-	-	C	VF
4	B2	122	162	7.5YR 7/4	7.5YR 5/4	FSL	Gy	1	-	-	70	F	7	8.6	ST					
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	33	44	57	67	78	89	100	111	122	130	139	148	153	160	170	180	182			

General Location Notes

Pedon ID #: M1-2						PEDON DESCRIPTION										General Location Notes	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles			
12N	05901278	4200539	42175/27/13	42175/27/13	ADES		481	482	483	484	485	479/480	479/480				
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class		Ecological Site		Carbonate Stage					
	shoulder	~21°	2%	LL		eolian	sandstone	Very deep				I					
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	B0UR	SICK	ART	LADOC3						
	Flyr	<1	I				% cover	Y	S	S	5						
25																	

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
	0	4	7.5YR5/4	7.5YR 4/3		gr	1	F						1	F	6m	m	F	-	
1	A	4	7.5YR6/4	7.5YR 4/4	FSL	-	-	-	70	F	5	8.0	SC	-	-	-	C	VF	-	
2	B	4	7.5YR6/4	7.5YR 4/4	FSL	w	w	w	70	F	5	8.2	ST	2	F	SBL	C	F	-	
3	B2	79	141	7.5YR6/4	FSL	w	w	w	70	F	5	8.2	VE	-	-	-	C	VF	-	Few fine CaCO ₃ nodules
4	B3	141	187	7.5YR 7/4	FSL	w	w	w	70	F	5	8.2	VE							
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	29	40	53	63	73	84	96	109	119	128	141	154	165	178	187					

Pedon ID #:				PEDON DESCRIPTION												General Location Notes	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles			
	12N	0594037	4200693	6195	5/27/13	AD/ES		359	360	361	362	363	459/460	461			
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class			Ecological Site		Carbonate Stage				
	Shoulder	270	2	LV		Eolian	Sandstone	very deep					1				
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	ARTA	DPOO	LA063	Burn Spz						
	GR	1%	I				% cover	2%	2%	5%	30%						

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
	1 A	0	4	10YR5/3		7.5YR4/2	LFS	1%						FGR	80	F	5	7.0	NE	
2 B	4	~47	7.5YR6/4	7.5YR4/4	LFS	10%	FGR	80	F	5	8.0	SL	0	SGR	C	VF				
3 B2	~47	~76	7.5YR6/4	7.5YR4/4	LFS	10%	GR	75	F	7	8.2	ST	2 CO	SBK	C	VF	Carbonate coatings			
4 C	~76	~171	7.5YR7/4	7.5YR5/6	LS	2%	CH	85	M	5	8.4	ST	W	W	W	W	Carbonate coatings			
5																	Carbonate coatings			
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	34	45	57	67	77	90	100	112	127	137	150	162	171							

Pedon ID #:							PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles		
12N	0594322	42003210	16710	51813	AD/ES	534	535	536	537	538	539	560	561			

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	backslope	0°	21%	CC	eolian	sandstone	very deep		1

Soil Surface	RF size	RF %	Biotic Crust Class	Notes	Veg Type	Code	BOLR	STCL	ATC12	LAOCB						
	% cover	20	10	3												
			1													

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	9	75YR7/4	75YR4/4	VFSL	Gr	3	F	70	VF	S	7.6	3L	1	F	SBK	m	F	-	hydrophobic
2 B	9	87	75YR7/6	75YR4/4	VFSL	-	-	-	75	VF	7	8.2	ST	1	VF	Gr	c	VF	-	
3 B2	87	181	75YR8/4	75YR6/4	VFSL	Gr	1	F	75	VF	7	8.4	VE	1	C	SBK	c	VF	-	few fine CaCO ₃ nodules
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20	21
	30	41	52	65	75	86	97	101	112	121	135	142	150	160	168	171	175	171	177	179	181

Pedon ID #:							PEDON DESCRIPTION										General Location Notes		
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles					
	12N	0594072	4200531	627	7/8/13	AD/BS	001	001	003	004	005	1547/1548	1549						
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology		Soil Depth Class	Ecological Site			Carbonate Stage							
	backslope	340°	5%	LV	edian	sandstone		Very Deep							1				
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	MCAZ	SPK	BZTE	OPPR								
	Grr	3	1			% cover	15	10	7	3									
CH	2																		

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A 0	8	7.54R5/3	7.54R4/2	FSL	G	2	F	-	70	F	5	7.5	ST	1 M	Grr	C	VF	-		
2 B 8	23	7.54R6/3	7.54R4/3	FSL	-	-	-	-	70	F	5	8.0	ST	0 -	SGr	C	F	-		
3 B2 23	105	7.54R5/4	7.54R4/3	FSL	G	1	F	-	70	F	5	8.0	ST	2 M	SBK	C	VF	-		
4 B3 105	190+	7.54R5/4	7.54R4/4	FSL	G	1	F	-	60	F	10	7.6	ST	2 M	SBK	F	VF	-		
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	37	51	63	76	88	99	113	125	130	147	159	172	182	190						

Pedon ID #:		M1-8														PEDON DESCRIPTION										
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	General Location Notes											
12N	0594975	1420467	6152	6/20/13	AD-13			1158	1159	1160	1161	1162	1181	1182	1183											
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology							Soil Depth Class	Ecological Site	Carbonate Stage											
	x slope	330	1%	L C	olian & flood plain/ over bank deposit	sandstone							Very Deep		1											
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Sals	Arct	Spur	opps															
	O	O					% cover	20	10	15	5															
Horizon		Depth (cm)		Matrix Color				Texture		Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage		
(TOP)	(BOT)	Dry	Moist	Knd	%	Sz												Grade	Sz	Type	Qty	Sz	Loc			
1	A	0	7	7.5YR5/4	7.5YR3/3		FSL	—	—	—	75	F	7	8.0	ST		1	M	Gr	F	F	—	Slightly hydrophobic			
2	Bw	7	59	7.5YR6/4	7.5YR4/4		FSL	hr	1	—	70	F	7	8.0	ST		2	TN	PL	F	VF	—	WR			
3	Ab	59	96	7.5YR5/4	7.5YR4/4		FSL	—	—	—	70	F	10	8.0	ST		2	M	SBk	C	VF	—	Slightly hydrophobic			
4	C	96	171	7.5YR7/4	7.5YR4/4		FLS	—	—	—	75	F	5	8.0	ST		—	—	—	—	—	—	WR			
5																							More hydrophobic			
6																							than above			
7																							SWR			
8																							low			
9																							small			
10																							coarse			
																							masses			
Slightly hydrophobic																										

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	34	47	59	72	85	96	104	111	118	120	127	136	144	149	157	162	166	171		

Pedon ID #:		PEDON DESCRIPTION														General Location Notes	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles			
	12N	0594726	4200899	6164	7/6/13	AD+ES		1493	1494	1495	1496	1497	1498/1474	1475			
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class		Ecological Site		Carbonate Stage					
	Backslope	120°	5%	LL		edolian	sandstone	Very deep						1			
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Lax3	Alex2	opp1	Spur						
	G	1	0				% cover	10	5	5	20						

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	
1 A	0	6	7.5YR6/4	7.5YR4/3	FSL	Gr	1	F	70	F	7	7.3	VS	1 M	large	M	F	-
2 B	6	126	7.5YR6/4	7.5YR4/4	FSL	Gr	1	F	70	F	7	8.0	SL	2 M	SBK	F	F	-
3 BC	126	160	7.5YR7/4	7.5YR5/4	FLS	Gr	1	F	75	F	5	8.1	ST	2	-	C	VP	-
4 Ad	160	187*	7.5YR6/4	7.5YR4/4	FSL	-	-	-	60	F	10	8.1	ST	2	-	-	-	-
5																		
6																		
7																		
8																		
9																		
10																		

Thin Caco3 coats on rocks

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	35	48	60	72	84	96	109	126	134	147	160	172	187							

Pedon ID #:		PEDON DESCRIPTION														General Location Notes		
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles				
	12N	0594100	4201955	6110	6/24/13	AD+ES		1268	1269	1270	1271	1272	1288/1289	1290				
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology				Soil Depth Class		Ecological Site	Carbonate Stage				
	Backslope	40	5%	LL		Colluvium residuum	Sandstone				moderately deep			0				
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Heath	Astel	Arct	Bryos	Oppe						
	0	1					% cover	15	5	10	25	3						

Pedon ID #:		PEDON DESCRIPTION														General Location Notes		
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers		Photos	White Board	N	E	S	W	Soil surface	Auger piles			
12N	10594337	4200771	1640	6/27/13	APG			434	435	436	437	438	474/475	476				
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class		Ecological Site	Carbonate Stage								
	shoulder	20°	1%.	VL	edician	sandstone	Very deep			1								
Soil Surface	RF size	RF %	Biotic Crust Class		Notes		Veg Type	Code	EUR	SPR	ATL	OPPO						
	-	-	1					% cover	30	2	2							

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage			
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty				
1	A	0	4	7.5YR 6/3	7.5YR 3/4	FSL			70	F	5	7.6	VS	1	VF	SBk	C	F	-	very hydrophobic	
2	AB	4	36	7.5YR 6/4	7.5YR 4/4	FSL			75	F	7	8.2	ST	2	m	Gr	VF	VF	-		
3	B	36	88	7.5YR 7/4	7.5YR 5/4	VFSL	6y	1	=	70	VF	5	8.2	ST	-	-	-	VF	VF	-	
4	B2	88	134	7.5YR 6/3	7.5YR 4/4	VFSL	6y	2	=	60	VF	5	8.2	ST							
5	C	134	176	7.5YR 7/3	7.5YR 4/4	SL	6y	7	=	75	co VF	7	8.4	S							
6																					
7																					
8																					
9																					
10																					

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	36	44	54	70	82	94	104	117	127	139	140	146	153	160	166	170	175	176		

Pedon ID #:				PEDON DESCRIPTION												General Location Notes	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles			
12N	0594451	4701808	16101	6/22/13	AD-ES			1217	1218	1219	1220	1221	1235/1236	1237			
Geomorph.	Landform	Aspect (*)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class			Ecological Site		Carbonate Stage				
	Toeslope	10	4	LL		edolian overbank spill	Sandstone	Very Deep					1				
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	A1C4C Spec opps	I also unkfr								
	O	O					% cover	10	20	2	5	2					

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc		
	A	O	7	7.5YR 6/4	7.5YR 4/4	FSL	-	-	-	70	F	S	7.4	ST	1	F	SBK	M	F		
1	B	7	70	5YR 7/4	5YR 5/4	PSL	Gr	1	F	-	75	F	S	7.6	ST	1	F	GR	M	VF	Slightly hydrophobic
2	Ab1	70	90	5YR 6/4	5YR 4/3	FSL	-	-	-	70	F	10	7.4	SL	-	M	SBK	C	F		
3	C	90	114	5YR 7/3	5YR 5/4	LFS	-	-	-	80	F	5	7.4	SL	-	-	-	-	-	slightly hydrophobic	
4	Ab2	114	186	7.5YR 5/4	7.5YR 4/4	L	-	-	-	45	F	18	7.6	ST						Slightly hydrophobic carbonate masses	
5																					
6																					
7																					
8																					
9																					
10																					

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	36	49	62	72	84	100	110	117	130	144	159	172	186							

Pedon ID # : M2-7P						PEDON DESCRIPTION										General Location Notes	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles			
12N	0595073	4601432	6140	6/20/13	AD/BS			1153	1154	1155	1156	1157	1178	1179	1180		
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class		Ecological Site		Carbonate Stage					
	toeslope	310°	1%	LV		eluvial flood plain or overbank deposit	sandstone	Very deep				0					
Soil Surface	RF size	RF %	Biot:- Crust. Class		Notes	Veg Type	Code	ATCAT	SPER	SALSOLA	OPPO						
	—	—	1				% cover	5	15	5	3						

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
	1	A	0	8	7.54R5/1	7.54R4/4	FSL	—	—	60	F	5	8.1	ST	1	M	Gy	C	VF	—
2	Bw	8	70	7.54R26/4	7.54R4/4	FLS	—	—	80	F	5	8.1	ST	2	M	SBK	F	F	—	Slightly hydrophobic
3	Ab	70	118	7.54R25/4	7.54R4/3	FSL	Gy	1	75	F	7	8.0	ST	2	Co	SBK	C	VF	—	
4	C	118	165*	7.54R27/4	7.54R5/4	FLS	Gy	1	80	F	5	8.0	ST	—	—	—	F	F	—	
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20	21	22	23	24	25	26
	29	40	51	60	70	81	92	103	114	122	124	127	128	131	139	141	145	146	150	153	154	157	157	160	163	165

Pedon ID #:				PEDON DESCRIPTION															
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface		Auger piles		General Location Notes		
	12N	0594080	420647	6187	7/6/13	AD+ES		1488	1489	1490	1491	1492	1479	1477	1478				
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material		Bedrock Geology	Soil Depth Class			Ecological Site		Carbonate Stage						
	Backslope	240'	4%	VL	eolian		sandstone	Very deep					0						
Soil Surface	RF size	RF %	Biotic Crust Class		Notes		Veg Type	Code	Iper	Mn ²	Loc ²	Boyle	opp ²	Krb ²					
	G	1	O					% cover	10	2	10	20	5	3					

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc		
						-	-	-						-	-	-	-	-	-		
1 A	0	6	7.5YR 6/3	7.5YR 4/2	PSL	CH	1	-	75	F	5	7.6	VSL	1	F	SBK	C	F			
2 B	6	33	7.5YR 6/4	7.5YR 4/4	LS	Gr	1	F	-	80	M	3	8.0	sL	1	F	Gr	C	VF		
3 BC	33	104	7.5YR 7/4	7.5YR 5/4	LS	Gr	1	F	75	M	3	8.2	ST	1	M	SBK	C	F			
4 Ab	104+	-	7.5YR 6/4	7.5YR 4/4	PSL	Gr	1	M	-	60	F	7	8.2	ST	-	-	-	-	-		
5																					
6																					
7																					
8																					
9																					
10																					

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	33	42	51	60	72	84	95	106	119	133	146	163	177	187						

↑ backwords

Pedon ID #:							PEDON DESCRIPTION										General Location Notes		
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles					
12N	0594102	42000630	1607	5127/13	AD/ES			409	410	411	412	413	472/473	470/471					
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology		Soil Depth Class	Ecological Site			Carbonate Stage							
	Summit	310	21	VV	eolian	sandstone		Very deep				1							
Soil Surface	RF size	RF %	Biotic Crust Class		Notes		Veg Type	Code	SPGR	BON12	WAVC	ART12	ATCA12						
	Flur	41	1				% cover		20	5		6							

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
	1 A	0	5	10YR6/4		7.5YR3/3	LFS	Gv						41	F	80	F	S	7.4	
2 B	5	67	7.5YR6/6	5YR4/4	FSL	Gv	1	-	70	F	F	8.0	ST	2 n	SOr	C	VF			
3 B2	67	180	7.5YR7/4	7.5YR5/4	LFS	Gv	1	-	80	F	F	8.4	ST							
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Some fragments w/ CaCO₃ coatings

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	36	47	59	70	82	96	100	110	121	132	140	150	160	168	176	180				

Pedon ID #: M2-10P						PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
12N	0594220	4201073	6180	7/8/13	AD/ES			1500	1501	1502	1503	1504	1541/1542	1543	

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	backslope	~50°	30°	LL	elolian	sandstone	Very deep		0

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	ATM	SPM	Forbs					
	% cover						% cover								
Gr	1	1													

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1	A	0	6	7.5YR 6/4	7.5YR 5/4	FSL	-	-	75	F	5	7.6	SL	1	F	SBK	M	F		
2	B1	6	17	7.5YR 7/4	7.5YR 5/4	LFS	-	-	80	F	3	7.8	ST	1	M	SBK	F	F		
3	B2	17	73	7.5YR 7/4	7.5YR 5/4	LMS	-	-	75	M	3	8.0	ST	1	F	SBK	C	F		
4	B3	73	110	5 YR 8/4	7.5YR 5/4	LFS	-	-	75	F	3	8.1	ST							
5	B4	110	150	7.5YR 7/4	7.5YR 5/4	LFS	-	-	75	F	3	8.2	ST							
6	B5	150	187+	7.5YR 7/4	7.5YR 5/4	FSL	-	-	70	F	5	8.2	ST							
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	39	50	64	77	91	103	116	129	138	151	164	175	187							

General Location Notes
Forbs = LAOC3, PLPA2 Amelanchier spp. etc.

Pedon ID #:		PEDON DESCRIPTION													General Location Notes		
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles			
12N	0594030	420171	6153	7/8/13	AD+ES			1518	1519	1520	1521	1522	1531/1533	1534			
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class		Ecological Site	Carbonate Stage						
	backslope	0	3%	LL		edolian	sandstone	Very Deep			0						
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bgr	Sper	oppn	Kelat						
	G	1	2				% cover	30	15	10	5						

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	
1 A	0	8	7.5YR 6/4	7.5YR 4/3	FSL	=	=	=	55	F	5	7.6	SL	1	M	SBK	F	C
2 B	8	35	5YR 7/4	5YR 5/6	FSL	Gr	1	-		60	F	5	8.1	ST	1	F	SBK	C
3 B2	35	76	5YR 7/4	5YR 6/6	LFS	Gr	2	F	75	F	3	8.2	ST	-	-	-	-	-
4 B3	76	140	5YR 7/4	5YR 5/4	FSL	Gr	1	-		70	F	5	8.2	ST	-	-	-	-
5 B4	140	186	5YR 7/4	5YR 5/4	LF	Gr	1	m	75	F	3	8.6	ST	-	-	-	-	
6						-	-	-										
7																		
8																		
9																		
10																		

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	30	40	51	61	72	81	90	99	111	124	136	149	162	173	186					

Pedon ID #:		PEDON DESCRIPTION												General Location Notes		
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles		
	12N	0594407	4201690	6174	6/22/13	AD/BS		562	563	564	565	566	1232	1233	1234	
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology		Soil Depth Class		Ecological Site		Carbonate Stage			
	shoulder	70	5%	CC		colluvium residuum	sandstone		Moderately deep				1			
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	BUGA ARTI CHIN ATCH GUSA SPEC								
	6r	3	1				% cover	20	4	5	1	3	2			

Pedon ID #:	M3-3P					PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	General Location Notes
	12N	0594734	4201727	641	6/20/13	AD/ES		1167	1163	1164	1165	1166	1189/1191	1192	
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class		Ecological Site		Carbonate Stage			
	shoulder	5°	5%	VV		eolian	Sandstone	Very deep						O	
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	ARTR	CHVB	BUR	HScal				
	Gr	1	2			% cover	2	3	20	10					

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage		
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty			
						-	-	-						2	M	SBK	M	F		
1	A	0	7	7.5YR 6/4	7.5YR 4/4	PSL	-	-	65	F	5	7.6	VSL	-	-	-	-	M VF		
2	B	7	14	7.5YR 7/6	7.5YR 4/4	PSL	-	-	65	F	5	8.0	SL	2	F	SBK	C	F		
3	Bw	14	80	7.5YR 5/6	7.5YR 4/4	FSL	-	-	70	F	5	8.2	ST	2	M	SBK	C	F		
4	C	80	170	7.5YR 7/6	7.5YR 5/4	FSL	Gr	1	-	75	F	5	8.4	VE						
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	27	40	53	64	75	87	98	112	123	136	149	158	170							

Pedon ID #:		M3-SP													PEDON DESCRIPTION										General Location Notes
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	Soil Depth Class			Ecological Site		Carbonate Stage					
	12N	0594689	4201672	6151	6/20/12	AO/ES		1168	1169	1170	1171	1172	1187/1188	1190											
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology									Soil Depth Class	Ecological Site	Carbonate Stage								
	Shoulder	310°	3	VV	ediar	sandstone			Very deep																
Soil Surface	RF size	RF %	Biotic Crust Class		Notes		Veg Type	Code	B0SF	A0TB0	S0C1														
	—	0	1					% cover	30	5	2														
Horizon		Depth (cm)		Matrix Color				Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage		
1	A	0	7	7.5YR6/4	7.5YR 4/4	FSL		Knd	%	Sz							2	M	SBK	M	F	—			
2	B	7	29	7.5YR 6/6	7.5YR 4/6	FSL		—	—	—	55	F	12	7.6	VSL	1	F	G	M	VF	—				
3	C	29	116	7.5YR 7/4	7.5YR 5/4	MLS		Gr	21	—	50	F	S	8.2	SL	2	M	SBK	F	F	—				
4	(Ab ² /C)	116	183	7.5YR 5/4	7.5YR 3/4	FSL		Gr	1	—	75	M	3	8.2	ST	2	M	SBK	F	F	—	Caco ₃ coating rocks			
5																									
6																									
7																									
8																									
9																									
10																									

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20	21	22	23	24	25	26	27
	26	37	50	60	71	81	87	91	98	99	103	105	107	110	112	114	118	118	122	126	133	140	147	154	162	174	183

Pedon ID #: M3-7							PEDON DESCRIPTION										General Location Notes	
Location	UTM Zone	Eastng (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles				
12N	0594027	41000649	16704	5/27/13	AD/ES			384	385	386	387	388	466/468	469				
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material		Bedrock Geology		Soil Depth Class		Ecological Site		Carbonate Stage				
	shoulder	240	31.	VL		edolian		Sandstone gypsum		Very deep				1				
Soil Surface	RF size	RF %	Biotic Crust Class		Notes		Veg Type	Code	LAOL3	OPPO	BOCHSPEZ							
	Gv	2	1					% cover	5	2	30							

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
	0	6	7,5YR26/4	7,5YR24/3		Gv	1	-						1	M	Gv	C	t	-	
1	A	0	6	7,5YR26/4	7,5YR24/3	LFS	-	-	85	F	S	8.0	SC	0	-	SLR	F	VF	-	Caco3 on tops of fragments
2	Bw	6	35	7,5YR26/4	7,5YR24/4	FSL	Gv	1	-	70	F	S	8.2	ST	1	CO	SLR	C	F	-
3	B	35	160	7,5YR26/4	7,5YR24/4	LFS	Gv	2	-	75	F	S	8.2	ST	0	-	SLR	M	VF	-
4	Ab	160	189	7,5YR26/4	7,5YR24/4	LFS	Gv	3	-	80	F	S	8.4	ST	2	M	SLR	F	F	-
5							CH	2	-						0	-	SLR	C	VF	-
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	44	55	67	78	88	101	112	122	134	147	157	166	177	186	189					

Pedon ID #:						PEDON DESCRIPTION											General Location Notes	
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles				
	12N	0594174	4201801	1678	6/22/13	AD+ES		1253	1254	1255	1256	1257	1244/1245	1246				
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology		Soil Depth Class	Ecological Site			Carbonate Stage						
	Buck slope	340°	2%	LV	ellian	Sandstone	Very Deep				I							
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Aatr	Aatr2	Heatl6	Batr							
		0	1				% cover	10	10	10	30							

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage		
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc			
	1	A	0	6	7.5YR 6/4	7.5YR 4/3	FSL	-	-	-	55	F	7	7.4	VSL	2	M	SBK	M	F		
2	B1	6	16	5YR 5/6	5YR 4/6	FSL	-	-	-	60	F	5	7.8	ST	2	M	SBK	C	F			
3	B2	16	34	5YR 7/4	5YR 4/6	FSL	-	-	-	70	F	10	8.0	ST	1	F	SBK	C	F			
4	B3	34	79	5YR 8/4	5YR 6/6	FSL	-	-	-	60	F	10	8.2	ST							Foliated Arthr Roots	
5	B4	79	136	5YR 6/4	5YR 5/4	FSL	Gr	1	F	55	F	15	8.8	ST								
6	B5	136	186	5YR 8/3	5YR 7/4	FSL	Gr	3	F	-	65	F	10	8.6	ST							carbonate nodules
7																						
8																						
9																						
10																						

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	34	48	59	69	79	90	102	116	131	141	153	165	178	186						

Pedon ID #:	M4-2P						PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles		
	12N	0594383	4201790	16173	6/22/13	AD/ES		1222	1223	1224	1225	1226	1238/1239	1240		

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	bankslope	40	15%	VV	coban overbank flow	sandstone	Very Deep		0

Soil Surface	RF size	RF %	Biotic Crust Class	Notes	Veg Type	Code	BUR	AZR	ATCAZ	CHVI	SPCR					
	Grs	2	3			% cover	25	1	2	2	5					

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage		
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty			
						-	-	-						1	F	SBK	M	1F		
1	A	0	8	7.5YR 6/4	7.5YR 4/4	FSL	-	-	60	F	3	7.4	WSL	1	F	SBK	M	1F		
2	B	8	20	7.5YR 6/4	7.5YR 9/4	FSL	1	Grs	F	65	F	3	7.6	ST	2	M	SBK	C	F	
3	B2	20	31	7.5YR 6/4	7.5YR 3/4	FSL	1	Grs	F	70	F	5	7.6	ST	1	M	SBK	C	F	
4	C	31	68	7.5YR 6/4	7.5YR 5/4	FSL	-	-	-	70	F	3	8.2	ST						
5	Ab	68	90	7.5YR 7/4	7.5YR 5/4	FSL	1	Grs	P	65	F	5	8.2	ST						
6	C2	90	156	7.5YR 9/4	7.5YR 6/4	FSL	1	CH	-	70	F	3	8.4	SL						
7	Ab2	156	190+	7.5YR 7/4	5YR 5/4	FSL	1	Grs	F	50	F	5	1.4	VE						
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	29	41	51	62	74	84	94	104	115	123	127	135	142	150	160	169	180	190		

Pedon ID #:	M4-3	PEDON DESCRIPTION												
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
	12N	0594604	4201651	1678	6/20/13 ADHES			1200	1201	1202	1203	1204	1203/1204	1195

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage					
	Summit (ridge?)	300°	2%	L V	edolian / residuum	Sandstone	Very Deep		1					
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Aatr AAdv Bngr Hrcsh Pppns						
	Gr	1	1				% cover	15 5 35 10 3						

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc		
	1	A	0 6	7.5YR 6/4	7.5YR 9/4	FSL	Gr	1	F	70	F	5	7.8	SL	1	M	SBK	M	F		
2	B1	6 17	5YR 6/6	5YR 5/6	FSL	-	-	-		70	F	5	8.1	SL	2	M	SBK	C	F		
3	B2	17 55	5YR 7/4	5YR 5/6	FSL	Gr	1	UF		70	F	7	8.4	ST	2	M	SBK	C	F		
4	B3	55 112	5YR 6/6	5YR 5/6	FSL	Gr	1	VF		70	F	5	8.4	ST							
5	Bk	112 165	SYR 8/2	SYR 9/4	Poorly sorted L	Gr	2	F		50	F	20	8.6	VE							Caco ₃ on rocks (all arounds)
6	Btk	165 198	5YR 8/4	5YR 7/4	L	Gr	3	F		40	VF	23	8.6	VE							Caco ₃ coat rocks completely
7																					
8																					
9																					
10																					

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	27	38	50	63	72	83	92	106	117	124	135	146	156	165	174	181	188			

Pedon ID #:			PEDON DESCRIPTION													General Location Notes		
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles				
	12N	0593930	4201130	6167	7/19/13	AD/ES		1513	1514	1515	1516	1517	1529/1530	1531-2				
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class			Ecological Site			Carbonate Stage					
	backslope	10°	4%	LL	edolian	sandstone limestone?	very deep			0								
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Bug	DPM	KPLA	HEDZG	SPCA						
	gr	1					% cover	25	5	3	1	1						

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc		
1	A	0	5	7.5YR 6/4	7.5YR 4/4	FSL	-	-	65	F	5	7.8	VS	1	F	SBK	M	F			
2	B	5	41	5YR 6/6	5YR 5/4	FSL	-	-	60	F	5	8.0	SL	1	F	6r	M	VF			
3	CB	41	130	5YR 8/4	5YR 5/4	LFS	gr	1	m/f	75	F	3	8.2	ST	1	M	SBK	C	F		
4	C	130	176	5YR 8/3	5YR 6/6	W/C LS	gr	3	F	60	W/C	3	8.2	ST	1	-	-	M	VF		
5																					
6																					
7																					
8																					
9																					
10																					

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	41	46	54	65	76	89	100	115	132	143	158	168	175	176	176					

- stopped by rock
- not sure if bedrock
- sandstone & limestone pulled up from bottom
- think rock we hit is sandstone, limestone was loose.

mislabeled B4-5

Pedon ID #:							PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	General Location Notes	
12N	0592995	41000699	6105	5127118	AD/ES		334	335	336	337	338	464/465	467/463			

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	footslope	270°	2%	VV	elolian	sandstone	VLM deep		1

Soil Surface	RF size	RF %	Biotic Crust Class	Notes	Veg Type	Code	LAK3	OPPO	BOOR	SPCR							
	% cover	5	3	25													
	Fair	1	1														

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc	
1 A	0	4	7.5YR7/4	7.5YR4/3	SL	Gv	<1	F	75	m	10	7.6	NE	2	F	Gv	C	F	-	
2 B	4	~43	5YR7/6	5YR4/4	LS	Gv	1	F	80	m	5	8.4	SL	1	m	SBk	C	VF	-	
3 C	~43	~190	5YR6/4	5YR6/6	SL	Gv	5	-	75	m	7	8.4	ST	2	c	SBk	F	F	-	
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	37	48	59	73	83	91	106	117	128	136	140	145	156	166	172	186	190			

Pedon ID #:		PEDON DESCRIPTION																General Location Notes			
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles							
	12N	0594217	4201909	1008	10/22/13	AD/ES		1263	1264	1265	1266	1267	1250/1251	1252							
Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape		Parent Material	Bedrock Geology	Soil Depth Class				Ecological Site			Carbonate Stage						
	shoulder	50°	8%	VV		olian residuum	sandstone	very deep							1						
Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	BGK ATCAZ ART D/D	SPCF												
	varied	3	2				% cover	25	2	5	8										
	6r	1																			
Horizon		Depth (cm)		Matrix Color			Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots			
		(TOP)	(BOT)	Dry	Moist			Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc
1	A	0	5	5YR 6/4	5YR 4/3	FSL		-	-	-	70	F	3	6.8	VSL	1	M	SBk	M	F	
2	B	5	110	5YR 5/6	5YR 4/6	XSL		-	-	-	65	F	3	8.2	ST	2	m	SBk	C	F	
3	bf	110	148	5YR 5/4	5YR 4/4	SCL		6r	1	-	60	F	20	8.0	ST	-	-	-	-	-	
4	CB	148	159	5YR 7/4	5YR 5/4	COSL		Gr	3	M	65	CD	18	8.4	VE						
5	R	159+																			carbonate layer on rocks
6																					
7																					
8																					
9																					
10																					

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	30	43	55	66	78	90	102	115	124	137	145	152	159							

Pedon ID #:						PEDON DESCRIPTION									
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles	
12N	0594491	4701688	645	6/20/13	A0+ES			1205	1206	1207	1208	1209	1207/1208	1209	

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Backslope	70°	10%	L V	olian residuum	Sandstone	moderately		1

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	Chri	Bugr	Herr	Acra					
	% cover	35	20	10	5											

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure			Roots			P&V/Concent/Carb. Stage		
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	Loc			
	1	A	0	14	7.5YR 5/4	7.5YR 3/4	FSL	Gr 1	-	-	50	F	5	8.0	VSL	1	M	SBK	VF	M		
2	B	14	24	5YR 6/4	5YR 4/6	FSL	Gr 3	F														
3	C	24	60	5YR 8/2	5YR 6/4	FSL	Gr 2	C	55	F	5	8.2	ST	1	M	SBK	C	F				
4	Cr	60	73	5YR 8/2	7.5YR 7/6	LFS	Gr 2	F							2	F	SBK	F	F			
5	R	73				CH 1	F		55	F	15	8.4	VE									
6																						
7																						
8																						
9																						
10																						

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	43	47	54	65	73															

General Location Notes

Pedon ID #:							PEDON DESCRIPTION							
Location	UTM Zone	Easting (m)	Northing (m)	Elev (m)	Date	Describers	Photos	White Board	N	E	S	W	Soil surface	Auger piles
12N	0593710	4203799	16111	6/9/13	ES/AD		1053	1054	1055	1056	1057	1007	1008	1009

Geomorph.	Landform	Aspect (°)	Slope (%)	Slope Shape	Parent Material	Bedrock Geology	Soil Depth Class	Ecological Site	Carbonate Stage
	Terrace	20	0	LL	Alluvium Residuum	Sandstone			
							Moderately Deep		O

Soil Surface	RF size	RF %	Biotic Crust Class		Notes	Veg Type	Code	BUR	ATCA	ARTR	OPPR						
							% cover	15	2	5	3						
	-	-	O														

Horizon	Depth (cm)		Matrix Color		Texture	Rock Frag			Sand %	Sand size	Clay %	pH	Effer.	Structure		Roots		P&V/Concent/Carb. Stage	
	(TOP)	(BOT)	Dry	Moist		Knd	%	Sz						Grade	Sz	Type	Qty	Sz	
1 Ap	0	9	7.5YR 3/4	7.5YR 3/4	L	=	=	=	45	VF	25	7.6	NE	2	TK	PL	C	F	no visible clay films
2 Ap	9	17	7.5YR 6/4	7.5YR 4/4	L	=	=	=	45	VF	25	8.0	SL	2	TK	PL	C	F	no visible clay films
3 B	17	64	7.5YR 5/4	7.5YR 4/4	L	E	I	F	50	F	18	8.0	ST	1	F	SBK	F	F	Poorly sorted fine sand
4 Cr	64	67	7.5YR 7/4	7.5YR 5/4	L	G	I	F	55	(lo) F	7	8.4	VE						
5 R	6	74																	
6																			
7																			
8																			
9																			
10																			

Auger depths	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10	Depth11	Depth12	Depth13	Depth14	Depth15	Depth16	Depth17	Depth18	Depth19	Depth20
	27	37	45	55	65	67														

General Location Notes