

**Addendum MU1 3-1-2**

**Field Data Sheets**

Soil Description: Location MULBITI

Site No. \_\_\_\_\_ Date 9/2 Time 12:55p Vegetation \_\_\_\_\_

Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface \_\_\_\_\_

Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Bound-aries	notes
		moist	dry		Wet	Moist	Dry							
0-6	A	10YR3/3		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p ve vp	vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w i i b b	
6-15	B	10YR4/4		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p ve vp	vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w i i b b	
15-34	C	10YR5/4		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25+	so po es ps s p ve vp	vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w i i b b	Violent
				m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p ve vp	vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w i i b b	
				m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p ve vp	vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w i i b b	
				m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p ve vp	vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w i i b b	

Soil Description: Location MUI PITZ Comments - similar to MUI PITZ

Site No. \_\_\_\_\_ Date 9/2 Time 1:30 Vegetation \_\_\_\_\_

Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface \_\_\_\_\_

Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films			Bound-aries		notes
		moist	dry		Wet	Moist	Dry	Clay films	Bound-aries								
0-12		10YR 3/3		m vf gr sg f pl	0 50	so po lo lo	vfr	so	S SICL		v1	n	pf	a	s	⊕	
	1	(m) pr	<10 75	ss ps fr sh	SL SI	2	mk	br	o	w							
	2	o cpr	10 >75	s p fl h	SCL SIC	3	co	co	g	i							
	3	vo abk sbk	25	vs vp vll vh	L C	4	k	cobr	d	b							
				<i>prob coarse sand</i>				eff eh		CL SC							
12-23		7.5YR 4/4		m vf gr sg f pl	0 50	so po lo lo	vfr	so	S SICL		v1	n	pf	a	s	⊕	
	1	m pr	<10 75	ss ps fr sh	SL SI	2	mk	br	o	w							
	2	o cpr	10 >75	s p fl h	SCL SIC	3	co	co	g	i							
	3	vo abk sbk	25	vs vp vll vh	L C	4	k	cobr	d	b							
								eff eh		CL SC							
		-----		m vf gr sg f pl	0 50	so po lo lo	vfr	so	S SICL		v1	n	pf	a	s		
		-----		1 m pr	<10 75	ss ps fr sh	SL SI	2	mk	br	o	w					
		-----		2 o cpr	10 >75	s p fl h	SCL SIC	3	co	co	g	i					
		-----		3 vo abk sbk	25	vs vp vll vh	L C	4	k	cobr	d	b					
								eff eh		CL SC							
		-----		m vf gr sg f pl	0 50	so po lo lo	vfr	so	S SICL		v1	n	pf	a	s		
		-----		1 m pr	<10 75	ss ps fr sh	SL SI	2	mk	br	o	w					
		-----		2 c cpr	10 >75	s p fl h	SCL SIC	3	co	co	g	i					
		-----		3 vo abk sbk	25	vs vp vll vh	L C	4	k	cobr	d	b					
								eff eh		CL SC							
		-----		m vf gr sg f pl	0 50	so po lo lo	vfr	so	S SICL		v1	n	pf	a	s		
		-----		1 m pr	<10 75	ss ps fr sh	SL SI	2	mk	br	o	w					
		-----		2 o cpr	10 >75	s p fl h	SCL SIC	3	co	co	g	i					
		-----		3 vo abk sbk	25	vs vp vll vh	L C	4	k	cobr	d	b					
								eff eh		CL SC							

Soil Description: Location MULTI 3

Site No. \_\_\_\_\_ Date 9/2 Time 2:30 Vegetation <50% < 1' tall sage/grass

Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface \_\_\_\_\_

Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure		Gravel %		Consistence			Texture		pH	Clay films			Boundaries		notes	
		moist	dry					Wet	Moist	Dry										
0-6		10YR 3/3		m	vf	gr	0	50	so	po	lo	lo	S	SICL	v1	n	pf	a	s	10-15% gravel on surface
		-----		1	m	pr	<10	75	ss	ps	fr	sh	LS	SIL	1		po	o	w	
		-----		2	c	cpr	40	>75	s	p	fl	h	SCH	SI	2	mk	br	g	i	
		-----		3	vc	abk	25		vs	vp	vll	vh	SCL	SIC	3		co	d	b	
		-----				sbk					eff	eh	L	C	4	k	cobr			
		-----				sbk					eff	eh	CL	SC						
6-18		10YR 4/3		m	vf	gr	0	50	so	po	lo	lo	S	SICL	v1	n	pf	a	s	
		-----		1	m	pr	<10	75	ss	ps	fr	sh	LS	SIL	1		po	o	w	
		-----		2	c	cpr	10	>75	s	p	fl	h	SCL	SIC	2	mk	br	g	i	
		-----		3	vc	abk	25		vs	vp	vll	vh	L	C	3		co	d	b	
		-----				sbk					eff	eh	CL	SC	4	k	cobr			
		-----				sbk					eff	eh	CL	SC						
-31		10YR 4/4		m	vf	gr	0	50	so	po	lo	lo	S	SICL	v1	n	pf	a	s	18-21-V
		-----		1	m	pr	<10	75	ss	ps	fr	sh	LS	SIL	1		po	o	w	21-31 SI
		-----		2	c	cpr	10	>75	s	p	fl	h	SCL	SIC	2	mk	br	g	i	due to sand content
		-----		3	vc	abk	25		vs	vp	vll	vh	L	C	3		co	d	b	
		-----				sbk					eff	eh	CL	SC	4	k	cobr			
		-----				sbk					eff	eh	CL	SC						
*- notes		-----		m	vf	gr	0	50	so	po	lo	lo	S	SICL	v1	n	pf	a	s	18-31 horizon is coarse sandy < 2mm
		-----		1	m	pr	<10	75	ss	ps	fr	sh	LS	SIL	1		po	o	w	
		-----		2	c	cpr	10	>75	s	p	fl	h	SCL	SIC	2	mk	br	g	i	
		-----		3	vc	abk	25		vs	vp	vll	vh	L	C	3		co	d	b	
		-----				sbk					eff	eh	CL	SC	4	k	cobr			
		-----				sbk					eff	eh	CL	SC						

Soil Description: Location MUI PETS  
 Site No. \_\_\_\_\_ Date 9/2 Time 4:10 Vegetation Same  
 Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface Near LCSP9  
 Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films			Bound-aries		notes			
		moist	dry		Wet	Moist	Dry	v1	n			pf	a	s						
0-6		10YR 3/3		m eg 1 2 3	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	3/3 5/3 4/4
6-15		10YR 4/4		m eg 1 2 3	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	φ
15-21		10YR 5/4		m eg 1 2 3	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	φ
21-33		10YR 5/4		m eg 1 2 3	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	s/
		-----		m eg 1 2 3	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	No gravel of signif. throughout
		-----		m eg 1 2 3	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	

Soil Description: Location MUIPIT6 Texture  
 Site No. \_\_\_\_\_ Date \_\_\_\_\_ Time 10:07 Vegetation H = heavy  
 Elevation \_\_\_\_\_ Slope 0-1 Aspect \_\_\_\_\_ Geomorphic Surface C = coarse  
 Parent Material(s) \_\_\_\_\_ Described by clprg

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture		Clay films	Boundaries		notes				
		moist	dry		Wet	Moist	Dry	Texture	Clay films	a	s								
0-6		10YR 3/3 All 10YR ↓		m sg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 (10) 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n pf po br co cobr	a o g d	s w i b	very (coarse) sandy
6-12		4/4		m sg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 (10) 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n pf po br co cobr	a o g d	s w i b	
12-18		4/4		m sg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 (10) 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n pf po br co cobr	a o g d	s w i b	4gs/
18-36		5/4 4/6 4/6		m sg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 (10) 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n pf po br co cobr	a o g d	s w i b	
				m sg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 (10) 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n pf po br co cobr	a o g d	s w i b	
				m sg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 (10) 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n pf po br co cobr	a o g d	s w i b	

Soil Description: Location MU 1 PIT 7 TBE - #4  
 Site No. \_\_\_\_\_ Date \_\_\_\_\_ Time 10:50 Vegetation 30% - 35  
 Elevation \_\_\_\_\_ Slope 5% Aspect NW Geomorphic Surface \_\_\_\_\_  
 Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films			Bound-aries		notes
		moist	dry		0	50	Wet	Moist	Dry			v1	n	pf	a	s	
0-6		10YR 4/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vll ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w i b	eff = sl L/vt sl/ sil			
6-12		10YR/5/4 Bits of soft shale		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vll ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w i b	ef-m sil floury			
12-18 24		10YR 5/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vll ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w i b	v Floury			
24-36 (Cr) at 30" 9/26 3c wrong		10YR 5/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vll ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w i b	m vt sl			
36+ 42-48		10YR 5/4 6/4 #10		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vll ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w i b	⊕ ⊕			
				m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vll ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w i b				

Soil Description: Location MULPIT 8 (70 m) coarse  
typical sandy sub stratum  
 Site No. \_\_\_\_\_ Date 9/3 Time 11:30 Vegetation \_\_\_\_\_  
 Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface \_\_\_\_\_  
 Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Bound-aries	notes
		moist	dry		Wet	Moist	Dry							
0-6		3/3		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 (10) 75 10 >75 25	so po sa ps s p va vp	lo vfr fr fl vll eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g l d b		
6-18		6-12 3/4 12-18 3/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 (10) 75 10 >75 25	so po sa ps s p va vp	lo vfr fr fl vll eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g l d b		
18-24		10YR 4/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 (10) 75 10 >75 25	so po sa ps s p va vp	lo vfr fr fl vll eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L H C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g l d b		
24-30		10YR 4/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 (10) 75 10 >75 25	so po sa ps s p va vp	lo vfr fr fl vll eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g l d b		
30-36		10YR 4/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 (10) 75 10 >75 25	so po sa ps s p va vp	lo vfr fr fl vll eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g l d b		
36-42		10YR 5/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 (10) 75 10 >75 25	so po sa ps s p va vp	lo vfr fr fl vll eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g l d b		



Soil Description: Location MURPITG SSC s/s sticky

Site No. \_\_\_\_\_ Date 9/3 Time 12:38 Vegetation S = sticky

Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface \_\_\_\_\_

Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films			Bound-aries		notes
		moist	dry		Wet	Moist	Dry	v1	n			pf	a	s			
0-6		3/3		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p vs vp	vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC	C H	v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	ef φ	
6-12 12-18		4/4 4/4		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p vs vp	vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC	C	v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	ef φ	
18-24 24-36 36-42		Course 0.5/4		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p vs vp	vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	ef-s1	
				m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p vs vp	vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	S-V	
				m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p vs vp	vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	ef-S-V	
				m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p vs vp	vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b		

Soil Description: Location MULTIPIT 10  
 Site No. \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Vegetation \_\_\_\_\_  
 Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface \_\_\_\_\_  
 Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Boundaries		notes
		moist	dry		Wet	Moist	Dry	a	e						
0-6 <del>6-12</del>		4/3		<sup>(m)</sup> vf <sup>(gr)</sup> pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr fr fl h vfl vh eff eh	S SICL LS SIL <sup>(SL)</sup> SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a e w l i b			
12-18 <del>18-24</del>		5/4		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr fr fl h vfl vh eff eh	S SICL <sup>(LS)</sup> SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a e w l i b	very sandy & loose		
18-24 24-30 30-36	- chunks of hard platy rock	5/4 4/4 4/4		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr fr fl h vfl vh eff eh	S SICL LS <sup>(SIL)</sup> SIL SL SI SCL SIC L C CL SC	H	v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a e w l i b	Possibly silt stone pm infl.		
36+	can be augered Cr	5/4		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr fr fl h vfl vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a e w l i b			
				m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr fr fl h vfl vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a e w l i b			
				m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr fr fl h vfl vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a e w l i b			

Soil Description: Location MUL PIT II

Site No. \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Vegetation \_\_\_\_\_

Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface \_\_\_\_\_

Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Boundaries	notes				
		moist	dry		Wet	Moist	Dry											
D-6 6-12	A Bt? 9/26	4/3		m eg 1 m 2 o 3 vo	gr pl pr cpr abk sbk	0 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	s w i b	ef-φ
12-18 18-24	B <sub>3</sub> ? 9/26 Wolent	4/3 5/4		m eg 1 m 2 o 3 vo	gr pl pr cpr abk sbk	0 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	s w i b	ef-φ v
24-36		5/4		m eg 1 m 2 o 3 vo	gr pl pr cpr abk sbk	0 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	s w i b	ef-φ 30-36 ls-5
	NOTE 12-36 nearly gravelly v. coarse sandy loam to			m eg 1 m 2 o 3 vo	gr pl pr cpr abk sbk	0 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	s w i b	
	to- loamy sand			m eg 1 m 2 o 3 vo	gr pl pr cpr abk sbk	0 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	s w i b	
				m eg 1 m 2 o 3 vo	gr pl pr cpr abk sbk	0 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	s w i b	

Soil Description: Location MULPITIZ *m = medium*  
 Site No. \_\_\_\_\_ Date 9/3 Time 2:30 Vegetation \_\_\_\_\_  
 Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface \_\_\_\_\_  
 Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Boundaries		notes				
		moist	dry		Wet	Moist	Dry	a	e										
0-6 6-12		10YR 3/3		m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po ps p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	a w l b	ef- $\phi$ ef- $\phi$
12-18 18-24	Bt	10YR 4/4		m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po ps p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	a w l b	ef-s/l
24-30 30-36	Cr <sub>1</sub> Cr <sub>2</sub>	5YR 4/4		m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po ps p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	a w l b	ef-v
				m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po ps p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	a w l b	
				m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po ps p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	a w l b	
				m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po ps p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	a w l b	

Soil Description: Location M41 PIT 13  
 Site No. \_\_\_\_\_ Date \_\_\_\_\_ Time 3:05 Vegetation \_\_\_\_\_  
 Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface \_\_\_\_\_  
 Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence				Texture	pH	Clay films	Boundaries		notes
		moist	dry		Wet	Moist	Dry	a	s							
0-6 6-12		4/3 ----- 4/4		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo eg fr so so 1 m pr 2 c cpr 3 vo abk sbk	so po lo lo eg fr so so 1 m pr 2 c cpr 3 vo abk sbk	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w l b	ef = β L <sub>0</sub> m ef = sl H <sub>1</sub> L <sub>0</sub> m			
12-18 18-24		10 YR 5/1 ----- 10 YR 5/4		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo eg fr so so 1 m pr 2 c cpr 3 vo abk sbk	so po lo lo eg fr so so 1 m pr 2 c cpr 3 vo abk sbk	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w l b	ef = XV			
		-----		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo eg fr so so 1 m pr 2 c cpr 3 vo abk sbk	so po lo lo eg fr so so 1 m pr 2 c cpr 3 vo abk sbk	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w l b				
		-----		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo eg fr so so 1 m pr 2 c cpr 3 vo abk sbk	so po lo lo eg fr so so 1 m pr 2 c cpr 3 vo abk sbk	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w l b				
		-----		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo eg fr so so 1 m pr 2 c cpr 3 vo abk sbk	so po lo lo eg fr so so 1 m pr 2 c cpr 3 vo abk sbk	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w l b				
		-----		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo eg fr so so 1 m pr 2 c cpr 3 vo abk sbk	so po lo lo eg fr so so 1 m pr 2 c cpr 3 vo abk sbk	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w l b				

Soil Description: Location MUI PIT 14 (MUI PIT 15 was profile 2) Will be profile (2) 14 (Moved to 15)

Site No. \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Vegetation \_\_\_\_\_

Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface \_\_\_\_\_

Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Bound-aries	notes
		moist	dry		Wet	Moist	Dry							
	0-6	10YR 3/3		m vf gr eg f pl	0 50 <10 75	so po lo eg ps fr	lo	lo	S SICL LS SIL		v1 n pf 1 po	a a o o g g d d	s s w w l l b b	heavy sticky loam
	6-12	10YR 3/4		1 m pr 2 o cpr 3 vo abk sbk	10 >75 25	s p fl ve vp vfl	h vh	eh	(S) SICL SL SIL L C CL SC		2 mk br 3 co 4 k cobr			sandy loam heavy loam
	12-18	10YR 4/4		m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo eg ps fr s p fl ve vp vfl	lo	lo	S SICL LS SIL SL SIL SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w l l b b	very heavy sticky loam
	18-24	10YR 5/4		m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo eg ps fr s p fl ve vp vfl	lo	lo	(S) SICL LS SIL SL SIL SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w l l b b	xgrcos
	24-30	10YR 5/3		m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo eg ps fr s p fl ve vp vfl	lo	lo	S SICL LS SIL SL SIL SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w l l b b	possible topsoil-12
	30-36	10YR 3/3												
	36+	10YR 5/3		m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo eg ps fr s p fl ve vp vfl	lo	lo	S SICL LS SIL SL SIL SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w l l b b	
				m vf gr eg f pl 1 n pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo eg ps fr s p fl ve vp vfl	lo	lo	S SICL LS SIL SL SIL SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w l l b b	

Soil Description: Location #15 MUI PIT. 15 Prob. all top soil  
 Site No. \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Vegetation Dense Sage Comment- deep, dark,  
 Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface silty  
 Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Boundaries		notes
		moist	dry		Wet	Moist	Dry	a	s						
0-6	}	3/3		m vf gr	0 50	so po lo lo	S SICL	v1 n pf	a s	w i	b	Need a pit here profile			
		sg f pl	<10 75	ss ps vfr so	LS SIL	1 po po									
6-12	}	4/3		1 m pr	10 >75	s p fr sh	SL SI	2 mk br	g d	b					
		2 c cpr	25	s p fl h	SCL SIC	3 co									
			3 vo abk sbk			ve vp vfl vh ell eh	L C CL SC	4 k cobr							
12-18	}	4/3		m vf gr	0 50	so po lo lo	S SICL	v1 n pf	a s	w i	b				
		sg f pl	<10 75	ss ps vfr so	LS SIL	1 po po									
18-24	}	4/3		1 m pr	10 >75	s p fr sh	SL SI	2 mk br	g d	b					
		2 c cpr	25	s p fl h	SCL SIC	3 co									
			3 vo abk sbk			ve vp vfl vh ell eh	L C CL SC	4 k cobr							
24-30	}	4/3		m vf gr	0 50	so po lo lo	S SICL	v1 n pf	a s	w i	b				
		sg f pl	<10 75	ss ps vfr so	LS SIL	1 po po									
				1 m pr	10 >75	s p fr sh	SL SI	2 mk br	g d	b					
		2 c cpr	25	s p fl h	SCL SIC	3 co									
			3 vo abk sbk			ve vp vfl vh ell eh	L C CL SC	4 k cobr							
30-42	}	4/3		m vf gr	0 50	so po lo lo	S SICL	v1 n pf	a s	w i	b	very sticky			
		sg f pl	<10 75	ss ps vfr so	LS SIL	1 po po									
				1 m pr	10 >75	s p fr sh	SL SI	2 mk br	g d	b					
		2 c cpr	25	s p fl h	SCL SIC	3 co									
			3 vo abk sbk			ve vp vfl vh ell eh	L C CL SC	4 k cobr							
Note #15; #16; #17 are	}			m vf gr	0 50	so po lo lo	S SICL	v1 n pf	a s	w i	b				
		sg f pl	<10 75	ss ps vfr so	LS SIL	1 po po									
				1 m pr	10 >75	s p fr sh	SL SI	2 mk br	g d	b					
		2 c cpr	25	s p fl h	SCL SIC	3 co									
			3 vo abk sbk			ve vp vfl vh ell eh	L C CL SC	4 k cobr							
along fence....	}			m vf gr	0 50	so po lo lo	S SICL	v1 n pf	a s	w i	b				
		sg f pl	<10 75	ss ps vfr so	LS SIL	1 po po									
				1 m pr	10 >75	s p fr sh	SL SI	2 mk br	g d	b					
		2 c cpr	25	s p fl h	SCL SIC	3 co									
			3 vo abk sbk			ve vp vfl vh ell eh	L C CL SC	4 k cobr							

Soil Description: Location MUJITA #16 GPS Recheck 9/4 point OK=16 location  
 Site No. \_\_\_\_\_ Date 9/3 Time 4:45 pm Vegetation sparse sage + grasses  
 Elevation \_\_\_\_\_ Slope 5% Aspect SE Geomorphic Surface \_\_\_\_\_  
 Parent Material(s) wndt water reworked alluvial fan Described by Cipra

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Bound-aries		notes
		moist	dry		Wet	Moist	Dry	a	s						
0-6 K		10YR3/3		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC	C	v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w i b	ef=φ	
6-12		10YR5/4		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC	H C	v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w i b	EF=φ	
12-18	YB	10YR5/4		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC	C	v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w i b	EF-SL	
18-24	B	7.5YR5/3		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w i b	EF-V	
		-----		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w i b	Note 9/8 SC PM is probably not alluvial	
		-----		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w i b	rather sandstone- coarse grained	



Soil Description: Location MULTIST 17 picture Mud 1 - 32 m NE of pit 18  
 Site No. \_\_\_\_\_ Date 9/4 Time 9:15? Vegetation Very sparse - disturbed + eroded  
 Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface Perhaps a nose ? (pic 100-2802)  
 Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_ (2803, 2804)

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films			Boundaries		notes
		moist	dry		Wet	Moist	Dry	v1	n			pf	a	s			
0-3 3-6		4/3		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh va vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC	C	v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g i d b							
<del>12-18</del> 6-12		5/4		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh va vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC	C	v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g i d b		12" eEV					
<del>24-30</del> 12-15		6/4		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25 w/a	so po lo lo ss ps vfr so s p fr sh va vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g i d b		shale/ss PM somewhat "silky" - silty					
				m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh va vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g i d b							
				m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh va vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g i d b							
				m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh va vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g i d b							

Soil Description: Location MUL PIT 18 Buried soil Bi-sequal profile  
 Site No. \_\_\_\_\_ Date \_\_\_\_\_ Time 10:50 Vegetation Dense Sage 10' west of deep gully (10x10')  
 Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface \_\_\_\_\_  
 Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films			Boundaries		notes	
		moist	dry			%	Wet	Moist	Dry			v1	n	pf	a	s		
0-6	sil	10YR 3/3		m vf gr eg f pl	0	50	so	po	lo	lo	S SICL		v1	n	pf	a	s	Buried A or B, very dark occurs at ≈ 36"
		-----		1 m pr	<10	75	ss	ps	fr	sh	LS SIL		1		po	o	w	
6-12	sic1	10YR 4/4		2 c cpr	10	>75	s	p	fl	h	SCL SIC		2	mk	br	g	i	
		-----		3 vo abk sbk	25		vs	vp	vll	vh	L C		3		co	d	b	
12-18	scl	4/4		m vf gr eg f pl	0	50	so	po	lo	lo	S SICL		v1	n	pf	a	s	
		-----		1 m pr	<10	75	ss	ps	fr	sh	LS SIL		1		po	o	w	
18-24	sl	5/4		2 c cpr	10	>75	s	p	fl	h	SCL SIC		2	mk	br	g	i	
		-----		3 vo abk sbk	25		vs	vp	vll	vh	L C		3		co	d	b	
24-30	cl	4/3		m vf gr eg f pl	0	50	so	po	lo	lo	S SICL		v1	n	pf	a	s	30" is end of modern soil
		-----		1 m pr	<10	75	ss	ps	fr	sh	LS SIL		1		po	o	w	
30-36	sil	4/2		2 c cpr	10	>75	s	p	fl	h	SCL SIC		2	mk	br	g	i	
		-----		3 vo abk sbk	25		vs	vp	vll	vh	L C		3		co	d	b	
36-42	sic1	10YR 3/1		m vf gr eg f pl	0	50	so	po	lo	lo	S SICL		v1	n	pf	a	s	
		-----		1 m pr	<10	75	ss	ps	fr	sh	LS SIL		1		po	o	w	
42-48	sil	10YR 5/4		2 c cpr	10	>75	s	p	fl	h	SCL SIC		2	mk	br	g	i	
		-----		3 vo abk sbk	25		vs	vp	vll	vh	L C		3		co	d	b	
48-60	sl	10YR 5/4		m vf gr eg f pl	0	50	so	po	lo	lo	S SICL		v1	n	pf	a	s	
		-----		1 m pr	<10	75	ss	ps	fr	sh	LS SIL		1		po	o	w	
		-----		2 c cpr	10	>75	s	p	fl	h	SCL SIC		2	mk	br	g	i	
		-----		3 vo abk sbk	25		vs	vp	vll	vh	L C		3		co	d	b	
		-----		m vf gr eg f pl	0	50	so	po	lo	lo	S SICL		v1	n	pf	a	s	
		-----		1 m pr	<10	75	ss	ps	fr	sh	LS SIL		1		po	o	w	
		-----		2 c cpr	10	>75	s	p	fl	h	SCL SIC		2	mk	br	g	i	
		-----		3 vo abk sbk	25		vs	vp	vll	vh	L C		3		co	d	b	

Soil Description: Locallon MU 4 PIT 19  
 Site No. \_\_\_\_\_ Date 9/4 Time 11:43 Vegetation Very sparse Sage-hilltop appears severely eroded  
 Elevation \_\_\_\_\_ Slope 4-5% Aspect WNW Geomorphic Surface Shale or siltstone  
 Parent Material(s) 582g Described by JCEB Revisited 9/02

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Boundaries		notes
		moist	dry		Wet	Moist	Dry	a	e						
0-6	A	3/3-4/3 9/02		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w l b	<del>sh</del> ~24" to siltstone	
6-12 12-18	B?	4/3-4/4 4/3 4/4		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w l b	(maroon perhaps) Invt (def) 9/02	
18-24		5/4		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w l b		
24-30 CY		104R 5/3 4/4-5/4		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w l b		
		-----		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w l b		
		-----		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	s w l b		

Soil Description: Location Mulipit #20  
 Site No. \_\_\_\_\_ Date \_\_\_\_\_ Time 12:10 Vegetation Sparse grass & sage  
 Elevation \_\_\_\_\_ Slope 5% Aspect NW Geomorphic Surface hill crest - shoulder  
 Parent Material(s) Sandy/silty shale ~24-30" Described by Cipra / Brown

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Boundaries		notes				
		moist	dry		Wet	Moist	Dry	a	s										
0-6		10YR 4/3		m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	a w l b	Potential profits
6-12		10YR 4/3		m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	a w l b	
12-18		n 4/4		m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	a w l b	18-36 e = v
18-24		n 6/4		m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	a w l b	18-36 Uniform
24-36 Cr		n 6/4		m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	a w l b	flowy dusty
				m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	a w l b	

Soil Description: Location MULPIT 21  
 Site No. \_\_\_\_\_ Date 9/4 Time Period Vegetation Very sparse sage/grass - wind eroded hilltop  
 Elevation \_\_\_\_\_ Slope 5-7% Aspect SE Geomorphic Surface \_\_\_\_\_  
 Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Boundaries		notes
		moist	dry		Wet	Moist	Dry	a	s						
0-6		4/3		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p ve vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a w i b	<del>possible profile</del>	
6-12		5/4		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p ve vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a w i b	ef = φ	
12-18	Evidence of shale at 12" 10YR 6/4			m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p ve vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a w i b	ef = V	
18-24		7/3 maybe 7/2		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p ve vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a w i b		
24-30	Cr shale siltstone	7/3		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p ve vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a w i b		
				m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p ve vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S SICL LS SIL SL SI L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a w i b		

Soil Description: Location MU/PIT 22  
 Site No. \_\_\_\_\_ Date 9/4 Time \_\_\_\_\_ Vegetation (denuded) eroded (hill-top) - very sparse  
 Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface \_\_\_\_\_  
 Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Boundaries		notes
		moist	dry		Wet	Moist	Dry	a	e						
0-6		10YR	4/3	m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh ve vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d a w i b					
6-12			5/4	m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh ve vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d a w i b		ef = 51			
12-18			5/4	m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh ve vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC	H	v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d a w i b		floamy ef = U ↓			
18-24			5/4	m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh ve vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d a w i b					
24-36			6/4	m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh ve vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d a w i b					
36-48			8/4	m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh ve vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d a w i b		ef = V			

Soil Description: Location PIT23  
 Site No. \_\_\_\_\_ Date 9/4 Time 2:00 Vegetation Sage/grass very sparse  
 Elevation \_\_\_\_\_ Slope 0% Aspect \_\_\_\_\_ Geomorphic Surface Pit located on a broad flat  
 Parent Material(s) \_\_\_\_\_ Described by Cipra very sparse veg

Depth (cm)	Horizon	Color		Structure	Gravel		Consistence			Texture	pH	Clay films	Boundaries		notes	
		moist	dry		%	Wet	Moist	Dry	a				e			
0-6		4/3		m vf gr eg f pl	0 50 <10 75	so po lo lo eg pa vfr so	LS SIL	H C	v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	e w f b	ef = 0				
6-12		4/4		1 m pr 2 o cpr 3 vo abk sbk	10 >75 25	e p fl h ve vp vll vh ell eh	(SL) SI SCL SIC L C CL SC					ef = 0				
12-18		5/4		m vf gr eg f pl	0 50 <10 75	so po lo lo eg pa vfr so	LS SIL					H C	v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	e w f b	ef = v
18-24		10YR 6/4		1 m pr 2 o cpr 3 vo abk sbk	10 >75 25	e p fl h ve vp vll vh ell eh	(SL) SI SCL SIC L C CL SC									v
24-30	gr	10YR 7/4		m vf gr eg f pl	0 50 <10 75	so po lo lo eg pa vfr so	(LS) SIL		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	e w f b					sl
30-36	vgr			1 m pr 2 o cpr 3 vo abk sbk	10 >75 25	e p fl h ve vp vll vh ell eh	(S) SICL LS SIL SL SI SCL SIC L C CL SC									vgr sl
36-42	vgr	2.5Y 6/4										gr				
				m vf gr eg f pl	0 50 <10 75	so po lo lo eg pa vfr so	S SICL LS SIL					v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	e w f b		
				1 m pr 2 o cpr 3 vo abk sbk	10 >75 25	e p fl h ve vp vll vh ell eh	SL SI SCL SIC L C CL SC									
				m vf gr eg f pl	0 50 <10 75	so po lo lo eg pa vfr so	S SICL LS SIL		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	e w f b					
				1 m pr 2 o cpr 3 vo abk sbk	10 >75 25	e p fl h ve vp vll vh ell eh	SL SI SCL SIC L C CL SC									

Soil Description: Location MULPIT 24 Pit desc 0-36"  
 Site No. \_\_\_\_\_ Date 9/4 Time 2:25 Vegetation Very sparse sagebrush  
 Elevation \_\_\_\_\_ Slope 0% Aspect \_\_\_\_\_ Geomorphic Surface Flat inter fluvial - sim. to 23  
 Parent Material(s) \_\_\_\_\_ Described by JCEB

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Boundaries		notes
		moist	dry		Wet	Moist	Dry	a	s						
0-6	SL	4/3		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh ve vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w l b				
6-12	SL	4/4													
12-18	SL (heavy) → 15% gravel	5/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh ve vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w l b	V			
18-24	LS	5/4													
24-30	sand	5'		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh ve vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w l b	V			
30-36	sand	6/3											sl		
36-42				m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh ve vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w l b	Note -			
42-48															
				m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh ve vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w l b				
				m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh ve vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w l b				



Soil Description: Location

PIT 25

Multi colored horizons due to shale

Site No. \_\_\_\_\_

Date

9/4

Time \_\_\_\_\_

Vegetation

Sparse sage/grass

Elevation \_\_\_\_\_

Slope

54°

Aspect

SE

Geomorphic Surface \_\_\_\_\_

Parent Material(s) \_\_\_\_\_

Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Boundaries		notes				
		moist	dry		Wet	Moist	Dry	a	s										
	0-6 <del>6-12</del>	7.5YR 4/3		m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po ps p vp	lo vfr fr fl vll ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	s w l b	
	6-12	10YR 4/4		m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po ps p vp	lo vfr fr fl vll ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	s w l b	
	12-78	5YR 4/3 maroon shale		m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po ps p vp	lo vfr fr fl vll ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	s w l b	
	18-24	Cr-white to gray shale		m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po ps p vp	lo vfr fr fl vll ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	s w l b	
	24-30	dark gray maroon shale 10YR 4/2		m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po ps p vp	lo vfr fr fl vll ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	s w l b	
				m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po ps p vp	lo vfr fr fl vll ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	a o g d	s w l b	

Alfredo - 33" (recall)

Soil Description: Location MUL PIT 26  
 Site No. \_\_\_\_\_ Date 9/4 Time 3:20 Vegetation \_\_\_\_\_  
 Elevation \_\_\_\_\_ Slope 30% Aspect \_\_\_\_\_ Geomorphic Surface \_\_\_\_\_  
 Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence				Texture	pH	Clay films	Boundaries	notes
		moist	dry		Wet	Moist	Dry								
0-6		10YR 4/3		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps fr sh s p fl h vs vp vll vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g i d b	Should be a profile here				
6-12		4/4		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps fr sh s p fl h vs vp vll vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g i d b					
12-18		4/4		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps fr sh s p fl h vs vp vll vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g i d b					
18-24 24-30		4/4 scl 10YR 4/4		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps fr sh s p fl h vs vp vll vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g i d b	24-30 U				
30-36 C		5/4		m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps fr sh s p fl h vs vp vll vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g i d b	30-36 U				
				m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps fr sh s p fl h vs vp vll vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g i d b					

Soil Description: Location NIA PIT28 Very shallow-very disturbed,

Site No. \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Vegetation but not stripped

Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface \_\_\_\_\_

Parent Material(s) \_\_\_\_\_ Described by JC/EB Confirmed stauvery 9/12

Depth (cm)	Horizon	Color		Structure	Gavel		Consistence			Texture	pH	Clay films	Boundaries		Notes
		moist	dry		%	Wet	Moist	Dry	a				s		
0-6	<u>A1 + Bt</u>	<u>10YR 4/4</u>		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss pa vfr so s p fr sh vs vp fl h vll vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d s w i b	<u>shallow</u> note - A horizon generally				
6-12	<u>Cv</u>	<u>10YR 5/4</u>		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25 N/A	so po lo lo ss pa vfr so s p fr sh vs vp fl h vll vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d s w i b	<u>shallow</u> 10YR 4/4 and 6-12 so this				
12-18		<u>10YR 5/4</u>		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25 N/A	so po lo lo ss pa vfr so s p fr sh vs vp fl h vll vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d s w i b	<u>shallow</u> site is shallower and lower				
		-----		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss pa vfr so s p fr sh vs vp fl h vll vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d s w i b	<u>shallow</u> in OM <u>9/12</u> than typical				
		-----		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss pa vfr so s p fr sh vs vp fl h vll vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d s w i b					
		-----		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss pa vfr so s p fr sh vs vp fl h vll vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d s w i b					

Soil Description: Location MULPT 34 (Last pit week of Sep 2-5) (Entire site has been visited and pits described.)  
 Site No. \_\_\_\_\_ Date 9/5 Time 11:30 Vegetation \_\_\_\_\_  
 Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface \_\_\_\_\_  
 Parent Material(s) \_\_\_\_\_ Described by \_\_\_\_\_

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films			Boundaries		notes			
		moist	dry		Wet	Moist	Dry	v1	n			pf	a	s						
0-6		10YR	3/3	m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po pa p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	pf po br co cobr	a o g d	s w i b	φ
6-12			4/3	m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po pa p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	pf po br co cobr	a o g d	s w i b	φ
12-18			4/4	m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po pa p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	pf po br co cobr	a o g d	s w i b	U
18-24			5/4	m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po pa p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	pf po br co cobr	a o g d	s w i b	U
24-42			5/4	m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po pa p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	pf po br co cobr	a o g d	s w i b	material cannot be brought up
				m eg 1 2 3	vf f m o vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s ve	po pa p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po br co cobr	pf po br co cobr	a o g d	s w i b	

Soil Description: Location ~~55~~ <sup>near PIT1 (+PIT2)</sup> <sub>TLCP10</sub> Ahmad Jodeh  
 Site No. \_\_\_\_\_ Date 9/12 Time 12:46 Vegetation Field eng  
 Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface UAE CS4  
 Parent Material(s) alluvial sands, muds Described by Ill got GPS data 4/1 - call me mech

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films			Bound-aries		notes
		moist	dry		Wet	Moist	Dry	v1	n			pf	a	s			
	0-3	3/3		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p vs vp	lo vfr fr fl vll ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w l b	clay loam	
	3-6	4/3		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p vs vp	lo vfr fr fl vll ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w l b	clay loam heavy	
	6-9	4/3-4/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p vs vp	lo vfr fr fl vll ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w l b	cl	
	9-12	4/3-4/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p vs vp	lo vfr fr fl vll ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w l b	cl	
	12-15	4/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p vs vp	lo vfr fr fl vll ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w l b	note - not much sand, mostly silt	
	15-18	5/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po es ps s p vs vp	lo vfr fr fl vll ell	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w l b	prob not sil coarse sand	

Soil Description: Location ~~56~~ # <sup>PIT</sup> 6 (MAPU-1) ~~Elmer~~ mud pit 20' verifies  
 Site No. PIT 6 Date ~~9-12~~ 9-12 Time 1:45 Vegetation 1" crack near  
 Elevation ~~OK~~ Slope 1% Aspect SE Geomorphic Surface mud pit - post  
 Parent Material(s) alluvial fan - from ancestral ~~MARS~~ Described by JC 1-3' away slumping off

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Boundaries		notes
		moist	dry		Wet	Moist	Dry	a	s						
	0-3	3/3		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p va vp	lo lo vfr so fr sh fl h vfl vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w i b			
	3-6	3/3 4/3		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p va vp	lo lo vfr so fr sh fl h vfl vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w i b	Note white course sand below		
	6/9	4/3		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p va vp	lo lo vfr so fr sh fl h vfl vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w i b	16		
	9-12	4/4		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p va vp	lo lo vfr so fr sh fl h vfl vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w i b	30% COS.		
	12-15	3/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p va vp	lo lo vfr so fr sh fl h vfl vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w i b	<del>COS</del> 30% COS		
	15-18	5/4		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p va vp	lo lo vfr so fr sh fl h vfl vh eff eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d	a s w i b	COS		

Soil Description: Location Between 8+9 <sup>57</sup> ~~55~~ ~~101R on 55+56~~ silty site  
 Site No. AV pit Date 9/12 Time 1:56 Vegetation Tall sage no gravel - no sand  
 Elevation \_\_\_\_\_ Slope \_\_\_\_\_ Aspect \_\_\_\_\_ Geomorphic Surface (swale) - good example  
 Parent Material(s) alluvial Described by JC (equip laydown area (SWALE))

Depth (cm)	Horizon	Color		Structure	Gravel %	Consistence			Texture	pH	Clay films	Boundaries	seems flatter notes
		moist	dry			Wet	Moist	Dry					
0-5?		3/3		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr so fr sh fl h vll vh eff eh	S S1CL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d s w i b	1/2 duff shallower swale than	
5-12		3/3 - 4/3		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr so fr sh fl h vll vh eff eh	S S1CL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d s w i b	14, 15, 35 This swale soil seems	
12-18		4/3 - 4/4		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr so fr sh fl h vll vh eff eh	S S1CL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d s w i b	same as other 2 15, 35	
18-24		4/3 - 4/4		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr so fr sh fl h vll vh eff eh	S S1CL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d s w i b	not much sand - almost < 30 none	
24-30		4/3 - 4/4		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr so fr sh fl h vll vh eff eh	S S1CL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d s w i b		
30-36 quite not digging bottom		4/3 - 4/4 Prob more topsoil i.e. < 4/4 below 36		m vf gr sg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr so fr sh fl h vll vh eff eh	S S1CL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d s w i b	extr. stky heavy silt loam	

Soil Description: Location 58 Same PM  
 Site No. PETS Date 9/12 Time 12:30p Vegetation not highland sage Same prof. 'ke  
 Elevation \_\_\_\_\_ Slope n/a Aspect Su Geomorphic Surface \_\_\_\_\_  
 Parent Material(s) \_\_\_\_\_ Described by JC+EB

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Boundaries	notes
		moist	dry		Wet	Moist	Dry							
0-6		3/3-4/3		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss pa s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g l d b		
6-12		4/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss pa s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g l d b	40% Sand	
12-18		4/3		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss pa s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g l d b	40% Sand	
18-24		4/3-4/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss pa s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g l d b		
24-28 (30)		5/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss pa s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g l d b	40% Coarse	
30-36 (30)		prob		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss pa s p vs vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a s o w g l d b	40% Sand	



Soil Description: Location MU 1 PR 13 Picture 100-2859 2860  
 Site No. \_\_\_\_\_ Date 9-11-08 Time 12:49 Vegetation <1ft grasses and some sage  
 Elevation \_\_\_\_\_ Slope 1% Aspect W-NW Geomorphic Surface Position - Hill crest  
 Parent Material(s) \_\_\_\_\_ Described by JC + EB

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Boundaries		notes
		moist	dry		Wet	Moist	Dry	a	s						
0-3"	A <sub>1</sub>	10YR 4/4		m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk	so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk	so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	a a w w b b	i = irregular * Braking to med. vf gr	
3-10"	B <sub>1T</sub>	10YR 4/4		m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk	so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk	so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	a a w w b b	* Nearly massive	
10-10"	C <sub>R</sub>	9/18 12:55 Not found for shipping JC		<del>m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk</del> None	<del>0 50 &lt;10 75 10 &gt;75 25</del>	<del>so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk</del>	<del>so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk</del>	<del>so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk</del>	<del>S SICL LS SIL SL SI SCL SIC L C CL SC</del>		<del>v1 n pf 1 po 2 mk br 3 co 4 k cobr</del>	<del>a a o o g g d d</del>	<del>a a w w b b</del>		
		-----		m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk	so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk	so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	a a w w b b		
		-----		m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk	so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk	so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	a a w w b b		
		-----		m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk	so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk	so po lo lo eg f pl 1 m pr 2 o cpr 3 vo abk sbk	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	a a w w b b		

Soil Description: Location MU1RR15 picture 100-2856/57/58  
 Site No. \_\_\_\_\_ Date 9-11-09 Time 12:00pm Vegetation Sage to 2'  
 Elevation \_\_\_\_\_ Slope 1-2% Aspect South Geomorphic Surface \_\_\_\_\_ Position - Swale  
 Parent Material(s) \_\_\_\_\_ Described by JC + EB

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Boundaries	notes
		moist	dry		Wet	Moist	Dry							
0-6"	A <sub>1</sub>	10YR 4/3		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk W sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh vs vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w i i b b	reactive = 0 - Heavy Loam * Platy		
6-12"	B <sub>1T</sub>	10YR 4/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk W sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh vs vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w i i b b			
12-24"	B <sub>3T</sub>	7.5YR 5/4		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk W sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh vs vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w i i b b	- In lenses * Less 10% gravel		
24-34"	C	10YR 5/3		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk W sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh vs vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w i i b b	- Silty * Massive		
34-60"	C	10YR 5/3		m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk W sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh vs vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w i i b b	reactivity: V * Massive		
				m vf gr sg f pl 1 m pr 2 c cpr 3 vo abk W sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so s p fr sh vs vp fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d	s s w w i i b b			

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photo 100-1870

**Soil Description:** Location MULPRIB  
 Site No.      Date 9/8/08 Time 15:30 Vegetation sparse ex. of grasses  
 Elevation      Slope 7% Aspect SE Geomorphic Surface Position - Footslope  
 Parent Material(s) SL Interbedded ss/shale 20+ Described by JL

Depth (ft)	Horizon	Color <sup>cons</sup> <sub>block</sub>		Structure	Gravel %		Consistence			Texture	pH	Clay films	Boundaries		notes
		moist	dry		Wet	Moist	Dry	a	w						
0-3	A	10 YR 3/3		m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so p p fr sh va vp fl h vll vh ell eh	S SICL LS SIL SL SI L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d			EF = φ		
3-8	B?	10 YR 4/4		m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so p p fr sh va vp fl h vll vh ell eh	S SICL LS SIL SL SI L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d			EF = φ		
8-20	*Cr1	7.5 YR 5/3		m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk <i>loose</i>	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so p p fr sh va vp fl h vll vh ell eh	S SICL LS SIL SL SI L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d			EF = V		
20-32	Cr2	5 YR 5/3		m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk <i>loose</i>	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so p p fr sh va vp fl h vll vh ell eh	S SICL LS SIL SL SI L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d			EF = V Licos-loamy coarse sand		
32-60	Cr3	7.5 YR 4/4		m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk <i>loose</i>	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so p p fr sh va vp fl h vll vh ell eh	S SICL LS SIL SL SI L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d			EF = V		
				m vf gr eg f pl 1 m pr 2 o cpr 3 vo abk sbk <i>loose</i>	0 50 <10 75 10 >75 25	so po lo lo ss ps vfr so p p fr sh va vp fl h vll vh ell eh	S SICL LS SIL SL SI L C CL SC		v1 n pf 1 po 2 mk br 3 co 4 k cobr	a a o o g g d d			All sand is coarse to very coarse in every horizon 0-60"		

0-60"

Soil Description: Location MU1PR23 Picture 100-2864/65  
 Site No. \_\_\_\_\_ Date 9-11-08 Time 3:00pm Vegetation Very sparse Sagebrush  
 Elevation \_\_\_\_\_ Slope 0 Aspect maybe south Geomorphic Surface Hillcrest  
 Parent Material(s) \_\_\_\_\_ Described by JC + EB

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Bound-aries	notes					
		moist	dry		Wet	Molat	Dry												
0-3"	A <sub>1</sub>	10YR 4/3		m eg 1 2 3	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po mk br co cobr	a o g d	a w i b	React = ∅ combined to Br for sample
3"-6"	B <sub>T</sub>	10YR 4/4		m eg 1 2 3 W	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po mk br co cobr	a o g d	a w i b	React = ∅ Prismatic Heavy 40% sand
6-10"	B <sub>3</sub>	10YR 4/4		m eg 1 2 3 W	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po mk br co cobr	a o g d	a w i b	React = ∅ Heavy 40% sand
10-60"	C <sub>RL</sub>	? prob g/lr variable grey to red		m eg 1 2 3	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po mk br co cobr	a o g d	a w i b	Reactivity = ∅ Highly variable coarse sandstone with lenticles and iron pans
		-----		m eg 1 2 3	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po mk br co cobr	a o g d	a w i b	↑ varies from sand to sandy loam from bottom to top
		-----		m eg 1 2 3	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vll eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po mk br co cobr	a o g d	a w i b	

Ethan says broad valley Lost Creek

Haplargid Backhoe 33"

Soil Description: Location MU 1 PR 26 100' W of swale (explain)   
 Site No. \_\_\_\_\_ Date 9/10/08 Time 13:03 Vegetation deep 30" topsoil   
 Elevation \_\_\_\_\_ Slope Est - 27% Aspect SSE Geomorphic Surface \_\_\_\_\_   
 Parent Material(s) two - sandy coarse alluvial over shale/SS - no Described by JC DE   
 CaCO<sub>3</sub> at 24"   
 photo: 100-1380

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Bound-aries	notes
		moist	dry		Wet	Moist	Dry							
0-4	A1	4/3	10 yr	m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr fr fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC	v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d a w i b	40% sand heavy loam			
4-12	B2t	4/4	10 yr	m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr fr fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC	v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d a w i b	* note - bagged 0-12 (A1 + B2t) together			
12-27	B3t (calc)	4/4	10 yr	m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr fr fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC	v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d a w i b	B3t is only calc at 24-27 90% sand			
27-60	C <sub>rca</sub>	6/3	highly var	m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr fr fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC	v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d a w i b	* ef = U in top part; ef = m. lower part; fractured			
				m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr fr fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC	v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d a w i b	Note - Alfredo took (more) topsoil than subsoil 33" as I recall			
				m vf gr eg f pl 1 m pr 2 c cpr 3 vo abk sbk	0 50 <10 75 10 >75 25	so po ss ps s p vs vp	lo lo vfr fr fl h vll vh ell eh	S SICL LS SIL SL SI SCL SIC L C CL SC	v1 n pf 1 po 2 mk br 3 co 4 k cobr	a o g d a w i b	ie, till be more sure be had shale			

Soil Description: Location MU1PR50 Pic 100-2861/62/63  
 Site No. \_\_\_\_\_ Date 9-11-08 Time 1:22 PM Vegetation < 1ft Sage brush + grasses  
 Elevation \_\_\_\_\_ Slope 0 Aspect ✓ Geomorphic Surface Upland slope + grass Hillcrest  
 Parent Material(s) \_\_\_\_\_ Described by JG+EB

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films	Bound-aries	notes						
		moist	dry		Wet	Moist	Dry													
0-3"	A <sub>1</sub>	10YR 3/3		m sg 1 m 2 c 3 vo	vf f m o vo	gr pl pr cpr abk abk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo fr fl vfl eff	lo sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po mk br co cobr	pf br co cobr	a g d	a w i b	* med-platy almost massive CO <sub>2</sub> L Heavy
3-6	B <sub>T</sub>	10YR 4/4 9/10's during prep = xh plates		m sg 1 m 2 c 3 vo	vf f m o vo	gr pl pr cpr abk abk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po mk br co cobr	pf br co cobr	a g d	a w i b	* 40% sand coarse breaking to med. fine sub-ang. BLK
6-16	B <sub>3</sub>	10YR 5/4		m sg 1 m 2 c 3 vo	vf f m o vo	gr pl pr cpr abk abk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po mk br co cobr	pf br co cobr	a g d	a w i b	* CO <sub>2</sub> L -Angular iron stone fragments (iron pan)
16-60	C <sub>R</sub>			m sg 1 m 2 c 3 vo	vf f m o vo	gr pl pr cpr abk abk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po mk br co cobr	pf br co cobr	a g d	a w i b	Mixed sandstones and shales. interbedded tongues - reactive in upper portion
				m sg 1 m 2 c 3 vo	vf f m o vo	gr pl pr cpr abk abk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po mk br co cobr	pf br co cobr	a g d	a w i b	No reactivity on any soil horizon?
				m sg 1 m 2 c 3 vo	vf f m o vo	gr pl pr cpr abk abk	0 <10 10 25	50 75 >75	so ss s vs	po ps p vp	lo vfr fr fl vfl eff	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n po mk br co cobr	pf br co cobr	a g d	a w i b	

Soil Description: Location MU 1PR51 Picture 100-2866 6/7/68  
 Site No. \_\_\_\_\_ Date 9-11-08 Time 4:00pm Vegetation < 1 ft sage + grasses  
 Elevation \_\_\_\_\_ Slope 1% Aspect South East Geomorphic Surface Sideslope  
 Parent Material(s) \_\_\_\_\_ Described by JC + EB

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films			Boundaries		notes			
		moist	dry		Wet	Moist	Dry	v1	n			pf	a	e						
0-3"	A <sub>1</sub>	10YR 4/3		m eg 1 2 3	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ps p vp	po pa p vp	lo vfr fr fl vll ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk br co k cobr	pf po br co cobr	a o g d	e w i b	reactive = $\emptyset$  bleed
3-10"	B <sub>T</sub>	10YR 4/4		m eg 1 2 3	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ps p vp	po pa p vp	lo vfr fr fl vll ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk br co k cobr	pf po br co cobr	a o g d	e w i b	reactive = $\emptyset$
10-16"	B <sub>3</sub>	10YR 4/3		m eg 1 2 3 W	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ps p vp	po pa p vp	lo vfr fr fl vll ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk br co k cobr	pf po br co cobr	a o g d	e w i b	-30% sand reactive = slight
16-60"	C <sub>R</sub>	10YR 5/6		m eg 1 2 3	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ps p vp	po pa p vp	lo vfr fr fl vll ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk br co k cobr	pf po br co cobr	a o g d	e w i b	coarse sand reactive = $\emptyset$
		-----		m eg 1 2 3	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ps p vp	po pa p vp	lo vfr fr fl vll ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk br co k cobr	pf po br co cobr	a o g d	e w i b	
		-----		m eg 1 2 3	vf f m c vo	gr pl pr cpr abk sbk	0 <10 10 25	50 75 >75	so ps p vp	po pa p vp	lo vfr fr fl vll ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk br co k cobr	pf po br co cobr	a o g d	e w i b	

Soil Description: Location MU 2 PR 52 Visited at 3PM 9/12 Alfredo-20" (Eget 15")  
 Site No. \_\_\_\_\_ Date 9/10/08 Time 14:58 Vegetation SPRUE GRASS, SIFE PLOTS - # 100-1882  
 Elevation \_\_\_\_\_ Slope 2 to 4% Aspect SE Geomorphic Surface FRIC(B) 100-1883  
 Parent Material(s) alluvium diff than everything east of here (9/12) Described by JC DE (10<sup>th</sup>)

20  
19  
13

Depth (cm)	Horizon	Color		Structure	Gravel %		Consistence			Texture	pH	Clay films			Bound-aries		notes	
		moist	dry		Wet	Moist	Dry	v1	n			pf	a	s				
0-4	A <sub>1</sub>	10YR 3/3		m 1 m 2 c 3 vo	0 <10 10 25	50 75 >75	so es s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	EF = ∅
4-15	B <sub>2t</sub>	10YR 4/4		m 1 m 2 c 3 vo	0 <10 10 25	50 75 >75	so es s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	Light, 40% sand course to v. course sand EF = ∅
15-24	B <sub>3x</sub>	7.5YR 5/3		m 1 m 2 c 3 vo	0 <10 10 25	50 75 >75	so es s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	course/v. course sand COSL EF = ∅
24-60	C <sub>rcs</sub>	7.5YR 5/3		m 1 m 2 c 3 vo	0 <10 10 25	50 75 >75	so es s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh*	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	COSL course sandy, loam *fractured shale C <sub>rcs</sub> E=M
		-----		m 1 m 2 c 3 vo	0 <10 10 25	50 75 >75	so es s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	mudstone etc some cemented ss etc
		-----		m 1 m 2 c 3 vo	0 <10 10 25	50 75 >75	so es s vs	po ps p vp	lo vfr fr fl vfl ell	lo so sh h vh eh	S LS SL SCL L CL	SICL SIL SI SIC C SC	v1 1 2 3 4	n mk co k	pf po br co cobr	a o g d	s w i b	

what is it? Topsoil or not