Van Buren County, Iowa

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
13B																
Olmitz	35	2e	4.0	200	b	5	48	H1	0-9	L	38.1	36.4	25.5	.24	.24	3.50
								H2	9-32	L	37.4	35.6	27.0	.28	.28	2.50
								H3	32-80	CL	33.2	36.3	30.5	.28	.28	1.50
Vesser	33	2w	4.0	200	c	5	48	H1	0-12	SIL	9.5	67.5	23.0	.28	.28	2.50
								H2	12-25	SIL	11.4	68.6	20.0	.43	.43	1.50
								H3	25-80	SICL	6.7	60.8	32.5	.43	.43	0.50
Zook	32	2w	1.0	200	c/d	5	38	H1	0-19	SICL	7.6	54.9	37.5	.37	.37	6.00
								H2	19-37	SIC	7.9	51.6	40.5	.28	.28	3.50
								H3	37-80	SICL	19.7	47.8	32.5	.28	.28	0.50
										SIL	19.7	47.8	32.5	.28	.28	0.50
23C2																
Arispe	95	3e	7.0	200	c	3	38	H1	0-9	SICL	19.2	47.8	33.0	.37	.37	2.70
								H2	9-39	SICL	7.1	52.9	40.0	.43	.43	0.75
								H3	39-60	SICL	18.1	47.9	34.0	.43	.43	0.25
								H4	60-65	SICL	18.2	52.3	29.5	.43	.43	0.25
								H5	65-80	SIC	5.3	44.7	50.0	.37	.37	0.00
51																
Vesser	100	2w	1.0	200	c	5	48	H1	0-12	SIL	9.5	67.5	23.0	.28	.28	2.50
								H2	12-25	SIL	11.4	68.6	20.0	.43	.43	1.50
								H3	25-80	SICL	6.7	60.8	32.5	.43	.43	0.50
51+																
Vesser	100	2w	1.0	200	c	5	48	H1	0-22	SIL	9.5	67.5	23.0	.28	.28	2.50
								H2	22-35	SIL	11.4	68.6	20.0	.43	.43	1.50
								H3	35-80	SICL	6.7	60.8	32.5	.43	.43	0.50
51B																
Vesser	100	2w	4.0	200	c	5	48	H1	0-12	SIL	9.5	67.5	23.0	.28	.28	2.50
								H2	12-25	SIL	11.4	68.6	20.0	.43	.43	1.50
								H3	25-80	SICL	6.7	60.8	32.5	.43	.43	0.50
54																
Zook	100	2w	1.0	200	c/d	5	38	H1	0-19	SICL	7.6	54.9	37.5	.37	.37	6.00
								H2	19-37	SIC	7.9	51.6	40.5	.28	.28	3.00
								H3	37-80	SICL	19.7	47.8	32.5	.28	.28	0.50
58D																
Douds	100	4e	12.0	200	b	5	48	H1	0-10	L	39.2	37.3	23.5	.28	.28	2.50
								H2	10-54	CL	33.2	36.3	30.5	.32	.32	0.50
								H3	54-80	SR- LS CL	75.3	7.2	17.5	.32	.32	0.25

Van Buren County, Iowa

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
58D2																
Douds	100	4e	12.0	200	b	5	48	H1	0-5	L	39.2	37.3	23.5	.32	.32	1.50
								H2	5-51	CL	33.2	36.3	30.5	.32	.32	0.50
								H3	51-80	SR- LS CL	75.3	7.2	17.5	.32	.32	0.25
58E2																
Douds	100	6e	16.0	200	b	5	48	H1	0-4	L	39.2	37.3	23.5	.32	.32	1.50
								H2	4-49	CL	33.2	36.3	30.5	.32	.32	0.50
								H3	49-80	SR- LS CL	75.3	7.2	17.5	.32	.32	0.25
58F2																
Douds	100	7e	22.0	200	b	5	48	H1	0-4	L	39.2	37.3	23.5	.32	.32	1.50
								H2	4-47	CL	33.2	36.3	30.5	.32	.32	0.50
								H3	47-80	SR- LS CL	75.3	7.2	17.5	.32	.32	0.25
58G																
Douds	100	7e	33.0	200	b	5	48	H1	0-10	L	39.2	37.3	23.5	.28	.28	2.50
								H2	10-45	CL	33.2	36.3	30.5	.32	.32	0.50
								H3	45-80	SR- LS CL	75.3	7.2	17.5	.32	.32	0.25
65D																
Lindley	90	4e	12.0	200	c	5	48	H1	0-8	L	39.8	37.7	22.5	.32	.32	1.50
								H2	8-52	CL	33.5	36.5	30.0	.32	.32	0.55
								H3	52-60	CL	34.4	37.6	28.0	.32	.32	0.30
65D2																
Lindley	90	4e	12.0	200	c	5	48	H1	0-7	L	39.8	37.7	22.5	.32	.32	1.50
								H2	7-43	CL	33.5	36.5	30.0	.32	.32	0.55
								H3	43-60	CL	34.4	37.6	28.0	.32	.32	0.30
65E																
Lindley	95	6e	16.0	200	c	5	48	H1	0-8	L	39.8	37.7	22.5	.32	.32	1.50
								H2	8-50	CL	33.5	36.5	30.0	.32	.32	0.55
								H3	50-60	CL	34.4	37.6	28.0	.32	.32	0.30
65E2																
Lindley	95	6e	16.0	200	c	5	48	H1	0-6	L	39.8	37.7	22.5	.32	.32	1.50
								H2	6-42	CL	33.5	36.5	30.0	.32	.32	0.55
								H3	42-60	CL	34.4	37.6	28.0	.32	.32	0.30
65F2																
Lindley	95	6e	22.0	200	c	5	48	H1	0-5	L	39.8	37.7	22.5	.32	.32	1.50
								H2	5-41	CL	33.5	36.5	30.0	.32	.32	0.55
								H3	41-60	CL	34.4	37.6	28.0	.32	.32	0.30

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
65G																
Lindley	95	6e	29.0	200	c	5	48	H1	0-8	L	39.8	37.7	22.5	.32	.32	1.50
								H2	8-48	CL	33.5	36.5	30.0	.32	.32	0.55
								H3	48-60	CL	34.4	37.6	28.0	.32	.32	0.30
80B																
Clinton	95	2e	4.0	200	b	5	48	H1	0-9	SIL	26.3	52.7	21.0	.37	.37	2.50
								H2	9-34	SICL	7.4	53.6	39.0	.37	.37	0.50
								H3	34-80	SICL	18.2	52.3	29.5	.37	.37	0.25
80C																
Clinton	90	3e	7.0	200	b	5	48	H1	0-8	SIL	26.3	52.7	21.0	.37	.37	2.50
								H2	8-33	SICL	7.4	53.6	39.0	.37	.37	0.50
								H3	33-80	SICL	18.2	52.3	29.5	.37	.37	0.25
80C2																
Clinton	90	3e	7.0	200	b	5	38	H1	0-8	SICL	17.3	52.2	30.5	.37	.37	1.50
								H2	8-28	SICL	7.4	53.6	39.0	.37	.37	0.25
								H3	28-80	SICL	18.2	52.3	29.5	.37	.37	0.25
80D																
Clinton	90	3e	12.0	200	b	5	48	H1	0-8	SIL	26.3	52.7	21.0	.37	.37	2.50
								H2	8-32	SICL	7.4	53.6	39.0	.37	.37	0.50
								H3	32-80	SICL	18.2	52.3	29.5	.37	.37	0.25
80D2																
Clinton	90	3e	12.0	200	b	5	38	H1	0-7	SICL	17.3	52.2	30.5	.37	.37	1.50
								H2	7-27	SICL	7.4	53.6	39.0	.37	.37	0.25
								H3	27-80	SICL	18.2	52.3	29.5	.37	.37	0.25
130																
Belinda	100	3w	1.0	200	d	3	48	H1	0-9	SIL	27.0	54.0	19.0	.37	.37	2.50
								H2	9-17	SIL	24.8	52.7	22.5	.43	.43	0.75
								H3	17-39	SIC	8.0	52.0	40.0	.32	.32	0.75
								H4	39-60	SICL	18.1	47.9	34.0	.43	.43	0.25
131B																
Pershing	90	3e	4.0	200	c	3	48	H1	0-15	SIL	24.5	52.0	23.5	.37	.37	2.50
								H2	15-17	SICL	20.0	49.0	31.0	.43	.43	0.50
								H3	17-49	SIC	7.9	50.6	41.5	.43	.43	0.25
								H4	49-60	SICL	20.0	48.0	32.0	.43	.43	0.25
131B2																
Pershing	90	3e	4.0	200	c	3	38	H1	0-7	SICL	19.7	47.8	32.5	.37	.37	2.50
								H2	7-12	SICL	20.0	49.0	31.0	.43	.43	0.50
								H3	12-44	SIC	7.9	50.6	41.5	.43	.43	0.25
								H4	44-60	SICL	20.0	48.0	32.0	.43	.43	0.25

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
131C																
Pershing	90	3e	7.0	200	c	3	48	H1	0-15	SIL	24.5	52.0	23.5	.37	.37	2.50
								H2	15-17	SICL	20.0	49.0	31.0	.43	.43	0.50
								H3	17-48	SIC	7.9	50.6	41.5	.43	.43	0.25
								H4	48-60	SICL	20.0	48.0	32.0	.43	.43	0.25
131C2																
Pershing	90	3e	7.0	200	c	3	38	H1	0-6	SICL	19.7	47.8	32.5	.37	.37	2.50
								H2	6-11	SICL	20.0	49.0	31.0	.43	.43	0.50
								H3	11-42	SIC	7.9	50.6	41.5	.43	.43	0.25
								H4	42-60	SICL	20.0	48.0	32.0	.43	.43	0.25
132B																
Weller	100	3e	4.0	200	c	3	48	H1	0-12	SIL	26.1	52.4	21.5	.37	.37	2.50
								H2	12-47	SIC	8.0	52.0	40.0	.43	.43	0.25
								H3	47-60	SICL	19.7	47.8	32.5	.43	.43	0.25
132C																
Weller	90	3e	7.0	200	c	3	48	H1	0-12	SIL	26.1	52.4	21.5	.37	.37	2.50
								H2	12-45	SIC	8.0	52.0	40.0	.43	.43	0.25
								H3	45-60	SICL	19.7	47.8	32.5	.43	.43	0.25
132C2																
Weller	90	3e	7.0	200	c	3	38	H1	0-6	SICL	20.0	48.5	31.5	.37	.37	1.25
								H2	6-43	SIC	8.0	52.0	40.0	.43	.43	0.25
								H3	43-60	SICL	19.7	47.8	32.5	.43	.43	0.25
139																
Perks	95	4s	1.0	200	a	5	134	H1	0-9	LS	84.9	9.1	6.0	.17	.17	1.25
								H2	9-80	S	92.1	1.9	6.0	.15	.15	0.25
139B																
Perks	100	6s	4.0	200	a	5	134	H1	0-9	LS	84.9	9.1	6.0	.17	.17	1.25
								H2	9-80	S	92.1	1.9	6.0	.15	.15	0.25
172																
Wabash	95	3w	1.0	200	d	5	86	H1	0-31	SIC	7.7	49.3	43.0	.28	.28	3.00
								H2	31-60	SIC	5.3	44.7	50.0	.28	.28	1.50
173																
Hoopeston	100	2s	1.0	200	b	4	86	H1	0-13	SL	67.4	19.6	13.0	.20	.20	2.50
								H2	13-30	SL	65.9	19.1	15.0	.28	.28	0.60
								H3	30-80	LS	84.9	9.1	6.0	.17	.17	0.30
179D2																
Gara	90	4e	12.0	200	c	5	48	H1	0-7	CL	35.4	33.6	31.0	.32	.32	2.50
								H2	7-47	CL	35.3	33.2	31.5	.32	.32	0.25
								H3	47-60	CL	35.4	33.6	31.0	.37	.37	0.25

Van Buren County, Iowa

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
179E2																
Gara	95	6e	16.0	200	c	5	48	H1	0-6	CL	35.4	33.6	31.0	.32	.32	2.50
								H2	6-46	CL	35.3	33.2	31.5	.32	.32	0.25
								H3	46-60	CL	35.4	33.6	31.0	.37	.37	0.25
197																
Reedscreek	100	2w	2.0	200	b	3	56	H1	0-6	L	45.3	43.2	11.5	.24	.24	1.25
								H2	6-32	SR- GRX-L CB-L	45.3	44.7	10.0	.24	.17	0.25
								H3	32-47	CBV-LS	85.7	4.3	10.0	.24	.17	0.25
								H4	47-66	GRX-LS	85.7	4.3	10.0	.24	.17	0.25
								H5	66-76	UWB	--	--	--	--	--	---
208																
Klum	95	2s	1.0	200	b	5	86	H1	0-7	FSL	62.5	26.0	11.5	.20	.20	1.50
								H2	7-44	SR- SL SIL	57.2	31.3	11.5	.20	.20	0.25
								H3	44-80	SR- S LS	87.6	1.9	10.5	.17	.17	0.25
211																
Edina	90	3w	0.5	200	d	3	48	H1	0-13	SIL	26.3	52.7	21.0	.37	.37	2.50
								H2	13-19	SIL	26.3	52.7	21.0	.37	.37	0.75
								H3	19-43	SIC	2.6	44.9	52.5	.37	.37	0.25
								H4	43-60	SICL	18.7	47.8	33.5	.37	.37	0.25
220																
Nodaway	90	2w	1.0	200	b	5	48	H1	0-7	SIL	9.5	68.0	22.5	.32	.32	2.50
								H2	7-60	SIL	9.5	67.5	23.0	.43	.43	0.25
222C2																
Clarinda	100	4w	7.0	200	d	3	38	H1	0-12	SICL	19.7	47.8	32.5	.37	.37	2.50
								H2	12-47	C	22.1	27.9	50.0	.37	.37	0.75
								H3	47-80	C	22.1	27.9	50.0	.37	.37	0.25
223C2																
Rinda	100	4w	7.0	200	d	3	38	H1	0-6	SICL	20.0	49.0	31.0	.43	.43	2.50
								H2	6-10	SICL	17.3	47.7	35.0	.43	.43	0.25
								H3	10-60	SIC	5.3	44.7	50.0	.32	.32	0.25
231																
Edina	90	3w	1.0	200	d	3	48	H1	0-13	SIL	26.3	52.7	21.0	.37	.37	2.50
								H2	13-19	SIL	26.3	52.7	21.0	.37	.37	0.75
								H3	19-43	SIC	2.6	44.9	52.5	.37	.37	0.25
								H4	43-60	SICL	18.7	47.8	33.5	.37	.37	0.25

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
260																
Beckwith	100	3w	1.0	200	d	3	48	H1	0-5	SIL	27.0	54.0	19.0	.37	.37	1.50
								H2	5-14	SIL	24.8	52.7	22.5	.43	.43	0.75
								H3	14-54	SIC	5.6	48.4	46.0	.43	.43	0.25
								H4	54-60	SICL	18.1	47.9	34.0	.43	.43	0.25
261																
Appanoose	100	3w	1.0	200	d	3	48	H1	0-15	SIL	27.0	54.0	19.0	.32	.32	2.50
								H2	15-40	SIC	2.6	43.4	54.0	.43	.43	0.50
								H3	40-60	SICL	17.3	47.7	35.0	.43	.43	0.25
263																
Okaw	100	3w	0.5	200	d	3	48	H1	0-14	SIL	26.3	52.7	21.0	.43	.43	2.00
								H2	14-46	SIC	5.3	44.7	50.0	.32	.32	0.50
								H3	46-58	SICL	7.4	53.1	39.5	.32	.32	0.25
								H4	58-80	SICL	7.4	53.1	39.5	.32	.32	0.25
273B																
Olmitz	100	2e	4.0	200	b	5	48	H1	0-9	L	38.1	36.4	25.5	.24	.24	3.50
								H2	9-32	L	37.4	35.6	27.0	.28	.28	2.50
								H3	32-80	CL	33.2	36.3	30.5	.28	.28	1.50
273C																
Olmitz	100	3e	7.0	200	b	5	48	H1	0-9	L	38.1	36.4	25.5	.24	.24	3.50
								H2	9-32	L	37.4	35.6	27.0	.28	.28	2.50
								H3	32-80	CL	33.2	36.3	30.5	.28	.28	1.50
312B																
Seymour	100	3e	4.0	200	c	3	48	H1	0-8	SIL	24.1	51.4	24.5	.37	.37	3.50
								H2	8-35	SIC	5.7	48.8	45.5	.28	.28	0.75
								H3	35-60	SICL	7.6	54.9	37.5	.43	.43	0.25
312B2																
Seymour	100	3e	4.0	200	c	3	38	H1	0-10	SICL	19.2	47.8	33.0	.37	.37	2.50
								H2	10-30	SIC	5.7	48.8	45.5	.28	.28	0.75
								H3	30-60	SICL	7.6	54.9	37.5	.43	.43	0.25
313D2																
Gosport	95	6e	12.0	200	c	3	38	H1	0-6	SICL	17.3	52.2	30.5	.43	.43	1.50
								H2	6-27	C	23.1	28.9	48.0	.32	.32	0.25
								H3	27-80	WB	--	--	--	--	--	---
313E2																
Gosport	95	7e	16.0	200	c	3	38	H1	0-5	SICL	17.3	52.2	30.5	.43	.43	1.50
								H2	5-25	C	23.1	28.9	48.0	.32	.32	0.25
								H3	25-80	WB	--	--	--	--	--	---

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
313F2																
Gosport	95	7e	22.0	200	c	3	38	H1	0-5	SICL	17.3	52.2	30.5	.43	.43	1.50
								H2	5-23	C	23.1	28.9	48.0	.32	.32	0.25
								H3	23-80	WB	--	--	--	--	--	---
313G																
Gosport	95	7e	33.0	200	c	3	48	H1	0-7	SIL	24.8	52.7	22.5	.43	.43	2.50
								H2	7-22	C	23.1	28.9	48.0	.32	.32	0.25
								H3	22-80	WB	--	--	--	--	--	---
315																
Nodaway	40	2w	2.0	200	b	5	48	H1	0-7	SIL	9.5	68.0	22.5	.32	.32	2.50
								H2	7-60	SIL	9.5	67.5	23.0	.43	.43	0.25
Klum	30	2s	2.0	200	b	5	86	H1	0-7	FSL	62.5	26.0	11.5	.20	.20	1.50
								H2	7-44	SR- SL SIL	57.2	31.3	11.5	.20	.20	0.25
								H3	44-80	SR- S LS	87.6	1.9	10.5	.17	.17	0.25
Perks	20	4s	2.0	200	a	5	134	H1	0-9	LS	84.9	9.1	6.0	.17	.17	1.25
								H2	9-80	S	92.1	1.9	6.0	.15	.15	0.25
362																
Haig	100	2w	1.0	200	c/d	3	48	H1	0-12	SIL	24.1	51.4	24.5	.37	.37	3.50
								H2	12-16	SICL	7.5	54.5	38.0	.37	.37	1.50
								H3	16-46	SIC	7.2	47.8	45.0	.32	.32	0.50
								H4	46-60	SICL	18.1	47.9	34.0	.43	.43	0.25
363																
Haig	100	2w	1.0	200	c/d	3	38	H1	0-12	SICL	7.7	56.3	36.0	.37	.37	3.50
								H2	12-16	SICL	7.5	54.5	38.0	.37	.37	1.50
								H3	16-46	SIC	7.2	47.8	45.0	.32	.32	0.50
								H4	46-60	SICL	18.1	47.9	34.0	.43	.43	0.25
364B																
Grundy	100	2e	4.0	200	c	3	48	H1	0-16	SIL	26.7	53.8	19.5	.37	.37	3.00
								H2	16-20	SIC	8.3	53.2	38.5	.37	.37	0.75
								H3	20-40	SIC	7.2	47.8	45.0	.37	.37	0.25
								H4	40-60	SICL	20.0	48.5	31.5	.37	.37	0.25
364B2																
Grundy	100	3e	4.0	200	c	3	38	H1	0-8	SICL	20.0	48.5	31.5	.37	.37	2.50
								H2	8-15	SICL	7.4	54.1	38.5	.37	.37	0.75
								H3	15-35	SIC	7.2	47.8	45.0	.37	.37	0.25
								H4	35-60	SICL	20.0	48.5	31.5	.37	.37	0.25

Van Buren County, Iowa

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
423D2																
Bucknell	95	4e	12.0	200	d	3	38	H1	0-5	SICL	19.7	47.8	32.5	.37	.37	2.50
								H2	5-45	C	26.9	29.1	44.0	.32	.32	0.25
								H3	45-60	CL	33.3	31.7	35.0	.32	.32	0.25
424D2																
Lindley	60	4e	12.0	200	c	5	48	H1	0-7	L	39.8	37.7	22.5	.32	.32	1.50
								H2	7-43	CL	33.5	36.5	30.0	.32	.32	0.55
								H3	43-60	CL	34.4	37.6	28.0	.32	.32	0.30
Keswick	30	4e	12.0	200	c	3	48	H1	0-4	L	38.8	36.7	24.5	.37	.37	1.50
								H2	4-31	C	23.3	29.2	47.5	.37	.37	0.25
								H3	31-80	CL	33.3	31.7	35.0	.37	.37	0.25
424E2																
Lindley	65	6e	16.0	200	c	5	48	H1	0-6	L	39.8	37.7	22.5	.32	.32	1.50
								H2	6-42	CL	33.5	36.5	30.0	.32	.32	0.55
								H3	42-60	CL	34.4	37.6	28.0	.32	.32	0.30
Keswick	35	6e	16.0	200	c	3	48	H1	0-4	L	38.8	36.7	24.5	.37	.37	1.50
								H2	4-29	C	23.3	29.2	47.5	.37	.37	0.25
								H3	29-80	CL	33.3	31.7	35.0	.37	.37	0.25
425D																
Keswick	90	4e	12.0	200	c	3	48	H1	0-17	L	38.8	36.7	24.5	.32	.32	2.50
								H2	17-38	C	23.3	29.2	47.5	.37	.37	0.25
								H3	38-80	CL	33.3	31.7	35.0	.37	.37	0.25
425D2																
Keswick	90	4e	12.0	200	c	3	48	H1	0-4	L	38.8	36.7	24.5	.37	.37	1.50
								H2	4-31	C	23.3	29.2	47.5	.37	.37	0.25
								H3	31-80	CL	33.3	31.7	35.0	.37	.37	0.25
432C2																
Gorin	95	3e	6.0	200	c	4	48	H1	0-5	SIL	26.3	52.7	21.0	.43	.43	1.25
								H2	5-10	SICL	17.8	47.7	34.5	.32	.32	0.75
								H3	10-32	SIC	5.5	47.0	47.5	.32	.32	0.75
								H4	32-54	CL	34.2	32.3	33.5	.32	.32	0.25
								H5	54-80	CL	29.2	31.3	39.5	.37	.37	0.25
432D																
Gorin	95	4e	12.0	200	c	4	48	H1	0-9	SIL	26.3	52.7	21.0	.43	.43	1.25
								H2	9-14	SICL	17.8	47.7	34.5	.32	.32	0.75
								H3	14-37	SIC	5.5	47.0	47.5	.32	.32	0.75
								H4	37-59	CL	34.2	32.3	33.5	.32	.32	0.25
								H5	59-80	C	23.3	29.2	47.5	.37	.37	0.25

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
432D2																
Gorin	95	4e	12.0	200	c	4	48	H1	0-5	SIL	26.3	52.7	21.0	.43	.43	1.25
								H2	5-10	SICL	17.8	47.7	34.5	.32	.32	0.75
								H3	10-30	SIC	5.5	47.0	47.5	.32	.32	0.75
								H4	30-52	CL	34.2	32.3	33.5	.32	.32	0.25
								H5	52-80	CL	29.2	31.3	39.5	.37	.37	0.25
453																
Tuskeego	100	3w	1.0	200	c/d	5	56	H1	0-9	SIL	27.0	54.0	19.0	.37	.37	3.00
								H2	9-20	SIL	24.2	51.8	24.0	.43	.43	1.50
								H3	20-45	SIC	8.0	52.0	40.0	.43	.43	1.00
								H4	45-60	SICL	18.1	47.9	34.0	.43	.43	0.50
460																
Mtsterling	100	2w	1.0	200	b	5	48	H1	0-7	SIL	9.5	68.0	22.5	.37	.37	2.00
								H2	7-26	SIL	9.3	66.7	24.0	.37	.37	0.75
								H3	26-54	SICL	7.4	53.1	39.5	.28	.28	0.50
								H4	54-80	SICL	7.1	52.9	40.0	.28	.28	0.50
520																
Coppock	100	2w	1.0	200	b	5	48	H1	0-9	SIL	11.3	67.7	21.0	.32	.32	2.50
								H2	9-25	SIL	11.2	67.3	21.5	.43	.43	0.50
								H3	25-59	SICL	6.9	63.1	30.0	.43	.43	0.25
								H4	59-80	SICL	6.7	61.3	32.0	.43	.43	0.25
520B																
Coppock	100	2w	4.0	200	b	5	48	H1	0-9	SIL	11.3	67.7	21.0	.32	.32	2.50
								H2	9-25	SIL	11.2	67.3	21.5	.43	.43	0.50
								H3	25-59	SICL	6.9	63.1	30.0	.43	.43	0.25
								H4	59-80	SICL	6.7	61.3	32.0	.43	.43	0.25
531B																
Kniffin	100	3e	4.0	200	c	3	48	H1	0-13	SIL	24.2	51.8	24.0	.37	.37	2.50
								H2	13-30	SIC	2.6	45.4	52.0	.43	.43	0.75
								H3	30-60	SICL	7.7	56.3	36.0	.43	.43	0.25
531B2																
Kniffin	100	3e	4.0	200	c	3	38	H1	0-10	SICL	20.0	49.0	31.0	.37	.37	1.50
								H2	10-15	SIC	2.6	45.4	52.0	.43	.43	0.75
								H3	15-60	SICL	7.7	56.3	36.0	.43	.43	0.25
531C2																
Kniffin	90	3e	7.0	200	c	3	38	H1	0-10	SICL	20.0	49.0	31.0	.37	.37	1.50
								H2	10-15	SIC	2.6	45.4	52.0	.43	.43	0.75
								H3	15-60	SICL	7.7	56.3	36.0	.43	.43	0.25

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
532B																
Rathbun	95	3e	4.0	200	c	3	48	H1	0-12	SIL	27.0	54.0	19.0	.43	.43	2.50
								H2	12-32	SIC	2.6	45.4	52.0	.32	.32	0.25
								H3	32-80	SICL	7.7	56.3	36.0	.32	.32	0.25
532C																
Rathbun	90	3e	7.0	200	c	3	48	H1	0-12	SIL	27.0	54.0	19.0	.43	.43	2.50
								H2	12-30	SIC	2.6	45.4	52.0	.32	.32	0.25
								H3	30-80	SICL	7.7	56.3	36.0	.32	.32	0.25
532C2																
Rathbun	90	3e	7.0	200	c	3	38	H1	0-10	SICL	20.0	49.0	31.0	.43	.43	0.75
								H2	10-28	SIC	2.6	45.4	52.0	.32	.32	0.25
								H3	28-80	SICL	7.7	56.3	36.0	.32	.32	0.25
534																
Carlow	100	3w	1.0	200	d	5	86	H1	0-13	SIC	7.2	47.8	45.0	.37	.37	3.00
								H2	13-60	SIC	2.6	44.9	52.5	.37	.37	0.75
592D2																
Mystic	100	4e	12.0	200	c	3	48	H1	0-7	CL	35.4	33.6	31.0	.32	.32	2.50
								H2	7-80	C	30.0	30.0	40.0	.37	.37	0.25
594D2																
Galland	100	4e	12.0	200	d	3	48	H1	0-9	L	38.8	36.7	24.5	.37	.37	1.50
								H2	9-60	C	29.0	29.5	41.5	.37	.37	0.25
598G																
Bucklick	90	7e	27.0	200	c	3	48	H1	0-10	SIL	26.5	53.5	20.0	.32	.32	3.00
								H2	10-46	CL	29.0	31.0	40.0	.32	.32	0.75
								H3	46-56	UWB	--	--	--	--	--	---
599G																
Nordness	50	7s	33.0	200	b	1	48	H1	0-2	SIL	26.3	52.7	21.0	.32	.32	2.50
								H2	2-5	SIL	23.8	50.7	25.5	.32	.32	0.75
								H3	5-11	SICL	19.3	52.2	28.5	.37	.37	0.25
								H4	11-21	UWB	--	--	--	--	--	---
Gosport	45	7e	33.0	200	c	3	48	H1	0-7	SIL	24.8	52.7	22.5	.43	.43	2.50
								H2	7-22	C	23.1	28.9	48.0	.32	.32	0.25
								H3	22-80	WB	--	--	--	--	--	---
632B																
Adco	100	2e	4.0	200	d	3	48	H1	0-8	SIL	24.8	52.7	22.5	.32	.32	2.50
								H2	8-14	SIL	24.8	52.7	22.5	.32	.32	0.75
								H3	14-18	SIC	2.5	42.5	55.0	.43	.43	0.75
								H4	18-33	SIC	7.9	51.1	41.0	.43	.43	0.25
								H5	33-60	SICL	20.1	54.9	25.0	.43	.43	0.25

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
699G																
Nordness	70	7s	27.0	200	b	1	48	H1	0-2	SIL	26.3	52.7	21.0	.32	.32	2.50
								H2	2-5	SIL	23.8	50.7	25.5	.32	.32	0.75
								H3	5-11	SICL	19.3	52.2	28.5	.37	.37	0.25
								H4	11-21	UWB	--	--	--	--	--	---
Bentonsport	25	7e	33.0	200	b	4	56	H1	0-18	GRX-L	38.5	36.5	25.0	.28	.20	2.50
								H2	18-32	CBV-L	37.9	35.6	26.5	.28	.20	1.50
								H3	32-48	CBX-L	37.9	35.6	26.5	.28	.20	0.25
								H4	48-70	CBV-L	37.9	35.6	26.5	.28	.20	0.25
								H5	70-75	GR-SIL	26.3	52.7	21.0	.32	.24	0.25
								H6	75-99	WB	--	--	--	--	--	---
719B																
Creal	100	2e	4.0	200	c	5	48	H1	0-9	SIL	9.4	67.1	23.5	.37	.37	2.00
								H2	9-30	SIL	11.2	67.3	21.5	.37	.37	0.25
								H3	30-63	SICL	6.9	63.1	30.0	.37	.37	0.25
								H4	63-80	SICL	7.1	65.4	27.5	.37	.37	0.25
720																
Racoon	100	5w	0.5	200	c/d	5	48	H1	0-9	SIL	9.4	67.1	23.5	.37	.37	1.50
								H2	9-30	SIL	11.2	67.3	21.5	.37	.37	0.35
								H3	30-63	SICL	6.9	62.1	31.0	.37	.37	0.75
								H4	63-80	SR- LFS SIC	26.0	50.0	24.0	.37	.37	0.75
729																
Nodaway	65	2w	1.0	200	b	5	48	H1	0-7	SIL	9.5	68.0	22.5	.32	.32	2.50
								H2	7-60	SIL	9.5	67.5	23.0	.43	.43	0.25
Coppock	35	2w	1.0	200	b	5	48	H1	0-9	SIL	11.3	67.7	21.0	.32	.32	2.50
								H2	9-25	SIL	11.2	67.3	21.5	.43	.43	0.50
								H3	25-59	SICL	6.9	63.1	30.0	.43	.43	0.25
								H4	59-80	SICL	6.7	61.3	32.0	.43	.43	0.25
730B																
Nodaway	40	2w	4.0	200	b	5	48	H1	0-7	SIL	9.5	68.0	22.5	.32	.32	2.50
								H2	7-60	SIL	9.5	67.5	23.0	.43	.43	0.25
Coppock	35	2w	4.0	200	b	5	48	H1	0-9	SIL	11.3	67.7	21.0	.32	.32	2.50
								H2	9-25	SIL	11.2	67.3	21.5	.43	.43	0.50
								H3	25-59	SICL	6.9	63.1	30.0	.43	.43	0.25
								H4	59-80	SICL	6.7	61.3	32.0	.43	.43	0.25
Cantril	25	2e	4.0	200	b	5	48	H1	0-21	L	42.0	37.5	20.5	.28	.28	2.50
								H2	21-80	CL	35.4	33.6	31.0	.32	.32	0.50

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
792D2																
Armstrong	95	4e	12.0	200	c	3	86	H1	0-8	CL	29.7	31.8	38.5	.32	.32	2.50
								H2	8-69	C	23.1	28.9	48.0	.32	.32	0.50
								H3	69-80	CL	34.4	32.6	33.0	.32	.32	0.25
795C2																
Ashgrove	90	4e	7.0	200	d	3	38	H1	0-5	SICL	18.7	47.8	33.5	.43	.43	1.50
								H2	5-14	SIC	8.0	52.0	40.0	.32	.32	0.25
								H3	14-66	C	22.1	27.9	50.0	.32	.32	0.25
								H4	66-80	CL	33.6	36.9	29.5	.32	.32	0.00
795D																
Ashgrove	90	4e	12.0	200	d	3	38	H1	0-8	SICL	18.7	47.8	33.5	.43	.43	2.50
								H2	8-17	SIC	8.0	52.0	40.0	.32	.32	0.50
								H3	17-67	C	22.1	27.9	50.0	.32	.32	0.25
								H4	67-80	CL	33.6	36.9	29.5	.32	.32	0.00
795D2																
Ashgrove	90	4e	12.0	200	d	3	38	H1	0-5	SICL	18.7	47.8	33.5	.43	.43	1.50
								H2	5-14	SIC	8.0	52.0	40.0	.32	.32	0.25
								H3	14-62	C	22.1	27.9	50.0	.32	.32	0.25
								H4	62-80	CL	33.6	36.9	29.5	.32	.32	0.00
831B																
Pershing	100	3e	4.0	200	c	3	48	H1	0-15	SIL	24.5	52.0	23.5	.37	.37	2.50
								H2	15-17	SICL	20.0	49.0	31.0	.43	.43	0.50
								H3	17-49	SIC	7.9	50.6	41.5	.43	.43	0.25
								H4	49-60	SICL	20.0	48.0	32.0	.43	.43	0.25
831C2																
Pershing	100	3e	7.0	200	c	3	38	H1	0-6	SICL	19.7	47.8	32.5	.37	.37	2.50
								H2	6-11	SICL	20.0	49.0	31.0	.43	.43	0.50
								H3	11-42	SIC	7.9	50.6	41.5	.43	.43	0.25
								H4	42-60	SICL	20.0	48.0	32.0	.43	.43	0.25
832B																
Weller	100	3e	4.0	200	c	3	48	H1	0-12	SIL	26.1	52.4	21.5	.37	.37	2.50
								H2	12-47	SIC	8.0	52.0	40.0	.43	.43	0.25
								H3	47-60	SICL	19.7	47.8	32.5	.43	.43	0.25
832C																
Weller	90	3e	7.0	200	c	3	48	H1	0-12	SIL	26.1	52.4	21.5	.37	.37	2.50
								H2	12-45	SIC	8.0	52.0	40.0	.43	.43	0.25
								H3	45-60	SICL	19.7	47.8	32.5	.43	.43	0.25

Van Buren County, Iowa

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
832C2																
Weller	90	3e	7.0	200	c	3	38	H1	0-6	SICL	20.0	48.5	31.5	.37	.37	1.25
								H2	6-43	SIC	8.0	52.0	40.0	.43	.43	0.25
								H3	43-60	SICL	19.7	47.8	32.5	.43	.43	0.25
832D2																
Weller	90	4e	12.0	200	c	3	38	H1	0-6	SICL	20.0	48.5	31.5	.37	.37	1.25
								H2	6-41	SIC	8.0	52.0	40.0	.43	.43	0.25
								H3	41-60	SICL	19.7	47.8	32.5	.43	.43	0.25
880B																
Clinton	95	2e	4.0	200	b	5	48	H1	0-9	SIL	26.3	52.7	21.0	.37	.37	2.50
								H2	9-34	SICL	7.4	53.6	39.0	.37	.37	0.50
								H3	34-80	SICL	18.2	52.3	29.5	.37	.37	0.25
880C																
Clinton	90	3e	7.0	200	b	5	48	H1	0-8	SIL	26.3	52.7	21.0	.37	.37	1.50
								H2	8-33	SICL	7.4	53.6	39.0	.37	.37	0.25
								H3	33-60	SICL	18.2	52.3	29.5	.37	.37	0.25
								H4	60-80	SICL	19.9	52.6	27.5	.32	.32	0.25
880C2																
Clinton	90	3e	7.0	200	b	5	38	H1	0-8	SICL	17.3	52.2	30.5	.37	.37	1.50
								H2	8-28	SICL	7.4	53.6	39.0	.37	.37	0.25
								H3	28-60	SICL	18.2	52.3	29.5	.37	.37	0.25
								H4	60-80	SICL	19.9	52.6	27.5	.32	.32	0.25
880D																
Clinton	90	3e	12.0	200	b	5	48	H1	0-8	SIL	26.3	52.7	21.0	.37	.37	1.50
								H2	8-32	SICL	7.4	53.6	39.0	.37	.37	0.25
								H3	32-60	SICL	18.2	52.3	29.5	.37	.37	0.25
								H4	60-80	SICL	19.9	52.6	27.5	.32	.32	0.25
880D2																
Clinton	90	3e	12.0	200	b	5	38	H1	0-7	SICL	17.3	52.2	30.5	.37	.37	1.50
								H2	7-27	SICL	7.4	53.6	39.0	.37	.37	0.25
								H3	27-60	SICL	18.2	52.3	29.5	.37	.37	0.25
								H4	60-80	SICL	19.9	52.6	27.5	.32	.32	0.25
977																
Richwood	100	1	1.0	200	b	4	56	H1	0-16	SIL	11.7	69.8	18.5	.28	.28	3.50
								H2	16-54	SICL	7.1	64.9	28.0	.43	.43	0.75
								H3	54-88	SR- LS SIL	84.3	0.7	15.0	.43	.43	0.25

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
993D2																
Gara	60	4e	12.0	200	c	5	48	H1	0-7	CL	35.4	33.6	31.0	.32	.32	2.50
								H2	7-47	CL	35.3	33.2	31.5	.32	.32	0.25
								H3	47-60	CL	35.4	33.6	31.0	.37	.37	0.25
Armstrong	30	4e	12.0	200	c	3	86	H1	0-8	CL	29.7	31.8	38.5	.32	.32	2.50
								H2	8-69	C	23.1	28.9	48.0	.32	.32	0.50
								H3	69-80	CL	34.4	32.6	33.0	.32	.32	0.25
994D2																
Galland	65	4e	12.0	200	d	3	48	H1	0-9	L	38.8	36.7	24.5	.37	.37	1.50
								H2	9-60	C	29.0	29.5	41.5	.37	.37	0.25
Douds	35	4e	12.0	200	b	5	48	H1	0-5	L	39.2	37.3	23.5	.32	.32	1.50
								H2	5-51	CL	33.2	36.3	30.5	.32	.32	0.50
								H3	51-80	SR- LS CL	75.3	7.2	17.5	.32	.32	0.25
994E2																
Galland	65	6e	16.0	200	d	3	48	H1	0-9	L	38.8	36.7	24.5	.37	.37	1.50
								H2	9-60	C	29.0	29.5	41.5	.37	.37	0.25
Douds	35	6e	16.0	200	b	5	48	H1	0-4	L	39.2	37.3	23.5	.32	.32	1.50
								H2	4-49	CL	33.2	36.3	30.5	.32	.32	0.50
								H3	49-80	SR- LS CL	75.3	7.2	17.5	.32	.32	0.25
1130																
Belinda	100	3w	1.0	200	d	3	48	H1	0-9	SIL	27.0	54.0	19.0	.37	.37	2.50
								H2	9-17	SIL	24.8	52.7	22.5	.43	.43	0.75
								H3	17-39	SIC	8.0	52.0	40.0	.32	.32	0.75
								H4	39-60	SICL	18.1	47.9	34.0	.43	.43	0.25
1260																
Beckwith	100	3w	1.0	200	d	3	48	H1	0-5	SIL	27.0	54.0	19.0	.37	.37	1.50
								H2	5-14	SIL	24.8	52.7	22.5	.43	.43	0.75
								H3	14-54	SIC	5.6	48.4	46.0	.43	.43	0.25
								H4	54-60	SICL	18.1	47.9	34.0	.43	.43	0.25
1715																
Nodaway	40	2w	1.0	200	b	5	48	H1	0-7	SIL	9.5	68.0	22.5	.32	.32	2.50
								H2	7-60	SIL	9.5	67.5	23.0	.43	.43	0.25
Vesser	35	2w	1.0	200	c	5	48	H1	0-12	SIL	9.5	67.5	23.0	.28	.28	2.50
								H2	12-25	SIL	11.4	68.6	20.0	.43	.43	1.50
								H3	25-80	SICL	6.7	60.8	32.5	.43	.43	0.50
Mtsterling	25	2w	1.0	200	b	5	48	H1	0-7	SIL	9.5	68.0	22.5	.37	.37	2.00
								H2	7-26	SICL	7.1	64.9	28.0	.37	.37	0.75
								H3	26-54	SICL	7.4	53.1	39.5	.28	.28	0.50
								H4	54-80	SICL	7.1	52.9	40.0	.28	.28	0.50

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
1977																
Keosauqua	100	1	2.0	200	b	5	56	H1	0-22	L	41.1	36.9	22.0	.24	.24	3.50
								H2	22-50	L	37.4	35.6	27.0	.32	.32	0.50
								H3	50-80	LS	83.3	4.2	12.5	.32	.32	0.50
3051																
Vesser	100	2w	1.0	200	c	5	48	H1	0-12	SIL	9.5	67.5	23.0	.28	.28	2.50
								H2	12-25	SIL	11.4	68.6	20.0	.43	.43	1.50
								H3	25-80	SICL	6.7	60.8	32.5	.43	.43	0.50
3054																
Zook	100	2w	1.0	200	c/d	5	38	H1	0-19	SICL	7.6	54.9	37.5	.37	.37	6.00
								H2	19-37	SIC	7.9	51.6	40.5	.28	.28	3.00
								H3	37-80	SICL	19.7	47.8	32.5	.28	.28	0.50
3133																
Colo	100	2w	1.0	200	b/d	5	38	H1	0-20	SICL	6.8	61.7	31.5	.28	.28	6.00
								H2	20-63	SICL	6.7	60.8	32.5	.28	.28	3.50
								H3	63-80	SICL	6.9	63.1	30.0	.32	.32	1.50
3139																
Perks	95	4s	1.0	200	a	5	134	H1	0-9	LS	84.9	9.1	6.0	.17	.17	1.25
								H2	9-80	S	92.1	1.9	6.0	.15	.15	0.25
3208																
Klum	95	2s	1.0	200	b	5	86	H1	0-7	FSL	62.5	26.0	11.5	.20	.20	1.50
								H2	7-44	SR- SL SIL	57.2	31.3	11.5	.20	.20	0.25
								H3	44-80	SR- S LS	87.6	1.9	10.5	.17	.17	0.25
3220																
Nodaway	95	1	1.0	200	b	5	48	H1	0-7	SIL	9.5	68.0	22.5	.32	.32	2.50
								H2	7-60	SIL	9.5	67.5	23.0	.43	.43	0.25
3315																
Nodaway	45	1	2.0	200	b	5	48	H1	0-7	SIL	9.5	68.0	22.5	.32	.32	2.50
								H2	7-60	SIL	9.5	67.5	23.0	.43	.43	0.25
Klum	30	2s	2.0	200	b	5	86	H1	0-7	FSL	62.5	26.0	11.5	.20	.20	1.50
								H2	7-44	SR- SL SIL	57.2	31.3	11.5	.20	.20	0.25
								H3	44-80	SR- S LS	87.6	1.9	10.5	.17	.17	0.25
Perks	20	4s	2.0	200	a	5	134	H1	0-9	LS	84.9	9.1	6.0	.17	.17	1.25
								H2	9-80	S	92.1	1.9	6.0	.15	.15	0.25
3484																
Lawson	95	3w	1.0	200	c	5	56	H1	0-8	SIL	11.7	69.8	18.5	.28	.28	5.00
								H2	8-44	SIL	11.4	68.6	20.0	.28	.28	5.00
								H3	44-80	SIL	9.3	66.7	24.0	.43	.43	2.50

Van Buren County, Iowa

Mapunit	Comp %	Cap Cl	Slope RV%	Slope length (ft)	Hyd Grp	T	WEI	Horz Desig	Depth (in)	Texture RV	Total Sand RV	Total Silt RV	Total Clay RV	Kf	Kw	OM RV %
3520																
Coppock	100	2w	1.0	200	b	5	48	H1	0-9	SIL	11.3	67.7	21.0	.32	.32	2.50
								H2	9-25	SIL	11.2	67.3	21.5	.43	.43	0.50
								H3	25-59	SICL	6.9	63.1	30.0	.43	.43	0.25
								H4	59-80	SICL	6.7	61.3	32.0	.43	.43	0.25
3587																
Chequest	100	2w	1.0	200	c	5	38	H1	0-11	SICL	19.7	47.8	32.5	.32	.32	3.50
								H2	11-80	SICL	7.4	54.1	38.5	.43	.43	0.50
3720																
Racoon	100	5w	0.5	200	c/d	5	48	H1	0-9	SIL	9.4	67.1	23.5	.37	.37	1.50
								H2	9-30	SIL	11.2	67.3	21.5	.37	.37	0.35
								H3	30-63	SICL	6.9	62.1	31.0	.37	.37	0.75
								H4	63-80	SR- LFS SIC	26.0	50.0	24.0	.37	.37	0.75
5047																
Aquents	100	7w	0.5	200	--	--	0	H1	0-40	VAR	--	--	--	--	--	---