

San Juan Area, Puerto Rico

02/13/2002
Engineering Index Properties

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Horizon	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
				Unified	AASHTO	>10	3-10	4	10	40	200		
						inches	inches						
		In				Pct	Pct					Pct	
AaB:													
Aceitunas-----	H1	0-8	Clay	MH	A-7-5, A-7-6	0	0	100	100	90-100	75-95	52-69	23-33
	H2	8-60	Clay	MH	A-7-5	0	0	100	100	90-100	75-95	56-72	25-35
AaC:													
Aceitunas-----	H1	0-8	Clay	MH	A-7-5, A-7-6	0	0	100	100	90-100	75-95	52-69	23-33
	H2	8-60	Clay	MH	A-7-5	0	0	100	100	90-100	75-95	56-72	25-35
AbD:													
Aibonito-----	H1	0-7	Clay	CH, CL, MH, ML	A-7-5, A-7-6	0	0	100	100	90-100	75-100	48-56	21-25
	H2	7-43	Clay	MH	A-7-5, A-7-6	0	0	100	100	95-100	90-100	52-61	23-28
	H3	43-99	Clay	CH, CL, MH, ML	A-7-6	0	0	100	100	90-100	75-95	48-52	21-23
AbE:													
Aibonito-----	H1	0-7	Clay	CH, CL, MH, ML	A-7-5, A-7-6	0	0	100	100	90-100	75-100	48-56	21-25
	H2	7-43	Clay	MH	A-7-5, A-7-6	0	0	100	100	95-100	90-100	52-61	23-28
	H3	43-99	Clay	CH, CL, MH, ML	A-7-6	0	0	100	100	90-100	75-95	48-52	21-23
AmB:													
Almirante-----	H1	0-7	Clay	MH	A-7-5	0	0	100	100	90-100	75-95	65-79	30-38
	H2	7-60	Clay	MH	A-7-5	0	0	100	100	90-100	75-95	70-83	33-40
AmC:													
Almirante-----	H1	0-7	Clay	MH	A-7-5	0	0	100	100	90-100	75-95	65-79	30-38
	H2	7-60	Clay	MH	A-7-5	0	0	100	100	90-100	75-95	70-83	33-40
Ba:													
Bajura-----	H1	0-6	Clay	CH	A-7-6	0	0	100	100	90-100	75-95	66-76	41-49
	H2	6-60	Clay	CH	A-7-6	0	0	100	100	90-100	75-95	60-76	36-49
BmB:													
Bayamon-----	H1	0-66	Clay	MH	A-7-5	0	0	100	100	90-100	75-95	65-70	30-33
	H2	66-70	Clay	MH	A-7-5	0	0	100	100	90-100	75-95	65-74	30-35

Engineering Index Properties--Continued

Map symbol and soil name	Horizon	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
				Unified	AASHTO	>10	3-10	4	10	40	200		
						inches	inches						
		In				Pct	Pct					Pct	
CrF2: Colinas-----	H1	0-26	Clay loam	CL	A-6, A-7-6	0	0	90-100	75-100	70-100	55-80	37-43	16-21
	H2	26-52	Weathered bedrock			---	---	---	---	---	---	---	---
Cs: Coloso-----	H1	0-16	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	85-95	39-48	18-25
	H2	16-70	Silty clay loam, silty clay, clay	CH, CL	A-7-6	0	0	100	100	95-100	75-95	43-61	21-35
CuE: Consumo-----	H1	0-10	Clay	CH, CL, MH, ML	A-7-6	0	0	100	100	95-100	85-95	43-52	18-23
	H2	10-20	Clay	MH	A-7-5	0	0	100	100	90-100	85-95	56-64	26-30
	H3	20-46	Silty clay loam, silty clay, clay	CL	A-6, A-7-6	0	0	100	100	95-100	85-95	34-47	13-20
CuF: Consumo-----	H1	0-10	Clay	CH, CL, MH, ML	A-7-6	0	0	100	100	95-100	85-95	43-52	18-23
	H2	10-20	Clay	MH	A-7-5	0	0	100	100	90-100	85-95	56-64	26-30
	H3	20-46	Silty clay loam, silty clay, clay	CL	A-6, A-7-6	0	0	100	100	95-100	85-95	34-47	13-20
CzC: Corozal-----	H1	0-9	Clay	CH, CL, MH, ML	A-7-6	0	0	100	100	90-100	75-95	43-52	18-23
	H2	9-40	Clay	CH, CL, MH, ML	A-7-5, A-7-6	0	0	100	100	90-100	75-95	43-70	18-33
	H3	40-60	Clay loam	CL	A-6, A-7-6	0	0	100	100	90-100	70-80	34-43	13-18
DaC: Daguey-----	H1	0-10	Clay	MH	A-7-5	0	0	100	100	90-100	75-95	56-64	25-30
	H2	10-72	Clay, silty clay	MH	A-7-5	0	0	100	100	90-100	75-95	56-79	25-38
	H3	72-90	Silty clay loam	CL	A-6, A-7-6	0	0	100	100	85-95	70-90	38-43	15-18

Engineering Index Properties--Continued

Map symbol and soil name	Horizon	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
				Unified	AASHTO	>10	3-10	4	10	40	200		
						inches	inches						
		In				Pct	Pct					Pct	
DaD: Daguey-----	H1	0-10	Clay	MH	A-7-5	0	0	100	100	90-100	75-95	56-64	25-30
	H2	10-72	Clay, silty clay	MH	A-7-5	0	0	100	100	90-100	75-95	56-79	25-38
	H3	72-90	Silty clay loam	CL	A-6, A-7-6	0	0	100	100	85-95	70-90	38-43	15-18
DeF: Descalabrado----	H1	0-5	Clay loam	CH	A-7	0	0	100	100	100	70-80	50-56	28-33
	H2	5-17	Gravelly clay, gravelly clay loam	CH, SC	A-7	0	0	100	50-75	45-75	35-70	50-68	28-43
	H3	17-21	Unweathered bedrock			---	---	---	---	---	---	---	---
DgF: Descalabrado----	H1	0-5	Clay loam	CH	A-7	0	0	100	100	100	70-80	50-56	28-33
	H2	5-17	Gravelly clay, gravelly clay loam	CH, SC	A-7	0	0	100	50-75	45-75	35-70	50-68	28-43
	H3	17-21	Unweathered bedrock			---	---	---	---	---	---	---	---
Rock Outcrop----	H1	0-60	Unweathered bedrock			---	---	---	---	---	---	---	---
Dm: Dique-----	H1	0-6	Loam	CL	A-4, A-6	0	0	100	100	85-100	60-90	28-36	9-16
	H2	6-36	Loam, silt loam	CL	A-4, A-6	0	0	100	100	85-100	60-90	28-36	9-20
	H3	36-54	Loam, silt loam	CL	A-4, A-6	0	0	100	100	85-100	60-90	28-36	9-20
Dr: Durados-----	H1	0-14	Sandy loam	SM	A-2, A-4	0	0	100	100	60-70	20-40	0-14	NP
	H2	14-23	Loamy fine sand	SM	A-2	0	0	100	100	50-75	15-30	0-14	NP
	H3	23-60	Sand	SM, SP-SM	A-2, A-3	0	0	95-100	75-100	50-70	5-15	0-14	NP

Engineering Index Properties--Continued

Map symbol and soil name	Horizon	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
				Unified	AASHTO	>10	3-10	4	10	40	200		
						inches	inches						
		In				Pct	Pct					Pct	
Es:													
Estacion-----	H1	0-8	Silty clay loam	CL	A-6, A-7	0	0	85-100	75-95	70-95	65-90	35-43	15-20
	H2	8-20	Gravelly clay loam, gravelly silty clay loam	CL, GC, SC	A-6, A-7	0	0	65-80	55-75	50-75	40-70	35-43	15-20
	H3	20-50	Very gravelly sand, extremely gravelly sand	GP, GP-GM, SP, SP-SM	A-1	1-5	15-25	30-55	25-50	15-35	1-8	0-14	NP
GuF:													
Guayama-----	H1	0-4	Clay loam	CL	A-7-6	0	0	100	75-100	70-100	55-80	43-46	21-23
	H2	4-20	Gravelly clay, gravelly clay loam, clay	CH, CL, GC, SC	A-2, A-7-6	0	0	50-100	50-100	40-100	20-80	41-53	20-29
	H3	20-24	Unweathered bedrock			---	---	---	---	---	---	---	---
Hm:													
Humacao-----	H1	0-8	Loam	CL	A-4, A-6	0	0	100	100	85-95	60-75	28-35	9-15
	H2	8-60	Sandy clay loam, clay loam, loam	CL	A-6, A-7-6	0	0	100	100	80-90	70-80	32-43	13-21
HtE:													
Humatas-----	H1	0-5	Clay	MH	A-7-5, A-7-6	0	0	100	100	90-100	85-95	52-65	23-30
	H2	5-24	Clay, silty clay	MH	A-7-5	0	0	100	100	90-100	85-95	61-72	28-36
	H3	24-60	Silty clay loam, silty clay, clay	CL	A-6, A-7-6	0	0	100	100	95-100	85-95	36-47	14-20
HtF:													
Humatas-----	H1	0-5	Clay	MH	A-7-5, A-7-6	0	0	100	100	90-100	85-95	52-65	23-30
	H2	5-24	Clay, silty clay	MH	A-7-5	0	0	100	100	90-100	85-95	61-72	28-36
	H3	24-60	Silty clay loam, silty clay, clay	CL	A-6, A-7-6	0	0	100	100	95-100	85-95	36-47	14-20

Engineering Index Properties--Continued

Map symbol and soil name	Horizon	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
				Unified	AASHTO	>10	3-10	4	10	40	200		
						inches	inches						
		In				Pct	Pct					Pct	
LaB:													
Lares-----	H1	0-36	Clay	CH, CL, MH, ML	A-7-5, A-7-6	0	0	100	100	90-100	75-95	47-56	20-25
	H2	36-60	Clay	CH, MH	A-7-5, A-7-6	0	0	85-100	85-100	75-95	60-80	50-59	22-27
LaC2:													
Lares-----	H1	0-36	Clay	CH, CL, MH, ML	A-7-5, A-7-6	0	0	100	100	90-100	75-95	47-56	20-25
	H2	36-60	Clay	CH, MH	A-7-5, A-7-6	0	0	85-100	85-100	75-95	60-80	50-59	22-27
LmE:													
Limones-----	H1	0-7	Clay	MH	A-7-5, A-7-6	0	0	100	100	90-100	75-95	52-70	23-34
	H2	7-41	Clay	CH, CL, MH, ML	A-7-5, A-7-6	0	0	100	100	90-100	70-80	43-70	18-34
	H3	41-48	Clay, clay loam	MH	A-7-6, A-7-5	0	0	100	100	90-100	75-95	52-70	23-34
	H4	48-79	Silty clay loam, clay loam	CL	A-6, A-7-6	0	0	100	100	95-100	85-95	34-43	13-18
LmF:													
Limones-----	H1	0-7	Clay	MH	A-7-5, A-7-6	0	0	100	100	90-100	75-95	52-70	23-34
	H2	7-41	Clay	CH, CL, MH, ML	A-7-5, A-7-6	0	0	100	100	90-100	70-80	43-70	18-34
	H3	41-48	Clay, clay loam	MH	A-7-5, A-7-6	0	0	100	100	90-100	75-95	52-70	23-34
	H4	48-72	Silty clay loam, clay loam	CL	A-6, A-7-6	0	0	100	100	95-100	85-95	34-43	13-18
LoF2:													
Lirios-----	H1	0-4	Silty clay loam	CL	A-6, A-7-6	0	0	100	100	95-100	85-95	36-43	14-18
	H2	4-34	Clay, silty clay	MH	A-7-5	0	0	100	100	90-100	75-95	54-65	24-31
	H3	34-60	Silty clay loam, clay loam	CL	A-6	0	0	100	100	95-100	85-95	30-38	11-15
LsE:													
Los Guineos----	H1	0-60	Clay	CH, CL, MH, ML	A-7-5, A-7-6	0	0	100	100	90-100	75-95	47-61	20-28
	H2	60-64	Clay	CH, CL, MH, ML	A-7-5, A-7-6	0	0	100	100	90-100	75-95	47-61	20-28

Engineering Index Properties--Continued

Map symbol and soil name	Horizon	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
				Unified	AASHTO	>10	3-10	4	10	40	200		
						inches	inches						
		In				Pct	Pct					Pct	
LSF: Los Guineos-----	H1	0-60	Clay	CH, CL, MH, ML	A-7-5, A-7-6	0	0	100	100	90-100	75-95	47-61	20-28
	H2	60-64	Clay	CH, CL, MH, ML	A-7-5, A-7-6	0	0	100	100	90-100	75-95	47-61	20-28
MaA: Mabi-----	H1	0-24	Clay	CH	A-7-6	0	0	100	90-100	85-100	70-95	70-76	44-49
	H2	24-99	Clay	CH	A-7-6	0	0	100	90-100	85-100	70-95	70-76	44-49
MaB: Mabi-----	H1	0-24	Clay	CH	A-7-6	0	0	100	90-100	85-100	70-95	70-76	44-49
	H2	24-99	Clay	CH	A-7-6	0	0	100	90-100	85-100	70-95	70-76	44-49
MaC: Mabi-----	H1	0-24	Clay	CH	A-7-6	0	0	100	90-100	85-100	70-95	70-76	44-49
	H2	24-99	Clay	CH	A-7-6	0	0	100	90-100	85-100	70-95	70-76	44-49
Md: Made Land-----		---	---	---	---	---	---	---	---	---	---	---	---
MLF: Malaya-----	H1	0-6	Clay loam	CL	A-6, A-7-6	0	0	100	100	90-100	70-90	37-43	16-21
	H2	6-13	Gravelly clay, clay	CH, CL, SC	A-7, A-7-6	0	0	100	55-100	50-100	35-95	48-66	25-39
	H3	13-18	Gravelly clay loam, clay loam	CL, SC	A-2-6, A-2-7, A-6, A-7	0	0	85-100	55-100	45-100	30-95	37-43	16-21
	H4	18-22	Unweathered bedrock			---	---	---	---	---	---	---	---
MoF: Maricao-----	H1	0-6	Clay	MH	A-7-5	0	0	100	100	90-100	75-95	61-65	28-30
	H2	6-22	Clay, silty clay	MH	A-7-5	0	0	100	100	90-100	75-95	61-65	28-30
	H3	22-60	Silty clay loam, silty clay	CH, CL, MH, ML	A-6, A-7-6	0	0	100	100	95-100	85-95	34-52	13-23

Engineering Index Properties--Continued

Map symbol and soil name	Horizon	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
				Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In			Pct	Pct					Pct	
SoF: Soller-----	H1	0-5	Clay loam	CL	A-6, A-7-6	---	0-10	100	100	90-100	70-80	37-48	16-25
	H2	5-12	Clay, cobbly clay	CH	A-7-6	0-20	0-5	95-100	90-100	80-100	60-95	57-71	32-42
	H3	12-24	Weathered bedrock			---	---	---	---	---	---	---	---
	H4	24-28	Unweathered bedrock			---	---	---	---	---	---	---	---
TaF: Tanama-----	H1	0-14	Clay	CH	A-7	---	0-15	100	100	90-100	75-95	61-71	35-42
	H2	14-18	Unweathered bedrock			---	---	---	---	---	---	---	---
Rock Outcrop----	H1	0-60	Unweathered bedrock			---	---	---	---	---	---	---	---
To: Toa-----	H1	0-8	Silty clay loam	CL	A-6, A-7-6	0	0	100	100	95-100	85-95	37-48	16-25
	H2	8-16	Silty clay loam, silty clay, clay loam	CH, CL	A-7-6	0	0	100	100	90-100	70-95	43-52	21-28
	H3	16-60	Silty clay loam, silty clay, clay loam	CH, CL	A-7-6	0	0	100	100	90-100	70-95	43-52	21-28
TrB: Torres-----	H1	0-10	Loamy sand	SC, SC-SM, SM, SP-SM	A-2, A-4	0	0	100	100	50-70	5-40	8-22	1-8
	H2	10-28	Loamy sand, sandy loam, sand	SC, SC-SM, SM, SP-SM	A-2, A-4	0	0	100	100	50-70	5-40	8-22	1-8
	H3	28-64	Clay	CH, CL	A-7-6	0	0	100	100	90-100	75-95	43-71	18-42
Ts: Tropopsammets--	H1	0-60	Sand	SC-SM, SM, SP	A-2, A-3, A-4	0	0	100	100	52-70	2-40	0-14	---
Ud: Urban Land-----	H1	0-6	Variable			---	---	---	---	---	---	0-14	---

Engineering Index Properties--Continued

Map symbol and soil name	Horizon	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
				Unified	AASHTO	>10	3-10	4	10	40	200		
						inches	inches						
		In				Pct	Pct					Pct	
Durados-----	H1	0-14	Sandy loam	SM	A-2, A-4	0	0	100	100	60-70	20-40	0-14	NP
	H2	14-23	Loamy fine sand	SM	A-2	0	0	100	100	50-75	15-30	0-14	NP
	H3	23-60	Sand	SM, SP-SM	A-2, A-3	0	0	95-100	75-100	50-70	5-15	0-14	NP
Um:													
Urban Land-----	H1	0-6	Variable			---	---	---	---	---	---	0-14	---
Mucara-----	H1	0-5	Clay	CH	A-7-6	0	0	100	100	90-100	75-95	56-62	33-38
	H2	5-12	Clay, silty clay	CH	A-7-6	0	0	100	100	90-100	75-95	56-72	33-46
	H3	12-30	Weathered bedrock			---	---	---	---	---	---	---	---
	H4	30-34	Unweathered bedrock			---	---	---	---	---	---	---	---
Us:													
Urban Land-----	H1	0-6	Variable			---	---	---	---	---	---	0-14	---
Sabana Seca-----	H1	0-10	Clay	MH	A-7-5	0	0	100	100	90-100	75-95	57-79	26-38
	H2	10-70	Clay	MH	A-7-5	0	0	100	100	90-100	75-95	57-79	26-38
Uv:													
Urban Land-----	H1	0-6	Variable			---	---	---	---	---	---	0-14	---
Vega Alta-----	H1	0-8	Clay loam	CL	A-6, A-7-6	0	0	100	100	90-100	70-95	32-43	12-18
	H2	8-84	Clay	CH, CL, MH, ML	A-7-5, A-7-6	0	0	100	100	90-100	75-95	43-56	18-25
VaB:													
Vega Alta-----	H1	0-8	Clay loam	CL	A-6, A-7-6	0	0	100	100	90-100	70-95	32-43	12-18
	H2	8-84	Clay	CH, CL, MH, ML	A-7-5, A-7-6	0	0	100	100	90-100	75-95	43-56	18-25

