

Soil pit description: PF07

Images: PF07_01.jpg, PF07_02.jpg
Soil class: Chapman
Map unit: Ho
Location: 10 m W of marker 9, Harvard Trail
Site position: Saddle on low peninsular ridge
Slope: 1%, concavo-convex, aspect 90°
Parent material: Caimito volcanic
Forest structure: Partly open canopy, moderate understory, few palms
Litter: 100% cover, 3 layers, thin continuous root mat
Outcrops: None
Stones: Few hard boulders up to 50 cm diameter
Cracks: None
Microrelief: None
Faunal activity: Many medium worm casts
Other surface features: None

Horizon [cm]		Samples [cm]
0 - 5	7.5YR 2.5/2 (dark brown); no mottles; gritty clay loam; weak fine crumb, including many fine & medium worm casts; no cutans; common coarse pores; moist & friable; many fine, common medium & few coarse tree roots; many fine quartz grit; many fine black ferrimanganiferous concretions; no charcoal; clear regular boundary to:	[0-5]
5 - 22	10YR 3/6 (dark yellowish brown); no mottles; gritty clay loam; weak fine crumb including many fine worm casts; no cutans; many medium & coarse pores; slightly moist & friable; common fine & few medium & few coarse tree roots; many fine quartz grit; many fine & common medium black ferrimanganiferous concretions; no charcoal; diffuse boundary to:	[5-15] [15-25]
22 - 50	7.5YR 4/4 (brown) with many medium distinct yellow mottles; silty clay loam; weak fine subangular blocky breaking to weak fine crumb, including many fine worm casts; weak discontinuous clayskins; common medium pores; slightly moist & friable; rare coarse & few medium & common fine tree roots; few fine quartz grit; many fine & medium & common coarse black ferrimanganiferous concretions; no charcoal; clear wavy boundary to:	[25-35] [35-45]
50 - 78	7.5YR 4/6 (strong brown), with many fine & medium distinct yellow mottles; silty clay loam; moderate medium subangular blocky breaking to fine medium crumb including many fine worm casts; moderate continuous clayskins; many medium pores; slightly moist & friable; common fine tree roots; few fine quartz grit; common fine black ferrimanganiferous concretions; no charcoal; diffuse boundary to:	[45-55] [55-65] [65-75]
78 - 105	5YR 4/6 (yellowish red); no mottles; loam; moderate fine - coarse subangular blocky breaking to moderate fine crumb, including few fine worm casts; moderate continuous clayskins; common medium & fine pores, including few fine faunal channels; slightly moist & friable; few fine & medium tree roots; few fine quartz grit; common fine black ferrimanganiferous concretions; no charcoal; diffuse boundary to:	[75-85] [85-95] [95-105]
105 - 120	Mixed yellow & red; loam; moderate fine & medium subangular blocky breaking to moderate fine crumb; moderate continuous clayskins; common medium & fine pores, including few fine faunal channels; slightly dry & slightly firm; few fine tree roots; no stones; no concretions; no charcoal; diffuse boundary to:	[105-115] [115-125]

120 - 160	10YR 6/1 (light grey), with many coarse, medium & fine distinct orange & red mottles; clay loam; moderate medium & fine subangular blocky breaking to moderate fine crumb; moderate continuous clayskins; few fine pores; slightly dry & friable; rare fine tree roots; no stones; no concretions; no charcoal:	[125-135] [135-145] [145-155]
160 – 245	Gley 1 7/10 (light greenish grey) with many coarse, medium & fine distinct orange & red mottles; silty clay loam; moist; no stones	None
245 – 265+	Gley 1 6/10 (light greenish grey) [with many coarse, medium & fine distinct orange & red mottles; silty clay loam; moist (wet below 255 cm); no stones	None

Correlations

Catapan (1970): O X W Lf 1-2
E A 1 0

World Reference Base: (Chromic Luvisol) Eutric Ferralsol

Soil Taxonomy: (Hapludalfic) Typic Eutrudox

Features: Top metre qualifies for Chapman although borderline red & marginal to Harvard at 78+. Lower subsoil is pale coloured saprolite rather than Barbour. Fine earth hand textures mainly as fine loam rather than clay, and gives little indication of argillic, although there are moderate clayskins. EBS indicates eutric in top metre, and dystic below. High CEC gives low BS% and impression of base deficiency. Contents of exchangeable K are extremely low.