

Soil pit description: PF04

Images: PF04_01.jpg, PF04_02.jpg, PF04_03.jpg

Soil class: Lake

Map unit: L

Location: 20 m SSE of marker 2 Lake Trail

Site position: Low interfluvium on midslope step

Slope: 4%, convex, aspect 220°

Parent material: Andesite

Forest structure: Closed canopy, moderately open understory, few palms

Litter: 95% cover, 4 layers, discontinuous thin root mat

Outcrops: None

Stones: None

Cracks: None at profile but continuous network of cracks up to 15 mm wide & 25 cm deep, 30-50 cm spacing near trail

Microrelief: None

Faunal activity: Few fine worm casts

Other surface features: None

| Horizon | | Samples |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| [cm] | | [cm] |
| 0 - 8 | 7.5YR 3/2 (dark brown); no mottles; silty clay loam; moderate fine crumb, including few medium worm casts; no cutans; common coarse pores; slightly moist & friable; many fine tree roots; no stones; common fine black ferrimanganiferous concretions; no charcoal; clear regular boundary to: | [0-8] |
| 8 - 20 | 7.5YR 3/4 (dark yellowish brown); no mottles; silty clay loam; moderate coarse subangular blocky breaking to moderate fine subangular blocky & few fine worm casts; weak discontinuous clayskins on channels walls; common coarse pores, including few medium worm channels; slightly moist & friable; common fine & medium tree roots; few medium orange & red slightly hard weathered andesite & common fine hard quartz stones; no concretions; no charcoal; gradual slightly wavy boundary to: | [8-20] |
| 20 - 45 | 7.5YR 4/4 (brown) no mottles; silty clay; moderate medium & fine subangular blocky breaking to moderate medium crumb, including large pockets of fine worm casts; weak discontinuous clayskins on channels walls; common coarse pores including few medium worm channels; slightly moist & friable; common fine & few coarse tree roots; few fine quartz & common medium & coarse orange weathered andesite & red stones; no concretions; no charcoal; diffuse boundary to: | [20-30] [30-40] [40-50] |
| 45 - 55 | 7.5YR 5/4 (brown) no mottles; (silty) clay; moderate medium crumb including pockets of fine worm casts; no cutans; many fine pores; moist & friable; few fine & medium tree roots; common medium stones & few boulders of weathered rock; many fine black ferrimanganiferous concretions; no charcoal; clear slightly wavy boundary to: | [50-60] |
| 55 - 100 | 5YR 8/3 (pink) with many fine faint red orange & few medium distinct red mottles; (fine sandy) clay; moderate coarse breaking to fine subangular blocky; weak continuous clayskins; many medium pores; slightly moist & friable; rare medium tree roots; few fine orange very soft weathered stones; pockets of common medium black ferrimanganiferous concretions; no charcoal; diffuse boundary to: | [60-70] [70-80] [80-90] [90-100] |
| 100 - 135 | 5YR 8/5 (pinkish yellow) with common medium distinct red mottles; fine sandy | [100-110] |

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| | clay; moderate medium breaking to moderate fine subangular blocky; weak discontinuous clayskins; no pores visible; slightly moist & friable; rare fine tree roots; few fine red soft weathered stones; pockets of common medium black ferrimanganiferous concretions; no charcoal; diffuse boundary to: | [110-120] [120-130] [130-140] |
| 135 - 160+ | 5Y 7/2 (light grey) with many medium distinct red & orange mottles; sandy clay loam; moderate fine subangular blocky breaking to moderate very fine crumb; weak discontinuous clayskins; common fine pores; slightly moist & friable; rare fine tree roots; common medium orange & red soft weathered stones; pockets of common fine & medium black ferrimanganiferous concretions; no charcoal: | [140-150] [150-160] |
| 45 - 55 | 7.5YR 5/4 (brown) no mottles; (silty) clay; moderate medium crumb including pockets of fine worm casts; no cutans; many fine pores; moist & friable; few fine & medium tree roots; common medium stones & few boulders of weathered rock; many fine black ferrimanganiferous concretions; no charcoal; clear slightly wavy boundary to: | [50-60] |

Correlations

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|------------------------------|--------------------------------|
| Catapan (1970): | <u>O T M-N Cf 1</u> M C 1 0 |
| World Reference Base: | Vertic Gleyic Luvisol |
| Soil Taxonomy: | Vertic Oxyaquic Hapludalf |

Features: The profile morphology is similar to Zetek but the pale lower subsoil has warmer pinkish colours, cf grey in Zetek. Also friable down to below 1,5 m. This may be a seasonal transition feature that occurs as the soil progresses from slightly dry to very moist. The mottles below 230 are slightly hard and may be remnant weathering rock. EBS indicates eutric and unequivocal Luvisol, but possibly inflated CEC and depressed BS suggests marginally dystric.