

Monterey Dune Sheet, California

UTM Sector and Datum (xx/yr), Northing, Easting, Estimated Error (EPE +-m), DEM Altitude (Alt m MSL).

Exposure Type: Active (AC), Trench (TR), Auger (AU), Road Cut (RC), Creek Cut (CC), Sea Cliff (SC), Slope (SL).

Units: Age: Tertiary (T), Pleistocene (P), Holocene (H), Wave-cut Platform (W); Parent Material; Soil Horizon

Parent Material: Eolian Dune (D), Loess (L), Colluvium (U), Peat (P), Alluvial/Fluvial (V), Lagoonal/Estuary (N), Beach Shoreface (S), Basal Conglomerate (M).

Note: Loess (L) is designated where it overlies bedrock, colluvium, or pre-existing Bw/Bt horizons.

Soil Horizon: Organic (A), Leached (E), Accumulation (B), Fe+3 Accumulation (Bw),

Incipient Clay Accumulation (Btj), Clay Accumulation (Bt), Humate Accumulation (Bh),

Calcrete (Bk), Silcrete (Bq), Reduced Glade Layer (Bg), Subsoil Calcrete (K),

Dune Parent (C), Oxidized Parent (Cox).

Subsurface depth (cm); Dominant Grain Size: Silt, Sand, Pebbles, Cobbles (default is sand)

Sand sizes (Coarse U/L, Medium U/L, Fine U/L, VeryFine U/L)

Bedding: Cross Beds (XB,dipxx), Planar Beds (PB), Fluidization (FL), Heavy Mineral Laminae (HM)

Munsell Maximum Color (field condition: moist)

Penetrometer: (P. kg/square cm) unconfined compressive strength.

Structure: loose, very weak blocky, weak blocky, strong blocky, columnar/prismatic.

Diagenesis: Fe-ortstein, Fe-humate, allophane, gibbsite, calcrete, silcrete

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
MONT1	10S/88	4088300	601157	5	32	12/6/00	SC
Site Notes: Manresa locality, just north of Manresa State Beach parking lot.							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
PDBw	0-100	ML	XB	7.5YR5/6	3	Weak Blocky	
PSCox	100-300	CL	Truncated	10YR6/6	3.75		
PSC	300-500	CL			4.25		
PDC	500-700	MU	XBdipNE		4.5		
PSC	700-1400	CL			4.5		
Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
MONT2	10S/88	4087840	601430	6	27	12/6/00	SC
Site Notes: Location just south of Manresa St. Park.							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
Disturbed Top							
PDCox	0-300	FU	XBdipNE	Color	2.5	Very Weak B.	
PSBW	300-360	ML		7.5YR4/6	3.5	Weak Blocky	
PSCox	360-700	MU		10YR4/6	3.75	Weak Blocky	
PSC	700-900	CL		2.5Y5/3			
Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
MONT3	10S/88	4086620	602230	8	30	12/7/00	SC
Site Notes: Site is due west of Manresa lower parking lot (TL Sample taken at 350 cm depth).							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
LBw	0-50	Silt			2	Very Weak B.	
LBw	50-125	Silt			3.75	Weak Blocky	
PDBtj	125-225	FU			3.75	Strong Blocky	
PDBw	225-300				3.75	Very Weak B.	
PDCox	300-450						
Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
MONT4	10S/88	4083470	605920	5	26	12/6/00	TR/AU
Site Notes: Site is in Sunset Dunes (Qes) of Dupre, and includes intact topsoil (TL Sample at 200 cm depth).							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
LA	0-40	Silt		Color	0.5	Loose	

PDBw	40-95	FU		Color		1	Very Weak B.
PDCox	95-245	FU				0.5	Loose
Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
MONT5	10S/88	4083360	604140		5	38	12/6/00 SL
Site Notes: Site is at eastern edge of Cooper's parabolic Flandrin Dunes (Holocene).							
Units	Depth cm	Grain Size		Color	P.kg/cm^2	Structure	Diagenesis
HDA	0-1						
HDCox	1-101	FU		10YR5/6		0	Loose
Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
MONT6	10S/88	4072790	622030				
Site Notes: Site is on North King Road (east of Prunedale).					7	90	12/7/00 RC
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
Disturbed							
PDCox	0-140			7.5YR7/6		3.5	Very Weak B.
PDC	140-440	MU	XBdipNE			2.5	
Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
MONT7	10S/88	4070780	618079		10	55	12/6/00 RC
Site Notes: Site is west of Prunedale on Blake Rd.							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
PDA	1-10					1.5	
PDBw	10-80			5YR4/6 w2.5Y		3	Strong Blocky
PDCox	80-180	FU					
Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
MONT8	10S/88	4062320	606460		4	14	12/8/00 SC
Site Notes: Site is just north of Maria Beach Access (TL sample taken at 640 cm depth).							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
HD	0-110	FU		10YR7/2			
HDA	110-120						Loose
HDC	120-150						
HDA	150-160						Loose
HDC	160-250	ML					
cover	250-400						
HDA	400-410	ML					Loose
HDC	410-550	ML					
PDA	550-600	ML	Truncated	7.5YR3/2			
PDBw	600-630	MU	Truncated	7.5YR5/6		2.75	Very Weak B.
PDCox	630-700	MU				0.5	Loose
PSA	700-750	CL	Truncated				
PSBw	750-870	CL		7.5YR6/4 w7.		4.5	Fe-ortstein
PSCox	870-1000	CL					
Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
MONT9	10S/88	4059660	611620		6	28	12/7/00 AU
Site Notes: Blanco Road access to airport runway (TL Sample 200 cm depth).							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
LA	0-60	Silt				0.5	Loose
PDBw	60-100	MU				1.75	Very Weak B.
PDCox	100-200	MU				1.25	Very Weak B.
Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
MONT10	10S/88	4059610	611860		5	15	12/8/00 RC

Site Notes: This site is on the east side of Blanco Rd., just south of the Salinas R. valley bottom.

Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm ²	Structure	Diagenesis
LA	0-20	Silt				1.5	Very Weak B.
PDE	20-100	VFL				3.75	
PDBw	100-300	MU		7.5YR6/8		4.5	Columnar
PDCox	300-400	MU	XBdipNE			4.5	

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
MONT11	10S/88	4058450	611520		5	50	12/6/00 RC

Site Notes: This site is due east of Marina, on a Highway road cut, on a stoss slope of older dune ridge.

Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm ²	Structure	Diagenesis
HDA	0-30	ML		10YR3/2			
HDBw	30-50	ML		10YR5/4		0.5	Loose
HDCox	50-150	ML		10YR6/4		0.5	Loose
PDBw	150-170	MU	Truncated	7.5YR7/6		1.5	Very Weak B.
PDCox	170-320	MU				1.5	Very Weak B.

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
MONT12	10S/88	4056090	614930		7	13	12/6/00 SL

Site Notes: Caves near top of section (TL Sample taken at 300 cm depth).

Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm ²	Structure	Diagenesis
PDA	0-30						
PDE	30-80	ML		5YR8/3		4	Very Weak B.
PDBtj	80-140	ML		5YR4/6		4.5	Columnar
PDCox	140-650	MU		7.5YR6/6		4	
PVBw	650-670	CL	Truncated			4	
PVCox	670-800	CL-Pebbles				3.5	

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
MONT13	10S/88	4054640	617080		6	25	12/7/00 RC

Site Notes: Transition from lower Aromas (alluvial) to upper Aromas (dune) on either side of roadcut.

Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm ²	Structure	Diagenesis
PDA	0-10						
PDCox	10-410	ML	Truncated	7.5YR6/8		3.5	Weak Blocky
PDC	400-700	MU		2.5Y7/6		3	
PDBw	700-760	CL		10YR7/6		3	Weak Blocky
PVC	760-1260	CL		2.5Y7/4		2.75	