

Pacific City Dune Sheet, Oregon

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 (moist): lowest value and highest chroma.

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
PACI1	N10/83	5019880	424670	10	36	7/9/01	RC
Site Notes: Site is located north of the Sand Lake active parabolic dunes. Top of Btj is truncated.							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm ²	Structure	Diagenesis
PDBtj	0-70			7.5YR6/8		4.5 Strong Blocky	
PDCox	70-300	ML	XB,dipN	10YR6/8		3.5 Very Weak B.	

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI2	N10/83	5019550	426260	4	75	7/9/01	AC
Site Notes: This site is near Capes Highway Sand Lake ATV area.							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm ²	Structure	Diagenesis
HD	0-100	FU				0 Loose	

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI3	N10/83	5019410	424960	8	51	7/9/01	RC
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm ²	Structure	Diagenesis
PDA	0-3						
PDBw	3-40	FU		7.5YR5/6		4 Weak Blocky	
PDCox	40-310	FU		2.5Y7/4		3 Very Weak B.	

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI4	N10/83	5019320	427100	10	80	7/9/01	RC
Site Notes: Northeastern extent of Holocene dunes							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm ²	Structure	Diagenesis
HDCox	0-400	FU		2.5Y7/3		0.25 Loose	

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI17	N10/83	5018800	426910		61	11/11/02	AC
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm ²	Structure	Diagenesis
HD	0-200					1 Loose	

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PAC15	N10/83	5017000	424620	20	20	11/11/02	

Site Notes: This site is close to a RC and TL sites referenced by Wiedemann (1990).

Wiedemann sampled for RC and TL dating at top and base of Holocene dunes at the contact between Holocene and Pleistocene dune sections.

Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
HDA	0-30						
HDC	30-100					Loose	
HDBw	100-120					Very Weak B.	
HDC	120-250	FU				Loose	
HDBw	250-260			7.5YR5/4	2.5	Weak Blocky	
HDC	260-500				2.5	Very Weak B.	Fe-ortstein
PDBw	500-540			7.5YR5/6	4	Strong Blocky	
PDC	540-900	FU	XBdipSE	10YR7/4	4		
PDBg	900-930						
PDC	930-1200						

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI6	N10/83	5016600	424610		20	18 11/11/02	SC
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
HDA	0-15						
HDC	15-200					Loose	
HDA	200-230					Loose	
HDBW	230-240				2.25	Very Weak B.	
HDC	240-400	FU			1.5	Loose	
PDBw	400-430	VFU			3.5	Weak Blocky	
PDC	430-660	FU			3.5	Weak Blocky	
PDBg	660-670						
PDC	670-820	FU			4		
PDBg	770-800						
PDC	800-1000				4.5		allophane

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI7	N10/83	5016300	424700		20	32 11/11/02	SL
Site Notes: This site is on the West limb of the active Parabolic dune north of Sand Lake.							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
HD	0-200					0 Loose	
HDA	200-210					0.5 Very Weak B.	
HDBW	210-220					2 Very Weak B.	
HDC	220-500	FU				0 Loose	

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI8	N10/83	5015420	425450		5	7 7/8/01	CC
Site Notes: Site is south of Gallagher Road in bay cliff (TL sample labled SANLK taken at 3.5 m depth in section).							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
PDA	0-5						
PDBtj	5-37			10YR4/4	3.5	Very Weak B.	
PDBw	37-60	FU				Very Weak B.	
PDCox	60-170	FU					
PBg	170-200	FL					
PD	200-240						Fe-ortstein
PDBw	240-310			7.5YR6/8	3	Very Weak B.	
PDCox	310-360					Very Weak B.	

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI9	N10/83	5015410	424850		4	15 7/9/01	AC
Site Notes: Site is in the Sand Lake ATV park. Pleistocene paleosol exposure in Holocene dune deflation corridor.							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
PDBtj	0-50	FU		7.5yr6/8	4.5	Strong Blocky	

PDCox	50-75	FU				4	Very Weak B.
Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI10	N10/83	5015380	424850		7	15	7/9/01 AC
Site Notes: Sand Lake western ATV access Holocene parabolic dune trending ENE.							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
HDC	0-50	FU		2.5Y8/2		0 Loose	
Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI18	N10/83	5008900	424710		20	60	11/11/02 SL
Site Notes: East side of Holocene dunes, near barrage lake (Miles Lake).							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
HAD	0-10						
HBw	10-20					1.5	Very Weak B.
HDCox	20-200						
Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI11	N10/83	5008850	423800		10	15	11/11/02 AU
Site Notes: This site is near the sea cliff about 1.5 km north of Cape Kiwanda, along access road.							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
LBw	0-10						
PDBw	10-40						
PDCox	40-200						
Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI12	N10/83	5008570	423700		6	11	7/13/01 SC
Site Notes: This site is located about 1 km north of Cape Kiwanda.							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
HDC	0-90					0 Loose	
LBw	90-105						Fe-ortstein
PDA	105-110						
PDBw	110-140					3	Very Weak B.
PDBg	140-173					4.5	Weak Blocky gibbsite
PDC	173-190		Truncated			4	Very Weak B.
PDBg	190-220						
PDC	220-265						
PDBg	265-270						Fe-ortstein
PDCox	270-330						
PDBg	330-335						
PDC	335-575						Fe-ortstein
PP	575-600						
PW	600-601						
T	601-701						
Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI13	N10/83	5007790	423490		5	54	8/21/02 SL
Site Notes: This locality is the south face of the Cape Kiwanda dune (west side of blowout).							
This site has been extensively dated by Burns and Peterson (see radiocarbon dating in This Report)							
and by Junger et al., 2000 (see RC and OSL dating in This Report).							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
HDA	0-5	FU		10YR6/3		Loose	
HDC	5-200			10YR3/4		Loose	
HDA	200-208			10YR3/3		0.75	Very Weak B.
HDBw	208-225					0.5	Loose
HDCox	225-235					0	Loose

HDA	235-241	FU			0	Loose	
HDC	241-361			10YR2/1	0.25	Loose	
HDA	361-391			10YR4/3	0.5	Very Weak B.	
HDBw	391-420				0	Loose	
HDCox	420-455				0	Loose	
HDC	455-1059	FU		10YR2/2	0.5	Very Weak B.	
HDA	1059-1070	FU			0.75	Weak Blocky	
HDBw	1070-1102	FU			0.5	Loose	
HDCox	1102-1159				0	Loose	Fe-ortstein
HDC	1159-1767			10YR2/1	0.5	Very Weak B.	
HDA	1767-1775			10YR3/4	0.5	Loose	
HDBw	1775-1788				0	Loose	
HDCox	1788-2782			10YR2/1	0.25	Very Weak B.	
HDA	2782-2786			10YR4/4	0.5	Loose	
HDBw	2786-2814	FU			0.25	Loose	
HDC	2814-3791			10YR3/3	0.5	Loose	
HDA	3791-3794				0	Loose	
HDC	3794-4400						
HDA	4400-4410						

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI14	N10/83	5007760	423580		5	15	12/7/01 SL
Site Notes: This site is located in a deflation hollow cut into the parabolic dune just south of Cape Kiwanda.							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
HDC	0-20					Loose	
HDCox	20-70	FU		10YR6/8		3 Weak Blocky	
LBw	70-85	Silt					
PS	85-100	Cobbles				4	Fe-ortstein

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI15	N10/83	5007670	423550		4	10	7/13/01 SL
Site Notes: This site is in a low topographic depression site just south of Cape Kiwanda.							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
HDC	0-300					Loose	
HDBw	300-330			10YR4/8		3.5 Very Weak B.	
LBw	350-352					3.5 Very Weak B.	
PW	352-353						
TBtj	352-362						

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI16	N10/83	5007000	423600		20	10	7/13/01 AC
Site Notes: Foredune 0.25 km south of Pacific City's dory beach access road and parking lot.							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
HD	0-300	FU				0 Loose	

Dune Sheet	Zone/NAD	UTM-N	UTM-E	EPE (m)	Alt (m)	Date	Exposure
PACI19	N10/83	5006990	424870			58	11/11/02 SL
Site Notes: East side of Holocene dune sheet, failed slope, topsoil disturbed.							
Units	Depth cm	Grain Size	Bedding	Color	P.kg/cm^2	Structure	Diagenesis
HD	0-100	FU				Loose	