# PEDON 09

SITE INFORMATION

This site is from the Willamette National Forest, in Oregon USA. Located in the Cascade Mountains, along the Western flanks of Mt Washington. The area is known as the High Cascades, relatively younger volcanic deposits from active volcanism or glacially reworked volcanic deposits. The site has pine forest cover dominated by Silver fir, Lodgepole pine, and Mountain Hemlock, with alpine lupine covering most of the undergrowth. There is no ponding or flooding frequency.

LANDFORM

This soil is in glaciated mountain terrain. Soils in the area are generally ashy, and the landscape is covered in either ash deposits or glacially reworked ash deposits. The aspect of the pedon is southwest. The elevation is 1725 m.

HILLSLOPE POSITION
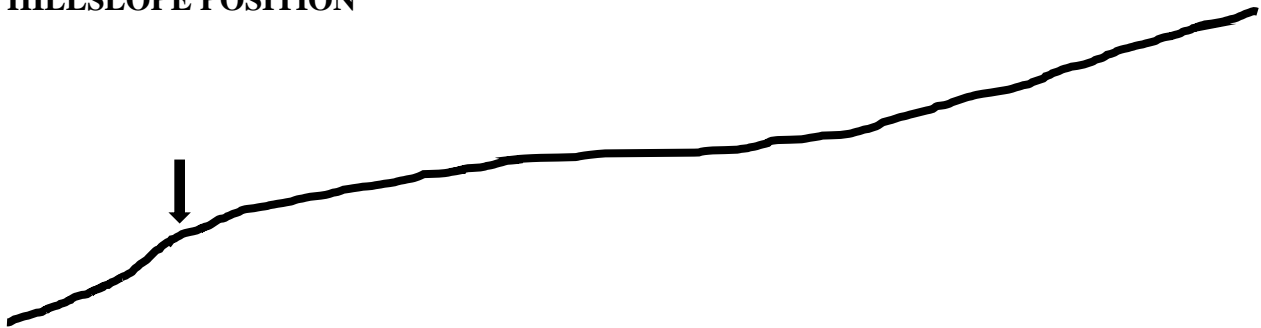
SOIL MOISTURE AND TEMPERATURE REGIMES

Soil moisture regime is udic and soil temperature regime is cryic.

SOIL PIT INFORMATION

The soils in the area are derived from volcanic materials. The parent materials include pyroclastic flow overlying andesitic lava flow. The texture modifier for the 1st, 2nd, 3rd, and 4th horizon is ashy and all of these horizons are rich in volcanic glass (see characterization data). Clay films were not present throughout the profile. Redox features were not present. Pumic coarse fragments in the 1st, 2nd, and 3rd horizons are mostly spherical and are (5 to 75 mm) Most of the pumic coarse fragments in the 4th horizon are 250 to 500 mm and also spherical. The 5th horizon is composed of hard unweathered basaltic andesite.
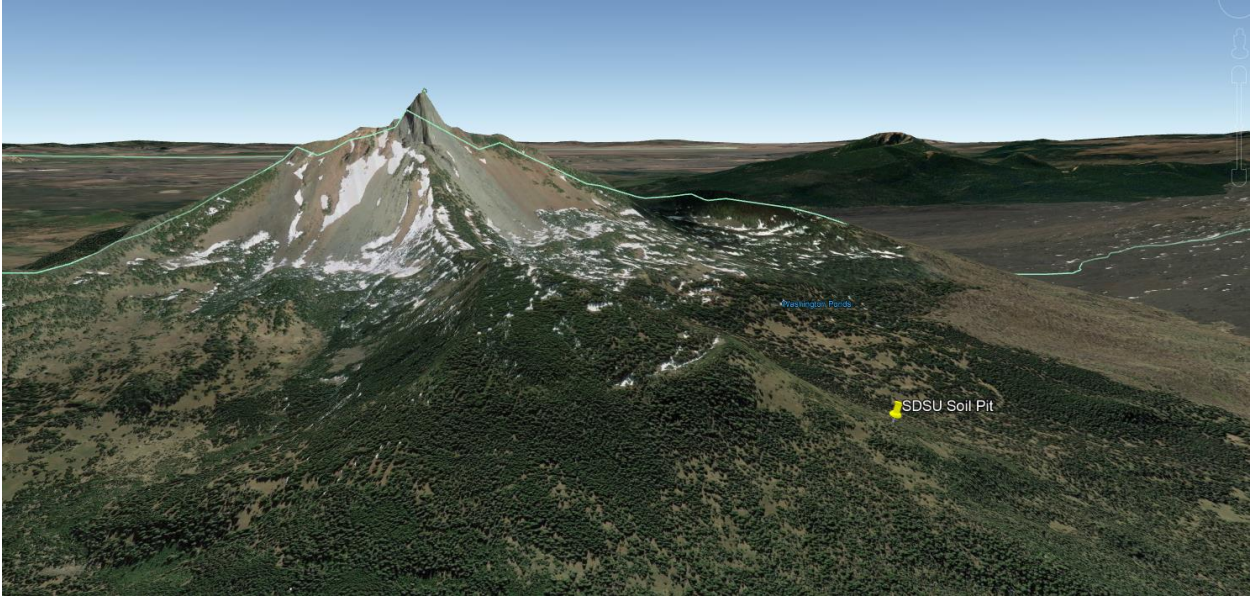
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CHARACTERIZATION DATA

Hor-izon	pH	BS %	OC%	P Ret. (%)	Fe_O (%)	Al_O (%)	Volcanic Glass %, 0.02-2.0 mm	Bulk Density @ 33 kPa	1500 kPa Water ret.
1	6.1	48	2.05	65	0.3	0.53	80	0.76	11
2	6.4	45	1.30	63	0.25	0.61	82	0.81	10
3	6.5	50	0.63	58	0.2	0.55	81	0.83	8.9
4	6.7	42	0.35	54	0.2	0.52	85	0.85	5.7
5	-	-	-	-	-	-	-	-	-

SITE IMAGE
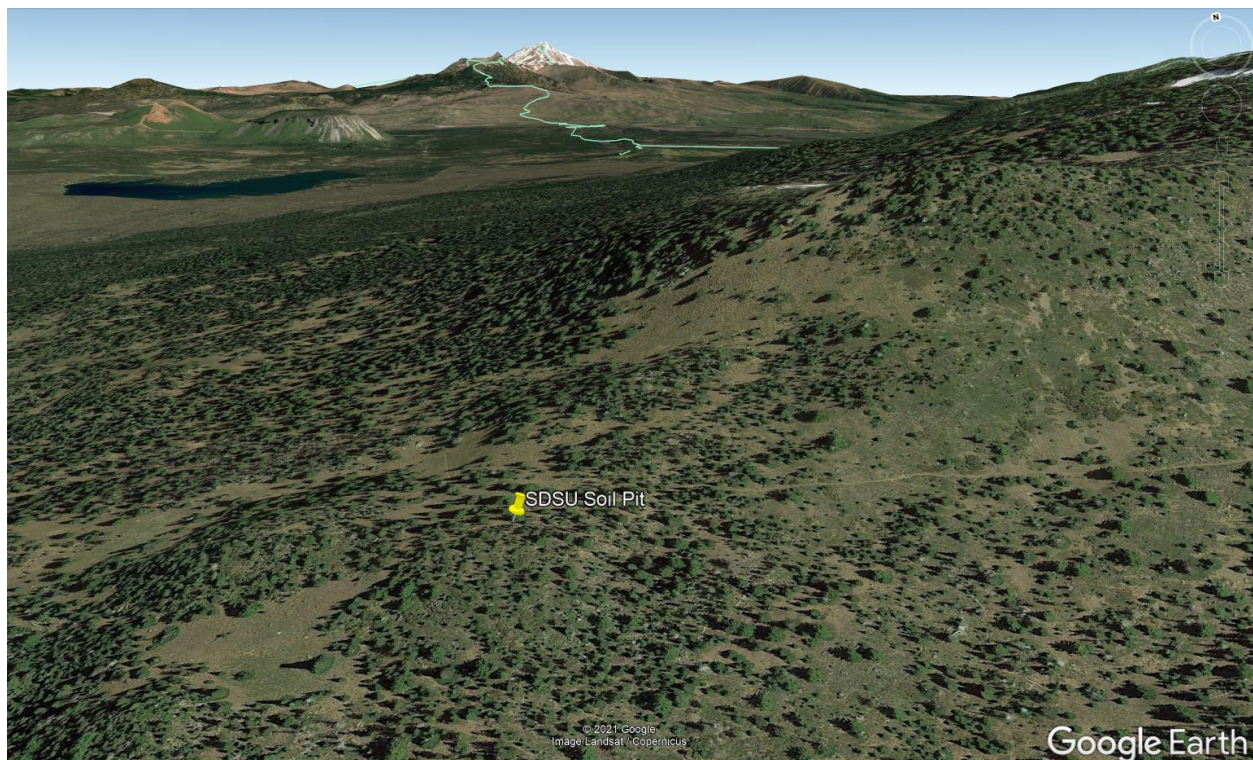
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SCORECARD

| 1. _____ _____ |
| 2. _____ _____ |
| 3. _____ _____ |
| 4. _____ _____ |
| 5. _____ _____ |
| Total |

Contestant: _____
School: PRACTICE
Pedon Number: 09

1. Soil Morphology   Score:

Horizonation				Boundary		Texture						Color			Structure		Cons.	Soil Features			Score
Master		Sub. (5)	No. (5)	Dep. (cm)	Dist.	Sand (%)	Silt (%)	Clay (%) (5)	CF (%)	CF mod. (5)	Class (5)	Hue	Value	Chr.	Grade	Shape	Moist Strength	Redox		Eff.	(35)
Pre. (5)	Let. (5)																	Depl.	Conc.		
				18	A	95	3		10			7.5 YR	2.5	1	1	SBK GR	VFR	—	—	—	
				31	C	95	3		15			7.5 YR	3	3	1	SBK	VFR	—	—	—	
				57	C	92	5		22			7.5 YR	3	4	1	SBK	VFR	—	—	—	
				77	A	90	6		80			7.5 YR	4	4	0	MA	VFR	—	—	—	
				78+	—	—	—		—			—	—	—	—	—	—	—	—	—	

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2. Soil Profile Characteristics
Score:

Hydraulic Conductivity (10)		Loading Rate at 75 cm (5)	Effective Soil Depth (5)	Water Retention Difference (5)	Soil Wetness Class (5)
Surface (5)	Limiting Layer (5)	_____ gpd/ft² (3)	____V. shallow (<25 cm)	____Very low (< 7.5 cm)	____ (> 150 cm)
____High	____High		____Shallow (25 to 49 cm)	____Low (7.5 to < 15 cm)	____ (100 to 150 cm)
____Mod.	____Mod.		____Mod. deep (50 to 99 cm)	____Mod. (15 to < 22.5 cm)	____ (50 to 99 cm)
____Low	____Low	Ref. (2) _____	____Deep (100 to 149 cm)	____High (≥ 22.5 cm)	____ (25 to 49 cm)
			____Very deep (≥150 cm)		____ (< 25 cm)

3. Site Characteristics
Score:

Parent Material (GIVEN)	Landform (GIVEN)	Slope (GIVEN)	Slope Profile (5)	Surface Runoff (5)	Eros. Pot. (5)
PYROCLASTIC FLOW ANDESTIC LAVA FLOW	GLACIATED VOLCANIC MOUNTAINS	9%	____ Summit ____ Shoulder ____ Backslope ____ Footslope ____ Toeslope ____ None	____Ponded ____Very slow ____Slow ____Medium ____Rapid ____Very rapid	____ Very Low ____ Low ____ Medium ____ High ____ Very High

4. Soil Classification
Score:

Epipedon (5)	Subsurface horizons and/or diagnostic features (5 each)	Order (10)	Suborder (10)	Great Group (10)

5. Interpretations
Score:

Houses with Basements (3)	Septic Tank Abs. Fields (3)	Local Roads and Streets (3)	Corn (3)	Hopyards (3)	Created Wetlands (3)
____Slight ____Moderate ____Severe	____Slight ____Moderate ____Severe	____Slight ____Moderate ____Severe	____Slight ____Moderate ____Severe	____Slight ____Moderate ____Severe	____Slight ____Moderate ____Severe
Reason # (2): _____	Reason # (2): _____	Reason (2): _____	Reason (2): _____	Reason (2): _____	Reason (2): _____

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