

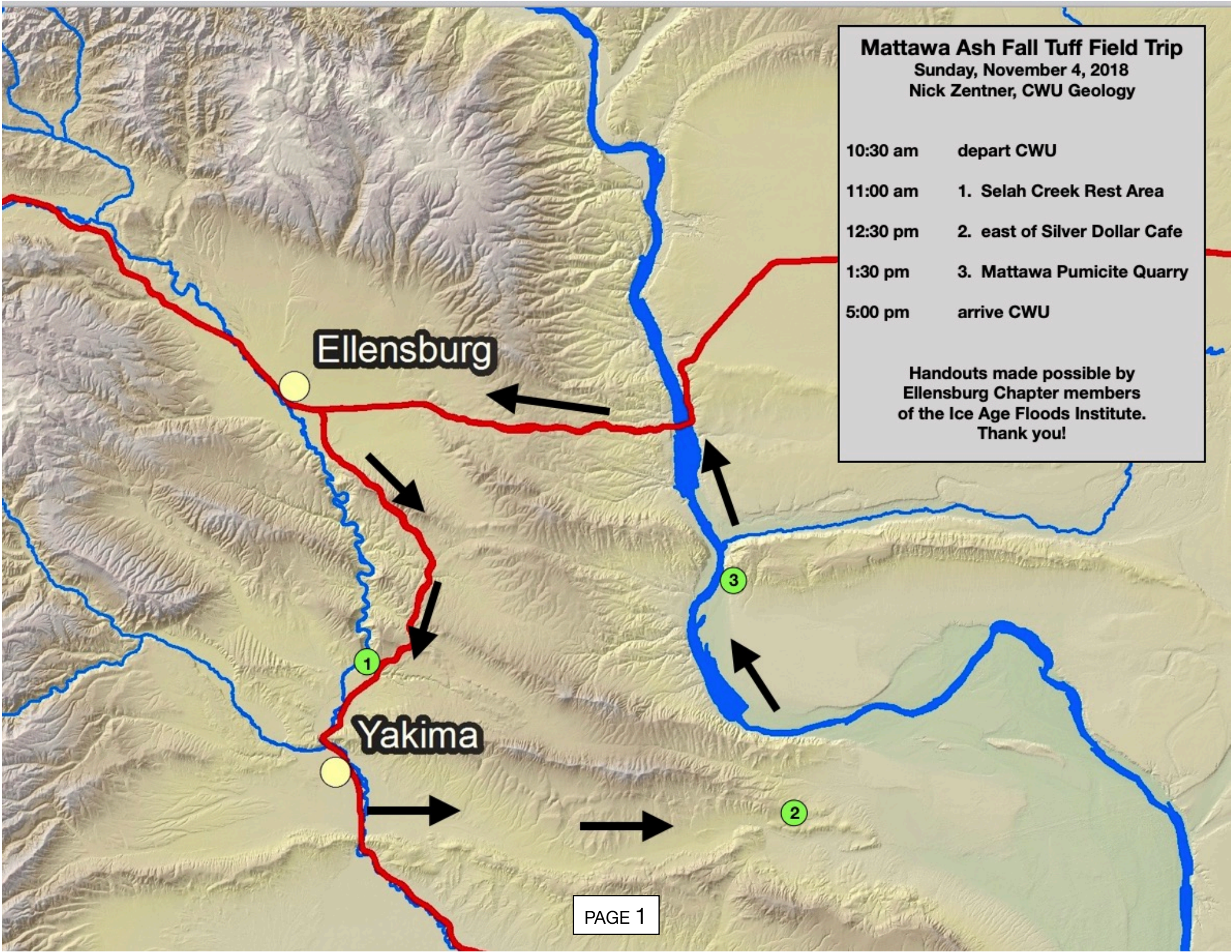
Mattawa Ash Fall Tuff Field Trip

Sunday, November 4, 2018

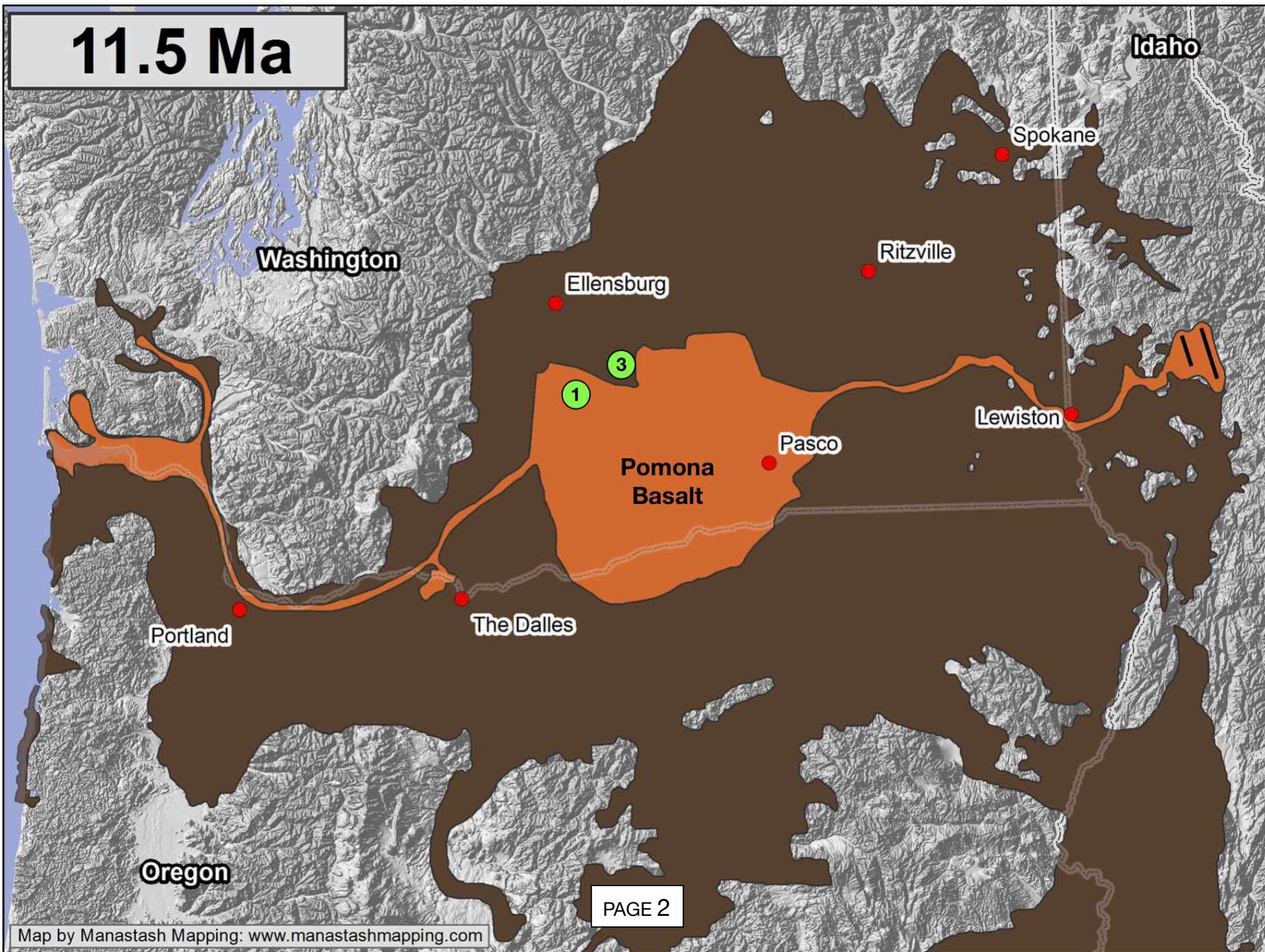
Nick Zentner, CWU Geology

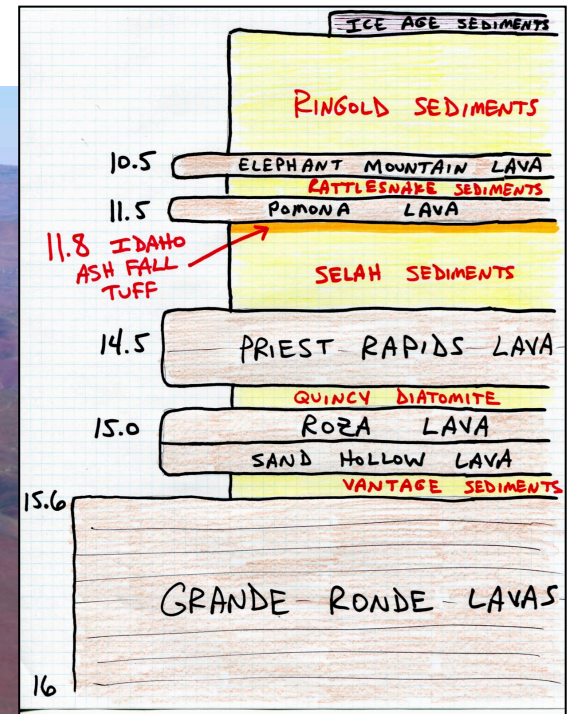
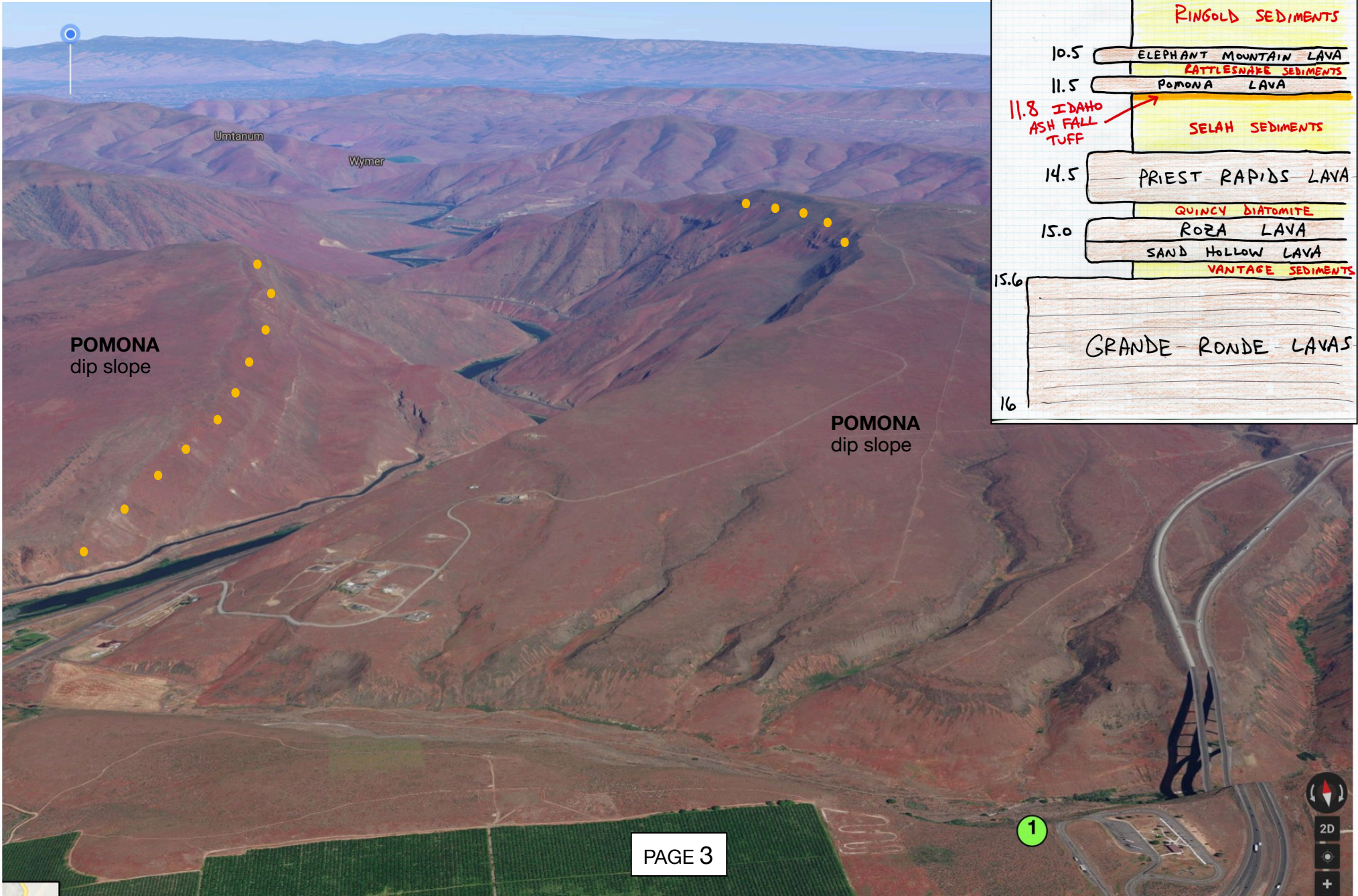
- 10:30 am depart CWU
- 11:00 am 1. Selah Creek Rest Area
- 12:30 pm 2. east of Silver Dollar Cafe
- 1:30 pm 3. Mattawa Pumicite Quarry
- 5:00 pm arrive CWU

Handouts made possible by
Ellensburg Chapter members
of the Ice Age Floods Institute.
Thank you!



11.5 Ma







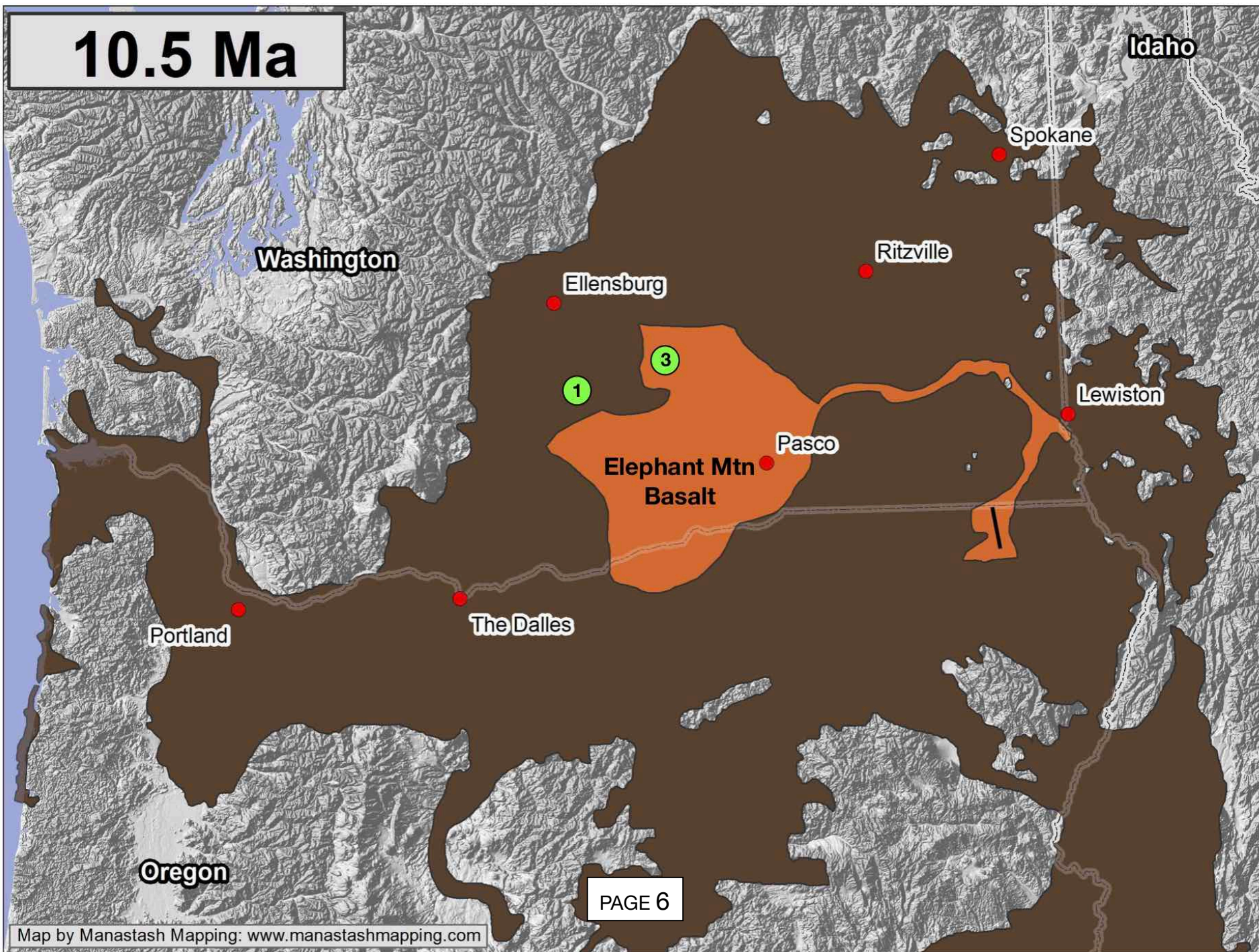


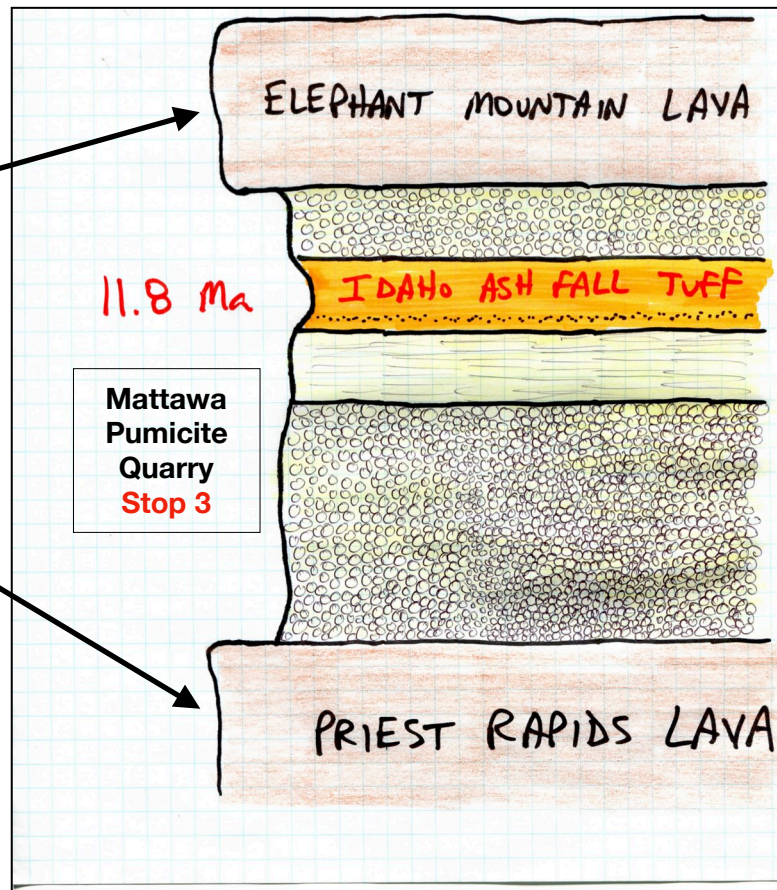
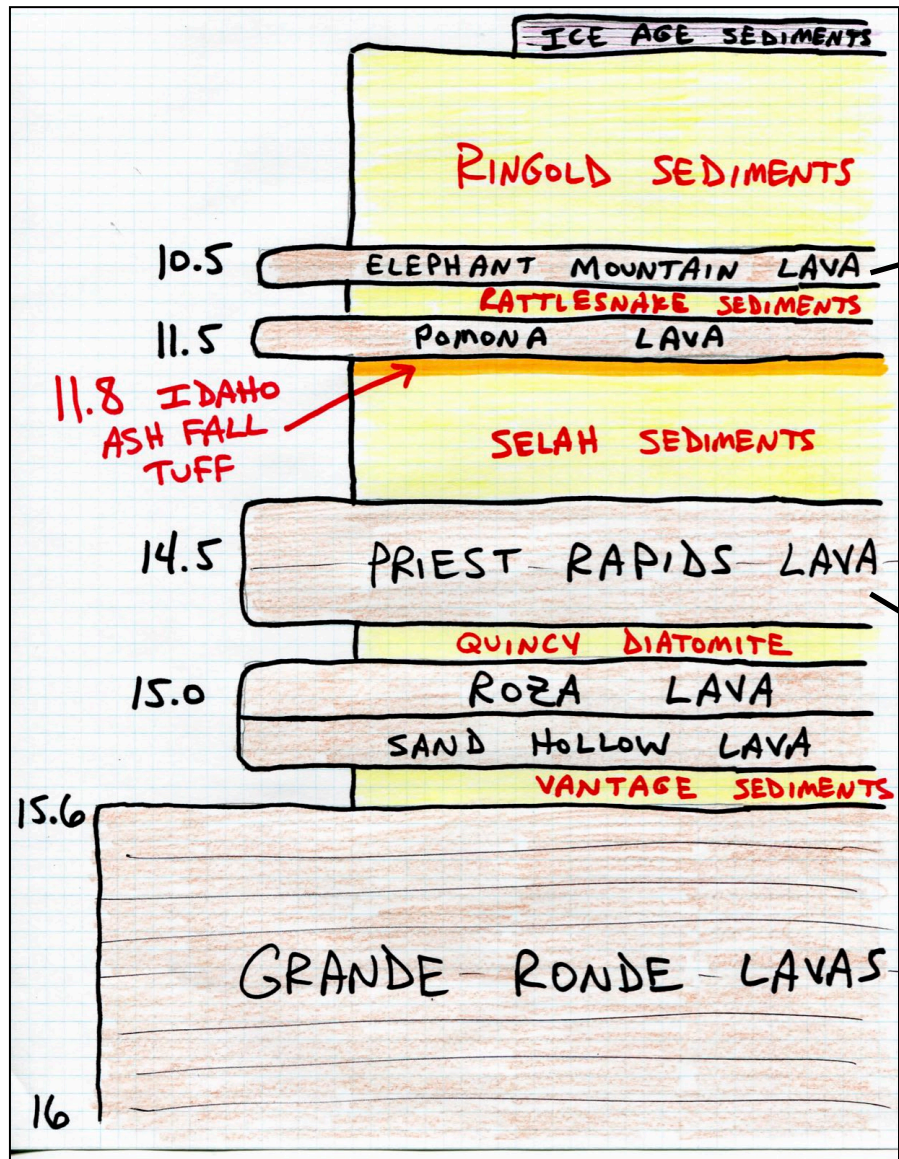
POMONA
dip slope

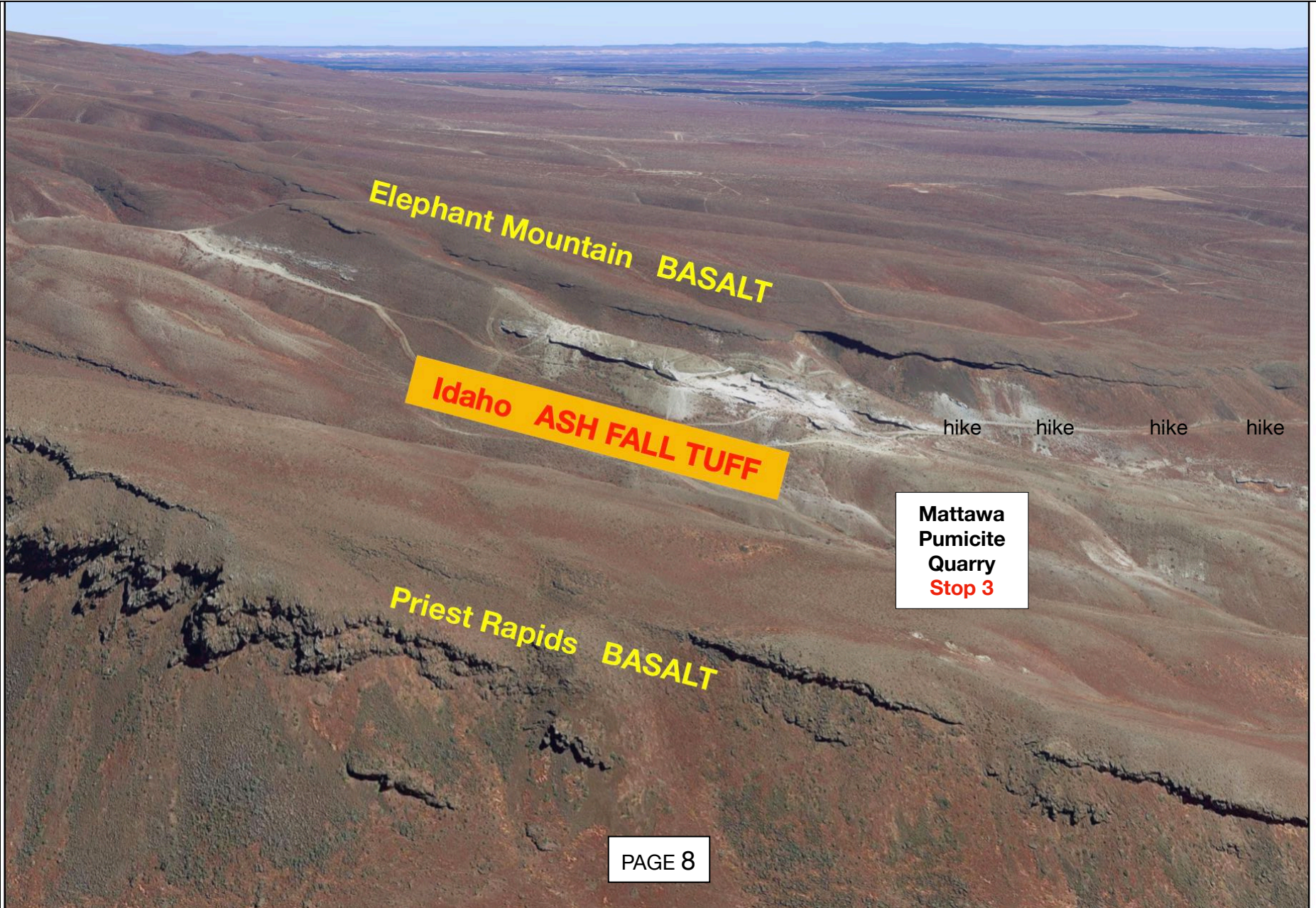
POMONA
dip slope

1

10.5 Ma







Elephant Mountain BASALT

Idaho ASH FALL TUFF

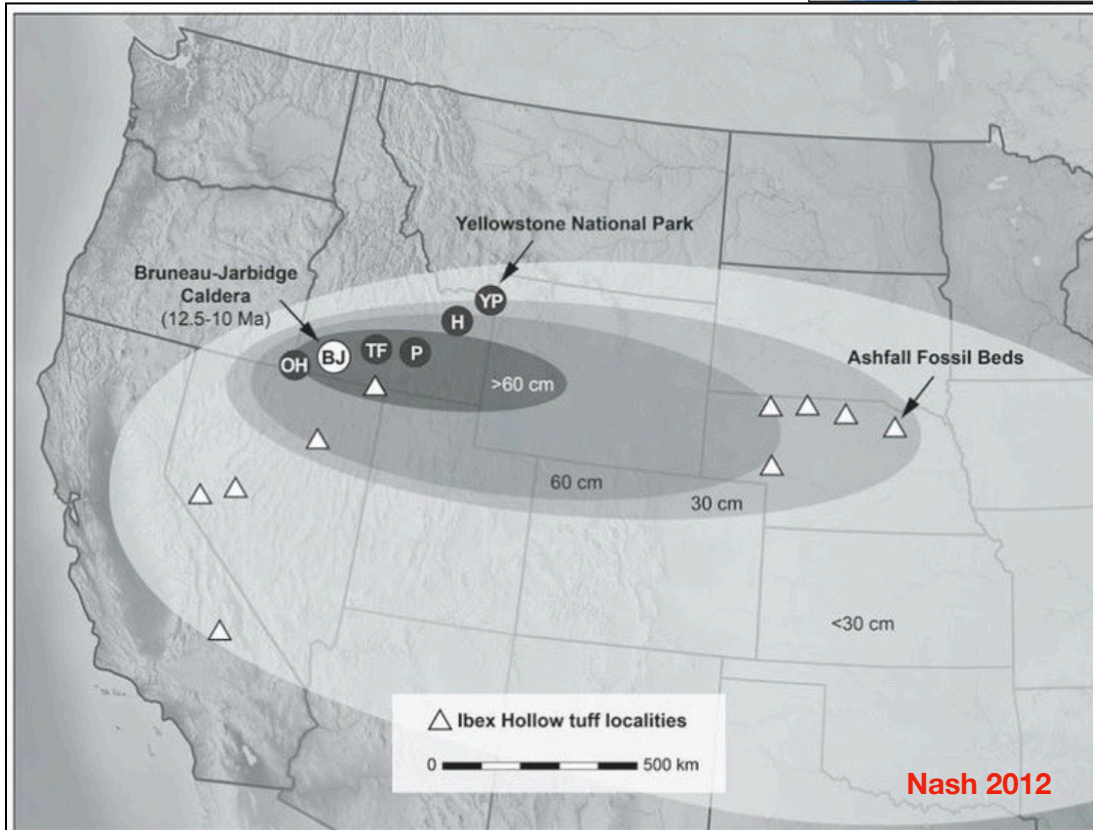
Priest Rapids BASALT

hike hike hike hike

Mattawa
Pumicite
Quarry
Stop 3

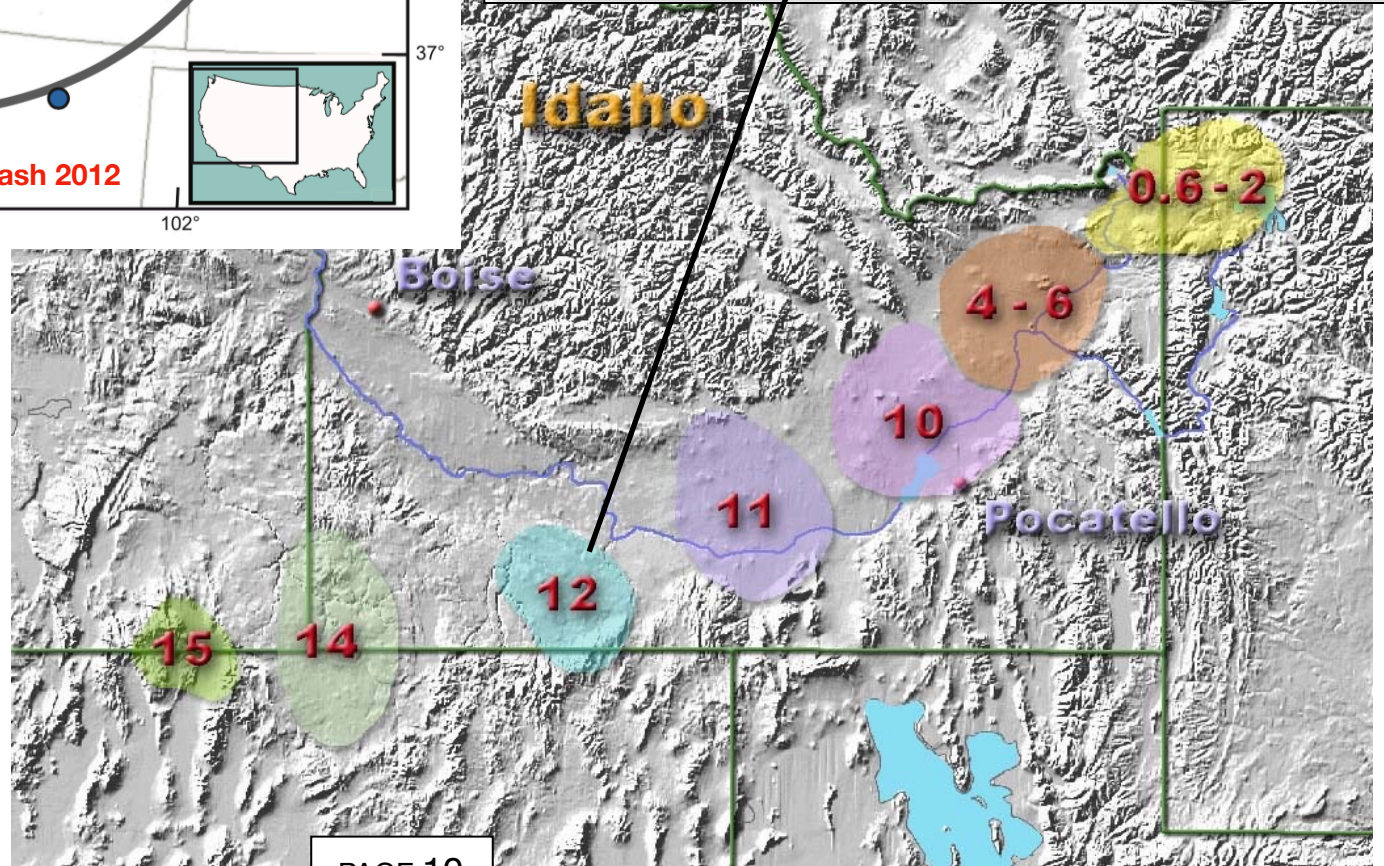
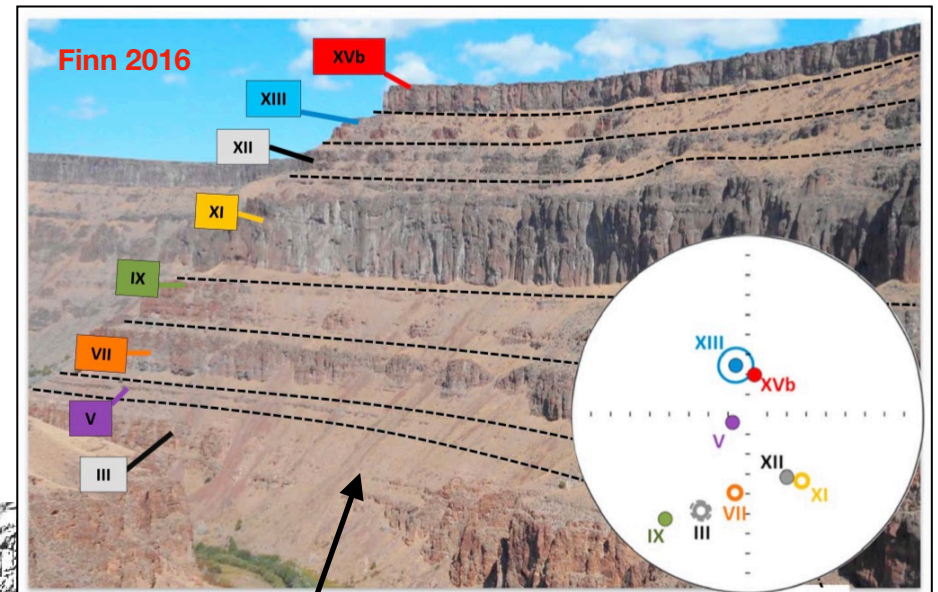
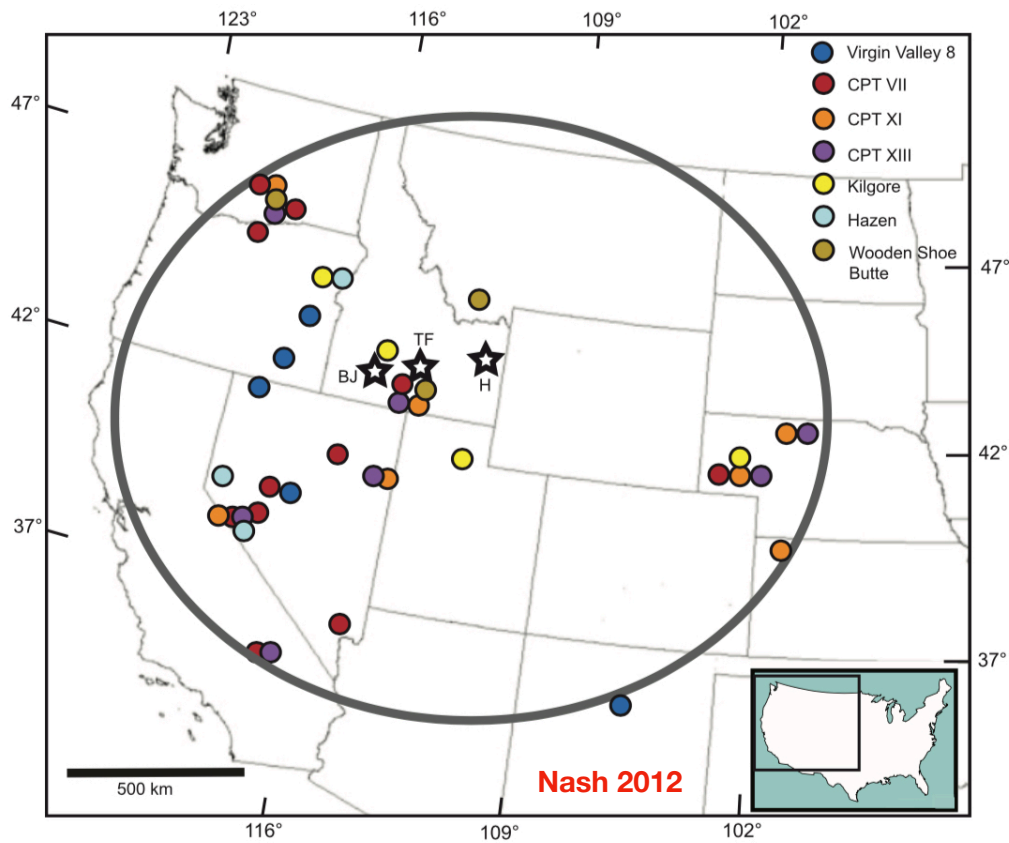


Smith 2018



Nash 2012

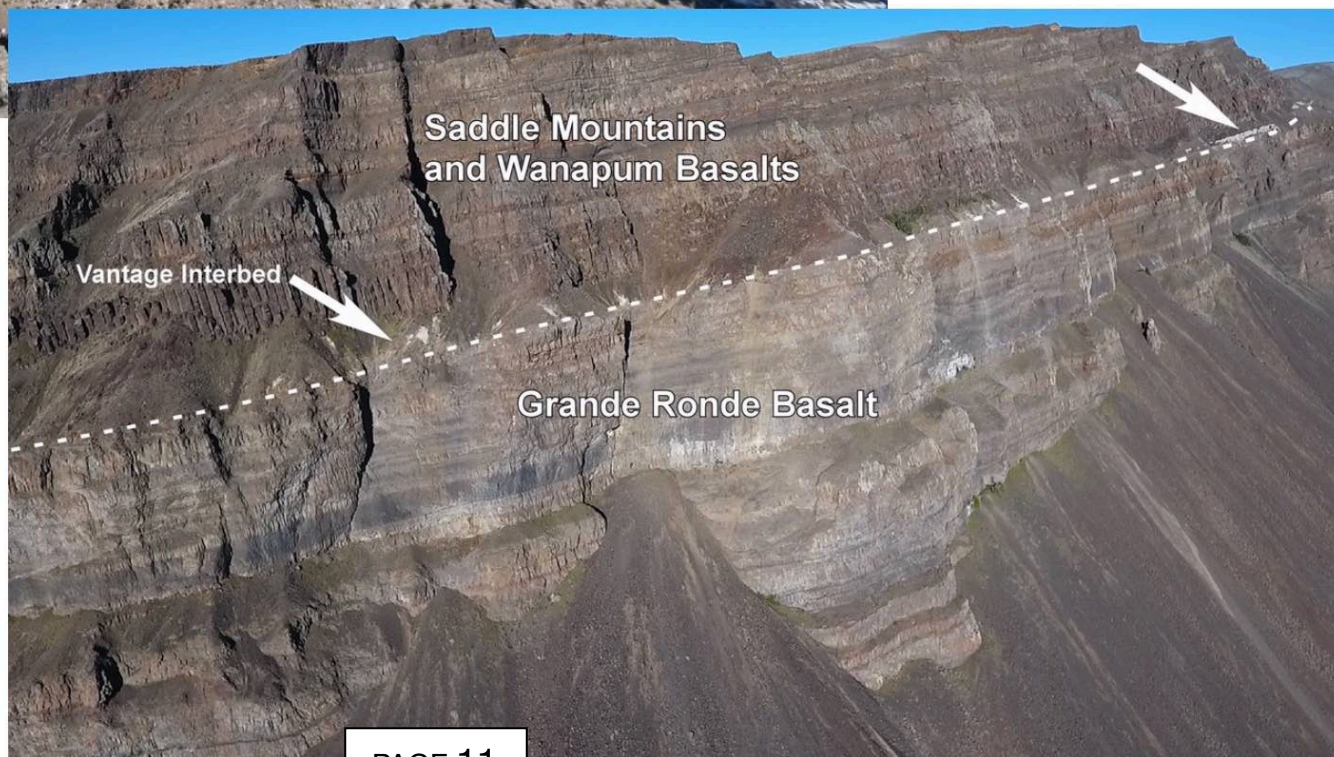
Figure 5. The **Ibex Hollow tuff** (11.93 Ma), which hosts the Ashfall Lagerstätte, originated from supervolcanic eruption in Bruneau-Jarbidge volcanic field of southwest Idaho. Circles indicate successive volcanic fields associated with Yellowstone hotspot: Owyhee-Humboldt (OH) at ≥ 13.9 –12.8 Ma; Bruneau-Jarbidge (BJ) at 12.5–10.0 Ma; Twin Falls (TF) at 10.0–8.6 Ma; Picabo (P) at ~ 8 Ma; Heise (H) at 6.5–4.3 Ma; Yellowstone Plateau (YP) at 2.1–0.6 Ma (Perkins et al., 1995). Triangles identify sites at which **Ibex Hollow tuff** has been identified. Ellipses represent approximate ash thicknesses.



Cougar Point Tuff
 CPT
 Bruneau-Jarbridge Caldera
 Explosions!
 11.8 Ma



Bjornstad Drone Image
north face of Saddle Mountains



Bjornstad Drone Image
west wall of Sentinel Gap



Accretionary Lapilli
ash-coated hailstones
11.8 million years old
primary



Silica Concretions
groundwater thru ash bed
secondary

10:30 am depart CWU (1,545 ft elevation)

I-82 E toward Yakima...24.5 miles...

Rest Area on right just past Fred Redmon Bridge overlooking Selah Creek Canyon..park in car or truck parking areas

11:00 am 1. Selah Creek Rest Area N46.69866 W120.44425 (1,425 ft elevation)

I-82 E toward Yakima...10.1 miles...

Exit 34, WA 24 E toward Moxee...30.4 miles...

Silver Dollar Cafe (just after MP 30)...2.5 miles more on WA 24E...

Left turn onto paved road (no name)...park on shoulder and walk back to white rock outcrop along WA 24E

12:30 pm 2. Black Mailbox 149190 (between MP 32 and MP 33) N46.54768 W119.83368 (1,480 ft elevation)

WA 24E toward Vernita Bridge...10.4 miles...cross Vernita Bridge (Columbia River)...

Left on WA 243N toward Mattawa...14.0 miles...Roundabout at Mattawa...

2.6 miles more on WA 243N toward Vantage...

Right turn at Steve Allen Apple Orchard small sign (between MP 16 and MP 17)...N46.77083 W119.92770

See PAGE 3 map of Steve's Orchard for detail driving route through orchard and parking...we have permission.

Orchard and Pumicite Quarry are both PRIVATE LAND. NO ACCESS except for our Nov 4 field trip group!

1:30 pm 3. Mattawa Pumicite Quarry (Parking Spot is N46.76721 W119.91782) (615 ft elevation)

WA 243N toward Vantage...left on WA 26 toward Vantage...I-90W to Ellensburg...

5:00 pm arrive CWU

STOP 3: MATTAWA PUMICITE QUARRY

private land! no access except for this trip!

Row of Super Tall Trees!

walk up road to mine

PARK
HERE

Google

HIKE TO QUARRY:

Parking Spot Elevation: 615 feet elevation

Pumicite Quarry Elevation: 1000 feet elevation

30 minute hike up gradual jeep road (dirt, gravel, cheat grass).