

Convenors: Clint Conrad, Colleen Dalton, Greg Hirth, Terry Plank, and Anne Trehu.

Agenda At-A-Glance

Sunday Sep 18: Icebreaker social 20:00 to 23:00, hors d'oeuvres, cash bar. Hotel Fifty

	Monday, Sep 19, 2011	Tuesday, Sep 20, 2011	Wednesday, Sep 21, 2011
7:00 – 8:00	BREAKFAST (World Trade Center)		
8:00 – 10:15	Convener's Intro: Plank I: What is the LAB Dynamically? Discussion leader: Hirth Lenardic (30 min) Burgmann (30 min) Zhong (30 min)	V: Composition of the Lithosphere Discussion leader: Plank Kelemen (30 min) Eaton (15 min) Dalton (30 min)	IX: Melt & the LAB in the Western U.S. Discussion leader: Schulte-Pelkum Roy (30 min) Holtzman (30 min) Till (15 min) Konter (15 min)
10:15 – 10:45	COFFEE AND DISCUSSION		COFFEE AND DISCUSSION
10:45 – 12:30	II: What is the LAB Geophysically? Discussion leader: Toomey Fischer (30 min) Schmerr (15 min) Rychert (15 min) Jones (15 min)	VI: Observations & Modeling of LAB Dynamics Discussion leader: Wiens Conrad (30 min) Parmentier (15 min) Gaherty (15 min) Faul (15 min)	X: The LAB Beneath North America Discussion leader: Fouch Yuan (15 min) Miller (15 min) van Wijk (30 min)
12:30 – 14:00	LUNCH (World Trade Center)		LUNCH (World Trade Center)
14:00 – 15:00	III: What is the LAB in the lab? Discussion leader: Bass Karato (30 min) Smyth (15 min)	VII: Rheology of the LAB Discussion leader: Hernlund Lowry (15 min) Freed (15 min) Skemer (15 min)	XI: Lithosphere Evolution in the Western U.S. Discussion leader: Dueker Humphreys (30 min) Gazel (15 min) Lekic (15 min) Schutt (15 min)
15:00 – 15:30	poster advertisements		
15:30 – 16:45	AFTERNOON BREAK and POSTER SESSION		Adjourn at 3:30pm.
16:45 – 18:15	IV: What forms the LAB? Discussion leader: Dick Lee (30 min) Warren (15 min) Reid (15 min)	VIII: Evolution of the LAB Discussion leader: Dunn Ballmer (15 min) Artemieva (15 min) Hall (15 min) Ito (15 min)	
18:30 – 20:30	DINNER (Rock Bottom Brewery)	DINNER (Hotel Fifty)	
20:30 – 23:30	POSTERS (Refreshments)		

Sunday, September 18th, 2011

20:00 – 23:00 Reception and registration at Hotel Fifty. Hors d'oeuvres, cash bar.

Monday, September 19th, 2011: What Defines the LAB?

7:00 – 8:00 BREAKFAST (World Trade Center, Mezzanine 2, 3, 4: coffee, tea, juice, pastries, fruit)

8:00 – 8:15 Introductory Remarks: Terry Plank (LDEO)

8:15 – 10:15 **Session I: What is the LAB Dynamically?** (All sessions in World Trade Center Auditorium)

Discussion leader: Greg Hirth (Brown)

Adrian Lenardic (Rice): The LAB: from oceans to continents

Roland Burgmann (Berkeley): Lithosphere and asthenosphere rheology from postseismic deformation

Shijie Zhong (CU Boulder): Constraints on lithosphere rheology from in-situ observations

10:15 – 10:45 COFFEE AND DISCUSSION

10:45 – 12:30 **Session II: What is the LAB Geophysically?**

Discussion leader: Doug Toomey (Oregon)

Karen Fischer (Brown): A seismological view of the lithosphere-asthenosphere boundary

Nick Schmerr (NASA GSFC): Imaging the lithosphere-asthenosphere boundary beneath an oceanic plate: A sharp interface at upwellings

Kate Rychert (U. Bristol): Seismically imaging the destruction of continental lithosphere beneath Afar

Alan Jones (Dublin Inst. Adv. Studies): Mapping the electrical lithosphere-asthenosphere boundary (eLAB) and its correspondence with seismic (sLAB) and petrological (pLAB) LABs

12:30 – 14:00 LUNCH (World Trade Center, Mezzanine 2, 3, 4)

14:00 – 15:00 **Session III: What is the LAB in the Lab?**

Discussion leader: Jay Bass (U. Illinois)

Shun Karato (Yale): Partial melting at 410- and 70-km and the origin of the asthenosphere

Joe Smyth (CU Boulder): Hydration mechanisms in nominally anhydrous mantle minerals

15:00 – 15:30 Poster Advertisements A

15:30 – 16:45 AFTERNOON BREAK

POSTERS A (World Trade Center, Mezzanine Level)

16:45 – 18:15 **Session IV: What Forms the LAB?**

Discussion leader: Henry Dick (WHOI)

Cin-Ty Lee (Rice): Petrology and geochemistry of the upper thermal boundary layer

Jessica Warren (Stanford): Abyssal peridotite constraints on oceanic LAB formation

Mary Reid (NAU): Going right to the source: Geochemical fingerprints of continental mantle lithosphere

18:30 – 20:30 DINNER (Rock bottom Brewery)

20:30 – 22:30 POSTERS (World Trade Center, Mezzanine Level)

Refreshments

Tuesday, September 20th, 2011: Lithosphere-Asthenosphere Interactions

7:00 – 8:30 BREAKFAST (World Trade Center, Mezzanine 2, 3, 4: coffee, tea, juice, pastries, fruit)

8:30 – 10:15 **Session V: Composition of the Lithosphere**

Discussion leader: Terry Plank (LDEO)

Peter Kelemen (Columbia): Through the looking glass: Interpreting geophysical signals in the upper mantle

David Eaton (U. Calgary): Isopycnicity and secular thermal evolution of cratonic mantle keels

Colleen Dalton (Boston U.): Constraints on the thermal, chemical, and mineralogical properties of the continental lithosphere

10:15 – 10:45 COFFEE AND DISCUSSION

10:45 – 12:30 **Session VI: Observations and Modeling of LAB Dynamics**

Discussion leader: Doug Wiens (WUSTL)

Clint Conrad (Hawaii): Intraplate volcanism induced by “shear-driven upwelling” beneath the lithosphere-asthenosphere boundary

Marc Parmentier (Brown): Small-scale mantle convective instability: creating the seismic G-discontinuity through partial melting?

Jim Gaherty (LDEO): Seismic structure of oceanic lithosphere: Implications for the LAB?

Uli Faul (Boston U.): Interpreting seismic models with experimental data

12:30 – 14:00 LUNCH (World Trade Center, Mezzanine 2, 3, 4)

14:00 – 15:00 **Session VII: Rheology of the LAB**

Discussion leader: John Hearn (Berkeley)

Tony Lowry (Utah State U.): Toward in-situ measurement of lithospheric rheology

Andy Freed (Purdue): Utilizing postseismic observations to infer the depth of the LAB and the nature of the asthenosphere

Phil Skemer (Washington U. STL): Microstructural evolution in the upper mantle

15:00 – 15:30 Poster Advertisements B

15:30 – 16:45 AFTERNOON BREAK

POSTERS B (World Trade Center, Mezzanine Level)

16:45 – 18:15 **Session VIII: Evolution of the LAB**

Discussion leader: Rob Dunn (Hawaii)

Maxim Ballmer (Hawaii): The role of small-scale sublithospheric convection in generating and modulating oceanic intraplate volcanism

Irina Artemieva (U. Copenhagen): CBL from thermal and seismic data

Paul Hall (Boston U.): Small-scale convection beneath oceanic lithosphere: Constraints from numerical models and seismological observations

Garrett Ito (Hawaii): Mantle flow and seismic anisotropy associated with plume-lithosphere interaction

18:30 – 20:30 DINNER (Hotel Fifty)

20:30 – 22:30 POSTERS (World Trade Center, Mezzanine Level)

Refreshments

Wednesday, September 21th, 2011: The LAB Beneath North America

7:00 – 8:00 BREAKFAST (World Trade Center, Mezzanine 2, 3, 4: coffee, tea, juice, pastries, fruit)

8:00 – 10:00 **Session IX: Melt and the LAB in the Western U.S.**

Discussion leader: Vera Schulte-Pelkum (CU Boulder)

Mousumi Roy (New Mexico): TBD

Benjamin Holtzman (LDEO): How does the LAB migrate?

Christy Till (MIT): Shallow anhydrous asthenospheric melting and the location of the lithosphere-asthenosphere boundary below southern Oregon and northern California

Jasper Konter (UTEP): A lower crustal component in southern Rio Grande Rift asthenospheric melts from Pb-Sr isotope systematics

10:00 – 10:30 COFFEE AND DISCUSSION

10:30 – 12:00 **Session X: the LAB Beneath North America**

Discussion leader: Matt Fouch (DTM-CIW)

Huaiyu Yuan (Berkeley): Upper mantle anisotropy in the North American continent

Meghan Miller (USC): Evolution of the North American continental lithosphere from receiver function imaging

Jolante van Wijk (U. Houston): Small-scale convection at the edge of the Colorado Plateau?

12:00 – 13:30 LUNCH (World Trade Center, Mezzanine 2, 3, 4)

13:30 – 15:30 **Session XI: Lithosphere Evolution in the Western U.S.**

Discussion leader: Ken Dueker (Wyoming)

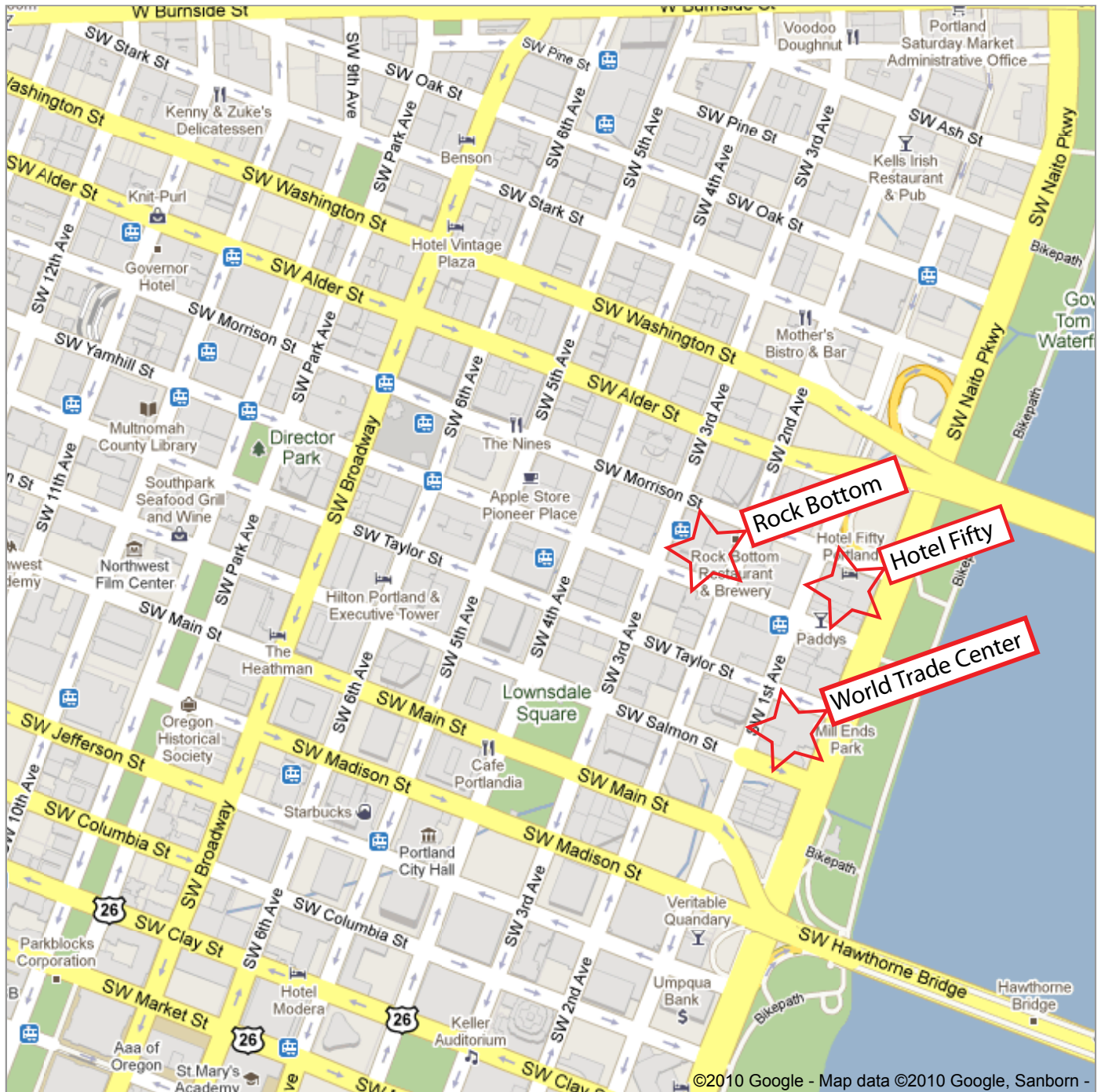
Gene Humphreys (Oregon): History of the LAB region beneath the western U.S.

Esteban Gazel (Virginia Tech): Geochemistry/petrology of the western U.S.: lithosphere vs. asthenosphere sources at Big Pine volcanic field

Ved Lekic (Brown): Lithospheric thinning beneath rifted regions of southern California

Derek Schutt (Colorado State): Seismological constraints on temperature in the western U.S.

15:30 Adjourn



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Hotel Fifty: Enter on SW Morrison Street

World Trade Center: Enter on SW Naito Parkway or SW 1st Ave.

Rock Bottom Restaurant and Brewery: Enter on corner of SW Morrison St and SW 2nd Ave.