

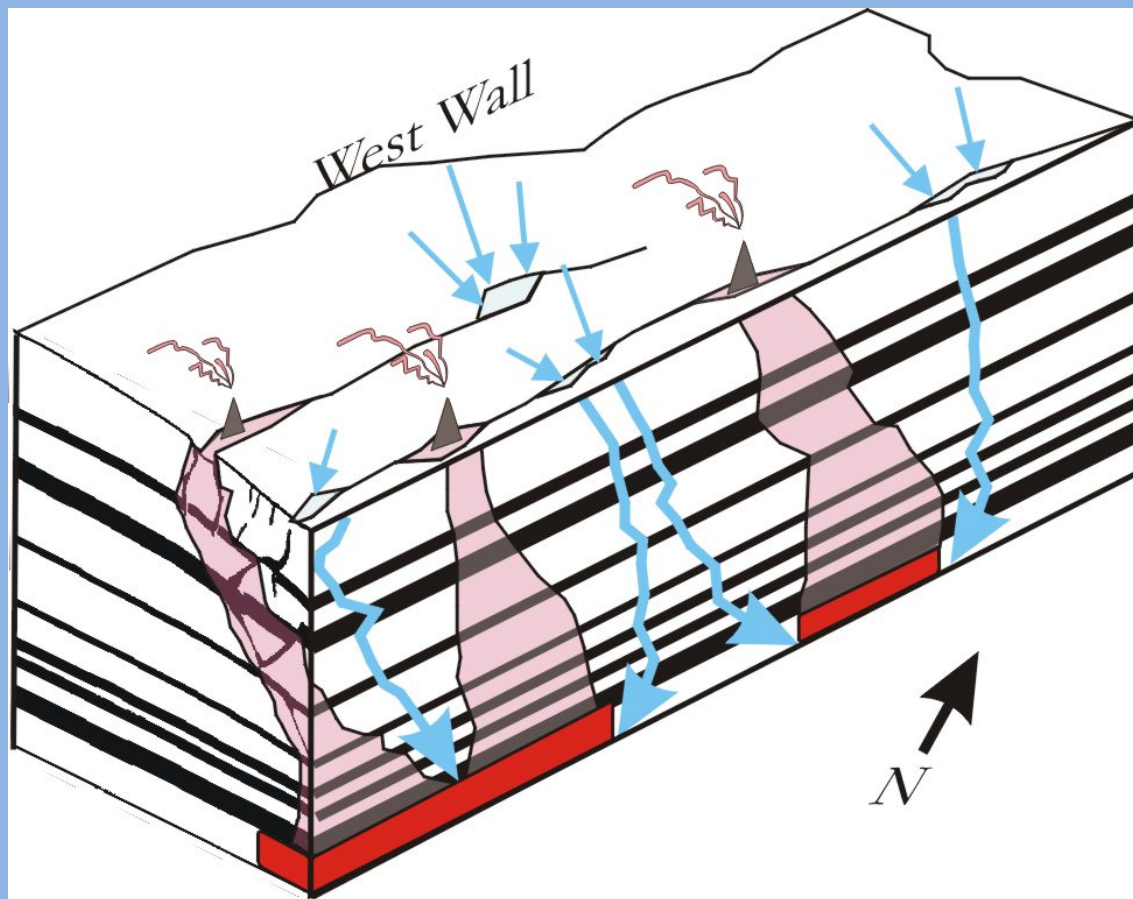
Endeavour Segment of the Juan de Fuca Ridge **between** the Main Endeavour and High Rise Vent Fields.

Red dots are thermal blanket deployment sites.

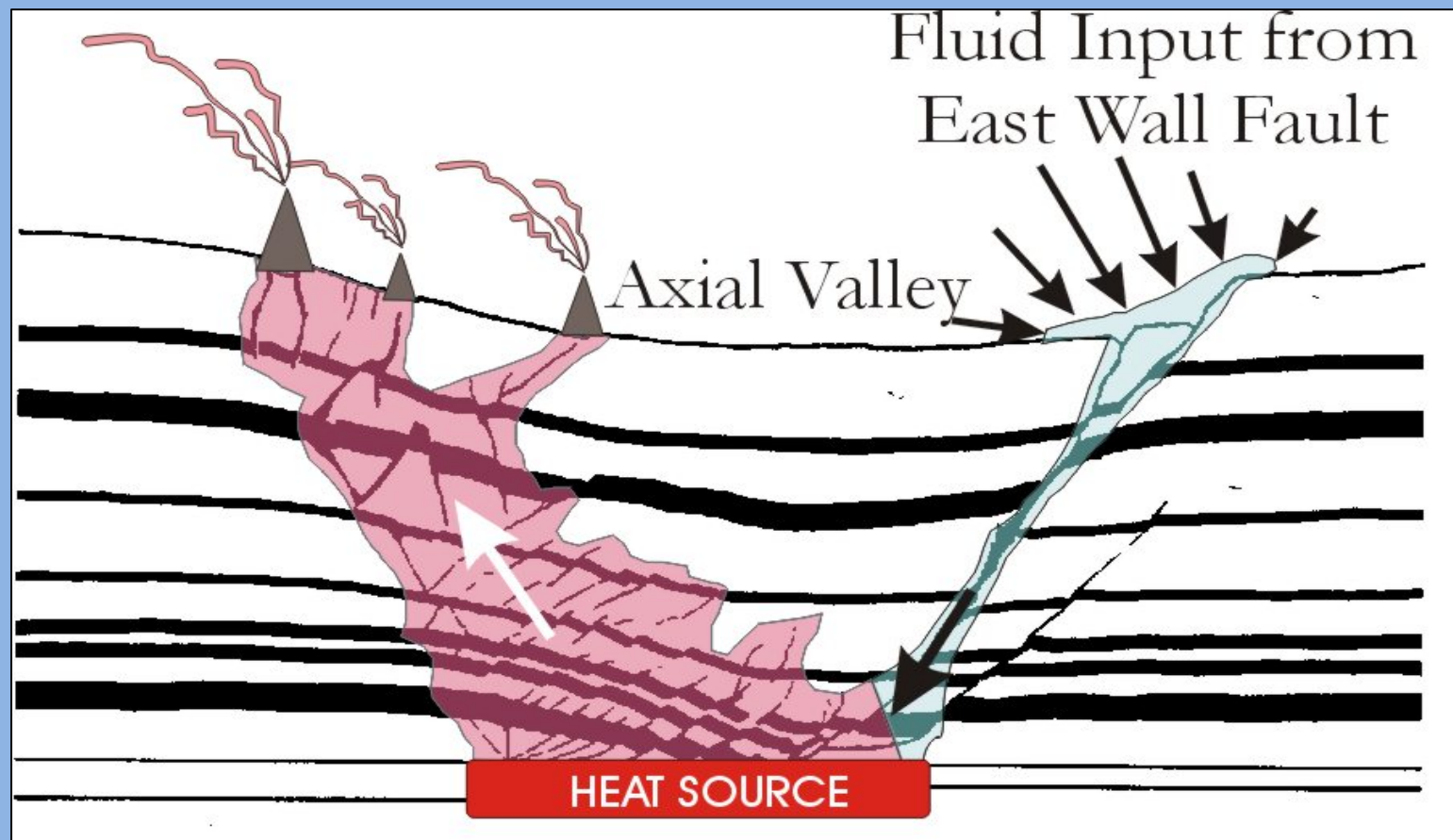
This data supported the 'annular convection model' but sites were limited.

## SLOT CONVECTION MODEL.

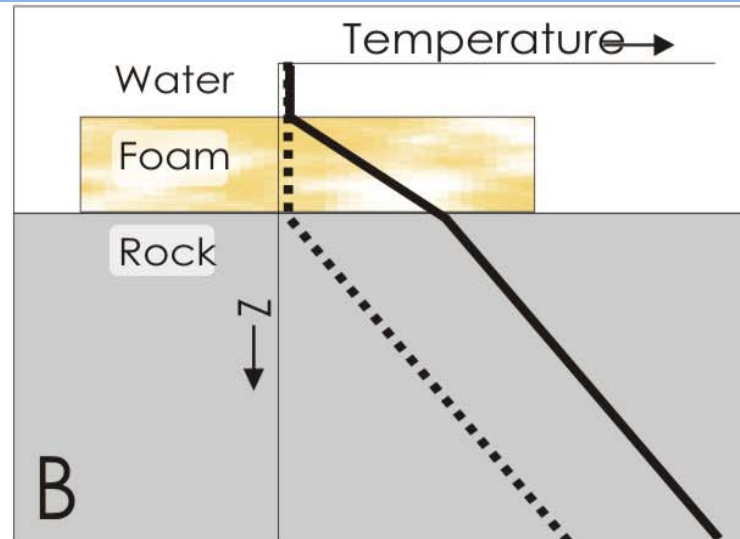
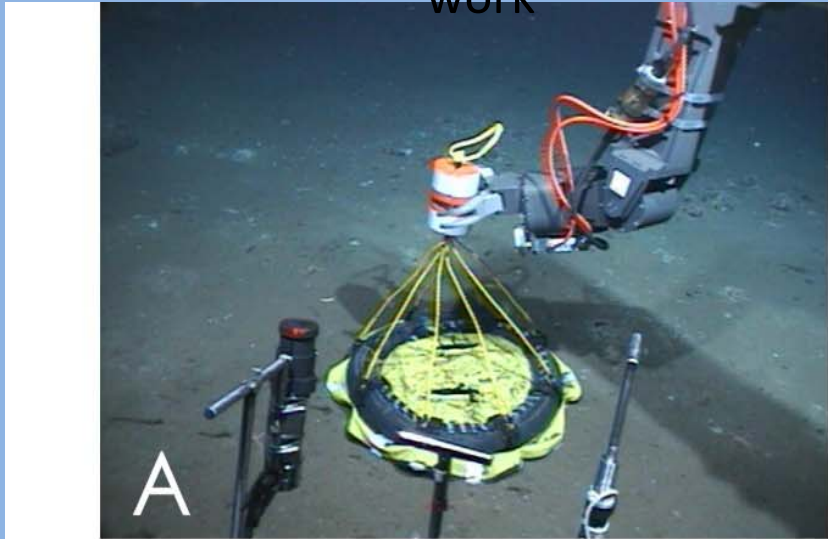
Convection cells are aligned within single vertical fractures that are oriented along-strike of the spreading center.



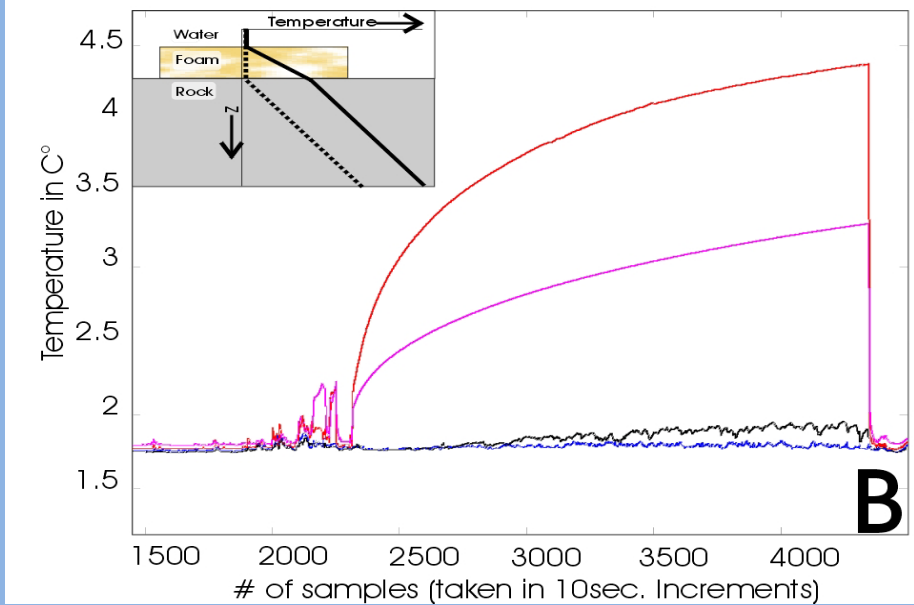
Another plausible early model for re-charge was from the extensive listric faults present on the EAST wall, implying cross-axis flow beneath the valley floor.



# Thermal blankets – and how they work



Raw Thermal Blanket data for 1st Baby Bare deployment





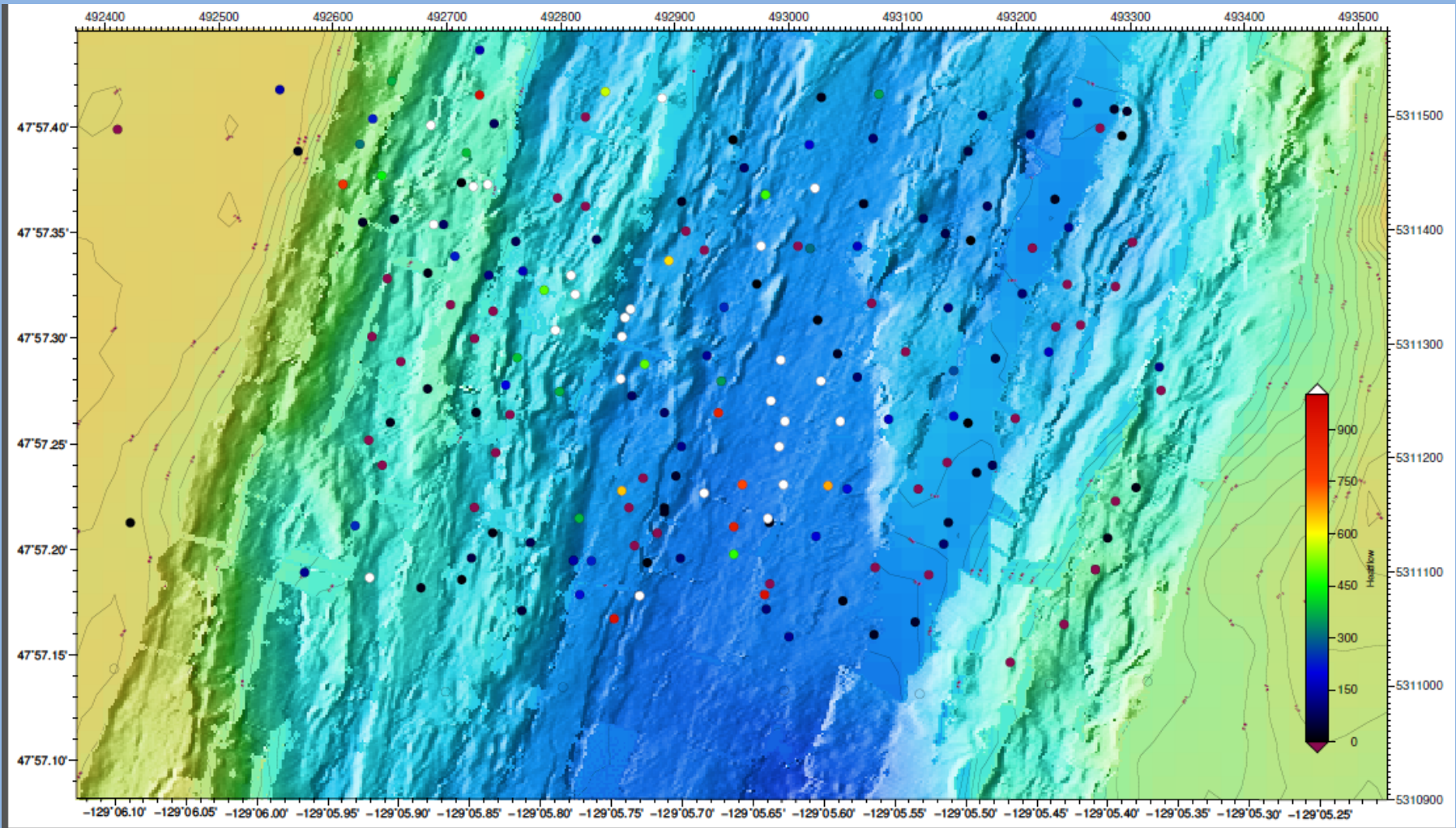
JASON loaded up with 13 UW thermal blankets, prior to deployment on the Endeavour Segment, Juan de Fuca Ridge.

August, 2011

H.P. Johnson, M.A.  
Tivey, Norm Farr

**200 Bare Rock Heat Flow Stations – using the thermal blanket. Aug, 2011**

**30 meter station spacing across the entire axial valley, between MEF and High Rise**



Conductive Heat Flow – warm contours  $>2.5 \text{ W/m}^2$  (hot spots).

Average conductive heat flow in survey area was  $0.5 \text{ W/m}^2$ ,

or **25% of total thermal budget of cooling of sub-surface magma.**

