

APPENDIX VIII

A NEAR-BOTTOM GEOPHYSICAL STUDY OF A NEW ERUPTION SITE ON THE JUAN DE FUCA RIDGE

ALVIN/ATLANTIS II Expedition to the CoAxial Segment of the Juan de Fuca Ridge
26 August to 10 September, 1995
Astoria, Oregon to Astoria Oregon

Funded by the MG&G Program of the National Science Foundation

Chief Scientist: Paul Johnson
Scientific Personnel:

Paul Johnson	University of Washington
Maurice Tivey	WHOI
Bob Embley	NOAA/PMEL/Newport
Mark Holmes	University of Washington
Dawn Wright	Oregon State University
Randy Herr	Navoceano
Darcy Van Patten	University of Washington
Julia Getsiv	NOAA/PMEL/Newport
Andrew Daniel	University of Liverpool
Matt Pruis	University of Washington
Byron Ruppel	private consultant
Michael Hutnak	University of Washington
Gwen O'Donnell	Lehigh University

Specific Experiments - 13 dives in 1995

1. ALVIN magnetometer surveys. (basket-mounted)
2. Bell gravity meter surveys (in-hull deployment)
3. Mesotech high resolution bathymetry (hull-mount on ALVIN)
4. Deploy 5 sea floor magnetometers and tilt meters (year-long deploy, recover in '96)
5. Deploy a bare rock heat flow blanket
6. ABE near-bottom magnetometer survey
7. Recover rock samples; map HT activity, fissure density, geological observations of area overlying the feeder dike.

CoAxial-95 Cruise- GOALS

1. Determine the time-dependent changes in magnetization and density of the (zero-age) New Flow and surrounding crust.

2. Characterize the geophysical signature of the 'diking event' associated with the New Flow eruption.
3. Determine the details of the thermal budget of crustal formation process.

Part of continuing time-series of measurements of the CoAxial New Flow eruption.

Oct 1993 - ALVIN

Sept 1994 - TURTLE/ATV

Aug 1995 - ALVIN/ABE/All

Sept 1996 - Jason/Thompson

There are 7 figures/charts that are part of this appendix. These are available from the UNOLS Office.