

**HAWAII UNDERSEA RESEARCH LABORATORY**  
**QUICK LOOK REPORT MISSION NO. P5-338**

**MISSION STATUS**

**Location:** Loihi Seamount, South rift zone

**Mission Date:** Sept.11, 1997

**Maximum Depth:** 1979 m.

**Project Title:** Submarine Hyaloclastites on Loihi Volcano

**Principal Investigator:** Batiza/Clague

**Address:** SOEST  
University of Hawaii  
Honolulu, HI 96822

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**Observer 1:** David Clague

**Observer 2:** Chuck Holloway

**Address:** MBARI, Moss Landing  
CA 95039-0628

**Address:** HURL

**Scientific Data Acquired :** Prepare an abstract outlining your objectives, techniques, findings, etc.

Dive objectives: (1) sample volcanic sands as deep as possible for analysis to determine volatile contents and evaluate processes that lead to lava fragmentation. (2) explore for possible eruptive site that generated 1800m - deep hydrothermal plume in 1996.

Findings : recovered volcanic sands from 1954, 1927, 1808 and 1753 m. depth. Recovered 8 lava samples for detailed volatile analyses. Discovered new vent site at 1714 m. depth where nontronite is forming from 25°C hydrothermal discharge.

**MISSION EVALUATION:**

**Limitations, failures, or operational problems noted:**

Sub. and pilots performed flawlessly. During recovery, sub. was dropped resulting in frame damage and termination of dive series.

**Recommendations for corrective action or improvement:**

Make it more difficult to accidentally release sub instead of lowering sub.

**In your opinion, did the mission essentially achieve its purpose? Compare actual work accomplished with the work that was expected to be accomplished.**

First and only dive was very successful. Uncompleted dives are needed to complete program investigating formation and distribution of fragmented rocks on Loihi.

**List specimens or samples collected on the mission.**

Rocks 1 to 8  
Sediment scoops 1 to 4  
Suction samples of bacterial mats 1 to 5  
2 gas-tight Lupton water samples  
1 Ti-major water sampler.

DATA RELEASE

Data may be retained by the project leader for up to 2 years after the mission date with the following exception. NOAA may request to use photos for publication or publicity purposes at any time.

Fill in the appropriate statement below and sign this form.

I hereby release the data archived by HURL for public consumption following mission

Submarine hyaloclastites on Loihi Seamount (project title)

held on Sept. 11, 1997 (date) in the following way:

- a. CTD data by anytime (date)
- b. voice transcripts, video, and still camera film by Sept. 1998 (date)
- c. other geologic samples (date) by Sept., 1999.
- d. I will give my written consent to individuals wishing to use these data prior to the above dates depending on the nature of the request(s).

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Principal Investigator