

HAWAII UNDERSEA RESEARCH LABORATORY
QUICK LOOK REPORT MISSION NO. P5-028

MISSION STATUS

Location: Loihi Seamount Summit

Mission Date: 9/2/87

Maximum Depth: 1100 m.

Project Title: "Geology, Geochemistry & Microbiology of Hydrothermal Systems, Loihi ..."

Project Leader: Malahoff, McMurtry, Karl

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Observer: G. McMurtry, A. Brittain

Address: Dept. of Oceanography Dept. of Microbiology
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Scientific Data Acquired : Prepare an abstract outlining your objectives, techniques, findings, etc.

Samples of hydrothermal vent and plume waters were taken for chemical and microbiological analysis. Observations of bottom geology were made, with particular emphasis on hydrothermal system occurrences, including mineral precipitates and bacterial colonies. Two samples of ambient plume waters were taken on this dive, one at 1080 m. and one at 960 m.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

The major objective of this dive, to locate and sample "Pele's vents" hydrothermal field, was not achieved, primarily because of problems with the sub tracking system. There were also problems with the sub video and still camera system and temp. probes.

Recommendations for corrective action or improvement:

Fix tracking system asap.
Fix video and still camera system.
Fix and calibrate temp. probes.

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

No, because of limitations noted above. Two ambient samples were taken in place of the vent samples desired. Samples of bacterial colonies were observed, but were not sampled because Titanium water sampler was in manipulator arm.

List specimens or samples collected on the mission.

Two ambient water samples.

1. Titanium water sampler at 1080 m.
2. Niskin water sampler at 960 m;
sample lost on recovery.

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 P5-028 LOIHI SEAMOUNT SUMMIT
(project title) held on 9/2/87 (date) in the following way:

- a. CTD data by 9/2/89 (date)
- b. voice transcripts, video, and still camera film by 9/2/89 (date)
- c. other 9/2/89 (date)
- 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).

Project Leader