

**HAWAII UNDERSEA RESEARCH LABORATORY**  
**QUICK LOOK REPORT MISSION NO. P5-329**

**MISSION STATUS**

**Location:** Pele's Pit, Loihi

**Mission Date:** Aug.29, 1997

**Maximum Depth:** 1328 m.

**Project Title:** Pathfinder

**Principal Investigator:** A. Malahoff

**Address:** Hawaii Undersea Research Lab.  
1000 Pope Rd., MSB 319  
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Honolulu, HI 96822

**Phone:** 956-6802

**Observer 1:** A. Malahoff

**Observer 2:** (Chuck Holloway)

**Address:** as above

**Address:** HURL

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

The objective of this dive was to conduct a complete run from pit edge to Ikaika vents, explore the edge of the pit bottom for hazards such as overhangs and other dangerous terrain and execute an ascent from the center of the pit. This was all conducted on this dive. A preliminary map of the vents was constructed. Flat areas for future safe instrument deployment were selected. Vent temperatures of up to 198°C were measured at one vigorous vent with the probe inserted 1/2 way.

**MISSION EVALUATION:**

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

Hyco arm used - slow and limited for sampling operations.

**Recommendations for corrective action or improvement:**

After this dive the ship left for Kailua - Kona to take on scientists and obtain parts for Titan arm.

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

Yes, completely. We have determined that the best place for vent experiments is at the Ikaika vent site. There are other sites, but those are either inaccessible or hazardous for the sub. The safest way out of the pit is an ascent from the center located at a water depth of 1328 meters.

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

Niskin bottle sample  
scoop of sediments  
rock samples  
max temperature measured 198°C

## 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

Pathfinder (project title)

held on Aug.29, 1997 (date) in the following way:

- a. CTD data by Aug., 1999 (date)
- b. voice transcripts, video, and still camera film by Aug., 1999 (date)
- c. other Aug., 1999 (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).

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Principal Investigator