HAWAII UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT MISSION NO.P5-157

MISSION STATUS

Location:	Loihi Seamount - NE Spur of NRZ
Mission Date:	10/1/90
Maximum Depth:	1485 m.
Project Title:	Spatial Distribution of rock types on Loihi Seamount
Project Leader:	Dr. Mike Garcia
Address:	Department of Geology University of Hawaii at Manoa Honolulu, HI 96822
Phone:	956-6641
Observers:	Beth Jorgenson, Dr. Mike Garcia
Address:	Same as Project Leader

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

The third dive in a series attempts to constrain an observed distribution pattern of alkalic rock-types on flanks and rift zones of Loihi Seamount, and dominantly tholeiitic types at the summit. This dive went to the NE spur of the north rift in order to collect samples for geochemical analysis and type identification, as well as to ascertain the relative age and geomorphology of the spur. We found mostly aphyric samples near our target, and relatively fresh, glassy pillows. We deviated off course into a large amphitheater of a series of scarps and faults marking major slumps and block-slides. Near the bottom of the amphitheater (between the NE and N RZ spurs) coral was abundant and diverse - as we climbed the flank of the larger western spur, scarps and faults in pillows were pronounced and very little coral was present. We finished up at the lip of the N. pit, where sediment and rubble dominated and rare pillows appeared highly altered.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

Same camera and sonar problems, although hand held camera (Sony) does a fine job and KILA fixes were good.

Recommendations for corrective action or improvement:

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

We expected to get up the NE spur, but due to our own navigating errors, we deviated well off course. We still managed to collect a good suite of samples, and the landslide territory proved interesting.

List specimens or samples collected on the mission.

1. Pillow fragment
2. Loose plate basalt pillows
3. Knob from a pillow surface
4. Pillow frag. plucked out
5. Pillow fragment
6. Glassy friable pillow fragments
7. Buds from one pillow
8. Fragments from a pillow island in sediment and rubble.

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 Distribution Pattern of rock types on Loihi Smt (project title) held on 10/1/90 (date) in the following way:

a. CTD data by 10/90 (date)

b. voice transcripts, video, and still camera film by 10/91 (date)

c. other 10/92 (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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Project Leader