

**HAWAI'I UNDERSEA RESEARCH LABORATORY
QUICK LOOK REPORT**

MISSION STATUS

Location: Brothers Volcano Cones, NW

Latitude: 34°52.653S

Longitude: 179°04.201E

Mission Date: 13 May 2005

Duration: 8hrs 04 mins

Maximum Depth (m): 1379

Project Title: NIUST OBCR Extremophile Cruise

Principal Investigator: Marc Slattery

Address: University of Mississippi, Dept of Pharmacognosy, University, MS 38677

Phone: 662-915-1053

Observer 1: Deb Gochfeld

Address: National Center for Natural Products Research, University of Mississippi,
University, MS 38677

Pilot 1: Terry Kirby

Pilot 2: Colin Wollerman

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

Objectives: Collect micro and macro-organisms from submarine volcanic vent fields for analysis of unusual bioactive compounds. Specific objectives for this dive included: (1) recover temperature logger, (2) collect rosette gradient from vent site for microbiology and gather temperature data, (3) collect geochemical water samples and gas tights, (4) observe fish behavior, (5) collect barnacle sample, and (6) collect sediment. Sub was deployed to "hot-spots" identified on previous legs of the cruise. Sub was outfitted with DVD cameras to record all observations, and with sampling devices- suction sampler, sediment scoop and niskin bottles. Dive resulted in 20 samples including water, rock, bacterial mats and macroorganisms. Temperature logger was retrieved.

MISSION EVALUATION:

Limitations, failures, or operational problems noted: n/a

Recommendations for corrective action or improvement: n/a

In your opinion, did the mission essentially achieve its purpose? Compare actual work accomplished with the work that was expected to be accomplished. Yes. The only goal that was not met specifically was the observation of fish behavior; many fishes were observed but the Pisces 5 lights appeared to disturb them.

List specimens or samples collected on the mission.

3 Rocks with barnacles

Rock with limpets and sulfur deposits

1 crab

3 sediment scoops

1 Niskin water sample

- 2 gas tights
- 3 major samples
- 2 suction samples of bacterial mats
- 1 suction sample of shrimp and sulfur encrustations
- 1 suction sample of nantronite chimneys
- 2 Rocks with sulfur encrustations

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 held on in the following way:

- a. CTD data by (date) n/a
- b. video and images by (date) 13 May 2005
- c. other (date) n/a
- 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).

Principal Investigator