

NOAA SHIP OKEANOS EXPLORER

POST-ROV DIVE SUMMARY FORM

Site Name	Kawio Barat							
ROV Lead	Dave Lovalvo							
General Area Descriptor	365 km North of Bitung, Indonesia							
UTC Date & Time	Deployment	6/29/2010 12:00 AM						
	Recovery	6/29/2010 9:01 AM						
Bottom Time [HH:MM]	[04:51]							
Landing Time & Location	UTC Time	02:20		Depth [m]	2360			
	Latitude	4	°	40.692	'	N		
	Longitude	125	°	4.482	'	E		
Off Bottom Time & Location	UTC Time	07:13		Depth [m]	1865			
	Latitude	4	°	40.565	'	N		
	Longitude	125	°	5.208	'	E		
ROV Dive Name	Cruise Season	Leg		Dive Number				
	EX1004	LEG02		ROV01				
Equipment Deployed	ROV:	Little Hercules						
	Camera Platform:	Phoenix Camera Platform						
ROV Measurements	☒ CTD	☒ Depth		☒ Altitude				
	☒ Scanning Sonar	☒ USBL Position		☒ Heading				
	☒ Pitch	☒ Roll		☒ HD Camera				
	☒ Low Res Cam 1	☒ Low Res Cam 2						
Equipment Malfunctions	Click here to enter text.							
Special Notes	Click here to enter text.							
Scientists Involved (please provide name / location / affiliation / email)	David Butterfield/Seattle ECC/PMEL Verena Tunnicliffe/Seattle ECC/UVIC Tim Shank/WHOI/WHOI Santiago Herrera/WHOI/WHOI Ed Baker/Seattle ECC/PMEL Kristine Konsinski (student)/Seattle ECC/UH Ellie Bors (student)/Seattle ECC/WHOI Jim Holden/Jakarta ECC/UMASS John Sherrin (student)— EX Control Room/U of Victoria Xerandy – EX Control Room/Indonesia							

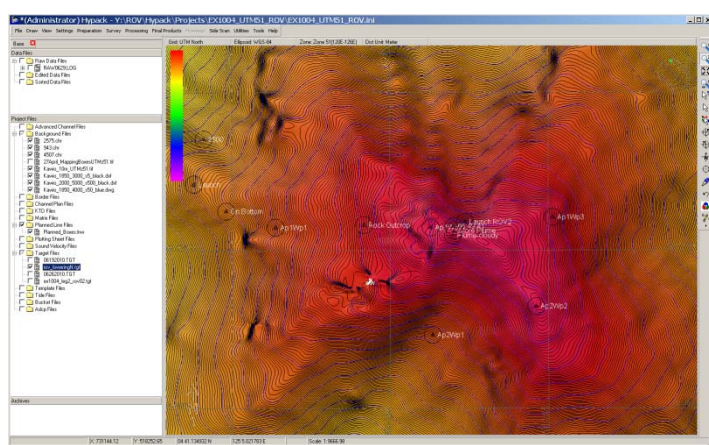
Purpose of the Dive: To explore [Click here to enter text.](#)

Description of the Dive:

The first ROV dive of the expedition took place today. The landing point was at a depth of 2,350 m, approximately 450 m below the NW end of the summit crest. Upon arrival at the seafloor at 2350m depth, the ROV began ascent of the upper western slope toward the summit, situated about 250 meters higher than our starting depth. Working our way up the slope, scientists recognize promising signs that the area very recently contained active hydrothermal venting. The entire slope along the track was covered by dark volcanoclastic sediments. The surface of the sediments was often covered by bright white or orange coatings produced when warm fluids percolate up through the sand-like sediments and encounter cold seawater. Rocky outcrops stood above the sediments in some locations, and many of the rocks were brightly colored from hydrothermal alteration. Our ascent takes us all the way up to the summit ridge where we see live clams sitting on top of sediments. After reaching the summit ridge, we come across a point where a perpendicular ridge crosses the ridge we are traversing and are greeted by billowing clouds of light-colored particles. This point marked the end of today's dive, and we look forward to finding the source of these vents on the next dive.

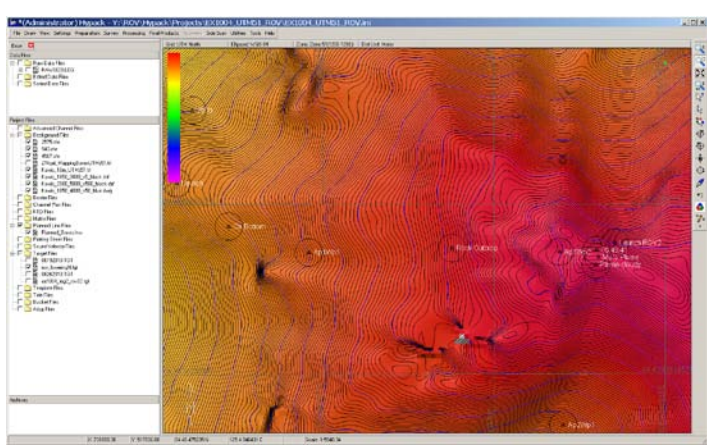
A dense hydrothermal plume was observed along the middle portion of the crest at the end of the dive but the seafloor source was not found.

Overall Map of ROV Dive Area



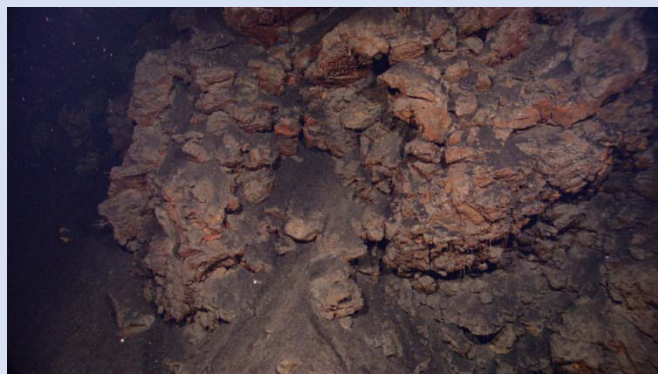
Fledermaus view of overall dive site at KB

Close-up Map of Main Dive Site



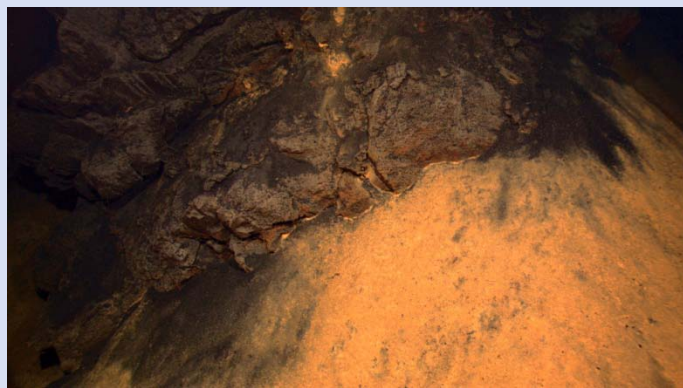
Hypack screen grab of dive Track

Representative Photos of the Dive



20100629_05h23m58s10_ROVHD_STEEP_SLOPE

The slope explored during today's dive on Kawio Barat was covered by dark volcanoclastic sediments – fine bits of pulverized rock produced by explosive lava eruption higher up the slope



20100629_06h03m06s13_ROVHD_YELLOW_SEDIMENT

The surface of the sediments is often covered by bright white or orange coatings produced when warm fluids percolate up through the sand-like sediments and encounter cold seawater.

Please direct inquiries to:

NOAA Office of Ocean Exploration & Research
1315 East-West Highway (SSMC3 10th Floor)
Silver Spring, MD 20910
(301) 734-1014

