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Purpose of the Dive

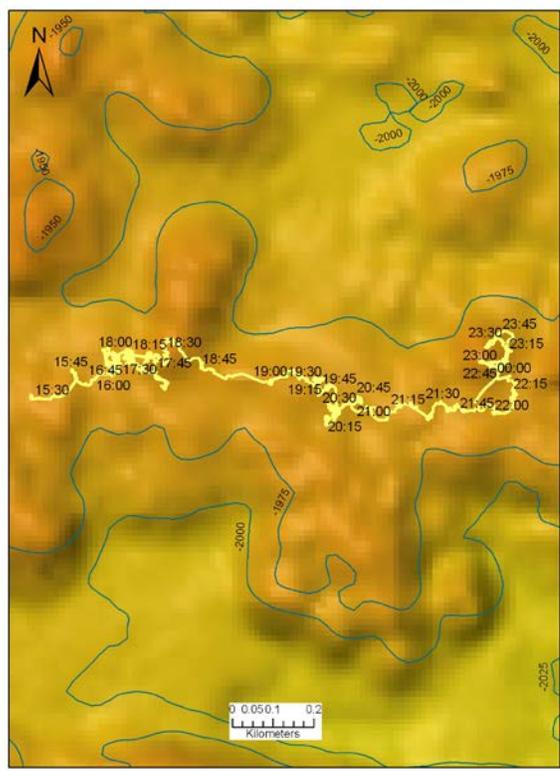
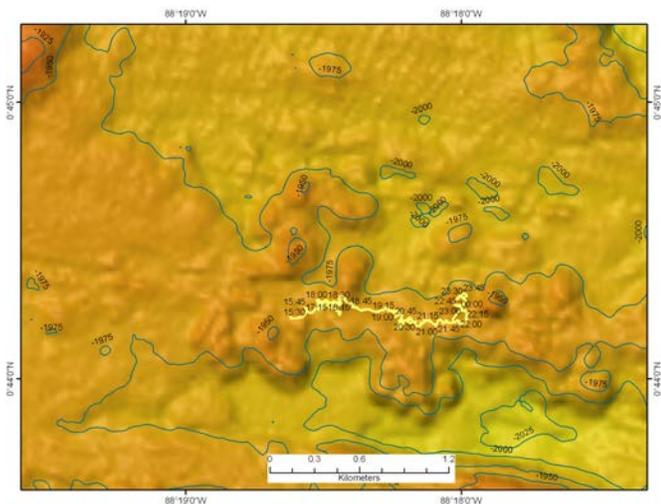
The purpose of this dive was to target a hydrothermally active area discovered during dive 04 that may have not been fully explored. From there, we plan to move east of the massive inactive sulfide towers located at the end of the dive 04 to explore to the East/Southeast in the axial graben.

Description of the Dive:

Once on bottom, *Little Hercules* moved through murky water over pillow lavas covered with sediment slightly east of the diffuse vent site discovered on dive 04. We relocated the diffuse vent site and paused at the northern extent of the field to image clear venting and white microbial mat material between lobate lavas. We then moved East and discovered another site with diffuse vent fluid flowing from cracks between truncated lobates in a graben wall. This area north to south was about 15 meters wide, with the most vigorous flow on the south side. Both diffuse venting sites, separated by 9 meters, were characterized by young lavas and intense diffuse flow through the surrounding basaltic rock with only a few mobile species that were vent specific. A large line of inactive chimneys was seen on pillow-based promontories in the axial graben and *Little Hercules* began moving to the NE to regain the graben and then traverse E-SE along the southern wall. Just before the end of the dive, *Little Hercules* found an extensive field of young lavas with Fe staining and diffuse venting between lobate lava but there was no more time for exploration further to the East.

Overall Map of ROV Dive Area

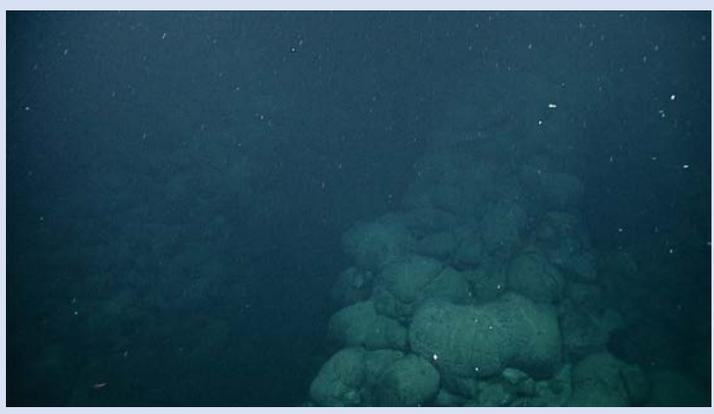
Close-up Map of Main Dive Site



Representative Photos of the Dive



A recent lava flow showing white microbial staining on the broken basaltic rocks, caused by discharge of warm hydrothermal fluids through the seafloor. White flocculent in the water column.



Downlooking view into the graben.

Please direct inquiries to:

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