Okeanos Explorer ROV Dive Summary

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| **Site Name** | 4aE | | | | R:\OKEANOS EXPLORER\GALAPAGOS\Maps\FirstOverViewMap.jpg | |
| **ROV Lead/**  **Expedition Coordinator** | Dave Lovalvo/  Jeremy Potter | | | |  | |
| **General Area Descriptor** | Site 4aE, X km NX of x Island, Galapagos Islands | | | |  | |
| **ROV Dive Name** | Cruise Season | | Leg | | | Dive Number |
|  | EX1103 | | 2 | | | DIVE08 |
| **Equipment Deployed** | ROV: | | Little Hercules | | | |
|  | Camera Platfom: | | Seirios | | | |
| **ROV Measurements** | CTD | | Depth | | | Altitude |
|  | Scanning Sonar | | USBL Position | | | Heading |
|  | Pitch | | Roll | | | HD Camera |
|  | Low Res Cam 1 | | Low Res Cam 2 | | |  |
| **Equipment Malfunctions** | None | | | | | |
| **ROV Dive Summary**  **(From processed ROV data)** | ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^  In Water at: 2011-07-21T14:35:27.034000  00°, 45.950' N ; 085°, 53.678' W  Out Water at: 2011-07-22T00:02:44.059000  00°, 46.062' N ; 085°, 53.686' W  Off Bottom at: 2011-07-21T22:21:43.614000  00°, 46.078' N ; 085°, 53.732' W  On Bottom at: 2011-07-21T16:31:22.528000  00°, 45.998' N ; 085°, 53.712' W  Dive duration: 9:27:17  Bottom Time: 5:50:21  Max. depth: 2607.4 m | | | | | |
| **Special Notes** | Click here to enter text. | | | | | |
| **Scientists Involved**  ***(please provide name / location / affiliation / email)*** | Timothy M. Shank/ Okeanos Explorer Lead Scientist/WHOI/tshank@whoi.edu  Edward T. Baker/NOAA-PMEL, Washington/Edward.baker@noaa.gov  Robert W. Embley/NOAA-PMEL, Oregon/Robert.w.embley@noaa.gov  Stephen Hammond/ NOAA-PMEL, Oregon/Stephen.r.hammond@noaa.gov  James F. Holden/ UMASS Amherst/jholden@microbio.umass.edu  Scott White/University of South Carolina/swhite@geol.sc.edu  Sharon L. Walker/ NOAA-PMEL, Washington/sharon.l.walker@noaa.gov  Santiago Herrera/ WHOI Exploration Command Center/WHOI/sherrera@whoi.edu  T. Jennifer Lin/UMASS Amherst/tjennlin@gmail.com  Catriona Munro/ WHOI Exploration Command Center /WHOI/catmunro89 @gmail.com  Taylor Heyl/ WHOI Exploration Command Center/WHOI/theyl@whoi.edu  Lucy C. Stewart/ UMASS Amherst/lsteweart@cns.umass.edu  Mashkoor Malik/NOAA Office of Ocean Exploration & Research/mashkoor.malik@noaa.gov  Meme Lobecker/ NOAA Office of Ocean Exploration & Research/ Elizabeth.Lobecker@noaa.gov | | | | | |
| **Purpose of the Dive**  To dive below a high hydrothermal plume signal discovered during the last leg of this expedition now referred to as “4a”. This is an unexplored region, but multibeam surveys suggest that there is a well-defined axial volcanic ridge with walls separated by approximately 500 meters. | | | | | | |
| **Description of the Dive:** | | | | | | |
| We began this dive by landing 100 meters to the east of the 4aEast plume target and proceeding to the west, traversing across broken pillow lava heavily covered with sediment. *Little Hercules* then began moving north, discovered a fissure and began an E-W transit for exploration. The fissure was characterized by a northern wall higher than a Southern wall with pillow lavas on either side, and a talus slope at the base. *Little Hercules* continued traversing over heavily sedimented pillow and lobate lavas before coming to the end of the dive without locating any active hydrothermal vent areas. | | | | | | |
| **Overall Map of ROV Dive Area** | | | | Close-up Map of Main Dive Site | | |
| **R:\OKEANOS EXPLORER\GALAPAGOS\Maps\Dive8_Overview.jpg** | | | | **R:\OKEANOS EXPLORER\GALAPAGOS\Maps\Dive8_Zoomed.jpg** | | |
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| **Representative Photos of the Dive** | | | | | | |
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| **xxx** | | | | xxx | | |
| **Please direct inquiries to:** | | NOAA Office of Ocean Exploration & Research 1315 East-West Highway (SSMC3 10th Floor)  Silver Spring, MD 20910  (301) 734-1014 | | | | |