

Okeanos Explorer ROV Dive Summary

Dive Information			
Dive Map	2 Malulu Seamount 3 Rose Atuil Dee ^g ^(D) Rose Atoil >250m Figure 2 Malulu Seamount (Rist): Governor Loio		
Site Name	"Governor Lolo" Seamount (formerly "Seamount D")		
ROV Lead(s)	Karl McLetchie		
Expedition Coordinator(s)/ Mapping Lead	Kelley Elliott / Meme Lobecker		
Science Team Lead(s)	Santiago Herrera (Biology) and Matt Jackson (Geology)		
General Area Descriptor	Samoan region, eastern portion of Am. Samoa EEZ		
ROV Dive Name			
Cruise	EX1702		
Leg			
Dive Number	04		
Equipment Deployed	·		
ROV	Deep Discoverer (D2)		
Camera Platform	Seirios		
ROV Measurements	🖂 СТД	🔀 Depth	🔀 Altitude
	Scanning Sonar	USBL Position	🔀 Heading

	🔀 Pitch	🔀 Roll	HD Camera 1
	HD Camera 2	Low Res Cam 1	Low Res Cam 2
	Low Res Cam 3	Low Res Cam 4	Low Res Cam 5
	LSS	ORP ORP	
Equipment Malfunctions	Operating without Schilling Orion manipulator.		
ROV Dive Summary (from processed ROV data)	Dive Summary: EX1702_DIVE04 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
	Bottom Time:	N/A	
	Max. depth:	439.0 m	
Special Notes	The dive was cancelled owing to inclement weather conditions.		
Scientists Involved (please provide name, location, affiliation, email)	Matthew Jackson (UCSB), Santiago Herrera (Lehigh University)		
Purpose of the Dive	The following text is similar to that in the original dive plan, but is included here for completeness:		
	The goal of this dive is to generate baseline information on geology and geochemistry of this unexplored (and largely unmapped) seamount. There is also significant interest in understanding the deep sea habitats and biological communities on the seamount to better understand their diversity and distribution. American Samoa's Division of Marine and Wildlife Resources have expressed an interest in the seamounts in this area as long-line fishing activities are conducted in the area.		
	The draft dive (based on very limited existing data) will begin around 4400 m on the side of a prominent ridge extending to the north of the seamount, the only portion of the seamount that has been mapped. We will climb on the ridge and then continue moving upslope along the crest of the ridge and will finish at a point approximately 300 m distance from the start. This track will be refined in the morning after overnight mapping provide more complete maps of the seamount. From a geological standpoint, this seamount may be an older seamount linked to		



	 the Cook-Austral Islands, not Samoa. Samples from this seamount are key in defining the Cook-Austral hotspot tracks back in time, and as such an age on a volcanic rock is needed from this seamount. Without an age, it is not possible to truly define plate motion for the time frame represented by this volcano. From the biological perspective this dive has the potential to provide new depth records for several species as well the discovery of new species. Very little work has been done in the Central Pacific at these depths on seamounts. We aim to collect information that will inform the biogeographic identity of the communities at abyssal depths in this region. 		
Description of the Dive	The ROV never reached bottom. The ROV achieved a depth of ~300 m and the dive was cancelled do to inclement weather.		
Overall Map of the ROV Dive	Area	Close-up Map of Main Dive Site	
NA. The dive was cancelled.		NA. The dive was cancelled.	
NA. The dive was cancelled.		NA. The dive was cancelled.	
Representative Photos of the Dive			



EX1702_IMG_20170219T193837Z_ROVHD.jpg	EX1702_IMG_20170219T201036Z_ROVHD.jpg	
[Descriptive caption here]	[Descriptive caption here]	
Samples Collected		
Sample		
Sample ID		
Date (UTC)		
Time (UTC)	[in city image of specimen here]	
Depth (m)	[<i>In situ</i> mage of specimen here]	
Temperature (°C)		
Field ID(s)		
Comments		
Sample		
Sample ID		
Date (UTC)		
Time (UTC)	[in situ image of specimen here]	
Depth (m)		
Temperature (°C)		
Field ID(s)		
Comments		
Sample		
Sample ID		
Date (UTC)	[in situ image of specimen here]	
Time (UTC)		



Depth (m)			
Temperature (°C)			
Field ID(s)			
Comments			
Sample			
Sample ID		[<i>in situ</i> image of specimen here]	
Date (UTC)			
Time (UTC)			
Depth (m)			
Temperature (°C)			
Field ID(s)			
Comments			

Please direct inquiries to:

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