

CONTENTS

I. Outline of GH77-1 cruise and its results.....	<i>T. Moritani</i>	1
II. Positioning by NNSS; satellite fixes and dead reckoning	<i>M. Joshima and K. Onodera</i>	27
III. Submarine topography by 12 kHz PDR	<i>K. Onodera, F. Murakami, and T. Moritani</i>	33
IV. Gravity anomaly	<i>M. Joshima</i>	44
V. Magnetic anomaly	<i>M. Joshima and F. Murakami</i>	72
VI. Continuous seismic reflection profiling survey	<i>F. Murakami and T. Moritani</i>	74
VII. Some notes on bottom sampling	<i>Y. Kinoshita and S. Maruyama</i>	103
VIII. Manganese nodule occurrence and benthonic activities observed from deep sea photographs	<i>Y. Kinoshita, T. Moritani, and K. Handa</i>	106
IX. Bottom sediments	<i>S. Nakao</i>	131
X. Physical properties of bottom sediments relevant to manganese nodule mining	<i>K. Handa</i>	152
XI. Chemical composition of surface sediments from the GH77-1 area	<i>K. Kato, T. Moritani, and S. Nakao</i>	155
XII. Preliminary results of remanent magnetization measurement on gravity core samples	<i>M. Joshima</i>	158
XIII. Description, types, and distribution of manganese nodules	<i>T. Moritani, S. Maruyama, M. Nohara, Y. Kinoshita, T. Koizumi, and T. Ito</i>	163
XIV. Metal contents of manganese nodules from the GH77-1 area	<i>T. Moritani, T. Mochizuki, S. Terashima, and S. Maruyama</i>	206
XV. Relation between manganese nodule abundance and acoustic stratigraphy in the GH77-1 area	<i>T. Moritani and F. Murakami</i>	218
XVI. STD observation in GH77-1 cruise	<i>S. Maruyama and Y. Kinoshita</i>	222
XVII. Sampling test with proto-type sampling instruments	<i>N. Yamakado and K. Handa</i>	232

Appendix I.	Underway data by gravimeter and proton magnetometer from off Japan to Central Pacific Basin	
	<i>M. Joshima and F. Murakami</i> 235
Appendix II.	Magnetic and gravity survey in the scheduled IPOD site area for DSDP Leg 61 to the west of Marshall Islands	
	<i>M. Joshima, F. Murakami, and T. Moritani</i> 240
Appendix III.	Study of the acoustic stratigraphy in the scheduled IPOD site area for DSDP Leg 61 to the west of Marshall Islands	
	<i>F. Murakami and T. Moritani</i> 242