BULLETIN OF THE MARINE GEOLOGY

VOLUME 30 • NUMBER 2 • DECEMBER 2015



Accredited : LIPI No. 665/AU2/P2MI-LIPI/07/2015



MARINE GEOLOGICAL INSTITUTE

RESEARCH AND DEVELOPMENT AGENCIES FOR ENERGY AND MINERAL RESOURCES MINISTRY OF ENERGY AND MINERAL RESOURCES

PUSAT PENELITIAN DAN PENGEMBANGAN GEOLOGI KELAUTAN BADAN PENELITIAN DAN PENGEMBANGAN ENERGI DAN SUMBERDAYA MINERAL KEMENTERIAN ENERGI DAN SUMBERDAYA MINERAL

BULLETIN OF THE MARINE GEOLOGY

Vol. 30, No. 1, June 2015

INSURED EDITOR

Director of Marine Geological Institute

VICE CHIEF OF INSURED EDITOR Head of Afiliation Division

CHIEF OF EDITORIAL BOARD

Kris Budiono, M.Sc.

VICE CHIEF OF EDITORIAL BOARD

Ir. Yudi Darlan, M.Sc.

EDITORIAL BOARDS

DR. Ir. Ediar Usman, MT. Ir. Noor Cahyo Dwi Aryanto, MT. Ir. I Wayan Lugra DR. Priatin Hadi Widjaja, ST., MT.

SCIENTIFIC REVIEWERS

DR. Hermes Panggabean, M.Sc. *(Sedimentologist-fossil Fuel)* Prof. Ris. DR. Ir. Edi Prasetyo Utomo *(Exploration geophysicist)* Prof. Ris. I Gusti Ngurah Ardha, M.Sc. *(Mineralogist)* DR. Eng. Iman Ahmad Sadisun, ST., MT. *(Engineering geologist)* DR. Ir. Khoiril Anwar Maryunani, MT. *(Biostratigraphy & paleoclimatologist)* Prof. DR. Ir. Rachmat Heryanto Sutjipto *(Sedimentologist)* Dra. Kresna Tri Dewi, M.Sc. *(Micropaleontologist)*

PUBLISHER BOARDS

Asep Makmur, S.Si. *(Chief)* Nazar Nurdin, ST. Godwin Latuputty, ST. Sutisna

For communication of this publications, please contact : MARINE GEOLOGICAL INSTITUTE Dr. Junjunan 236, Bandung-40174, Indonesia Telephone : +62-22-6032020, 6032201, Fax : +62-22- 6017887 E-mail : bulletin@mgi.esdm.go.id

Cover Figure : Calcareous outcrop at South Aru (By: I Wayan Lugra)

PREFACE

Marine Geological Institute of Indonesia (MGI'S) responsibilities are to provide marine geoscientific map, research and information to support sustainable development of Indonesian's mineral and petroleum industries, mapping of Indonesian Coastal and Ocean Territory, identification of marine and coastal geological hazards, and to provide marine and coastal geological and geophysical data base for marine and coastal landscape.

In this second edition of year 2015, the number of important information are highlighted involving: Seafloor Morphology Influences on Current Condition in a Sunda Strait Bridge Project Using Numerical Model; Mineral Content of Surficial Sediment of the Rangsang Island and Its Surrounding Area, Meranti Regency, Archipelago Riau Province; High Percentage of Rare Earth Element Connection With the Accumulation Sediment as Response Longshore Currents in the Belitung Waters; Submarine Volcano Characteristics in Sabang Waters; Opening structure of the Bone Basin on South Sulawesi in relation to process of sedimentation, From the desk of editors, thank to the authors who contribute their valuable papers for the readers.

Editors

BULLETIN OF THE MARINE GEOLOGY

Vol. 30, No. 2, December 2015

CONTENS

Seafloor Morphology Influences on Current Condition in a Sunda Strait Bridge Project Using Numerical Model	
Franto Novico, I Nyoman Astawa, Adi Sinaga, and Arif Ali55-66	
Mineral Content of Surficial Sediment of the Rangsang Island and Its Surrounding Area, Meranti Regency, Archipelago Riau Province Deny Setiady and Ediar Usman	
High Percentage of Rare Earth Element Connection With the Accumulation Sediment as Response Longshore Currents in the Belitung Waters Delyuzar Ilahude and Maman Surachman	
Submarine Volcano Characteristics in Sabang Waters Hananto Kurnio, Subaktian Lubis and Hersenanto Catur Widi	
Opening structure of the Bone Basin on South Sulawesi in relation to process of sedimentation Lili Sarmili	8