

# BULLETIN OF THE MARINE GEOLOGY

VOLUME 27 • NUMBER 1 • JUNE 2012



BULL. MGI

VOL. 27

NO. 1

PAGE 1 - 53

BANDUNG, JUNE 2012

ISSN 1410-6175

Accredited : LIPI No. 470/AU1/P2MI-LIPI/08/2012

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. 27, No. 1, June 2012

---

## 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

DR. Ir. Susilohadi

## EDITORIAL BOARDS

Dra. Kresna Tri Dewi, M.Sc. (*micropaleontologist*)

Ir. Hananto Kurnio, M.Sc (*marine sedimentologist*)

Ir. Ediar Usman, MT. (*marine geologist*)

Ir. Noor Cahyo Dwi Aryanto, MT. (*marine mineralogist*)

## SCIENTIFIC REVIEWERS

Prof. Ris. DR. Ir. Udi Hartono (*petrologist*)

DR. Hermes Panggabean, M.Sc. (*sedimentologist-fossil Fuel*)

Prof. Ris. DR. Ir. Edi Prasetyo Utomo (*exploration geophysicist*)

## PUBLISHER BOARDS

Asep Makmur, S.Si. (*Chief*)

Ir. Andy H. Sianipar, M.Si.

Ir. I Wayan Lugra

Sutisna

For communication of this publications, please contact :

MARINE GEOLOGICAL INSTITUTE

Jalan Dr. Junjunan 236, Bandung-40174, Indonesia

Telephone : +62-22-6032020, 6032201, Fax : +62-22- 6017887

E-mail : bulletin@mgi.esdm.go.id

The pocket beach of Ciletuh Bay - Southern part of Pelabuhan Ratu (Photo: Kris Budiono)

## **PREFACE**

# BULLETIN OF THE MARINE GEOLOGY

---

Vol. 27, No. 1, June 2012

---

## CONTENS

<i>Benthic Foraminifera in South Waigeo Waters, Raja Ampat, West Papua</i> <b>Suhartati M. Natsir, M. Subkhan, M. Salam Tarigan, Singgih P.A. Wibowo, and Kresna Tri Dewi .....</b>	1-6
<i>Seafloor Sediment Characteristics and Heavy Mineral Occurrences at Betumpak Cape and Adjacent Area, Bangka Strait, Bangka Belitung Province</i> <b>Edi Rohendi and Noor Cahyo Dwi Aryanto.....</b>	7-18
<i>Magnetic Anomaly Patterns Using Trend Surface Analysis Application (T) on Marine Geology Mapping in The Balikpapan Waters (Map Sheet 1813-1814), East Kalimantan</i> <b>Delyuzar Ilahude.....</b>	19-25
<i>Morphotectonic Analysis at Tanimbar Trench as a Base for Gas Pipe Laying Between Masela Block and Selaru Island, Moluccas Province</i> <b>Ediar Usman and Priatin Hadi Wijaya .....</b>	27-34
<i>Analysis of Erosion and Sedimentation Patterns Using Software of Mike 21 HDFM-MT in The Kapuas Murung River Mouth, Central Kalimantan Province</i> <b>Franto Novico and Yusuf Adam Priohandono.....</b>	35-53

## **Guide for Authors - Geoscience Publications**

### **Bulletin of the Marine Geology**

#### **MANUSCRIPTS**

1. Manuscripts should be written in English, occasional contribution in Bahasa Indonesia will be considered for publication. This bulletin is a medium for the publication of original of marine geology, geophysics, geochemistry and related subjects.
2. The original and two copies of the manuscripts should be submitted for review purposes.
3. Manuscripts should be typewritten and doubled space. First lines of each new paragraph should be indented.
4. The entire manuscript should be paginated strating with the title page.
5. Only words to be set in italics should be underlined.
6. Manuscripts should in general be organized in the following order :
  - a. Title
  - b. Name(s) and affiliation(s) of author(s)
  - c. Abstract (not more than 500 words) in two languages English and Bahasa Indonesia.  
Articles in English should start with an abstract in English followed an abstract by Bahasa Indonesia.  
The abstract must be an informative statement of the content of the paper, explaining what be problem is, the method used, a statement of the results and the main conslusions. Constructions using phrases such as "this paper discusses", "are described" and "is reported" have no place in an abstract : bv reading the abstract, the reader should be able to understand the essential qualities o1 the paper without referring to the paper itself.
  - d. Introduction
  - e. Methods, techniques, material studies. and area descriptions.
  - f. Results
  - g. Discussion
  - h. Conclusions
  - i. Acknowledgements
  - j. References : the following system should be used for arranging references.
    - *For priodicals*  
Katili. I.A., 1978, Past and present geotectonics position of Sulawesi, Indonesia. *Tectonophysics*, 45 : 289-322.
    - *For edited symposia, special issues, etc., published in periodical*  
Silitonga. P.H., Pudjowaluyo, H. And Molat, H., 1981, Geological Reconnaissance and mineral prospecting on Bacan Island (Mollucas, Indonesia). In: A.J. Barber and S. Wiryo Sujono (Editors), *The Geology and Tectonic of Eastern Indonesia*, Pergamon Press : 373-381.
    - *For Books*  
Bemmelen. R.W van, 1949, *The Geology of Indonesia*. Netherlands Govt. Printing Office. The Hague, 997p.

Submission of electronic text

In order to publish the paper, authors are encouraged to submit the manuscript on a 3.5" or CDROM.



## MARINE GEOLOGICAL INSTITUTE

RESEARCH AND DEVELOPMENT AGENCIES FOR ENERGY AND MINERAL RESOURCES  
MINISTRY OF ENERGY AND MINERAL RESOURCES  
Jalan Dr. Junjunan No. 236, Bandung-40174, Indonesia  
<http://www.mgi.esdm.go.id>, E-mail : [bulletin@mgi.esdm.go.id](mailto:bulletin@mgi.esdm.go.id); [bulletin\\_mgi@yahoo.com](mailto:bulletin_mgi@yahoo.com)

