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PERSATUAN GEOLOGI MALAYSIA

WARTA GEOLOGI

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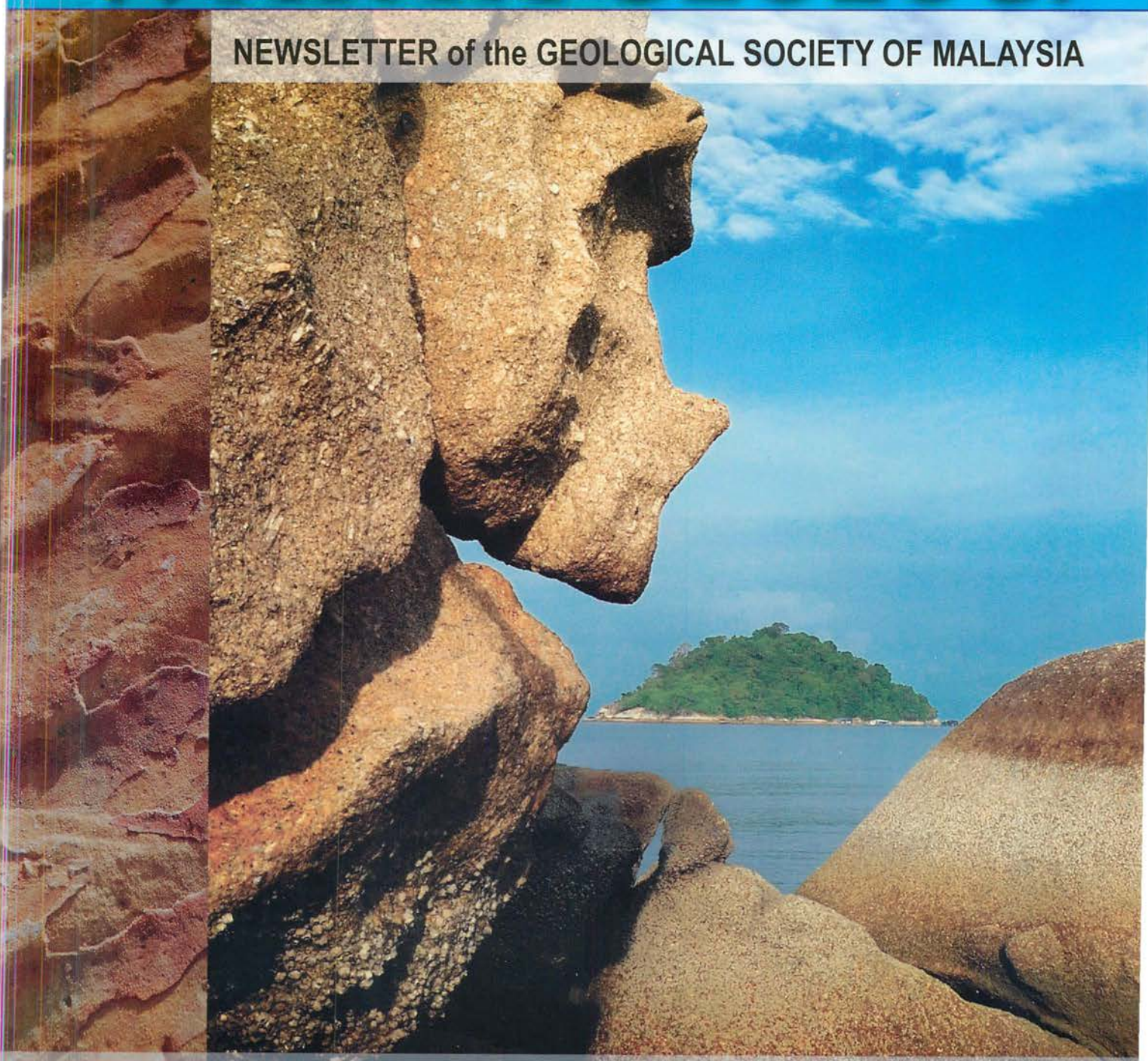

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PERSATUAN GEOLOGI MALAYSIA
GEOLOGICAL SOCIETY OF MALAYSIA

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Granite boulders in the shape of a face overlooking Pulau Betong, By Dr Ng Tham Fatt

CATATAN GEOLOGI
GEOLOGICAL NOTES

Shear strength along foliation planes in meta-rhyolitic tuff from the Dinding Schist, Kuala Lumpur

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Abstract - Meta-rhyolitic tuff from the Lower Palaeozoic Dinding Schist shows a distinct foliation with quartz and microcline porphyroblasts set in an aligned fine grained matrix of quartz, sericite, muscovite and biotite. Laboratory tests using the saturation and buoyancy method indicate that unweathered meta-rhyolitic tuff has an apparent porosity of 2.5 % with average dry, and saturated, unit weights of 25.82 and 26.08 kN/m^3, respectively. A similar method of test shows slightly weathered meta-rhyolitic tuff to have an apparent porosity of 8.2 % with average dry, and saturated, unit weights of 23.99 and 24.78, kN/m^3, respectively.

Tilt tests on diamond sawn surfaces (parallel to foliation) of the unweathered meta-rhyolitic tuff yield a basic friction angle (Φ_b) of 38°, whilst similar tests on lightly, and highly, polished, diamond sawn surfaces (also parallel to foliation) yield basic friction angles (Φ_b) of 30° and 28°, respectively. Polishing of diamond sawn surfaces of the unweathered tuff thus leads to a reduction in the friction angle. Tilt tests on diamond sawn surfaces (parallel to foliation) of slightly weathered meta-rhyolitic tuff furthermore, yield a basic friction angle (Φ_b) of 26°. It is concluded that a basic friction angle (Φ_b) of 30° can be used as an estimate of the minimum residual friction angle (Φ_r) along foliation planes in unweathered meta-rhyolitic tuff, though a lower value (26°) would have to be used for slightly weathered tuff.

Abstrak - Tuff meta-riolit daripada batuan Syis Dinding berusia Paleozoik Bawah menunjukkan struktur foliasi yang jelas di mana mineral kuarza dan mikroklin berporfiriblast tersusun secara selari antara satu sama lain, dengan matriks kuarza, serisit, muskovit dan biotit berbutir halus. Ujian makmal menggunakan kaedah ketepuan dan keapungan menunjukkan bahawa tuff meta-riolit tidak terluluhawa mempunyai keporosan kelihatan 2.5% dengan purata berat unit kering dan basah masing-masing bernilai 25.82 dan 26.08 kN/m^3. Ujian dengan kaedah yang sama juga telah dijalankan terhadap tuff meta-riolit sedikit terluluhawa dan memberikan nilai keporosan kelihatan 8.2% dengan purata berat unit kering dan basah masing-masing bernilai 23.99 and 24.78 kN/m^3.

Ujian kemiringan permukaan dengan potongan berlian (selari dengan foliasi) terhadap tuff meta-riolit tidak terluluhawa memberikan sudut geseran asas (Φ_b) 38°. Dengan ujian yang sama, permukaan dengan potongan berlian yang digilap untuk masa yang singkat memberi sudut geseran asas (Φ_b) 30°, manakala permukaan dengan potongan berlian yang digilapkan untuk masa yang panjang memberi sudut geseran asas (Φ_b) 28°. Oleh kerana ini, boleh disimpulkan baha gilapan permukaan dengan potongan berlain terhadap tuff meta-rilit tidak terluluhawa akan mengurangkan sudut geseran. Ujian kemiringan permukaan dengan potongan berlian (serlari dengan foliasi) terhadap tuff meta-riolit sedikit terluluhawa pula memberikan sudut geseran asas (Φ_b) 26°. Adalah boleh disimpulkan bahawa sudut geseran asas (Φ_b) 30° digunakan sebagai anggaran bagi sudut geseran baki minimum (Φ_r) sepanjang satah foliasi bagi tuff meta-riolit tak terluluhawa manakala nilai sudut geseran yang lebih rendah (26°) digunakan bagi tuff meta-riolit terluluhawa.

INTRODUCTION

All rock masses contain discontinuity planes such as bedding, joints, foliation, faults, cleavage and shear zones. At shallow depths, where stresses are usually low, failure of the intact rock material is minimal and the behaviour of the rock mass is controlled by sliding on the discontinuity planes. The shear strength along the discontinuity planes is thus of great importance in evaluating the behaviour of a rock mass at shallow depths. In the past, there was much emphasis on the large scale testing of discontinuity planes, both in the field and in the laboratory. The high cost of carrying out these tests as well as the difficulty of interpreting the results, however, has led to a decline in their use (Hoek, 2007). Most shear strength determinations now are carried out by determining the basic friction angle (Φ_b); a value that is very easily measured by testing sawn or ground rock surfaces. There is, however, a need for applying a correction factor to the basic friction angle when estimating the residual friction angle (Φ_r) to be used in stability analyses as natural discontinuity surfaces are never as smooth as the sawn or ground surfaces. The correction factor for

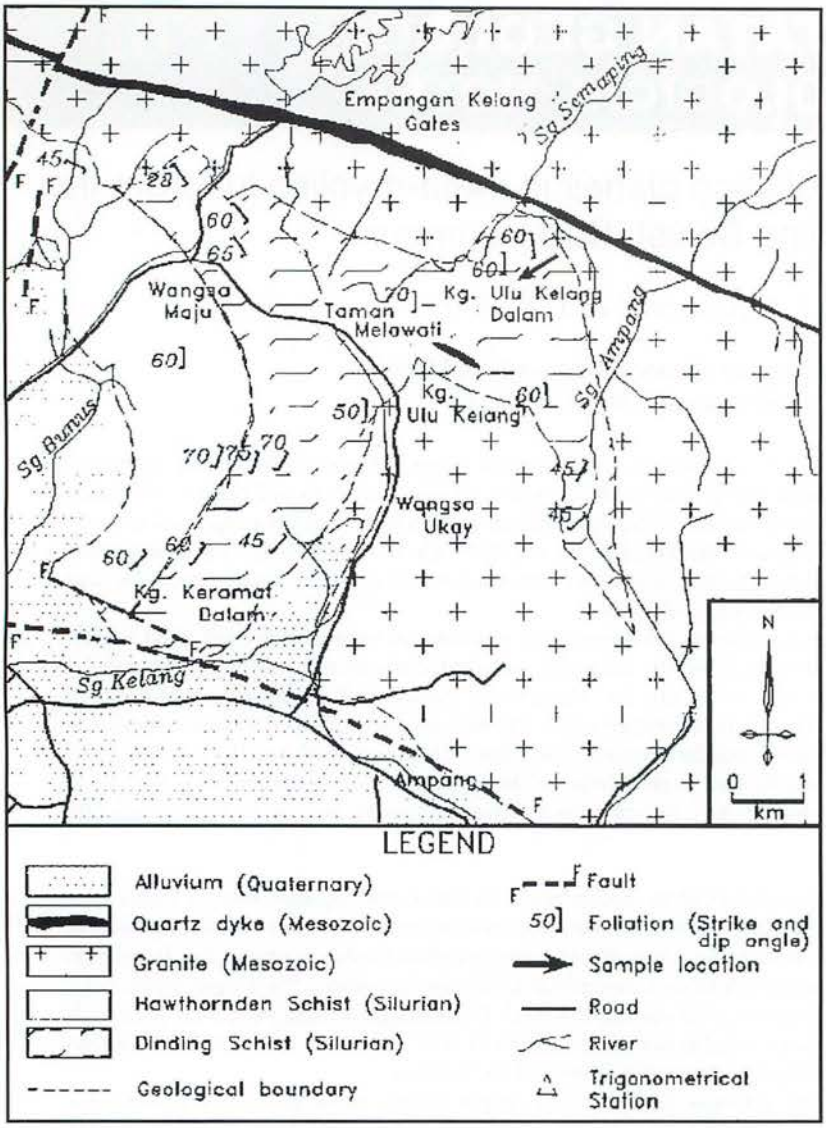

Figure 1: Geological setting of sample locations (After Gobbett, 1964; Yin, 1976).

the roughness component is furthermore, best obtained by visual estimates in the field with several practical techniques described by Hoek (2007).

There is very little published data on the shear strength of discontinuity planes in bedrock in Malaysia and this paper therefore, aims to provide data on the basic friction angle (Φ_b) of foliation planes in meta-rhyolitic tuff of the Dinding Schist. Tilt tests on sawn and polished surfaces of blocks of unweathered and slightly weathered meta-rhyolitic tuff were carried out to determine the basic friction angle (Φ_b), whilst the saturation and bouyancy method was employed to determine physical properties.

GEOLOGICAL SETTING OF SAMPLE LOCATIONS

In the Kuala Lumpur area are found Lower and Upper Palaeozoic rocks that have been mapped as four separate units by Gobbett (1964). The Lower Palaeozoic comprises mainly quartz-mica schists (Dinding Schist) that are conformably overlain by graphitic schists (Hawthornden Schist) and these in turn by carbonate rocks of Silurian age (Kuala Lumpur Limestone) (Figure 1). The Upper Palaeozoic comprises sandstones, phyllites and shales of the Permian Kenny Hill Formation that unconformably overlies the Lower Palaeozoic (Yin, 1976).

Recent outcrops show the Dinding Schist to mainly consist of quartz-biotite-muscovite schist, quartz schist and meta-volcanic rocks; many of the schists having relict volcanic textures as embayed quartz, relict microcline and plagioclase phenocrysts and rock fragments (Khoo, 1994). All rocks of the Dinding Schist are also reported to have been contact metamorphosed with biotite in particular, developed by contact metamorphism from very low grade regionally metamorphosed schistose rocks devoid of biotite (Khoo, 1994).

METHOD OF STUDY

In connection with a study on the geotechnical properties of the Dinding Schist, several unweathered and slightly weathered rock blocks were collected at cut slopes in Taman Ukay Perdana, adjacent to Kg. Ulu

Figure 2: Set-up of Tilt Test : Upper block (C1) under known load slides over lower block (C2) when wedge at foot of sample holder is shifted. (Blocks C1 and C2 are 4 cm high and 9 cm long).

Kelang Dalam (Figure 1). These blocks were then sawn into smaller tetrahedral blocks of some 60 cm^3 to 200 cm^3 in volume. The surfaces of some of these blocks were then lightly, or highly, polished for about 10, and 20, minutes, respectively by using a lathe with embedded diamond dust. The visible, textural and structural features of all the individual blocks were then described, before their unit weights and apparent porosities were determined employing the saturation and buoyancy technique of ISRM (1979).

In order to determine the basic friction angle (θ_b), the Tilt Test was employed where two rock blocks having sawn or ground surfaces in contact were inclined until the upper block started to slide (Figure 2). At the point of sliding, the angle of inclination (β_f) is theoretically equal to the angle of friction (Φ) as defined in the Mohr-Coulomb yield criterion [$\tau_f = \sigma'_n \tan \Phi$] (Priest, 1992). Several sets of the Tilt Tests were carried out by adding weights to the upper block so as to have direct shear test conditions.

PETROGRAPHY OF INVESTIGATED ROCK MATERIAL

At the sample locations, the Dinding Schist shows a well developed foliation marked by the parallel alignment of alternating, thin (<5 mm) dark, and light, greenish grey coloured layers. The foliation generally strikes about 160° to 200° with moderate to steep dips (>40°) towards the west. These rocks, mapped as the lower part of the Dinding Schist by Gobbett (1964), contain several small quartz and feldspar fragments (<5 mm in size) that are sometimes elongated with a sub-parallel alignment. At the outcrops, and in hand specimens, the schistose rocks are cut by numerous, thin quartz veins (<1 cm wide) of variable orientations that are often tightly folded and deformed.

In thin-sections, quartz and microcline porphyroblasts are seen as individual grains or aggregates within an

Figure 3: Photo-micrograph showing alternating layers of aligned, fine grained quartz and micas (muscovite, sericite and biotite). (Scale in left hand corner is 0.3 mm long).

Figure 4: Photo-micrograph showing relict microcline porphyroblast within fine grained matrix. (Scale in left-hand corner is 0.3 mm long).

aligned matrix of alternating, thin layers (<5 mm wide) of fine grained quartz and micas (muscovite, sericite and biotite) (Figure 3). The porphyroblasts are of very irregular shapes with the quartz porphyroblasts being some 2 to 5 mm in size and showing undulatory extinction. The microcline porphyroblasts are 1.5 to 4 mm in size, whilst the biotite usually occurs as small flakes (<0.1 mm size) in the matrix inter-layered with muscovite and sericite (Figure 4). Quartz occurring as aggregates shows flattened, rounded or curved shapes. The foliation may be due to segregation during metamorphism, but may also be a relict structure representing heterogeneity in the original bedrock (Chuah, 1973).

Similar rocks in nearby areas have been termed quartz-mica schists by several workers as Gobbett (1964), Hamzah Mohamad *et al.* (1986) and Ibrahim Komoo *et al.* (1986), though by virtue of evidence supporting an original pyroclastic bedrock, as the presence of bipyramidal quartz fragments and alternating textural layers, they would be better termed meta-rhyolitic tuffs (Chuah, 1973).

Table 1: Physical properties of the meta-rhyolitic tuff.

Sample No.	Dry Unit Weight (kN/m^3)	Saturated Unit Weight (kN/m^3)	Apparent Porosity (%)
Unweathered			
C1	26.48	26.65	1.8
C2	25.76	25.87	1.3
D1	25.77	26.09	1.9
D2	24.89	25.27	3.8
E1	26.15	26.37	2.3
E2	26.00	26.19	1.9
A1	25.51	25.87	3.7
A1	25.99	26.30	3.2
Mean	25.82	26.08	2.5
Slightly weathered			
B1	23.49	24.22	7.5
B2	23.62	24.65	10.6
B3	24.85	25.48	6.4
Mean	23.99	24.78	8.2

RESULTS AND DISCUSSION

Table 1 shows unweathered meta-rhyolitic tuff to have unit weights ranging from 24.89 to 26.65 kN/m^3, with average dry, and saturated , values of 25.82 and 26.08 kN/m^3, respectively. The unweathered rock material also shows low apparent porosities with an average value of 2.5%. Table 1 also shows that slightly weathered meta-rhyolitic tuff has a much higher apparent porosity with an average value of 8.2%, whilst its unit weights range from 23.49 to 25.48 kN/m^3.

Results of tilt tests involving diamond sawn surfaces (cut parallel to foliation) of unweathered meta-rhyolitic tuff are shown in Table 2 (surfaces E1 and E2) and yield a basic friction angle (Φ_b) of 38° when the normal and shear stresses acting on the sliding plane are plotted in terms of the Mohr-Coulomb yield criterion (Figure 5) It is to be noted that the value of 38° is rather high when compared with the basic friction angles of between 28° and 32° reported for other schists in published literature (Priest, 1992). The high value of 38° is, however, due to the rather rough surfaces created by the diamond blade sawing of the unweathered meta-rhyolitic tuff.

Results of tilt tests involving diamond sawn surfaces of unweathered meta-rhyolitic tuff that were lightly and highly polished are also shown in Table 2 (surfaces C1 and C2, and D1 and D2) and yield basic friction angles of 30° and 28°, respectively, when the normal and shear stresses acting on the sliding plane are plotted in terms of the Mohr-Coulomb yield criterion (Figures 6 & 7). Polishing of the diamond sawn surfaces clearly leads to a decrease in the basic friction angle (Φ_b).

Results of the tilt tests involving diamond sawn surfaces (cut parallel to foliation) of slightly weathered meta-rhyolitic tuff are shown in Table 3 (surfaces B1 and B2) and yield a basic friction angle (Φ_b) of 26° when the normal and shear stresses acting on the sliding plane are plotted in terms of the Mohr-Coulomb yield criterion

Table 2: Results of Tilt Tests involving unweathered meta-rhyolitic tuff.

Sample Surface	Total Weight of Upper Block (kg)	Tilt Angle	Normal Stress (kN/m2)	Shear Stress (kN/m2)
Diamond sawn. Not polished				
E1 & E2	4.85	32°	11.980	7.486
E1 & E2	4.85	31°	12.108	7.725
E1 & E2	5.85	30°	13.825	7.982
E1 & E2	5.85	29°	13.962	7.739
E1 & E2	5.85	30°	14.521	8.384
Diamond sawn. Lightly polished				
D1 & D2	4.85	27°	13.616	6.938
D1 & D2	4.85	26°	13.735	6.699
D1 & D2	4.85	26°	15.452	7.537
D1 & D2	4.85	24°	15.706	6.993
D1 & D2	5.85	26°	16.456	8.026
Diamond sawn. Highly polished				
C1 & C2	4.85	25°	13.034	6.078
C1 & C2	4.85	24°	13.138	5.849
C1 & C2	5.85	25°	14.310	6.673
C1 & C2	5.85	24°	14.424	6.422
C1 & C2	5.85	23°	15.746	6.684

Table 3: Results of Tilt Tests involving slightly weathered meta-rhyolitic tuff.

Sample surfaces.	Total Weight of Upper Block (kg)	Tilt Angle	Normal stress (kN/m2)	Shear Stress (kN/m2)
Diamond sawn. Not polished				
B1 & B2	4.85	23°	13.781	5.850
B1 & B2	4.85	24°	13.677	6.090
B1 & B2	5.85	24°	16.356	7.282
B1 & B2	5.85	23°	16.481	6.996
B1 & B2	6.35	23°	17.831	7.569

(Figure 8). Weathering clearly leads to a decrease in the basic friction angle; an effect that is also shown by polishing of the diamond sawn surfaces of unweathered rock blocks.

CONCLUSION

It is concluded that unweathered meta-rhyolitic tuff from the Lower Palaeozoic Dinding Schist has an apparent porosity of 2.5 % with average dry, and saturated unit weights of 25.82 and 26.08 kN/m^3. Slightly weathered meta-rhyolitic tuff, however, has an apparent porosity of 8.2 % with average dry and saturated unit weights of 23.99, and 24.78, kN/m^3.

Tilt tests on diamond sawn surfaces (cut parallel to foliation) of unweathered meta-rhyolitic tuff yield a basic friction angle of 38°, whilst similar tests on diamond sawn surfaces that were lightly and highly polished, yield basic friction angles of 30°, and 28°, respectively. Polishing of

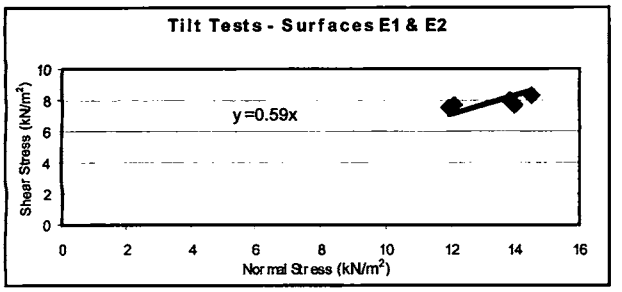

Figure 5: Normal - shear stress plots of unpolished diamond sawn surfaces of unweathered meta-rhyolitic tuff.

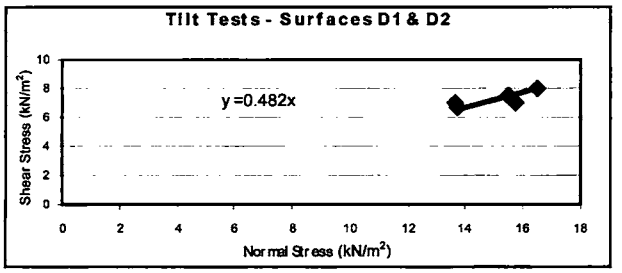

Figure 6: Normal - shear stress plots of lightly polished diamond sawn surfaces of unweathered meta-rhyolitic tuff.

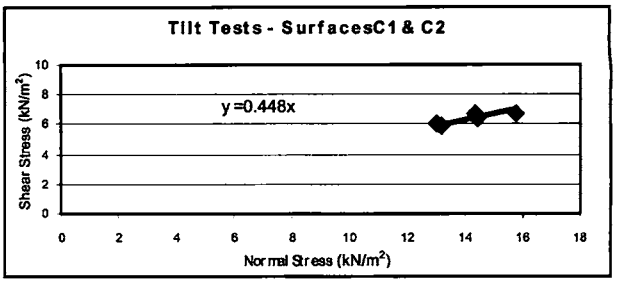

Figure 7: Normal - shear stress plots of highly polished diamond sawn surfaces of unweathered meta-rhyolitic tuff.

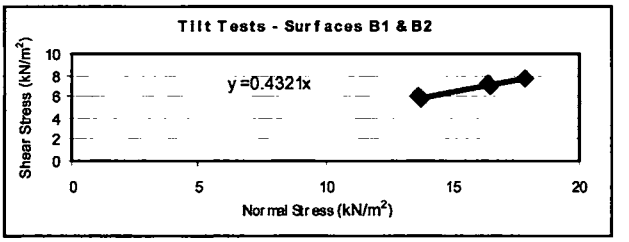

Figure 8: Normal - shear stress plots of diamond sawn surfaces of slightly weathered meta-rhyolitic tuff.

diamond sawn surfaces of the unweathered tuff thus leads to a reduction in the friction angle. Tilt tests on diamond sawn surfaces (parallel to foliation) of slightly weathered meta-rhyolitic tuff furthermore, yield a basic friction angle (Φ_b) of 26°. It is concluded that a basic friction angle (Φ_b) of 30° can be used as an estimate of the minimum residual friction angle (Φ_r) along foliation planes in unweathered meta-rhyolitic tuff, though a lower value (26°) would have to be used for slightly weathered tuff.

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PERSATUAN GEOLOGI MALAYSIA
GEOLOGICAL SOCIETY OF MALAYSIA

42nd ANNUAL GENERAL MEETING
&
ANNUAL REPORT 2007

25th APRIL 2008
@
EASTIN HOTEL,
PETALING JAYA, SELANGOR

AGENDA FOR THE 42nd ANNUAL GENERAL MEETING
25th April 2008, Eastin Hotel, Petaling Jaya

1. Welcoming Address by the President for Session 2007/2008
2. Confirmation of Minutes of the 41st AGM held on 27th April 2007
3. Matters Arising
4. Annual Report for Session 2007/2008
   - 1.1 President's Report
   - 1.2 Secretary's Report
   - 1.3 Assistant Secretary's Report
   - 1.4 Editor's Report
   - 1.5 Treasurer's and Honorary Auditor's Report
5. Election of Honorary Auditor
6. Other Matters of which written notice is submitted to reach GSM Secretariat by 20th April 2008 or by majority vote of the AGM
7. Announcement of New Council for 2008/2009
8. Presidential Address for 2008/2009

PRESIDENT'S REPORT 2007

As in the previous years, the Society had successfully organized several major events in 2007. The National Geoscience Conference (NGC) was held in University Malaysia Sabah (UMS) from 7 to 9 June, 2007. It was jointly organized by UMS and JMG Sabah under the committee led by Dr. Felix Tongkul. The Society, together with PETRONAS, was also responsible in organizing the Petroleum Geology Conference and Exhibition (PGCE 2008) which was held at the KL Convention Centre from 14 to 15 January, 2008. This conference was a huge success, attracting more than 1,000 participants, from both locals and overseas. Thirty-five companies, involved in the oil and gas industries, took part in the exhibition. The organizing committee, headed by En. Idris Ibrahim of PETRONAS, should be congratulated in making this conference such a success.

Over the year, the Society continued to hold a series of technical talks and other related activities for the benefits of its members. The technical talks were organized by the various working groups and mainly held in the Geology Department of University Malaya. It is also noted that some working groups have been rather quiet and without a Chairman for the past few years. There is an urgent need to revitalize these working groups so that they will be able to effectively contribute to the Society and its members.

In addition to hosting the annual events (such as the NGC and the PGCE), the Society enhanced its efforts to improve ties with organizations such as the Confederation of Scientific and Technological Association of Malaysia (COSTAM) and the American Association of Petroleum Geology (AAPG). Prof. Lee Chai Peng continues to be a member of the COSTAM Executive Committee and also an Editor for the Journal of Science & Technology in the Tropics published by COSTAM. AAPG expressed interest in continuing work with GSM during the discussion held on 11 June, 2007 at JMG's Office. AAPG was represented by Mr. Lee T. Billingsley (President of AAPG) and Mr. Richard D. Fritz (Executive Director of AAPG) whereas GSM was represented by the President and Immediate Past President. The Society also held regular meetings with the Institute of Geologists Malaysia (IGM) and Institution of Engineers Malaysia (IEM).

For the geoscientist fraternity, 2007 was an auspicious year as it marked the launching of the International Year of Planet Earth (IYPE). The IYPE's primary objectives are to foster outreach and research activities with the single purpose of raising worldwide public and political awareness of the vast and often under-used potential of geosciences for making this planet a safer, healthier and wealthier place.

The much awaited Geologist Bill (Rang Undang-Undang Geologi 2008) will be tabled for its first reading in the forthcoming Parliamentary Session, scheduled for April 2008. It is hope that the Bill will be passed without further objection.

I would like to take this opportunity to thank all GSM EXCO members, chairmen of working groups and many good friends and members of our Society who have contributed their time and effort to keep the Society going and growing. We are certainly one of the most active special interests societies around that has been able to do so much with so little in terms of staff and money. Our thanks go to Ms. Anna Lee and her few part time helpers who have made this possible. Every activity of GSM is run by volunteers. I want to foster a culture whereby

contributions are acknowledged so that people would continue to find it worthwhile to continue serving the Society. I have full confidence that if we continue to dedicate ourselves to work for the good of the Society, we will have a bright future to look forward to.

Dato' Yunus Abdul Razak
President
GSM 2007/2008

SECRETARY'S REPORT 2007

1. Introduction

On behalf of the Council of the Geological Society of Malaysia (GSM), I am pleased to present the 42nd Annual Secretary Report for session 2007/2008.

2. The Council

The new Council for the GSM for 2007/2008 session resumed office after the 41st AGM, which was held on 27 April 2007.

2.1 Council Members for 2007/2008

Council Members for 2007/2008 are as follows:

President:	Yunus Abdul Razak (JMG)
Vice President:	Dr. Joy Jacqueline Pereira (LESTARI, UKM)
Secretary:	Mohd Badzran Mat Taib (JMG)
Assistant Secretary:	Mohd Rozi Umor (UKM)
Treasurer:	Ahmad Nizam Hasan (Cadence Tech. Serv. Sdn. Bhd.
Editor:	Lau Yin Leong (Ginn-M Corporation Sdn. Bhd.)
Imm. Past President:	Prof. Dr. Lee Chai Peng (UM)
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Councillors:	Dr. Ng Tham Fatt (UM)
(2007/2009)	Dr. Nur Iskandar Taib (UM)
	Dr. Samsudin Taib (UM)
	Tan Boon Kong (Freelance)

2.2 Council Meeting

Over the 2007/2008 session, the council has held 7 council meetings. All meetings were conducted at the Department of Geology, University of Malaya except for one that was held at the Marriot Hotel, Putrajaya on 5 Nov 2007. Dr. Joy of LESTARI, UKM have contributed significantly to the arrangement of our council meetings, to whom we expressed our deep gratitude. The attendance of the council members are presented in Table 1 below.

Table 1: Attendance of council members at Council Meeting

Name	26/06/07	27/08/07	11/09/07	5/11/07	17/12/07	4/02/08	26/03/08	Total
Yunus Abdul Razak	/	/	0	/	/	/	/	6/7
Dr. Joy Jacqueline Pereira	/	/	/	/	/	/	/	7/7
Mohd Badzran Mat Taib	/	/	0	/	/	/	/	6/7
Mohd Rozi Umor	/	/	0	/	/	0	0	4/7
Ahmad Nizam Hasan	/	0	/	0	/	0	/	4/7
Lau Yin Leong	/	0	/	/	/	0	0	4/7
Prof. Dr. Lee Chai Peng	/	/	/	/	/	0	/	6/7
Dr. Gan Lay Chin	0	/	/	0	/	/	/	5/7
Jasmi Ab. Talib	/	0	/	/	/	/	/	6/7
Jasmi Hafiz Ab. Aziz	X	X	X	X	X	X	X	0/7
Ling Nan Ley	0	/	/	/	0	0	/	4/7
Dr. Ng Tham Fatt	/	/	/	/	0	/	/	6/7
Dr. Nur Iskandar Taib	/	/	/	/	0	0	/	5/7
Dr. Samsudin Taib	/	0	/	/	/	0	/	5/7
Tan Boon Kong	/	/	0	0	/	/	/	5/7

Note: / = present, 0 = absent with apology, X = absent

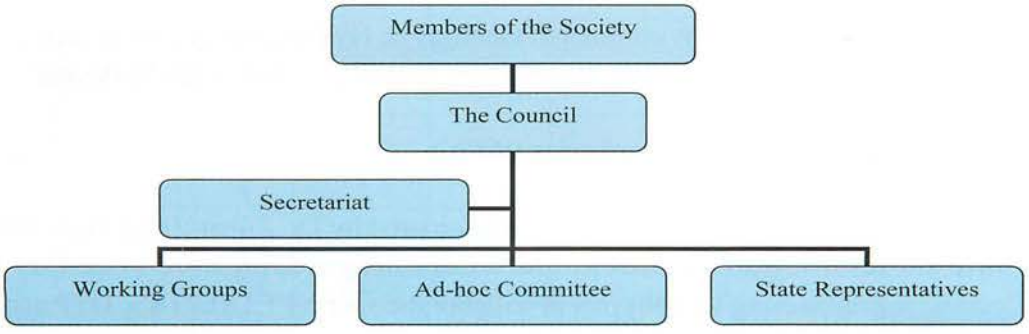
3. Society Structure

The Society's stakeholders are the members of the Society led by an elected Council. The Council's main functions were to set directions to promote the advancement of geosciences, endorse the society activities and provide guidance for the execution of the activities of the Society.

The Council was assisted by the Secretariat, the one and only Ms Anna Lee. The Secretariat assisted the society in the administration of day-to-day activities of the Council, Working Groups and State Representatives.

The Council was also supported by 10 Working Groups and State Representatives. The Working Groups' main function is to promote advancement and exchange of knowledge in specific geoscience areas. The State Representatives' main function is to promote geosciences and implement the mission of the society within geographical area. The Organisation Chart of the Society is presented in Figure 1.

Figure 1: Organisation Chart of the Society



6. Activities

The Society has successfully organized its two major events i.e. National Geoscience Conference 2007 (NGC 2007) and the 29th Petroleum Geology Conference and Exhibition 2008 (PGCE 2008), which were organized by specific Organizing Committees directly under the Council. Other annual event is the GSM Photographic Competition 2007 handled by the Working Group of Promotion of Geoscience.

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The NGC 2007 was successfully held from 7 to 9 June 2007 at the University Malaysia Sabah (UMS), Kota Kinabalu, Sabah. The theme for the NGC 2007 was "Geology and Visit Malaysia Year 2007". The conference was jointly organised by the UMS and JMG Sabah and was officiated by the Y.B. Datuk Haji Masidi Manjun; Minister for Tourism, Culture and Environment Sabah.

A total of 80 participants were registered for the conference. Forty nine (49) papers were presented orally and 20 as posters. Pre-conference fieldtrip in Kundasang-Mamut area on 7 June 2007 was successfully done.

We wish to record our appreciation to the Organising Committee headed by Dr. Felix Tongkul for the excellent works.

6.2 Petroleum Geology Conference and Exhibition 2008 (PGCE 2008)

The PGCE 2008 that jointly organised by the Society and PETRONAS was held from 14 to 15 January 2008 at Kuala Lumpur Convention Centre, Kuala Lumpur. The theme for this year was "Discovering New Plays Through Innovative Ideas". The opening was officiated by Y.B. Dato' Seri Azmi Khalid, Minister of Natural Resources and Environment Malaysia which was held together with the launching of the International Year of Planet Earth (IYPE).

The event manages to attract a huge crowd of more than 1,000 participants. A total of 35 companies took part in exhibition. There were two (2) keynote papers presented during the conference that was presented by Mr. Hovey Cox, Senior Vice President Marketing & US Investor Relations, CGGV Veritas and Prof. Richard Hillis, University of Adelaide respectively. The conference was divided into two parallel sessions i.e. geology and geophysics. A total of 78 technical papers were received, of which 50 papers were selected for oral presentation and the other 28 as poster presentations.

The Council wishes to convey its greatest thanks to each and every member of the Organizing Committee for their untiring efforts under the excellent leadership of Mr. Idris Ibrahim. The generous support by PRAM and PCSB Management in PETRONAS contributed to a major job very well done professionally. Thanks are also due to all donors and sponsors who helped made the PGCE 2008 a success.

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Mohd Rozi Umor	/	/	0	/	/	0	0	4/7
Ahmad Nizam Hasan	/	0	/	0	/	0	/	4/7
Lau Yin Leong	/	0	/	/	/	0	0	4/7
Prof. Dr. Lee Chai Peng	/	/	/	/	/	0	/	6/7
Dr. Gan Lay Chin	0	/	/	0	/	/	/	5/7
Jasmi Ab. Talib	/	0	/	/	/	/	/	6/7
Jasmi Hafiz Ab. Aziz	X	X	X	X	X	X	X	0/7
Ling Nan Ley	0	/	/	/	0	0	/	4/7
Dr. Ng Tham Fatt	/	/	/	/	0	/	/	6/7
Dr. Nur Iskandar Taib	/	/	/	/	0	0	/	5/7
Dr. Samsudin Taib	/	0	/	/	/	0	/	5/7
Tan Boon Kong	/	/	0	0	/	/	/	5/7

Note: / = present, 0 = absent with apology, X = absent

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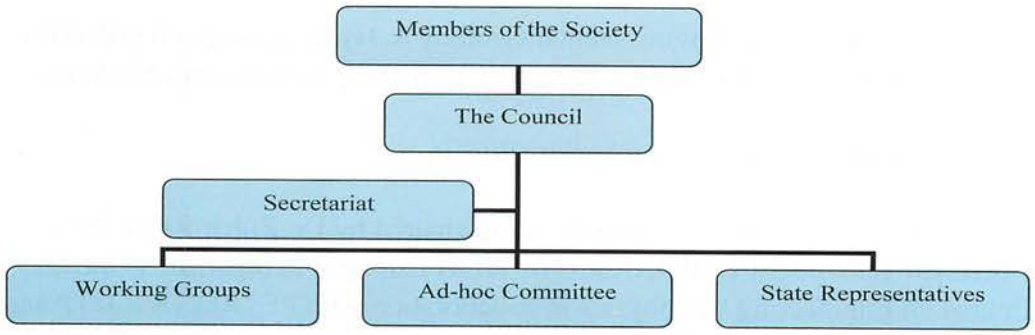

3.1 Working Groups

The Society remains active in undertaking some activities under the various Working Groups.

3.1.1) Working Group for the Promotion of Geoscience (WGPG)

The WGPG for 2007/2008 was chaired by Mr. Mohd Rozi Umor of University Kebangsaan Malaysia. The WGPG managed to organize the Photographic Competition 2007.

3.1.2 Working Group on Structural Geology & Tectonics (WGSG&T)

The WGSG&T for 2007/2008 was not active because of difficulties to appoint a chairman.

3.2.3 Working Group on Stratigraphy & Sedimentology (WGSS)

The WGSS for 2007/2008 was inactive due to the difficulties to get a Chairman.

3.1.4 Working Group on Engineering Geology and Hydrogeology (WGEG&H)

The WGEG&H for 2007/2008 was chaired by Mr. Tan Boon Kong. The Working Group has successfully organized a number of technical talks as listed in Table 3.

3.1.5 Working Group on Economic Geology (WGEG)

The WGEG for 2007/2008 was chaired by Mr. Lau Yin Leong of Ginn-M Corporation Sdn. Bhd.

3.1.6 Working Group on Petroleum Geology (WGPetG)

The chairmanship for WGPetG is still vacant throughout 2007/2008 due to the difficulty in finding volunteer to chair this Working Group. However, the PGCE 2008 was successfully organized by the Organizing Committee lead by Mr. Idris Ibrahim of PETRONAS. This is the most remarkable event, surpassing all previous.

3.1.7 Working Group on Environmental Geology (WGEnvG)

The Working Group on Environmental Geology & Hydrogeology (WGEv&H) was headed by Dr. Wan Zulhairi Wan Yaacob of University Kebangsaan Malaysia.

3.1.8 Working Group on Geophysics (WGG)

The WGG for 2007/2008 is currently being chaired by Dr. Zuhar Zahir Tuan Harith of Universiti Teknologi PETRONAS. The WGG managed to organize a One Day Short Course on Engineering Geophysics in collaboration with PETRONAS, UTP and GSM on 19 November 2007 at KLCC, Kuala Lumpur.

3.1.9 Working Group on Website (WGW)

The chairmanship for WGW is vacant throughout 2007/2008 due to difficulty in finding volunteer to chair this Working Group. However, the upgrading of the Society website by Dr. Nur Iskandar Taib is ongoing.

3.2.10 Working Group for Young Geoscientists (WGYG)

The WGYG for 2007/2008 was chaired by Jasmi Hafiz Abdul Aziz of Universiti Malaya.

4. Representatives to Outside Organisation

The Society had representatives in two (2) outside organisation namely; the Confederation of Scientific and Technological Association of Malaysia (COSTAM) and the American Association of Petroleum Geology (AAPG).

4.1 COSTAM

The Society was represented by Prof. Dr. Lee Chai Peng and Dr. Samsudin Taib. Prof. Dr. Lee Chai Peng was elected as a Council Member of COSTAM for the 2007/2008 session.

4.2 AAPG

The Society was represented by Rashidah Karim of PETRONAS Bhd. with Mazlan Madon as alternate representative.

5. Membership

As of 31st December 2007, the total membership in the Society stands at 415 and this is a decrease of 20% over the previous year total of 522. This indicates that while new members are joining the Society, there are also existing members who are not paying their fees. Table 2 presented the breakdown of the type of membership and their geographical regions.

Country	Full	Life	Institution	Student	Associate	Hon.	**Total 2007**	Total 2006
Australia	1	17					**18**	20
Brunei		1					**1**	1
Canada		2					**2**	2
Europe	5	9	1			2	**17**	14
Hong Kong	1	1					**2**	1
Indonesia	1	6				1	**8**	10
Japan		4				1	**5**	5
Africa		5					**5**	4
Philippines		2					**2**	2
Singapore	3	6	1				**10**	9
Thailand		2					**2**	2
USA		8					**8**	9
Malaysia	116	159	2	47	7	4	**335**	443
Total 2007	**127**	**222**	**4**	**47**	**7**		**415**	
Total 2006	155	203	9	143	4	8		**522**

6. Activities

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6.3 National Geoscience Conference (NGC) 2008

The NGC 2008 will be held from 1 to 3 June 2008 at Impiana Casuarina Hotel, Ipoh, Perak. The event will be organized by UKM with support from UM, UTP and JMG where Dr. Kamal Roslan Mohamed was appointed as organizing chairman. The theme for the NGC 2008 is "Geoconservation, Geotourism and Geohazard". A total of 79 technical papers had been received, of which 47 were selected for oral presentation and the other 32 as posters.

6.4 GSM Photographic Competition 2007

The GSM Photographic Competition is organized by the Working Group for the Promotion of Geoscience (WGPG). There are 28 entries received. The result will be announced after the AGM 2008.

6.5 Others

During the session, the Council with the cooperation of Working Groups and other organization were able to organize several technical talks, seminars and for a. The details of these activities are presented in Table 3 below.

Date	Nature	Activity/Topic	Speaker	Organizer
22/06/07	Talk	Status of Beach Placer Mineral Exploration: Global Scenario	Prof. N. Chandrasekar	GSM & UM
31/07/07	Talk	Malam Jurutera 2007 i. Performance of Soil Nail for Stabilization Works ii. Correlation of Undrained Shear Strength and Soil Parameters	i. Ir. Liew S.S. (Gue & Partners) ii. Ir. Chua C.G. (Keller)	GSM, IGM & IEM
28/08/07	Talk	Mineral Deposit Types and Metallogenic Relations of South China and Adjacent Areas of Mainland SE Asia: Implications for Mineral Exploration	Dr. Khin Zaw	GSM & UM
24/10/07	Talk	Storm Management and Road Tunnel (SMART) Project	Mr. Gustav Klados	GSM & IGM
14/12/07	Talk	The Structure of Sumatra and Its Implications for the Tctonic Assembly of SE Asia and Destruction of the Paleotethys	Mr. A.J. Barber	GSM & UM
25/01/08	Talk	On Limestone hills, Rockfalls and the Developers	Mr. Tan Boon Kong	GSM & IGM
29/01/08	Talk	Estimating Remaining Oil Saturations (ROS): Methodologies and Challenges	Mr. Mohamed R. Saleh Efnik	GSM & UM
31/01/08	Talk	Trace element analysis by laser ablation ICP-MS and its application to tephrochronology	Dr. N.J.G. Pearce	GSM & UM
20/02/08	Talk	The Seismic and Tsunami Hazards and Risks Study in Malaysia	Mr. P. Loganathan	GSM
21/02/08	Talk	Transverse Segmentation of the Baram Basin and Northern Borneo: An Alternate Model for Oligo-Miocene Subduction	Mr. Andrew B. Cullen	GSM & UM
26/02/08	Talk	Quest for Energy	Mr. Peter Lloyd	GSM & UM AAPG Student Chapter
28/02/08	Talk	Chasing Channel Sands	Mr. Peter Lloyd	GSM & UM AAPG Student Chapter

7. GSM Awards and Loan

GSM had set up various Awards for members and Loan Fund for Student Members as follow:

7.1 Honorary Membership

To-date, GSM had conferred Honorary Membership status to 8 consecutive persons:

i) Prof. H. D. Tjia
ii) Prof. C. S. Hutchison
iii) D. Santokh Singh
iv) S.k. Chung
v) J.A. Katili

vi) T. Kobayashi
vii) N.S. Haile
viii) D.J. Gobbett

The Council had decided to undertake a study on the possibility of conferring Honorary Membership to some eligible members in the future and is presently drafting on the qualifying criteria for Honorary Membership.

7.2 Student Loan Fund

To help the financially poor final year undergraduates in their theses preparation, a Student Loan Fund was created after the 1973 AGM with an initial allocation of RM10,000.00. Unfortunately, like other loan funds in the country, the GSM Loan Fund also suffered from non-performance loan (NPL) repayment. For this year, the Council has disbursed a sum of RM500.00 to student Ong Hock Kim (NRIC: 840716-10-5038) of UM.

7.3 Best Student Award

No nomination.

7.4 Young Geoscientist Award

No nomination.

7.5 Geoscientist Award

No nomination.

8.0 Regional Congress on Geology, Mineral and Energy Resources of South East Asia (GEOSEA)

The Eleventh Regional Congress on Geology, Mineral and Energy Resources of South East Asia (GEOSEA XI) will be held on the 8th to 10th June 2009 in Kuala Lumpur in conjunction with the International Year of Planet Earth (IYPE). The Organizing Committee has been established in February 2008, which was chaired by the President. The first circular has been circulated to the CCOP member countries during CCOP Annual Meeting, in Cebu, Philippines and the Conference on Geology of Thailand, in Bangkok, Thailand. The Council had also received consensus from ASEAN and member countries with regards to the setting up of a permanent secretariat for GEOSEA.

9.0 GSM-Student's Geological Club Collaboration

The Council agreed to foster cooperation and assist Student's Geological Club by providing opportunities for financial support. To qualify for such support, Geological Club must have at least 25 Student Members. The Chairman, the Secretary and the Treasurer of the Geological Club must be a Student Member of the Society. The club must prepare a working paper for their

program in line with society's objective and submit to the Council for acceptance. For the year 2007, the Society has approved a financial support of RM1,500.00 to the Geological Club of UMS for their programmes.

10.0 GSM Secretariat

The Department of Geology, University of Malaya agreed to allow the Society to use a room next to the Department's Library (Klompe) as an office for the Society. In return, the Council agreed to contribute to the Department the sum of RM 4,000.00 per year for the purpose of upgrading the library resources, such as books, journals, magazines and maps.

11.0 Acknowledgement

In conclusion, I wish to thanks all of the council, sponsoring bodies, and all the society members and non-members who contributed their time and talent to progress the work of the society during this session. The provision of office facilities by the Geology Department, University Malaya is acknowledged with appreciation. The continuing support of UKM, USM, UMS, UTP, JMG and PETRONAS Bhd. is clearly important and very much appreciated.

Thank you.

Prepared by,

MOHD BADZRAN MAT TAIB
Secretary 2007/2008

HONORARY TREASURER'S REPORT 2007

For the Financial Year 2007, the society's posted a financial surplus of RM 18,031.00 compared to deficit of RM 29,635.00 recorded for Financial Year 2006. The net current asset has increase from RM 521,293.00 for 2006 to RM 541,439.00 for year 2007.

Operating revenue posted high compared from year 2006 which is total income of RM 68.865.00 to RM 116,053.00 for year 2007. Thus there an increased of revenue mainly from Bank Interest, GeoAsia and balance payment of Petroleum Geology Conference & Exhibition 2006 and partial collection of the PGCE 2008 which was held on 14th to 15th of January 2008 at Kuala Lumpur Convention Centre posted total collection of RM 80,305.00. Although the event was not being held for the year 2007 but all the expenditure for the preparation of PGCE 2008 in year 2007 already accounted and balance would be accumulate in Year 2008`s account.

Total operating expenditure for Financial Year 2007 was RM 98,022.00 slightly lowered compared to RM 98,500.00 for Financial Year 2006. But an increase of expenditure recorded mainly from National Geological Conference, Annual dinner, Printing for Warta Geology, contribution for student club activity (UMS and UKM) and working group.

The Hon.Treasure would like to express a great appreciation to all donors and sponsors for their contributions and support.

Ahmad Nizam Hasan
Hon. Treasurer

NOTES

1. Student Loan Fund - The total initial allocation of RM 10,000.00 were used as the last allocation disbursement is this year`s 2007 of RM 500.00 to UM`s student Ong Hock Kim (NRIC : 840716-10-5038). The allocation were suspended until sufficent amount could recover from repayment of non performing loan (NPL).

2. The RM 2,580.00 is still held in trust for the Evaluation Formation Working Group and RM 2,580.00 AAPG-UM student chapter fund to finance their activities.

3. The expenses of PGCE 2008 that were spend on the year 2007 would be accumulate into 2008`s final account.

4. Printing cost of Warta Geologi totalling RM 27,120.00.

5. Printing cost of Bulletin giving a total of RM 16,338.00.

PERSATUAN GEOLOGI MALAYSIA
(GEOLOGICAL SOCIETY OF MALAYSIA)
(Registered in Malaysia)

STATEMENT OF ASSETS AND LIABILITIES AS AT 31 DECEMBER 2007

	Note	2007 RM	2006 RM
FUND ACCOUNTS			
GENERAL FUND	3	533,136	515,105
STUDENT LOAN FUND		-	465
EVALUATION FORMATION WORKING GROUP FUND		2,580	2,580
YOUNG GEOSCIENTIST AWARD FUND		3,143	3,143
AAPG-UM STUDENT CHAPTER FUND		2,580	-
		541,439	521,293
Represented by:			
NON-CURRENT ASSET			
PLANT AND EQUIPMENT	4	34,914	37,890
CURRENT ASSETS			
Inventories	5	11,684	11,292
Deposits		600	600
Fixed deposits with licensed bank	6	242,908	242,908
Cash and bank balances		251,333	229,403
		541,439	484,203
CURRENT LIABILITY			
Accruals		-	800
NET CURRENT ASSETS		541,439	483,403
		541,439	521,293

The accompanying notes are an integral part of these statements

PERSATUAN GEOLOGI MALAYSIA
(Registered in Malaysia)
STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31 DECEMBER 2007

INCOME	2007 RM	2006 RM
Entrance fee	440	860
Fixed deposits interest income	11,160	4,316
Subscription	11,615	15,983
Sales of publications	1,239	5,783
Petroleum Geology Conference	80,305	28,455
Miscellaneous income	912	112
Working groups	-	599
Geological Evolution (CSH)	1,093	3,170
GEOASIA Conference	10,000	9,587
Advertisement (Warta Geologi)	200	-
	116,053	68,865
EXPENDITURE		
National Geological Conference	7,472	1,966
Annual dinner	1,688	662
AAPG - UM Student chapter	-	746
Bank charges	338	-
Department of Geology	-	1,138
Honorarium	20,337	19,768
Photo competition	1,000	2,300
Postages	6,986	8,319
Printing and Stationery		
- Miscellaneous	814	6,701
- Warta Geologi	27,120	16,970
- Bulletin	16,338	22,160
Audit fee	800	-
Refreshment	636	1,580
Speakers' account	1,417	3,358
Sundry expenses	2,771	2,701
Subscription to COSTAM	100	400
Telefax	459	412
Telephone	756	841
Working groups	382	-
Xerox	722	383
Depreciation on plant and equipment	4,064	4,441
Income Tax	-	3,654
Annual General Meeting	322	-
UMS: Geology Club	1,500	-
UKM: Geology Club	2,000	-
	98,022	98,500
Surplus / (Deficit) for the year	18,031	(29,635)

PERSATUAN GEOLOGI MALAYSIA
(Registered in Malaysia)

NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 2007

1. **PRINCIPAL OBJECTIVES**

The objective of the Society is to promote the advancement of the geological sciences in Malaysia.

2. **ACCOUNTING POLICIES**

(a) Basic of Accounting
The financial statements have been prepared under the historical cost convention and comply with applicable Approved Accounting Standards issued by the Malaysian Association Standards Board.

(b) Plant and Equipment
Plant and equipment is stated at historical cost less accumulated depreciation. Depreciation on plant and equipment is computed on the straight line basis calculated to write-off the cost of the assets over their estimated useful lives. The principal annual rates used are:-

Office equipment	10%
Computer	20%

The carrying values of the assets are reviewed for impairment when there is an indication that the assets might be impaired. Impairment is measured by comparing the carrying values of the assets with their recoverable amounts.

An impairment loss is charged to the income and expenditure account immediately, unless the asset is carried at revalued amount. Any impairment loss of a revalued assets is treated as a revaluation decrease to the extent of previously recognised revaluation surplus for the same asset.

Subsequent increase in the recoverable amount of an asset is treated as reversal of the previous impairment loss and is recognised to the extent of the carrying amount of the asset that would have been determined (net of amortisation and depreciation) had no impairment loss been recognised. The reversal is recognised in the income statement immediately, unless the asset is carried at revalued amount.

c) INVENTORIES
Inventories consists of compass and maps valued at the lower of cost and net realizable value.

d) INCOME RECOGNITION

Membership subscription is payable annually at the beginning of the financial year. All subscriptions received during the financial year is recognised as income.

Income from sale of publications is recognised upon delivery of goods.

Income from organising conference is recognised on receipt basis.

Fixed deposit interest income is recognised on an accrual basis.

3. **GENERAL FUND**

	2007 RM	2006 RM
At 1 January	515,105	544,740
Surplus / (Deficit) for the year	18,031	(29,635)
At 31 December	533,136	515,105

4. **PLANT AND EQUIPMENT**

	Cost			
2007	Balance at 1/1/2007	Additions	Disposal	Balance at 31/12/2007
	RM	RM	RM	RM
Office equipment	129,067	1,088	-	130,155
Computer	2,596	-	-	2,596
	131,663	1,088	-	132,751

	Accumulated depreciation				
	Balance at 1/1/2007	Charge for the year	Disposal	Balance at 31/12/2007	Net Book Value at 31/12/2007
	RM	RM	RM	RM	RM
Office equipment	92,839	3,732	-	96,571	33,584
Computer	934	332	-	1,266	1,330
	93,773	4,064	-	97,837	34,914

2006	Cost			
	Balance at 1/1/2006	Additions	Disposal	Balance at 31/12/2006
	RM	RM	RM	RM
Office equipment	129,067		-	129,067
Computer	2,596			2,596
	131,663	-	-	131,663

	Accumulated depreciation				
	Balance at 1/1/2006	Charge for the year	Disposal	Balance at 31/12/2006	Net Book Value at 31/12/2006
	RM	RM	RM	RM	RM
Office equipment	88,813	4,026	-	92,839	36,228
Computer	519	415		934	1,662
	89,332	4,441	-	93,773	37,890

5. **INVENTORIES**

	2007	2006
	RM	RM
Maps	4,231	4,831
Compass	7,453	6,461
	11,684	11,292

6. **FIXED DEPOSITS WITH LICENSED BANK**

The fixed deposits with licensed bank have a maturity of between 3 to 15 months (2006 : 3 to 15 months). Interest rates for the deposits ranged from 3.75% to 5% (2006 : 3.75% to 5%) per annum.

CASH FLOW STATEMENT FOR THE YEAR ENDED 31 DECEMBER 2007

	2007 RM	2006 RM
Cash flows from operating activities		
Surplus/(Deficit) of income over expenditure after taxation	18,031	(29,635)
Adjustments for non-cash items:		
Depreciation on plant & machinery	4,064	4,441
Interest income	(11,160)	(4,316)
Income tax	-	2,654
	10,935	(26,856)
(Decrease) / Increase in inventories	(392)	3,149
Decrease in payables	(800)	-
(Decrease)/increase in Student Fund	(465)	50
Increase in AAPG-UM Student Chapter Fund	2,580	-
Decrease in Evaluation Formation Working Group Fund	-	(5,809)
	11,858	(29,466)
Income tax paid	-	(2,654)
Net cash inflow/(outflow) from operating activities	11,858	(32,120)
Cash flow from investing activity		
Purchase of plant and equipment	(1,088)	-
Outflow from investing activity	(1,088)	-
Cash flow from financing acitivity		
Interest income	11,160	4,316
Inflow from financing activity	11,160	4,316
Net increase/(Decrease) in cash and cash equivalents	21,930	(27,804)
Cash and cash equivalents at beginning of the year	472,311	500,115
Cash and cash equivalents at end of the year	494,241	472,311
Cash and cash equivalents comprised of:		
Deposits held with licensed banks	242,908	242,908
Cash and bank balances	251,333	229,403
	494,241	472,311

PERSATUAN GEOLOGI MALAYSIA (GEOLOGICAL SOCIETY OF MALAYSIA) STATEMENT BY THE COUNCIL

We, Yunus Abdul Razak and Ahmad Nizam Hasan, being the President and Treasurer respectively, of the Persatuan Geologi Malaysia (Geological Society Of Malaysia) do hereby state that, in the opinion of the Council, the financial statements set out pages 4 to 9 are properly drawn up in accordance with applicable approved accounting standards so as to give a true and fair view of the state of affairs of the Persatuan Geologi Malaysia (Geological Society of Malaysia) as at 31 December 2007, and of the result and cash flows for the year then ended.

Signed

Yunus Abdul Razak
President

Signed

Ahmad Nizam Hasan
Treasurer

Kuala Lumpur

Dated 25th April 2008

PERSATUAN GEOLOGI MALAYSIA (GEOLOGICAL SOCIETY OF MALAYSIA) DECLARATION BY THE OFFICER PRIMARILY RESPONSIBLE FOR THE FINANCIAL MANAGEMENT OF THE SOCIETY

I, Ahmad Nizam Hasan, the officer primarily responsible for the financial management of the Persatuan Geologi Malaysia (Geological Society Of Malaysia), do solemnly and sincerely declare that the accompanying financial statements set out on pages 4 to 9 are, to the best of my knowledge and belief correct, and I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Statutory Declarations Act, 1960.

Subscribed and solemnly declared by)

the abovenamed Ahmad Nizam Hasan)

at Kuala Lumpur in Wilayah Persekutuan) Signed

on) _____

Ahmad Nizam Hasan

Before me,

_____

Commissioner for Oaths

REPORT OF THE AUDITORS TO MEMBERS OF THE PERSATUAN GEOLOGI MALAYSIA (GEOLOGICAL SOCIETY OF MALAYSIA)

We have audited the financial statements set out on pages 4 to 9. These financial statements are the responsibility of the Council Members of the Society. It is our responsibility to form an independent opinion, based on our audit, on those financial statements and to report our opinion to you, as a body, and for no other purpose. We do not assume responsibility to any other person for the content of this report.

We conducted our audit in accordance with approved auditing standards in Malaysia. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the Council Members, as well as evaluating the overall financial statements presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements give a true and fair view of the statement of assets and liabilities of the Society as at 31 December 2007 and of its statement of income and expenditure and cash flows for the financial year ended 31 December 2007 in accordance with the MASB approved accounting standards in Malaysia.

S.F. LEE & CO. (AF 0670)
Chartered Accountants

Signed

LEE SIEW FATT
(1179/9/08J)
Chartered Accountant

Kuala Lumpur

Date : 25th April 2008

Council Members and Members of GSM at the 42nd Annual General Meeting at the Eastin Hotel on 25th April 2008

GSM Annual Dinner at the Eastin Hotel on 25th April 2008








Global Review of Petroliferous Sedimentary Basins and their Petroleum Systems and Play Development. 21-24 April, 2008

Short Course by Professor Harry Doust

This course was jointly organized by GSM and the Geology Department at University of Malaya, and was attended by over 20 geoscientists from the oil and gas industry, and by six University of Malaya staff.

Professor Harry Doust is a Visiting Professor at the University of Malaya, as well as a Professor at the Department of Tectonics, Faculty of Earth and Life Sciences, Vrije Universiteit of Amsterdam. He is a leading researcher on the subject of the development of sedimentary basins, and their hydrocarbon potential.

The course began with a short introduction of how basins evolve. Most begin with a rifting phase. After the rifting is over, deposition continues with an isostatically-driven sag phase, which is often followed by a compression phase (which produces structures in which oil and gas accumulate). Not all basins go through all three phases, and each of these phases has sediments and structures associated with them. While each basin is an individual and has a different history, one can use these three phases, or elements, as building blocks in order to classify and explain them, since, though they may be assembled in different ways, the elements themselves are distinct, and similar from basin to basin.

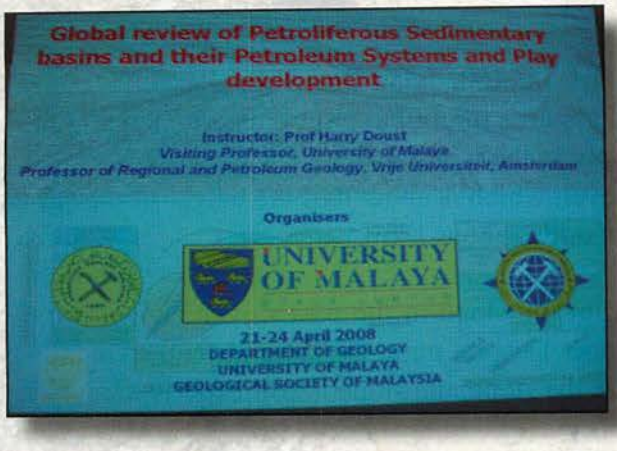
We then had a look at basins in several petroleum-producing provinces throughout the world. The most prolific basins in the world are found around the Persian Gulf. In Oman, petroleum is produced from Precambrian rocks, the most recently discovered play being pods of source rock encased in salt, under tremendous pressure. The most productive of petroleum systems, in the Mesozoic of the Persian Gulf, was the result of deposition on carbonate platforms on a passive margin, followed by a continental collision that produced the Zagros Mountains in Iraq and Iran. We then had a look at the North Sea basin (home of one of the world's richest source rock), the foreland-related sub-Andean basins of South America (in which compressional tectonics dominate), and at the many Tertiary basins of South East Asia, where a basin's history and its fill depends on how proximal it is to the sediment sources on the Sunda Shelf.

Post-course evaluation shows great interest in the subject material, so we might hold it again next year, as Professor Doust will be returning to Malaysia for another stint as Visiting Professor at UM.

Report by Dr Nur Iskandar Taib

Global Review of Petroliferous Sedimentary Basins and their Petroleum Systems and Play Development. 21-24 April, 2008
Short Course by Professor Harry Doust

Global Review of Petroliferous Sedimentary Basins and their Petroleum Systems and Play Development. 21-24 April, 2008
Short Course by Professor Harry Doust



ONE – DAY VISIT TO THE SLOPE AT GUNUNG PASS, JALAN POS SLIM (Perak) – LADANG BLUE VALLEY (Cameron Highlands)

26 April 2008

REPORT

The cut slope between CH 23+800 and CH 24+460, Jalan Pos Slim (Perak) – Ladang Blue Valley (Cameron Highland) at the Gunung Pass area might have set a record as the highest and largest cut slope ever built in Malaysia (possibly in the world as well!!!). At present, the 24 – berm slope measures about 230 m from the road level, which is about half the height of our proud Petronas Twin Tower icon. The total width of the slope is about 1 km.

Numerous failures were reported to occur at the slope in the past - even right from the beginning during the construction stage of the slope. Despite numerous studies and tremendous efforts were put in to try to understand and stabilize the slope, the slope is still experiencing many localized failures and deep-seated slope movements even till today.

25 members of Geological Society of Malaysia participated in the one-day visit to this world-size slope on 26 April 2008. The Society is indeed highly privileged to be treated by the kind generosity of Minerals & Geoscience Department (JMG) in providing their brand new bus for the visit. The bus-load of enthusiastic participants left the Geology Department, University of Malaya at 8:00am, half an hour behind the scheduled departure time. The weather was fine and with a cool – minded driver at the wheel, the journey to the site was very relaxing and pleasant. On the way, the group stopped briefly at the Tapah Rest Area for a quick drink. On the ascend and just before reaching the site when a full view of the slope come up to the horizon, the group again stopped briefly in order to gaze upon the whole immense slope from a distance. The bus arrived at the site at about 11:30am.

Almost immediately upon arrival at the site, the briefing session started. Ir. Yong Loi of Engineering & Environment Consultants Sdn. Bhd. gave a briefing on the history of the development of the road and slope in the area. Ir. Yong also brought to the attention of the participants the slope failure problems and the difficulties in the mitigation of the failures. The second briefing was by Mr. Mohd Nazan Awang of Slope Engineering Branch, PWD. Mr. Nazan presented the geology of the slope area with emphasis on the problematic schist materials and the major discontinuities present. The final briefing was by Mr. Suhaimi Jamaludin of Slope Engineering Branch, PWD. Mr. Suhaimi detailed the slope monitoring and early warning system that is in place for the slope. The 3 presentations coupled with the visual aids had generated great interest among the participants, resulting in the tremendous free flow discussions during the field visit which followed right after the briefing session.

The visit ended with the much looked forward lunch at the site. The lunch was kindly sponsored by MTD Construction Sdn.Bhd.. The visit had been very pleasant, enlightening and fun. The visit could have had been even more fulfilling if not for the untimely onset of the misty cloud which wrapped almost the entire slope in minutes right at the beginning of the field session; as if trying to hide away some crucial secrets from the ever venturing crowd who were probably seen as too invasive to the slope at that point of time, thus making the slope looks even more mysterious.

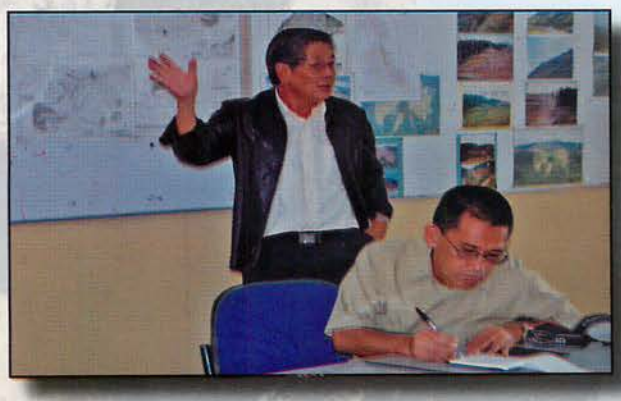
On the way back, the bus made a detour to Kea Farm, Brinchang in order to satisfy some serious 'family men and women' in the group who went on a shopping spree for the temperate vegetables and fruits. The more romantic-wired ones in the group were seen indulging themselves in the selection and bargaining for the varied-colour unique highland wild flowers for the ones only they themselves knew best. The group arrived safely at University of Malaya late in the evening.

Geological Society of Malaysia wishes to express sincere appreciation to the following organisations for making the visit successful:

1. Slope Engineering Branch, Public Works Department Malaysia, for granting the permission to visit the slope and also for organising the briefing session.
2. The Public Works Department, Perak for the support and cooperation in ensuring the success of the visit.
3. MTD Construction Sdn Bhd and Engineering & Environmental Consultants Sdn Bhd for the logistic support and briefing at the site.
4. Minerals and Geoscience Department Malaysia for providing the 'business class' bus.

Ling Nan Ley

ONE – DAY VISIT TO THE SLOPE AT GUNUNG PASS, JALAN POS SLIM (Perak) – LADANG BLUE VALLEY (Cameron Highlands)



BERITA-BERITA PERSATUAN
NEWS OF THE SOCIETY

KEAHLIAN MEMBERSHIP

Ahli Penuh

1. Joanes bin Muda, No. K/P: 611023-12-5125
2. Lee Kok Yeong, No. K/P: 800605-14-5727
3. Noor Azmah bt Abdullah, No. K/P: 791104-03-5448
4. Wong Kuan Sing, No. K/P: 450624-10-5133
5. Arnout J.W. Everts, No. Pasport: BA0280047
6. Maarten Wiemer, No. Pasport: NT2ADBC23

Ahli Pelajar

1. Ahmad Nabil Taff bin Shariffudin, University of Tasmania
2. Nazur Riza bin Norkaman, Curtin University of Technology, Sarawak

PERTUKARAN ALAMAT CHANGE OF ADDRESS

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Geological Controls on Porosity and Permeability in Clastic Gas Reservoirs, Onshore China

By

Maarten Wiemer
EPA-T-DGS, Head of Geological Services, EP Asia Pacific, Sarawak Shell Berhad

A technical talk was presented by Mr Maarten Wiemer (Head, Geological Services, Sarawak Shell Berhad) to an audience of around 70 people comprising geology staff, stundets and professionals from the industry, at Curtin University of Technology, Sarawak Campus.

After undertaking a sedimentary geology masters at Leiden University and military service in The Netherlands, Maarten joined Shell, and worked as geologist on many projects in different parts of the world, amongst others in Oman, England, Holland, Madagascar, China, and Malaysia.

ABSTRACT

Porosity and permeability trends from different clastic gas reservoirs onshore China have been compared in terms of regional geological and depositional setting, as well as burial history. It is demonstrated that these reservoir parameters are linked to plate tectonic setting (provenance), climate and depositional system (sedimentary facies, primary texture and mineralogy) and subsequent burial history (compaction and diagenesis). Understanding the regional geological setting and burial history is therefore a key requirement to predict reservoir quality.

The late Palaeozoic Ordos Basin data set represents reservoir sands deposited under humid tropical climate conditions in a low gradient fluvio-deltaic setting. Subsequent deep burial and uplift distorted the expected porosity – burial (compaction) trend. In this subsequently 'tight' reservoir sand, especially the milliDarcy range permeability is very sensitive to textural parameters such as grain-size and sorting, as well a detrital mineralogy, i.e. quartz versus rock fragment content of the sandstones.

The much better quality Cretaceous Tarim reservoir sands have been deposited in a more arid climate, mountain belt foredeep setting in a distal alluvial fan – braided river setting with some eolian influence. Due to the thrust related ridge and basin topography of the basin margin, the sediment underwent multiple deposition and erosion cycles, resulting in a much enhanced textural and mineralogical maturity, before the sediment reached its 'final destination' and became buried to ultimately form excellent gas reservoirs. In addition, rapid tectonic loading and burial probably resulted in compaction and diagenesis being 'behind', i.e. still in process to 'catch-up'.

Early gas charge might have played in role in preserving porosity and permeability as well.

Hence although the Tarim Basin Cretaceous gas reservoirs are, today, situated at greater depths than the Ordos Basin late Palaeozoic gas reservoir sands, the Tarim Basin reservoirs have much better retained porosity and permeability due to a very different more favourable structural and depositional setting as well as burial history.

The 1½-hour technical talk session concluded at 7:30pm.

Assoc. Prof. Dr. Eswaran Padmanabhan
Curtin Univ. of Tech., Sarawak Campus

OBITUARY

Chen Voon Fee 1931–2008

Chen Voon Fee should be remembered by alumni of the University of Malaya Geology Department as the architect of the best designed building on campus. Anna of the Geological Society occupies a very modest 'broom cupboard' at the entrance of the Klompé Reading Room.

At the time of his appointment as architect of the new geology building, Voon Fee had a colleague named Peter Reed, who much later left these shores. When I last spoke to Voon Fee, he said that Peter eventually rose in the ranks at Glasgow University.

Professor Neville S. Haile was able to use his office as Dean of Science to bring about the construction of a new geology building because the department had outgrown its space in the geology/mathematics quadrangle. In 1965 Chen Voon Fee and his partner Peter Reed began to design the new building. They were excellent and dedicated architects. Both of them used to frequently visit the old department to discuss needs of both the staff and the students. They even specified the height of benches and stools appropriate for students using our Leitz and Zeiss microscopes. The ceiling windows of the mapping room allowed the study of air photographs and maps without artificial lighting. The new building was completed and occupied in 1967.

The building is unique. The use of external pre-cast concrete columns, to support the roof, enabled the building to be constructed without internal weight-bearing walls. The columns were cast on site, and the two architects made frequent visits to carefully inspect and test their quality, rejecting a few in the process.

Professor John Sutton FRS of Imperial College was the first external examiner to be given a guided tour while the building was still under construction.

The building is an appropriate monument to this outstanding architect. It was appropriately officially opened by the well loved minister of Education Khir Johari, who has also passed from this scene.

Voon Fee made a habit of occasionally driving past his designed buildings. He told me he was saddened to see the recent protrusion above the front entrance to protect visitors from rain. It is a most inappropriate addition to this well loved building, and most of us have to agree.

Chen Voon Fee will be remembered by Malaysians for his untiring enthusiasm in preserving old heritage buildings. However, we in the Geological Society will remember him for giving us the delightful and comfortable building in which many of the Society activities take place.

C. S. Hutchison
4th May 2008

UPCOMING EVENTS

2008: The International Year of Planet Earth (IYPE). Contact: website: http://www.esfs.org/index.htm or www.yearofplanetearth.org.

September 1-4, 2008: XIIIth IWRA World Water Congress, Montpellier, France. Contact: email:wwwc2008@msem.univ-montp2.fr; website: wwc2008.msem.univ-montp2

September 3-5, 2008: 2nd International Workshop on Geotechnics of Soft Soils: Focus on Ground Improvement. Contact: AMGISS Secretariat, c/o Dept. of Civil Engineering, John Anderson Building, University of Strathclyde, Glasgow G4 0NG, Scotland, UK. Tel: 44 141 548 3277; Fax: 44 141 553 2066, email: amgiss@strath.ac.uk; web: www.iwgss.org/ or www.cc.strath.ac.uk/amgiss/

September 15-19, 2008: Carbonate Reservoirs, London, U.K. Contact: Petroskills, P.O. Box 35448, Tulsa, Ok 74153-0448, USA. Tel: +1 918 828 2500; Fax: 918 828 2580; email: training@petroskills.com

September 17-19, 2008: PUrE Conference 2008: International Conference on Impacts of Pollution in a Changing Urban Environment, The University of Manchester, UK. web: www.pureconference.org.uk

September 22-26, 2008: Sequence Stratigraphy: An Applied Workshop, London, U.K. Contact: Petroskills, P.O. Box 35448, Tulsa, Ok 74153-0448, USA. Tel: +1 918 828 2500; Fax: 918 828 2580; email: training@petroskills.com

September 29-October 3, 2008: Petroleum Geochemistry: Tools for Effective Exploration and Development, London, U.K. Contact: Petroskills, P.O. Box 35448, Tulsa, Ok 74153-0448, USA. Tel: +1 918 828 2500; Fax: 918 828 2580; email: training@petroskills.com

October 1-6, 2008: 12th International Conference: Computer Methods & Advances in Geomechanics, Goa, India. Contact: email: dns@civil.iitb.ac.in; website: www.12iacmag.com/

October 6-10, 2008: Turbidite Sandstones, London, U.K. Contact: Petroskills, P.O. Box 35448, Tulsa, Ok 74153-0448, USA. Tel: +1 918 828 2500; Fax: 918 828 2580; email: training@petroskills.com

October 6-10, 2008: Foundations of Petrophysics, Kuala Lumpur, Malaysia. Contact: HOT Engineering GmbH, Roseggerstrasse 17, A-8700 Leoben, Austria. Tel: +43 3842 43053-33; Fax: +43 3842 43053-1, email: training@hoteng.com; website: www.hoteng.com

October 8-10, 2008: 8th International Hydrogeological Congress of Greece, Athens, Greece. Contact: email: hydrogeology@aua.gr; website: http://iah-hellas.geol.uoa.gr/

October 20-22, 2008: Characterisation of Oil and Gas Reservoirs with Neural Network Technology, Kuala Lumpur, Malaysia. Contact: HOT Engineering GmbH, Roseggerstrasse 17, A-8700 Leoben, Austria. Tel: +43 3842 43053-33; Fax: +43 3842 43053-1, email: training@hoteng.com; website: www.hoteng.com

October 21-23, 2008: 3rd International Conference on Remediation & Management of Contaminated Land: Focus on Asia, Kuala Lumpur, Malaysia. Contact: Brownfield Asia 2008, c/o The Institution of Engineers, Malaysia, P.O. Box 223 (Jalan Sultan), 46720 Petaling Jaya, Selangor D.E., Malaysia. Tel: +603 79684001/4002; Fax: +603 79577678; email: brownfieldasia@gmail.com

October 22-23, 2008: Persidangan Pembangunan Pelajar Peringkat Kebangsaan (Nasdec 2008) – Call for paper, Johor Bahru, Johor. Contact: Sekretariat NASDEC 2008, Sekolah Pendidikan Profesional & Pendidikan Berterusan, Universiti Teknologi Malaysia, 40-50, Jalan Kebudayaan 1, Taman Universiti, 81300 Skudai, Johor Bahru, Johor, Malaysia, Tel: 07 5218170/8159/8164; Fax: 07 5211355; email: nasdec2008@spaceutm.edu.my or nasdec2008@gmail.com, website: http://seminar.spaceutm.edu.my/nasdec2008

October 27-31, 2008: Production Logging and Reservoir Monitoring, Kuala Lumpur. Contact: HOT Engineering GmbH, Roseggerstrasse 17, A-8700 Leoben, Austria. Tel: +43 3842 43053-33; Fax: +43 3842 43053-1, email: training@hoteng.com; website: www.hoteng.com

November 10-12, 2008: Introduction to log analysis, London, UK. Contact: instructors@peice-training.com; website: www.peice.com

November 10-14, 2008: Seismic Interpretation, Kuala Lumpur, Malaysia. Contact: Petroskills, P.O. Box 35448, Tulsa, Ok 74153-0448, USA. Tel: +1 918 828 2500; Fax: 918 828 2580; email: training@petroskills.com

November 10-14, 2008: Fundamentals of Petroleum Geology, Kuala Lumpur, Malaysia. Contact: HOT Engineering GmbH, Roseggerstrasse 17, A-8700 Leoben, Austria. Tel: +43 3842 43053-33; Fax: +43 3842 43053-1, email: training@hoteng.com; website: www.hoteng.com

November 24-27, 2008: The Pacific Rim: Mineral Endowment, discoveries & Exploration Frontiers (PACRIM Congress 2008), Gold Coast, Queensland, Australia. Contact: Gideon Rosenbaum – g.rosenbaum@uq.edu.au or David Giles – david.giles@adelaide.edu.au; website: www.ausimm.com.au/pacrim2008/pacrim2008_v4.pdf

February, 16-20, 2009: International symposium on efficient groundwater – Thailand 2009 (IGS – TH 2009). Contact: Somkid Buapeng, Chairman, International Groundwater Symposium Thailand 2009, 49 Soi 30 Rama VI Road, Phayathai, Bangkok, 10400 Thailand. Tel: +6622993965-6; Fax: + 6622993926; email: igsth2009secretariat@dgr.go.th

GEOLOGICAL SOCIETY OF MALAYSIA PUBLICATION

BULLETIN OF THE GEOLOGICAL SOCIETY OF MALAYSIA
WARTA GEOLOGI – Newsletter of the Geological Society of Malaysia (Published bi-monthly)

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ANNOUNCEMENT

Eleventh Regional Congress on Geology, Mineral and Energy Resources of Southeast Asia

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GEOSEA XI

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PERSATUAN GEOLOGI MALAYSIA 1967

GEOSEA XI

The Geological Society of Malaysia is organising the GEOSEA XI in Kuala Lumpur from 1st to 3rd of June 2009 to mark the closing of the United Nations International Year of Planet Earth, 2007-2009. The GEOSEA Congress will be held parallel to the Petroleum Geology Conference and Exhibition 2009, a premier Oil and Gas event of Southeast Asia. The Congress offers an excellent opportunity to exchange scientific and technical information and advancement in geoscience, mineral and energy resources among geoscientists. The GEOSEA Congress is a premier geoscientific event in the region and has been well attended by the geoscientific community world-wide.

The technical program of GEOSEA XI consists of oral and poster presentations on geoscience and related aspects of the GEOSEA core region of Southeast Asia as well as East Asia. Papers covering the 10 themes of the International Year are welcome. For more information on the themes please check www.yearofplanetearth.org or contact the GEOSEA XI secretariat.

Other related activities include pre- and post-conference workshops, short courses and geological fieldtrips. Social events and tours for delegates are also planned.

National collaborators of GEOSEA XI are the Minerals and Geoscience Department Malaysia, Universiti Kebangsaan Malaysia, University of Malaya and PETRONAS. Regional collaborators from the GEOSEA core region have also been invited.

Make a note in your diary and join us in Kuala Lumpur for GEOSEA XI.

For further information and to receive a copy of the GEOSEA XI circular please contact:

The Organising Committee, GEOSEA XI
Geological Society of Malaysia
c/o Department of Geology
University of Malaya
50603 Kuala Lumpur
MALAYSIA
Tel: +(603) 7957 7036
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email: geologi@po.jaring.my
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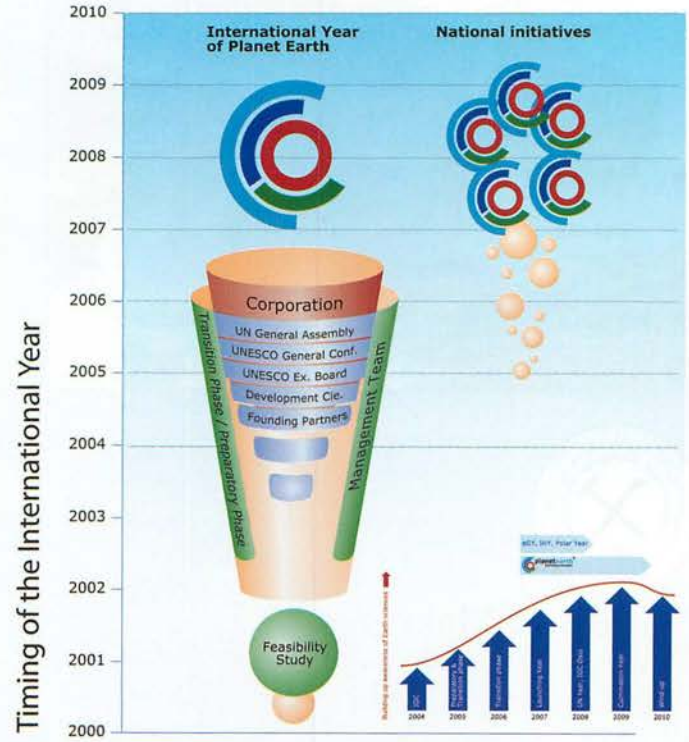
Outreach

Major Science Themes

[1]**Groundwater** towards sustainable use [2]**Hazards** minimising risk, maximising awareness [3]**Earth & Health** building a safer environment [4]**Climate** the 'stone tape' [5]**Resources** towards sustainable use [6]**Megacities** going deeper, building safer [7]**Deep Earth** from crust to core [8]**Ocean** abyss of time [9]**Soils** the living skin of the Earth [10]**Earth & Life** origins of diversity



http://www.YearofPlanetEarth.org

Outreach Programme

Aims:

Generate greater awareness among the public of the wide-ranging importance of the geosciences for human life and prosperity

Stimulate awareness of the societal contributions of the geosciences within national education systems

Increase understanding of the societal importance of the geosciences on the part of decision-makers

Output by 2010

More geoscience-based decision-making, leading to:

- Less casualties, less loss of property from geohazards
- Smarter and more sustainable extraction of georesources
- More and better use of underground space
- Less people affected by Earth-related health risks

(Re-)Introduction of geosciences in national educational systems

More students leading to a new generation of geo-experts

Better profile of the profession and related industry

Outreach *Examples*

Top Conferences in all continents

Conference on indigenous geo-knowledge vs geosciences

Balloon launches

Geo-buses

World Ministries of Mining Forum (2008)

Exhibitions

Popular books and articles

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