

CCOP-DANIDA
Institutional Capacity Building Project ICB-CCOP1
1st Manila Meeting on
Sulu Sea—East Sabah Basin Case Study Meeting
30-31 January 2007, Manila, Philippines

Report on proceedings and discussions at the Meeting

Date and Venue:

The meeting was held on 30-31 January, 2007, at the office of Department of Energy (DOE), the Philippines

Address: Energy Center, Merritt Road, Fort Bonifacio

Taguig City, Metro Manila 1201, Philippines

Tel: (63-2) 812 4016, 840-1401 to 21 local 365/237/287

Fax: (63-2) 840 2206

Local Organizer: Department of Energy (DOE), the Philippines

Participants:

Twenty (20) geoscientists from two (2) CCOP Member Countries: Malaysia and The Philippines attended the meeting.

The represented agencies/institutes were:

- ❖ Petronas, Malaysia
- ❖ Department of Energy (DOE), the Philippines
- ❖ Geological Survey of Denmark and Greenland (GEUS)
- ❖ CCOP TS

The total participants of the meeting are twenty-five (25), detailed name list of participants is attached as Annex 1.

Program:

The detailed program of the meeting is provided as Annex 2.

Background and Purpose of the Meeting:

This meeting is organized as suggested in the ICB-CCOP1 Project Bangkok meeting. All the maps

of basin scale study of the Sulu Sea – East Sabah basin case study will be merged, correlated and finished during this meeting. They will establish the final cooperation work plan focusing especially on the petroleum system analysis and play assessment of the joint case study.

The following tasks were set up for the meeting:

1. Present maps together
2. Merge and correlate the maps
3. Discuss the outline of the report
4. Setup the final work plan

Record of the Proceedings and Discussions at the Meeting:

Dr. Guillermo R. Balce, Undersecretary of Department of Energy, the Philippines delivered his sincere welcome to the participants coming from outside the Philippines. First of all, he expressed his acknowledgment to the CCOP Technical Secretariat and DOE's staffs' hard work for preparation of this meeting. Then, he expressed his gratitude to the Royal Danish Government for helping us and the other CCOP Member Countries in this Institutional Capacity Building Project. In his speech, he briefly reviewed the objective of the ICB-CCOP1 Project and the current output from the Sulu Sea-East Sabah basin joint case study. Finally, he wishes that all of participants to have a meaningful working meeting that will go a long way in fulfilling the objectives of this project. (Annex3 Dr. Guillermo R. Balce's speech).

In the following, Mr. Chen Shick Pei, Director of CCOP Technical Secretariat, gave his comprehensive welcome remarks. He extended a warm welcome to all participants and expressed the deep appreciation to the local organizer's support for holding this meeting in DOE. He reviewed the implementation of the ICB-CCOP1 Project, especially on the two cross-border case studies, the Yinggehai-Song Hong and the Sulu Sea-East Sabah basins case studies. He highly appraised the achievements of joint case study during the past two years. He expressed his sincere thanks to all the efforts and supports from the CCOP Member Countries, especially case study host countries, as well as the hard work of the ICB-CCOP1 Project Coordinator, Mr Liu Liqun and Project Resource Person, Mr Ioannis Abatzis. At the end, on behalf of CCOP, he deeply appreciated the Royal Danish Government through the Royal Danish Embassy in Bangkok for the generous support for this Project (Annex4 Mr Chen Shick Pei's speech).

After the opening ceremony, the meeting continued with a presentation of Mr Liu Liqun, Project Coordinator of the ICB-CCOP1 Project. He reviewed the implementation of the project and introduced the work plan 2007. Finally, he stated the task and the expect outputs of this working meeting.

Follow up Mr. Liu's presentation, the joint case study research team members made the presentation on the case study progress since last working meeting in Bangkok in August 2006. Mr. Chan Eng Hoe, Petronas, Malaysia, reported their outputs on case study according to the minutes of last working meeting in Bangkok. Then, Ms. Ma. Corazon Sta.Ana and Ms. Baby Novelwin Ernestina A. Santos, DOE, Philippines, made the presentation from Philippines side.

They introduced that the work has been carried out accordingly and reported their preliminary basin modeling result.

The intensive discussion and comments were made during the presentation. Some geo-scientific issues were identified, such as basin evolution and sedimentary sequence, etc. The case study area were slightly adjusted according to the necessity of the implementation.







After the presentation and discussion, the meeting was moved from meeting room to office in DOE. Therefore, the joint case study partners can work together in front of the workstation and seismic profile to make output merging more efficient. Both parties discussed and worked hard during the merging. Mr. Robert Wong and Dr. Allagu Balaguru were willing to share their knowledge and experience in this region, not only to the young staffs in Petronas, but also to the young staffs in DOE. Obviously, the capacity was being built beyond the output merging.


Since the merging was carried out in the office instead of meeting room, the raw data was more easily accessible. The detailed work plan has been made accordingly. All the research team members were involved deeply. The scheduled dinners have to be postponed time after time. The detailed work plan were made during the meeting (Annex 5 Minutes of the meeting).

In conclusion, this is the first time for the joint case study research team members entering their partner's office to discuss in front of workstation and raw data. It showed the confidence among the partners have been built through the past two years common efforts during the implementation of ICB-CCOP1 Project. We also want to congratulate the research team members, especially to the young geo-scientists whose capacities have also been built through the collaboration of joint case study.



Annex 1

CCOP-DANIDA Institutional Capacity Building Project ICB-CCOP1 Sulu Sea—East Sabah Basin Case Study Meeting 30-31 January 2007, Manila, Philippines

DISTINGUISHED GUESTS	
NAME	POSITION / ADDRESS
1) DR. GUILLERMO R. BALCE 	Undersecretary Energy Resource Development Bureau Department of Energy (DOE) Energy Center, Merritt Road, Fort Bonifacio Taguig City, Metro Manila 1201, Philippines E-mail: grbalce@doe.gov.ph Tel: (63-2) 892 4619 Fax: (63-2) 840 2138
2) MR. RAMON ALLAN V. OCA 	Director Energy Resource Development Bureau Department of Energy (DOE) Petroleum Resources Development Division, Energy Center, Merritt Road, Fort Bonifacio Taguig City, Metro Manila 1201, Philippines E-mail: ramonallan@yahoo.com or rvoca@doe.gov.ph Tel: (63-2) 840 2068, Fax: (63-2) 840 2068
3) MR. RESTITUTO G. TAGANAS, JR. 	OIC-Acting Assistant Director Geothermal&Coal Resources Development Division Department of Energy , Energy Center, Merritt Road, Fort Bonifacio, Taguig City, Metro Manila, Philippines Tel: (63-2) 840 2254, Fax: (63-2) 840 2254 E-mail: rtaganas@doe.gov.ph
4) MR. ISMAEL U. OCAMPO 	Chief SRS, Geologist, Petroleum Resource Development Division, Department of Energy (DOE) Petroleum Resources Development Division, Energy Center, Merritt Road, Fort Bonifacio Taguig City, Metro Manila 1201, Philippines Tel: (63-2) 812 4016, Fax: (63-2) 840 2206 E-mail: iocampo@doe.gov.ph
5) MR. IOANNIS ABATZIS 	Representative of Denmark to CCOP Senior Research Geophysicist Interactive Interpretation, Section Leader Department of Geophysics, Geological Survey of Denmark and Greenland (GEUS), Øester Voldgade 10, DK-1350, Copenhagen K, DENMARK Tel: (45) 3814 2516, Mobile: (45) 2030 7012 Fax: (45) 3814 2050, E-mail: ia@geus.dk
LIST OF PARTICIPANTS	
NAME	POSITION / ADDRESS
MALAYSIA	
1) MR. ROBERT WONG HIN FATT (OWN COST) 	Senior Manager Basin Studies Petroleum Resource Assessment and Marketing Petroleum Management Unit, PETRONAS Level 22, Tower 2, PETRONAS Twin Towers KLCC, 50088 Kuala Lumpur, Malaysia Tel: (603) 23313135, Fax: (603) 23313238 E-mail: wonghf@petronas.com.my

NAME	POSITION / ADDRESS
2) DR. ALLAGU BALAGURU (OWN COST) 	Senior Geologist Petronas Carigali Sdn. Bhd. Level 15, Tower 2, Petronas Twin Tower, Kuala Lumpur City Center, 50088 Kuala Lumpur, Malaysia Tel: 603 23315684 (off), 013 8670593 (hp) Fax: 603 2331 1859 E-mail: allagu_b@petronas.com.my
3) MR. ZULHAIMI BIN ABDUL RAHMAN 	Geoscientist PETROLEUM NASIONAL BERHAD PETRONAS Level 22, Tower 2, Petronas Twin Towers, 50088 Kuala Lumpur City Centre, Malaysia Tel: (603) 23315788, Fax: (603) 23313238 E-mail: zulhaimi_ar@petronas.com.my
4) MR. CHAN ENG HOE 	Geoscientist PETROLEUM NASIONAL BERHAD PETRONAS Level 22, Tower 2, Petronas Twin Towers, 50088 Kuala Lumpur City Centre, Malaysia Tel: (603) 23315890, Fax: (603) 23313238 E-mail: chaneng@petronas.com.my
PHILIPPINES	
5) MR. GUILLERMO H. ANSAY 	Senior Science Research Specialist / Geologist Petroleum Resources Development Division Tel: (63-2) 812 4016, 840-1401 to 21 local 365/237/287 Fax: (63-2) 840 2206 E-mail: gansay@doe.gov.ph
6) MR. REDENTOR D. PASCUAL 	Supervising Science Research Specialist / Geologist Petroleum Resources Development Division Tel: (63-2) 812 4016, Fax: (63-2) 840 2206 E-mail: rpascual@doe.gov.ph red_pascual@yahoo.com
7) MR. NEIL O. PESA 	Senior Science Research Specialist / Mining Engineer Petroleum Resources Development Division Tel: (63-2) 812 4016, Fax: (63-2) 840 2206 E-mail: npesa@doe.gov.ph
8) MS. ARLENE A. MAGBANUA 	Supervising Science Research Specialist / Geologist Petroleum Resource Development Division Tel. (63-2) 840 1401 to 21 local 285 Mobile. 0920-952-8335, Fax. (63-2) 840 2206 E-mail: amagban@doe.gov.ph
9) MR. EDMUNDO B. GUAZON 	Senior Science Research Specialist / Geologist Petroleum Resources Development Division Tel: (63-2) 812 4016, Fax: (63-2) 840 2206 E-mail: eguazon@doe.gov.ph

NAME	POSITION / ADDRESS
11) MR. DEMUJIN F. ANTIPORDA 	Senior Science Research Specialist / Geologist Petroleum Resources Development Division Tel. (63-2) 812 4016, Fax. (63-2) 840 2206 E-mail: dfa68@yahoo.com
12) MS. MARY ANNE Z. CABAGUING 	Secretary, Petroleum Resources Development Division Tel: (63-2) 812 4016, Fax: (63-2) 840 2206 E-mail: mcabaguing@doe.gov.ph
13) MR. JED B. ARAGONES 	Senior Science Research Specialist / Geologist Petroleum Resources Development Division E-mail: jedevabam@yahoo.com Tel: (63-2) 812 4016, Fax: (63-2) 840 2206
14) MS. BABY NOVELWIN ERNESTINA A. SANTOS 	Science Research Specialist II / Geologist Petroleum Resources Development Division Tel: (632) 812-4016, Fax: (632) 840-2206 E-mail: bneasantos@doe.gov.ph
15) MS. ARLYNE JOY A. ROQUE 	Science Research Specialist II / Mining Engineer Petroleum Resources Development Division Tel: (632) 812-4016, Fax: (632) 840-2206 E-mail: ajaroque@doe.gov.ph
16) MS. SHELLY GRACE A. SANTIAGO 	Science Research Specialist II / Geologist Petroleum Resources Development Division Tel: (632) 812-4016, Fax: (632) 840-2206 E-mail: sgasantiago@doe.gov.ph
17) MR. RONALD ALLAN F. BONIQUIT 	Science Research Specialist II / Geologist Petroleum Resources Development Division Tel: (632) 812-4016, Fax: (632) 840-2206 E-mail: rboniquit@doe.gov.ph Department of Energy (DOE) Energy Center, Merritt Road, Fort Bonifacio Taguig City, Metro Manila 1201, Philippines
CCOP TECHNICAL SECRETARIAT	
1) MR. CHEN SHICK PEI 	Director CCOP Technical Secretariat 24th Floor, Room 244-245, Thai CC Tower 889, Sathorn Tai Road, Sathorn, Bangkok, 10120 THAILAND Tel: (66-2) 672 3080 to 81, Fax: (66-2) 672 3082 Website: www.ccop.or.th E-mail: spchen@ccop.or.th

NAME	POSITION / ADDRESS
2) MR. LIU LIQUN 	ICB-CCOP1 Project Coordinator CCOP Technical Secretariat 24th Floor, Room 244-245, Thai CC Tower 889, Sathorn Tai Road, Sathorn, Bangkok, 10120 THAILAND Tel: (66-2) 672 3080 to 81, Fax: (66-2) 672 3082 Website: www.ccop.or.th E-mail: liu@ccop.or.th Mobile: (66-81) 985 5765
3) MR. SIMPLICIO P. CALUYONG 	PPM Project Coordinator CCOP Technical Secretariat 24th Floor, Room 244-245, Thai CC Tower 889, Sathorn Tai Road, Sathorn, Bangkok, 10120 THAILAND Tel: (66-2) 672 3080 to 81, Fax: (66-2) 672 3082 Website: www.ccop.or.th E-mail: sim@ccop.or.th Mobile: (66-81) 827 0527

Annex 2

CCOP-DANIDA Institutional Capacity Building Project ICB-CCOP1 Sulu Sea—East Sabah Basin Case Study Meeting 30-31 January 2007, Manila, Philippines

Program

Day 0: Monday, 29 January

Arrival of Participants / Check-in Hotel

Day 1: Tuesday, 30 January

- 08:30-09:00 Registration CCOP TS
- 09:00-09:30 Opening Ceremony:
Welcome Address by Dr. Guillermo R. Balce, Undersecretary, DOE
Welcome Remarks by Mr. Chen Shick Pei, Director of CCOP Technical Secretariat
Mr. Ioannis Abatzis, Representative of Denmark to CCOP
- 09:30-10:00 Group Photo and Coffee/tea break
- 10:00-10:10 Introduction
- 10:10-10:30 Briefing on ICB progress and work plan 2007 by Mr. Liu Liquan
- 10:30-12:00 Presentations by the Malaysia, Philippines delegations
Outputs of the case study during the basin analysis period
- Sulu Sea-East Sabah Basin Mr. Chan Eng Hoe, Petronas*
*Sulu Sea-East Sabah Basin Ms. Ma. Corazon Sta. Ana and Ms. Baby
Novelwin Ernestina A. Santos, DOE*
(30 minutes each)
- 12:00-13:30 Lunch Break
- 13:30-15:00 Discussion on merging the individual output and structural map
- 15:00-15:15 Coffee/tea break
- 15:15-18:00 Continue discussions
- 18:00 End of Day 1
- 18:30 Welcome Dinner

Day 2: Wednesday, 31 January

- 08:30-12:00 Continue discussions
- 10:00-10:20 Coffee/tea break
- 10:20-12:00 Continue discussions
- 12:00-13:30 Lunch Break
- 13:30-15:00 Discussions on basin modeling work plan
- 15:00-15:20 Coffee/tea break
- 15:20-18:30 Minutes and wrap up
- 18:30 End of Day 2
- 20:00 Farewell Dinner

Day 3: Thursday, 1 February

Check-out, flight back home

Annex 3

WELCOME ADDRESS OF UNDERSECRETARY OF DEPARTMENT OF ENERGY, THE PHILIPPINES DR. GUILLERMO R. BALCE

**At the opening ceremony CCOP-DANIDA Institutional Capacity Building Project
ICB-CCOP1
Sulu Sea—East Sabah Basin Case Study Meeting
30-31 January 2007, Manila, Philippines**

**Mr. Chen Shick Pei, Director of the Coordinating Committee for Geoscience Programmes in
East and Southeast Asia (CCOP)**

Mr. Ioannis Abatzis, Representative of Denmark to CCOP

Mr. Liu Liquan, Project Coordinator

**Our friends from Petronas headed by Mr. Robert Wong Hin Fatt
and fellow Department of Energy officials and staffs**

Good morning,

It is my pleasure to welcome you all to the Sulu Sea-East Sabah Basin Case Study Meeting.

Before anything else, I would like to acknowledge the hard work done by the CCOP Technical Secretariat and the DOE PRDD staff in organizing this meeting.

We would also like to express our gratitude to the Royal Danish Government for helping us and the other CCOP Member Countries in this Institutional Capacity Building Project.

I understand we are already on the last year of this three-year project that started in 2005 with the long term-objective of strengthening the capacity of public authorities to assess their countries hydrocarbon resources. It also aims to promote regional cooperation thru the joint conduct of geoscientific study of cross-border geological basin: like the Sulu Sea-East Sabah Basin between the Philippines and Malaysia and the Yinggehai-Song Hong Basin between China and Vietnam.

This meeting in which we are going to merge geological data and outputs from the works previously done by the DOE and Petronas would give us a broader perspective and a better appreciation of the petroleum potential of the Sulu Sea-East Sabah basin.

Finally, I wish all of you a meaningful working meeting that will go a long way in fulfilling the objectives of this project.

We hope that you will have a fruitful meeting and a memorable stay here in the Philippines. Thank you.

Annex 4

WELCOME REMARKS OF DIRECTOR OF CCOP TECHNICAL SECRETARIAT

MR. CHEN SHICK PEI

**At the opening ceremony CCOP-DANIDA Institutional Capacity Building Project
ICB-CCOP1**

**Sulu Sea—East Sabah Basin Case Study Meeting
30-31 January 2007, Manila, Philippines**

Dr. Guillermo R. Balce, Undersecretary, Department of Energy

**Mr Ramon Alan V. Oca, Director of the Energy Resource Development Bureau, Department
of Energy, and Deputy Permanent Representative of the Philippines to CCOP**

Mr Ioannis Abatzis, Representative of Denmark to CCOP, Senior Advisor GEUS

Colleagues from the Department of Energy, the Philippines, and Petronas, Malaysia

Mr Liu Liqun, ICB-CCOP 1 Coordinator

Distinguished Guest, Ladies and Gentlemen

Mabuhay,

On behalf of CCOP, I would like to extend a very warm welcome to the DOE and Petronas experts present here this morning for the cross border merging of Sulu Sea-East Sabah Basin data and information under the ICB-CCOP 1 Project. We express our deep appreciation to Dr. Guillermo R. Balce, Undersecretary, Department of Energy for his attending this august opening ceremony and delivering his welcome address. We also would like to convey our sincere thanks to Mr. Ramon Alan V. Oca, Director of the Energy Resource Development Bureau, Department of Energy, and Deputy Permanent Representative of the Philippines to CCOP, and his colleagues in the DOE for their excellent arrangement and preparation for this meeting. We thank both the DOE and PETRONAS experts for their hard work in getting the necessary data and information ready for the merging work to be conducted in this meeting.

I am please to let you know that the ICB-CCOP 1 project is progressing well. Work in the other case study area, Song Hong – Yinggehai basin is moving ahead. After the merging of the data and information last year, the experts of the case study are at the stage of finalizing the merged outputs, and preparing for the basin modeling work. We are pleased to see that the Sulu Sea – East Sabah basin case study is also progressing with equal promise and we are confident that the technical work under the Sulu Sea-East Sabah case study will be completed smoothly according to plan.

As you are probably aware, the ICB-CCOP 1 project is now at the two-third mark of its project life. More than 2 years have already elapsed since the commencement of the project. So far good progress has been made. We have held a workshop for the project, and several meetings to facilitate the joint scientific work on the 2 cross border case studies; conducted 2 training courses, held the very important seminar on CO₂, organized joint field work in Sabah, Malaysia, the Hainan Island, China and in the Hanoi Trough area, Vietnam and awarded post graduate research grants. For this year, several important activities have been planned, including a project workshop, 2 trainings, and several seminars on priority topics identified by participating Member Countries in the Project

culminating in a series of dissemination seminars. I am pleased to share with you the fact that with sound planning and prudent use of the resources, we will be able to organize more activities under the project than originally planned.

As you are aware, the main objective of the project is to promote understanding and cooperation among countries in the region that can contribute to prevention diplomacy and regional harmony, thus facilitating regional economic development. Judging by the success of the activities mentioned above, we are well on track to attain this principal objective. We would like to inform you that we have briefed 2 senior officials in charge of Danida, the Royal Danish Embassy in Bangkok, in November 2006, on the progress and achievements of the project. They were extremely pleased with the performance of the project, in attaining the goals, and making the impacts despite its complexity. They were very glad that Danida had supported such a useful project.

We hope that the project activities and outputs will benefit the Member Countries. We are in full agreement with your idea that the project outputs must be of use and can contribute to the petroleum resource development of the region. We are especially encouraged to note that all the Case Study Member Countries are equally committed to use the best data and information in the case study so that the scientific deliverables represent the result of best integration, and greater enhancement of the latest and best knowledge of the petroleum systems in the region. These deliverables we hope will contribute to attracting investment for the sustainable development of the hydrocarbon potentials. Thus, this cross border case study model could well serve as the model for case studies of other CCOP projects in the future.

To conclude, I would like to thank you for your commitments and diligence in getting all the materials ready and carrying out the necessary work in preparation for the merging of the data and information of the Sulu Sea-East Sabah case study area. We thank Mr. Liu Liquan, the ICB-CCOP 1 Project Coordinator for the efficient coordination of the project. I would like to let you know that Mr. Liu is fully determined and committed to make this project a success, and he has given it more than 100% of his efforts.

Our appreciation also goes to Mr. Ioannis Abatzis, Representative of Denmark to CCOP, Senior Advisor of the Geological Survey of Denmark and Greenland (GEUS) for his continuing efforts in rendering useful advice and guidance for the project. Besides that, Mr Abatzis is known for his untiring efforts to assist CCOP in identifying new opportunities, obtain resources, and to promote CCOP. Thank you, Mr Abatzis.

On behalf of CCOP, we would like to thank the Royal Danish Government through the Royal Danish Embassy in Bangkok for the generous support for this Project.

Before I end, I would like to thank our CCOP Member Countries, the national project coordinators and their colleagues for their cooperation, support and participation in the project activities and the case studies. I am sure the success of the project is due to your unwavering commitment and support.

I wish you all a successful Case Study Meeting. Maraming Salamat and Thank you!

Annex 5

**Minutes of the CCOP-DANIDA
Institutional Capacity Building Project ICB-CCOP1
Sulu Sea—East Sabah Basin Case Study Meeting
30-31 January 2007, Manila, Philippines**

Task Allocation of Sulu Sea—East Sabah Basin Case Study Meeting Joint Study

1. Merged time-Structure maps

- Seabed
- Late Miocene
- Middle Miocene
- Economic basement

(Digitizing to be carried out by PETRONAS, Zul and Chan, resultant depth maps in Ho Chi Minh, March 2, 2007)

2. Velocity Curve

- Check shot survey values to be provided by the DOE from at least 4 wells before February 9, 2007 zulhaimi_ar@petronas.com.my cocostaana@yahoo.com

3. Seismic Cross-sections

Line A-A' (SS-011)

W: Sulu Sea A-1

Line B-B' (DPS 93-8)

W: Sulu Sea 409

W: Sentry Bank-1

Line C-C'

S: SB30604-06, DPS 93-07

Line Y-Y'

S: K91-44, K91-39, API 94-29

W: Mutiara Hitam-1

W: Benrinnes-1

W: Nymphe-1

W: Hippo-1

*CCOP will provide the regional magnetic map

4. Well Cross Section

Nymphe-1

Mutiara Hitam-1

Benrinnes-1

409 Sulu Sea

Hippo-1

Wildebeest-1

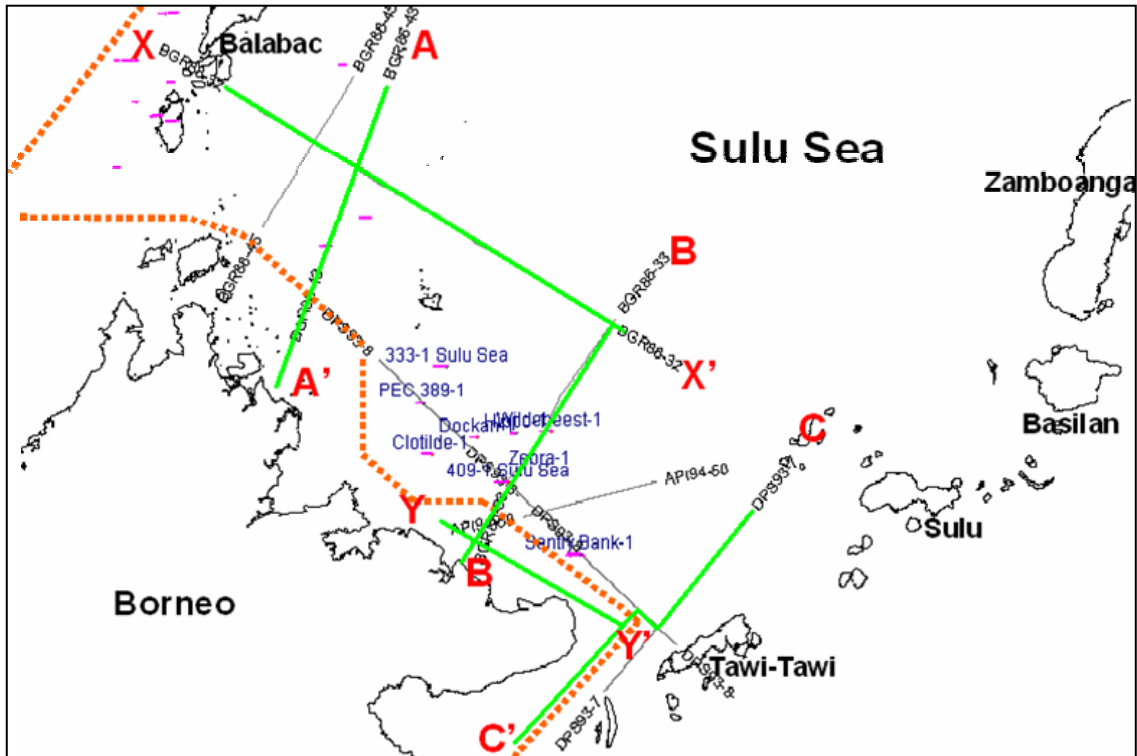
(Vertical scale 1:10000)

(GR and RES to be given by DOE in las format by February 9,2007 to Dr Allagu Balaguru: allagu_b@petronas.com.my. Results to be provided in Ho Chi Minh, March 2, 2007)

5. Basin Modelling

Line B-B' (Philippines), Line C-C' & Line Y-Y' (Both countries)

VR, porosity, BHT & time since last circulation, TOC, HI to be provided by February 14, 2007





**INSTITUTIONAL CAPACITY BUILDING IN CCOP COUNTRIES,
PHASE 1 (ICB-CCOP1)**



Group photo of all the ICB-CCOP1 Manila Meeting participants



The opening ceremony of the meeting was held at DOE on 30 January, 2007.



Presentation during the meeting

Presentation during the meeting



Discussion and merging the maps



