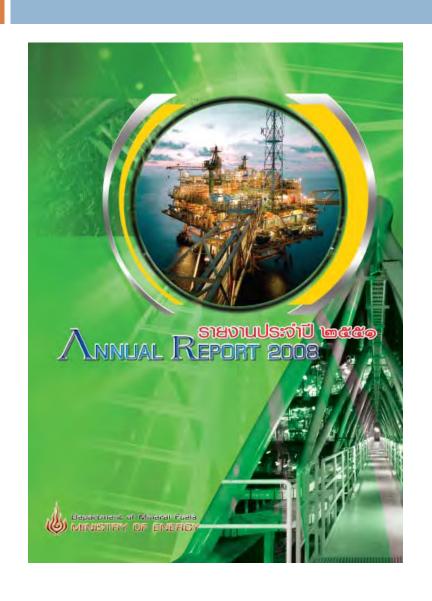
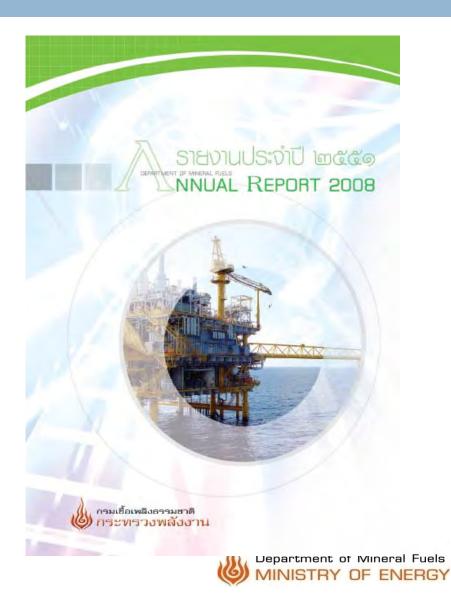
## THAILAND ANNUAL REPORT 2008

Orn-anutt Suthsa-ngiam

Department of Mineral Fuels
7 October 2009

## DMF Annual Report 2008



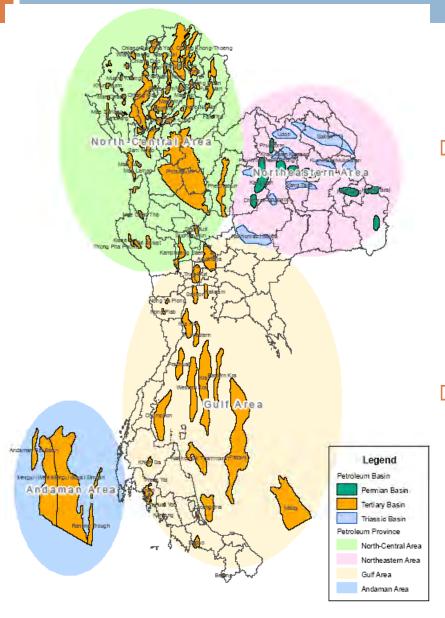


## **Outline**

- Location of oil & gas activities
  - Petroleum Provinces
  - 20<sup>th</sup> Petroleum Concession Bidding Round
  - Petroleum Concessions
  - Petroleum Fields
  - Production Areas
- Exploration data
- Production data
- □ Fiscal regimes
- Investment Campaign



## Thailand Petroleum Provinces



# Petroleum Geological Provinces

- Tertiary
  - North-Central Area (Crude Oil)
  - Gulf of Thailand (Natural Gas & Crude Oil)
  - Andaman Sea (Natural Gas)
- □ Pre-Tertiary
  - Northeastern Area (Natural Gas)



## Proved Petroleum Reserves

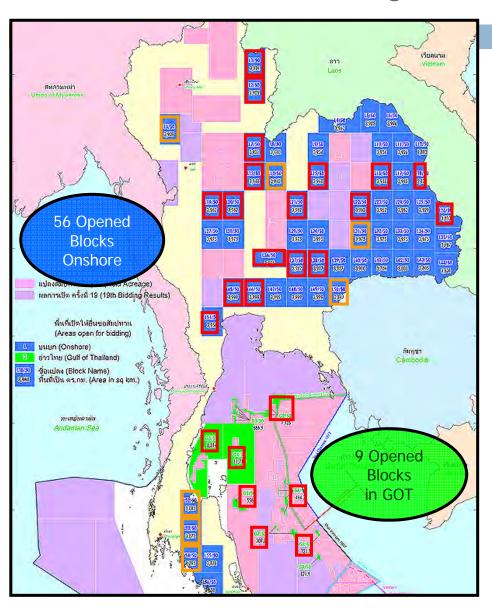
(Data as of 31 December 2008)

TYPES	2004	2005	2006	2007	2008
Natural Gas (Tcf)	12.5	10.7	11.7	11.2	12.00
Condensate (MMbbl)	289.1	260.5	266.1	264.8	270.8
Crude Oil (MMbbl)	238.2	192.2	194.5	176.0	182.9

**Source:** Department of Mineral Fuels



## The 20th Bidding Round (23 May 2007 - 22 May 2008)



- √ 65 blocks opened for bidding
- ✓ Total area of 235,606 km²
- Awarded concessions
- Being considered

The applications for <u>52 Blocks</u> have been submitted and considered

(44 Blocks Onshore / 8 Blocks GOT)

#### The 19th Bidding round



(July 1, 2005 – June 30, 2006)

Opened blocks: 82 Blocks

**Awarded Concession: 16 Concessions** 



### Petroleum Concession

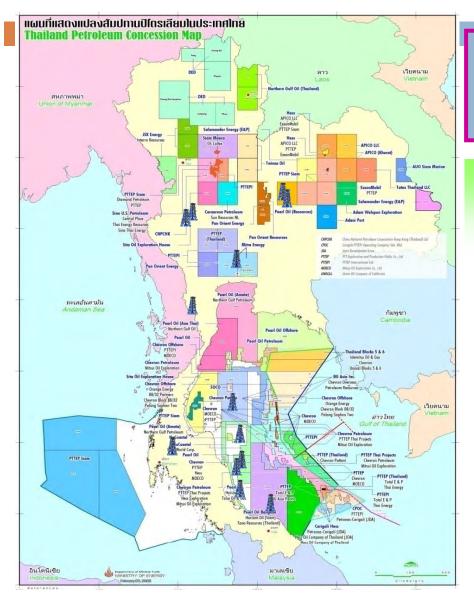
Activities	2004	2005	2006	2007	2008
Concessions					
Number of concessions	32	32	38	52	62
Number of blocks	42	42	50	68	80

#### Petroleum Concessions

- Issuance of 11 concessions for 13 blocks, that is, 11 onshore and 2 offshore blocks in the Gulf of Thailand, on January 21
- Issuance of two supplementary petroleum concessions on January 24



## Petroleum Concession



Since 1971

20 Petroleum Bidding Rounds

### 62 Concessions 80 Blocks

(As of 31 December 2008)

	Produced	Exploration
Onshore	8	31
GOT	22	16
Andaman	-	3
Total	30	50

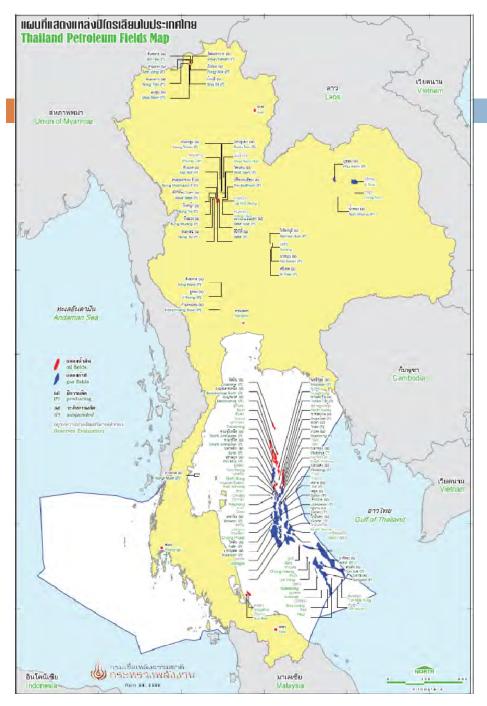


## **Exploration data**

Activities	2004	2005	2006	2007	2008
Geophysical Surveys					
Gravity survey (km)	1	-	1	-	1
2D Seismic survey (km)	57	240	1,445	8,042	15,168.2
3D Seismic survey (sq.km.)	2,294	4,053	3,934	790	254.3
Drilling					
Exploration well * (wells)	26	33	42	53	47
Development well (wells)	258	359	502	463	412

<sup>\*</sup> included appraisal wells





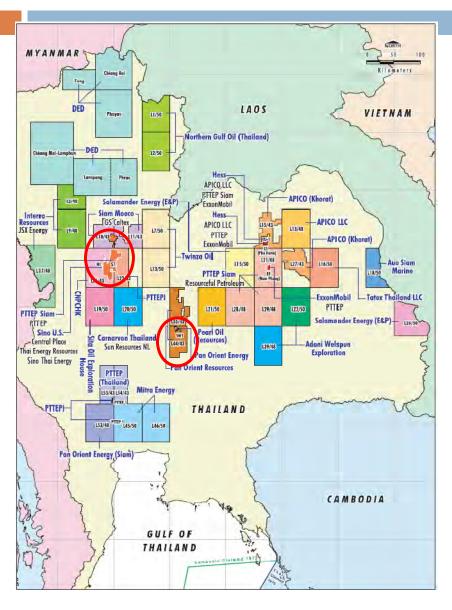
## Petroleum Fields

#### **Discovered Producing**

Total	<i>78</i>	49
Natural Gas	50	21
Onshore	2	2
Offshore	48	19
Crude Oil	28	28
Onshore	19	19
Offshore	9	9



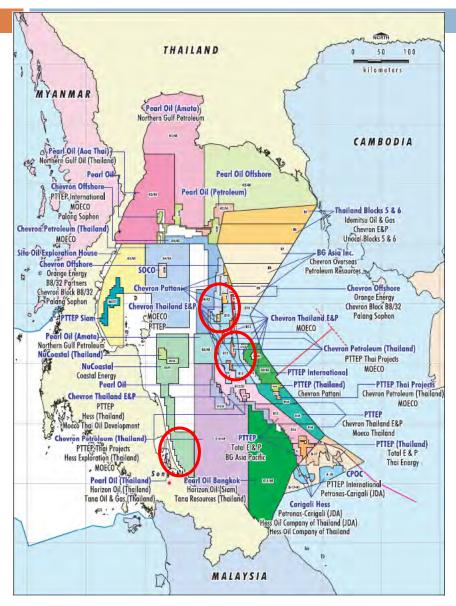
### Onshore Petroleum Production Areas



- 2 Onshore Granted Production Areas
- East Na Sanun crude production area in onshore exploration block No.L44/43, covering 27.7535 sq.km., to Pan Orient Resources (Thailand), Ltd.
- Greater Sirikit East production area in onshore block No.S1, to cover 66.234 sq.km.



### Offshore Petroleum Production Areas



- 3 Offshore Granted Production Areas
- Yungthong crude production area in offshore exploration block No.G4/48 in the Gulf of Thailand, covering 70.7938 sq.km., to Chevron Pattani, Ltd.
- Songkhla crude production area in offshore exploration block No.G5/43 in the Gulf of Thailand, covering 75.3241 sq.km., to NuCoastal (Thailand), Ltd.
- Greater Trat production area in offshore exploration blocks No.11 and 12, awarded to cover 203.29 sq.km.



### Thailand's Petroleum Production

#### Production Rate @ 2008 = 687,271 BOED, increasing 8% from year 2007: **MMCFD** Natural Gas 2,658 **MBBLD** 85,862 Condensate **BBLD MMCFD** Crude Oil 145,616 **BBLD** Arthit 180 2,700 Phu horm Songkhla 160 2,400 Yala/North Pailin West Jakrawan/Komin Banyen 2,100 140 Tantawan Bua Luang 20 1,800 Bongkot/Jakrawan Jasmin 1,500 100 East Nasanun Funan 1,200 Satun/platong 80 Nam phong 900 60 Kapong 600 Baanpot 40 Big Oil Project B8/32 300 20 Erawan Bung Ya/Bung Sirikit Wichanburi Maung/Kampaengsan 0 0 983 985 1989 993 995 1999 2003 2005 2009 987 2001 1981 Natural Gas — Crude Oil — Condensate Department of Mineral Fuels MINISTRY OF ENERGY

## Thailand Petroleum Regimes

- Concession System
  - Royalty & Tax Regimes
  - 2 Groups
    - Thailand I Regime: 1971-1981 (Petroleum Act. & PITA No. 1)
    - Thailand II Regime: 1981-1989 (outdated)
    - Thailand III Regime: Post-1989 (Petroleum Act. & PITA No. 4)



## Fiscal Regime

	Thailand I, 1917	Thailand III, 1989	Government Take
Royalty	12.5%	5 - 15%	DMF
SRB	<del>-</del>	0 - 75%	DMF
Petroleum Income Tax	50%	50%	Revenue Department



#### Data Services for Concessionaires and Investors

#### **Exploration and Production**

- Geophysical Surveys
- Data Package
- Concession Bidding Rounds

The concessionaires shall submit other details as may be specified by the Director-General of the Department of Mineral Fuels

#### **General Information**

- Monthly/Annual Report
- Investment Info.
- Announcement of the DMF in Rules for the Submission of Reports on Petroleum Operations and Regulations of Data Services

### **General Publications**

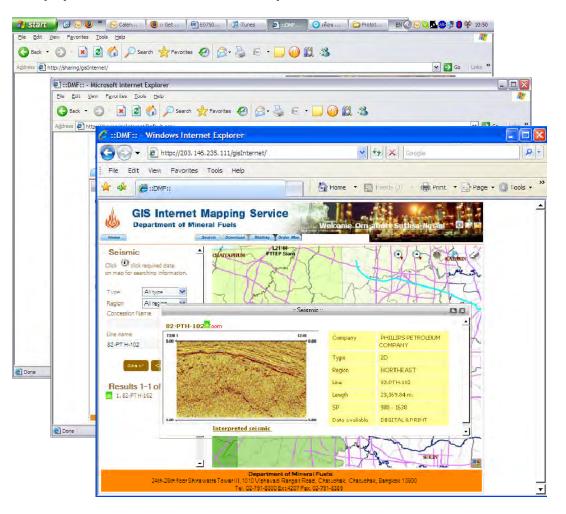
#### **Mineral Fuels Information**

- E&P Facts & Figures
- Dissemination & Public Relations Information



## Application in Internet

http://gis.dmf.go.th/gisInternet



- Register
  - Authorizing
- Login
- Search & Query
  - Concession
  - Seismic (NE)
  - Well (NE)
  - Base Maps
- Download Map
- Order Map



