

## BUSINESS OPERATING REVIEW

### 1. Market Review

#### (1) Crude Oil Market Review

In 2007, on the whole, international crude oil prices continued to soar. In particular, since September 2007, oil prices broke the US\$80 per barrel and US\$90 per barrel marks, reaching nearly US\$100 per barrel by the end of the year. In general, market considered the surge in the crude oil prices was primarily due to factors including strong growth in demand, a decline in crude oil inventories, speculative activities, geopolitical instabilities in certain oil producing countries and continued weakening of the US dollars. The annual average prices for WTI, Brent and Minas crude oil were US\$72.16, US\$72.38 and US\$73.40 per barrel, respectively, representing an increase of US\$6.12, US\$7.32 and US\$8.16 per barrel, respectively, over the annual average prices in 2006. Corresponding to the rise in international crude oil prices, the average price for domestic crude oil in 2007 was higher than that of 2006.

According to the relevant statistics, domestic crude oil imports continued to increase in 2007 by 14.4% to a net total of 159 million tons compared with the previous year. Domestic crude oil output and the amount of crude oil processed reached 186 million tons and 306 million tons, respectively.

#### (2) Refined Products Market Review

In 2007, domestic refined product prices were still under the macro economic controls of the PRC Government, resulting in such prices were lower than the prices in the international market. Annual average ex-factory prices of domestic gasoline and diesel were RMB5,071 per ton and RMB4,653 per ton respectively, being RMB1,225 and RMB1,513 lower than the CIF per ton prices quoted in the Singapore market, respectively, while the maximum price difference reaching over RMB2,000 per ton in 2007. During the second half of 2007, international crude oil prices rocketed and as a result, domestic refineries incurred heavy losses in processing. Production ceased in certain local refineries. Supply in the refined products market was once very tight. On November 1, 2007, the PRC Government raised the ex-factory prices of gasoline, diesel and aviation fuel by RMB500 per ton. Balance of demand and supply was basically restored after such price increase.

According to the relevant information, nominal consumption of domestic refined products increased by 6.9% to 186 million tons in 2007.



### (3) Chemical Products Market Review

The PRC economy maintained steady and rapid growth in 2007 with an increase in the GDP of 11.4%. The rapid growth of the PRC economy has created a steady increase in the domestic demand for petrochemical products, including a 10.6% growth in the nominal consumption of plastic materials. Notwithstanding an increase in the production of petrochemical products in 2007 as a result of the commencement of production by certain newly installed facilities, amongst which the production capacity of polyethylene and polypropylene was increased by 15% and 18% respectively as compared with those of the previous year, the overall increase in the supply of petrochemical products was moderate and limited and the supply remained relatively tight in the chemical products market as a result of the declining volume of import in chemical products. The prices of petrochemical products rocketed and the overall prices of petrochemical products were increased by 3.3% when compared with that of the previous year.

### (4) Natural Gas Market Review

In 2007, the domestic natural gas market developed rapidly with strong growth in demand for natural gas. The external sales of natural gas reached 43.6 billion cubic metres, representing an increase of 22% as compared to that of the previous year. On August 30, 2007, the PRC Government promulgated the Policies on Natural Gas Utilisation in order to ease the supply-and-demand tension of natural gas, optimise the utilisation structure of natural gas and promote the idea of reducing energy consumption and emissions. In addition, with a view to guide the market towards a more rationalised consumption of natural gas and to narrow the difference between domestic natural gas prices and alternative energy prices, the PRC Government raised the basic ex-factory price of natural gas for industrial

use by RMB400 per thousand cubic metre on November 10, 2007.

## 2. Business Review

### (1) Exploration and Production

In 2007, the Group stepped up oil and gas exploration in the PRC. Major breakthroughs of strategic significance were achieved through further geological research and emphasis on the application of new technologies, and concerted efforts on oil and gas exploration activities. In particular, the Company discovered the Jidong Nanpu Oilfield which is with relatively high crude oil reserves. Moreover, significant progress was achieved during the oil and gas exploration in the Sichuan Basin, the Erdos Basin, the Songliao Basin and the Tarim Basin. With a better composition of orderly managed reserves, the Company has entered into the peak in the growth of reserves. In respect of overseas oil and gas exploration, new progress was made with discovery of relatively high reserves in regions including Chad and Kazakhstan. In 2007, the Group achieved crude oil reserve replacement ratio of 1.104 and natural gas reserve replacement ratio of 3.238.

In the development of domestic oilfields, the policy of “steady development in the east, and rapid development in the west” was upheld. New ways in the exploration of oilfield and natural gas fields were actively adopted. The Company has extensively initiated works for the secondary recovery of mature oilfields so as to maintaining a steady oil and gas production through the deployment of various comprehensive measures including deepening fine reservoir characterisation, stabilising oil production by water-cut control, tertiary oil recovery and so forth, as well as actively promoting sophisticated technologies such as horizontal

application and under-balanced drilling. The foundation for oil stabilization in the mature oilfields has been consolidated. The Company has also conducted overall assessment, planning and development building up the production capacity in the new fields. In respect of regions outside China, various measures were adopted to slow down the reduction in the productivity of mature oilfields, strengthen the organisational operation and management of drilling and maintenance of wells and enhance the productivity of

newly discovered wells. Through the above measures, in 2007, the total crude oil and natural gas output of the Group was 1,110.0 million barrels of oil equivalent, including 838.8 million barrels of crude oil and 1,627.0 billion cubic feet of marketable natural gas. In 2007, the lifting cost for the oil and gas operations of the Group was US\$7.75 per barrel, representing an increase of 15.0% from US\$6.74 per barrel in 2006.

#### Summary of Operations of the Exploration and Production Segment

	Unit	2007	2006	Year-on-year change (%)
Crude oil output	Million barrels	838.8	830.7	1.0
Marketable natural gas output	Billion cubic feet	1,627.0	1,371.9	18.6
Oil and natural gas equivalent output	Million barrels	1,110.0	1,059.4	4.8
Proved reserves of crude oil	Million barrels	11,706	11,618	0.8
Proved reserves of natural gas	Billion cubic feet	57,111	53,469	6.8
Proved developed reserves of crude oil	Million barrels	9,047	9,185	(1.5)
Proved developed reserves of natural gas	Billion cubic feet	26,047	22,564	15.4

#### (2) Refining and Marketing

In 2007, faced with the growing demand in the market, the Group organised refining processing meticulously, scientifically modified refining arrangements, and optimised allocation of resources actively. Safe, steady, long-term, full-load and optimised production was achieved resulting from improvement of the production control management system. Crude oil processing and production of key refined products reached a historically high level. In order to react to changes in the sales market proactively, resources were organised through various means. Production, transportation and distribution arrangements were enhanced and better co-ordinated. Allocation of resources was optimised. The scale

of sales to end-users was expanded. The level of retail sales management and the quality of services were enhanced continuously. All these have paved the way to form a strongly focused and highly efficient nationwide distribution network throughout the PRC, thereby ensuring a gradual stable market supply. The Group's refineries processed 823.6 million barrels of crude oil, approximately 80% of which was supplied by the Exploration and Production segment. The Group produced approximately 71.38 million tons of gasoline, diesel and kerosene and sold approximately 85.74 million tons of these products. The cash processing cost of the Group's refineries decreased from RMB169 per ton in 2006 to RMB155 per ton in 2007.

### Summary of Operations of the Refining and Marketing Segment

	Unit	2007	2006	Year-on-year change (%)
Processed crude oil	Million barrels	823.6	785.0	4.9
Gasoline, kerosene and diesel output	'000 ton	71,381	68,318	4.5
of which: Gasoline	'000 ton	22,019	22,027	(0.04)
Kerosene	'000 ton	2,017	2,064	(2.3)
Diesel	'000 ton	47,345	44,227	7.0
Crude oil processing load	%	97.7	95.9	1.8 percentage point
Light products yield	%	73.99	73.48	0.5 percentage point
Refining yield	%	93.01	92.17	0.8 percentage point
Market share in retail	%	37.0	34.7	2.3 percentage point
Number of service stations	Unit	18,648	18,207	2.4
of which: owned service stations	Unit	17,070	16,624	2.7
Sales volume per service station	Ton/day	8.4	7.8	7.7

### (3) Chemicals and Marketing

In 2007, the Group achieved economies of scale and steady operations in the Chemical and Marketing segment. Key technological and economic indicators improved continuously. Allocation of resources and production

mix were further optimised. The production of chemical products and ethylene reached 15.55 million tons and 2.58 million tons, respectively.

### Summary of Operations of the Chemicals and Marketing Segment

Output of key chemical products	Unit	2007	2006	Year-on-year change (%)
Ethylene	'000 ton	2,581	2,068	24.8
Synthetic resin	'000 ton	3,962	3,061	29.4
Synthetic fibre raw materials and polymer	'000 ton	1,459	1,232	18.4
Synthetic rubber	'000 ton	311	312	(0.3)
Urea	'000 ton	3,634	3,576	1.6



#### (4) Natural Gas and Pipeline

The Group proceeded with the construction of oil and gas pipelines on schedule and in an orderly manner. A number of long-distance main pipelines, among them the Lanzhou-Yinchuan Gas Transmission Pipeline of the West-East Gas Pipeline, the Daqing-Harbin Gas Transmission Pipeline and the Dagang-Zaozhuang Refined Oil Pipeline, were completed during 2007. A nationwide gas pipeline network is being formed connecting the four

gas zones of the Company. Despatch priority of natural gas was centralised which could ensure safety in the gas transmission. Natural gas sales business has leveraged the advantage of the nationwide gas pipeline network and achieved an overall balanced development in the production, transportation and marketing, thereby ensuring a safe and steady supply of natural gas in key cities and key customers.

##### Summary of Operations of the Natural Gas and Pipeline Segment

	Unit	2007	2006	Year-on-year change (%)
Crude oil pipeline	Kilometres	10,559	9,620	9.8
Refined oil pipeline	Kilometres	2,669	2,413	10.6
Natural gas pipeline	Kilometres	22,043	20,590	7.1

