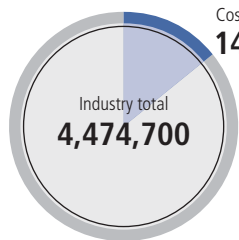


# Refining: 1

## Processing Capacity by Refinery (As of April 30, 2013) (Barrels/day)



Chiba Refinery	220,000
Yokkaichi Refinery	175,000
Sakai Refinery	100,000
Sakaide Refinery	140,000
<b>Cosmo Oil total</b>	<b>635,000</b>
<b>Industry total</b>	<b>4,474,700</b>
<b>Cosmo Oil share of Japan's total topper capacity</b>	<b>14.2%</b>

## Refinery Location and Crude Oil Processing Capacity in the Japanese Petroleum Industry (As of April 30, 2013) (Barrels/day)

(As of April 30, 2013) (Barrels/day)

Idemitsu Kosan Co., Ltd. (Aichi) 160,000

Cosmo Oil Co., Ltd. (Yokkaichi) 175,000  
Showa Yokkaichi Sekiyu Co., Ltd. (Yokkaichi) 210,000

Cosmo Oil Co., Ltd. (Sakai) 100,000  
Tonen General Sekiyu K.K. (Sakai) 156,000  
Osaka International Refining Co., Ltd. (Osaka) 115,000

Tonen General Sekiyu K.K. (Wakayama) 170,000

JX Nippon Oil & Energy Corporation (Mizushima) 380,200

JX Nippon Oil & Energy Corporation (Marifu) 127,000

Idemitsu Kosan Co., Ltd. (Tokuyama) 120,000

Seibu Oil Co., Ltd. (Yamaguchi) 120,000

JX Nippon Oil & Energy Corporation (Oita) 136,000

Taiyo Oil Co., Ltd. (Shikoku) 120,000

Cosmo Oil Co., Ltd. (Sakaide) 140,000

JX Nippon Oil & Energy Corporation (Muran) 180,000

Idemitsu Kosan Co., Ltd. (Hokkaido) 140,000

Crude Oil Processing Capacity  
Total: **4,474,700** barrels per day (26 refineries)

Source: Statistics Information, Petroleum Association of Japan

JX Nippon Oil & Energy Corporation (Sendai) 145,000

Kashima Oil Co., Ltd. (Kashima) 252,500

Cosmo Oil Co., Ltd. (Chiba) 220,000  
Kyokuto Petroleum Industries Ltd. (Chiba) 175,000  
Idemitsu Kosan Co., Ltd. (Chiba) 220,000  
Fuji Oil Co., Ltd. (Sodegaura) 143,000

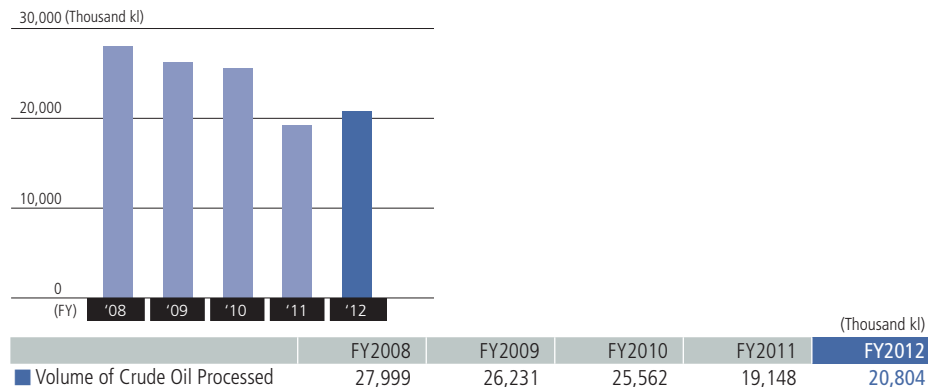
Tonen General Sekiyu K.K. (Kawasaki) 335,000  
Toa Oil Co., Ltd. (Keihin) 65,000

JX Nippon Oil & Energy Corporation (Negishi) 270,000

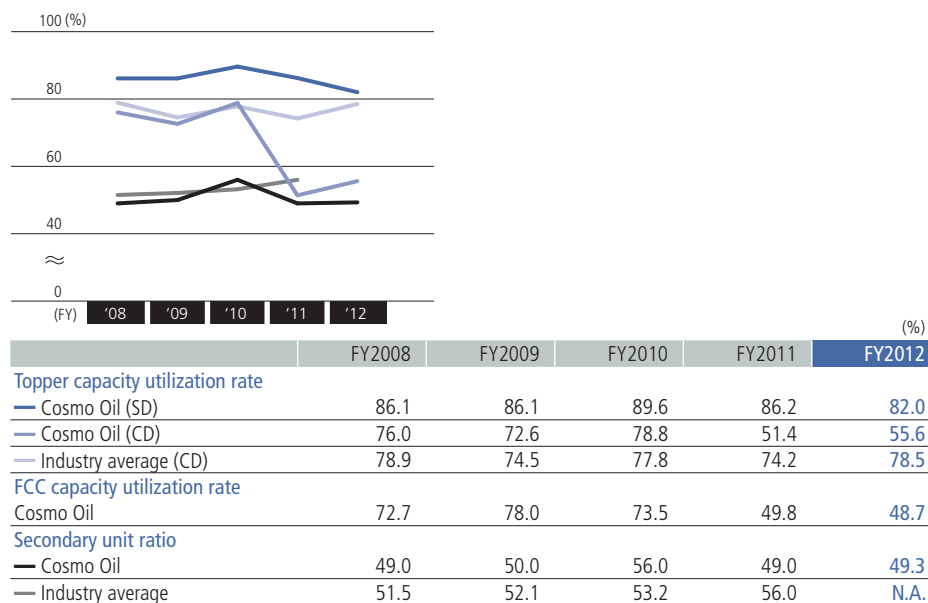
Nansei Sekiyu K.K. (Nishihara) 100,000

## Refining: 2

### Volume of Crude Oil Processed



### Topper Capacity Utilization Rate, Secondary Unit Ratio

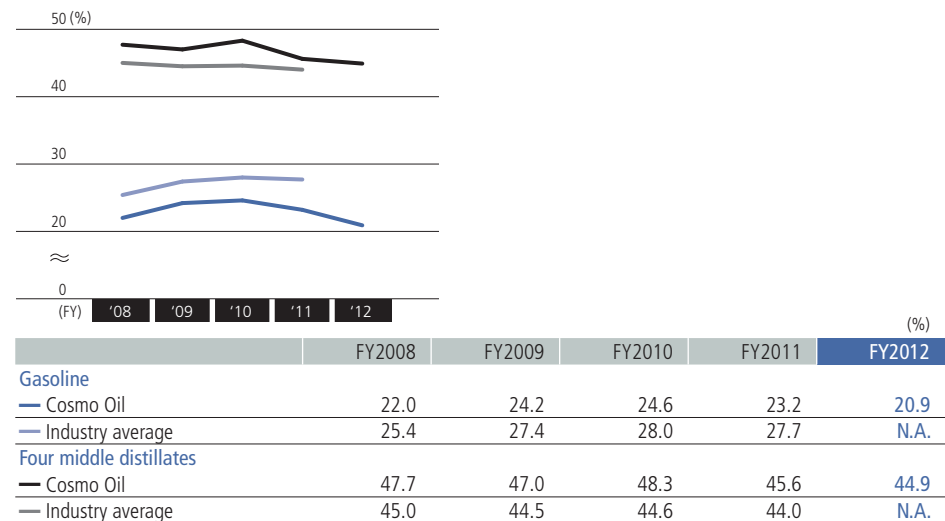


Notes: 1. SD: stream-day basis CD: calendar-day basis

2. Secondary units include direct desulfurization units, catalytic reformer units, fluid catalytic cracking units and alkylation units. Secondary unit ratio is based on Petroleum Association of Japan data.

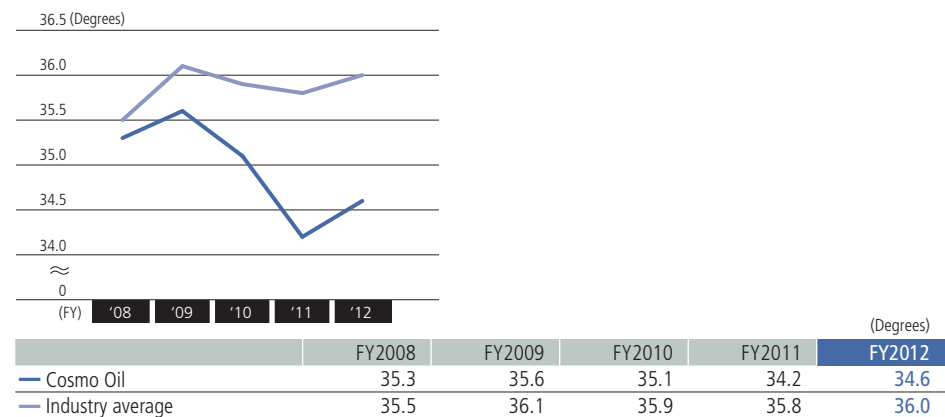
Source: Ministry of Economy, Trade and Industry, "Yearbook of Mineral Resources and Petroleum Products Statistics"

### Yields of Gasoline and Four Middle Distillates (Jet Fuel, Kerosene, Diesel Fuel, and Heavy Fuel Oil A)



Source: Ministry of Economy, Trade and Industry, "Yearbook of Mineral Resources and Petroleum Products Statistics"

### API Gravity



Source: Ministry of Economy, Trade and Industry, "Yearbook of Mineral Resources and Petroleum Products Statistics"