

Management's Discussion and Analysis of Financial Condition and Result of Operations

Star Petroleum Refining Public Company Limited

For Quarter 3/2022 and 9 months ended September 2022

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1. Company's Operating Result

(US\$ Million)	Q3/22	Q2/22	+/(-)	Q3/21	+/(-)	9M/22	9M/21	+/(-)
Total Revenue	2,082	2,254	(173)	1,245	837	6,303	3,776	2,527
EBITDA	(150)	278	(428)	25	(175)	346	187	158
Adjusted EBITDA ⁽¹⁾	43	223	(180)	1	43	362	26	336
(Loss) gain on foreign exchange	(17)	(18)	2	(6)	(10)	(28)	(8)	(20)
Net income	(137)	206	(343)	4	(140)	229	94	134
Net income (US\$ per share)	(0.03)	0.05	(0.08)	0.00	(0.03)	0.05	0.02	0.03
Accounting gross refining margin (US\$/barrel) ⁽²⁾	(7.34)	22.93	(30.27)	4.38	(11.72)	11.88	7.27	4.61
Market gross refining margin (US\$/barrel) ⁽³⁾	6.00	18.92	(12.92)	2.34	3.66	11.16	2.85	8.31

Crude intake (thousand barrels/day)	155.4	156.0	(0.6)	128.8	26.7	153.9	133.7	20.2
Crude intake Utilization	89%	89%	0%	74%	15%	88%	76%	12%

(Baht Million)	Q3/22	Q2/22	+/(-)	Q3/21	+/(-)	9M/22	9M/21	+/(-)
Total Revenue	76,146	78,008	(1,862)	41,193	34,953	219,558	119,682	99,876
EBITDA	(5,532)	9,632	(15,163)	816	(6,348)	11,362	5,821	5,541
Adjusted EBITDA ⁽¹⁾	1,549	7,732	(6,183)	16	1,534	11,924	712	11,212
(Loss) gain on foreign exchange	(620)	(639)	19	(213)	(406)	(1,017)	(273)	(744)
Net income	(5,027)	7,156	(12,183)	113	(5,140)	7,414	2,892	4,522
Net income (Baht per share)	(1.16)	1.65	(2.81)	0.03	(1.19)	1.71	0.67	1.04

⁽¹⁾ Adjusted EBITDA refers EBITDA excluding Stock gain/loss, net NRV and Extra item

⁽²⁾ margin includes inventory gain/loss based on weighted average inventory cost.

⁽³⁾ margin is calculated based on current replacement cost.

Exchange rate (Baht/US\$)	Q3/22	Q2/22	+/(-)	Q3/21	+/(-)	9M/22	9M/21	+/(-)
Average FX	36.58	34.60	1.98	33.10	3.49	34.81	31.71	3.10
Closing FX	38.07	35.46	2.60	34.09	3.98	38.07	34.09	3.98

Crude oil prices have been falling since July, oil market sentiment has made a U-turn over the past months from supply concerns to recession fears, China lockdown, demand pressure from consumers in non-USD currencies as a stronger US dollar and global economy concern. In Q3/22, the utilization rate for the crude intake was 155 thousand barrels per day, or equivalent to 89% of its refining capacity, approximated with prior quarter, and SPRC maintained crude and product optimizations during high crude premium to maximize domestic demand.

A continuing fall-off in oil price in this quarter caused significant loss in SPRC's EBITDA, EBIT and net earnings for Q3/22. NIAT for the quarter was loss of US\$137 million comparing to gain of US\$206 million in prior quarter. Accounting refining margin in Q3/22 was negative at US\$(7.34)/bbl comparing to US\$22.93/bbl last quarter, impacted by a huge stock loss which also including loss from inventory write down to net realizable value due to the oil price declining especially at the end of quarter. Excluding stock loss, market refining margin of US\$6.00/bbl, dropped from US\$18.92/bbl due to declining in product spreads, pressured by the weak refined product demand, high light distillate products inventories mostly in the United States and Singapore, recession fears and export from China. Total operating expenditures of Q3/22 approximated with the prior quarter expenses. NIAT also negatively impacted by a significant depreciation of Baht against US\$ during the quarter which resulted in a foreign exchange loss of US\$17 million.

Compared to Q3/22 with Q3/21, sales revenue increased 67%, mainly from an increase in product prices and increase domestic demand due to the resumption of more economic activities and more travel compared to the previous year quarter during the COVID-19 pandemic. However, EBITDA, EBIT and net earnings in Q3/22 were negative while they were positive in Q3/21. Accounting gross refining margin in Q3/22 was negatively impacted from the oil price fall which resulted in a significant stock loss and LCM. Excluding stock gain or loss, refining margin in Q3/22 of US\$6.00/bbl compared to US\$2.34/bbl in Q3/21 mainly from strengthened middle distillate refined product crack contributed from tight supply amid Russia-Ukraine conflict and demand recovery.

Compared 9M/22 with 9M/21, sales revenue increased 67%, which was impacted by a significant increase in oil prices and an increase in sales volume from activities resumption. EBITDA, EBIT and net earnings in 9M/22 significantly improved from prior year were mainly due to strong refining margin and stock gain after oil prices increased in this year. NIAT in 9M/22 was US\$229 million, considerably increased over the same period of previous year of US\$94 million. Excluding stock gain or loss, 9M/22 market gross refining margin significantly improved to US\$11.16/bbl, compared to US\$2.85/bbl in 9M/21 due to a greater crack spread of main products as a result of strong demand from the relaxation of travel restrictions and Ukraine-Russia conflict which impacted tight oil supply, and caused a rise in oil prices.

2. Market Condition

Pricing	Q3/22	Q2/22	+/(-)	Q3/21	+/(-)
Dubai crude oil	96.68	108.22	-11.54	71.68	25.00
Light Naphtha (MOPJ)	79.09	97.03	-17.94	75.11	3.98
Gasoline (premium)	109.76	143.36	-33.60	83.44	26.31
Jet Fuel	129.11	147.84	-18.73	77.08	52.03
Diesel	131.91	151.83	-19.92	77.12	54.79
Fuel Oil	74.44	104.67	-30.23	68.35	6.09

Spread over Dubai	Q3/22	Q2/22	+/(-)	Q3/21	+/(-)
Light Naphtha (MOPJ)	-17.60	-11.19	-6.40	3.43	-21.02
Gasoline (premium)	13.07	35.14	-22.06	11.76	1.31
Jet Fuel	32.43	39.62	-7.19	5.40	27.02
Diesel	35.22	43.60	-8.38	5.44	29.79
Fuel Oil	-22.24	-3.55	-18.69	-3.33	-18.91

Average Dubai price for Q3/22 was US\$96.68/bbl decreased from US\$108.22/bbl in Q2/22. Crude prices have fallen since July from concerns around the global economy. The market faced downward pressures from continued strengthening of the US dollar, a zero-Covid policy stance that continued to dampen China's demand, and weaker third-quarter refinery margins.

Gasoline spread over Dubai in Q3/22 decreased to US\$13.07/bbl largely due to the decrease in demand from Asia's key importers compounded by weaker than usual summer gasoline demand in the US and Europe. During second half of September, the gasoline crack was extremely volatile from rumors that China might issue another 10-15 million metric ton of product export quotas. The rumors were confirmed to be true at the end of September. Global light distillate inventory levels in 5 key areas remained at the lower end of the historic range from major key area in the USA, partly offset by elevated inventories in Singapore and ARA.

Naphtha spread over Dubai in Q3/22 decreased to US\$-17.60/bbl. The naphtha crack continued to decline due to curtailed naphtha cracker rates as a result of poor petchem margins/slow consumer demand recovery and planned/unplanned outages. curtailed cracker rates from Continued competitive LPG price among Asian and European crackers added further downward pressure to naphtha demand.

Jet and diesel crack spreads over Dubai decreased from previous quarter to be US\$32.43/bbl and US\$35.22/bbl respectively. Gasoil crack softened from slower economic and manufacturing activities owing to a weaker economic outlook, inflationary pressures, and slower economic growth. However, strong market

demand in Europe, owing to stockpiling for heating oil and higher gas-to-oil switching, has supported the cracks. In addition, Jet cracks are also softened as the pace of regional aviation recovery has generally slowed largely from slower demand from China. Moreover, seasonal summer travel demand wanes during Q3 have added further pressure to the cracks. Global middle distillate inventory levels in 5 key areas were at lowest levels. Singapore middle distillate stocks decreased by 8% Q-o-Q to 7.3 million barrels, and below 5 years average due to supply tightness from the Russia-Ukraine conflict.

Fuel oil spread over Dubai in Q3/22 was US\$-22.24/bbl, which was significant decreased from Q2/22. Fuel oil cracks weakened in line with elevated flows of Russian barrels to East as Russian barrels continued to be diverted away from Europe ahead the EU sanctions deadlines. In addition, Fuel oil demand for summer power generation in the Middle East and South Asia eased after reached its peak in August. Singapore onshore fuel oil inventories increased by 7% Q-o-Q to 22.3 million barrels.

SPRC's average market refining margin in Q3/22 was US\$6.00\$/bbl, which is lower as compared to US\$18.92/bbl in Q2/22. The margin weakened mainly driven by the declined in all key refined product cracks amid uncertainty demand over the recession fears and volatile market conditions such as flooding in Thailand. However, SPRC continued maximize Middle distillate products and optimize feedstocks to maximize margins.

3. Financial Performance

Financial Results

	US\$ Million			US\$ Million		US\$ Million		
	Q3/22	Q2/22	+ / (-)	Q3/21	+ / (-)	9M/22	9M/21	+ / (-)
Total Revenue	2,082	2,254	(173)	1,245	837	6,303	3,776	2,527
Cost of sales	(2,225)	(1,968)	(257)	(1,226)	(999)	(5,917)	(3,622)	(2,295)
Gross profit	(143)	287	(430)	19	(162)	386	154	232
Other income	0	0	0	0	(0)	1	1	(0)
(Loss) gain on exchange rate	(12)	(9)	(3)	(5)	(7)	(6)	3	(9)
Administrative expenses	(9)	(9)	0	(7)	(2)	(69)	(23)	(46)
Finance costs	(2)	(2)	(0)	(2)	(0)	(5)	(5)	0
Fair value (loss) gain on derivatives	(5)	(10)	5	(1)	(4)	(22)	(11)	(11)
Income tax	34	(51)	86	(1)	35	(57)	(24)	(32)
Net income	(137)	206	(343)	4	(140)	229	94	134

	Baht Million			Baht Million		Baht Million		
	Q3/22	Q2/22	+ / (-)	Q3/21	+ / (-)	9M/22	9M/21	+ / (-)
Total Revenue	76,146	78,008	(1,862)	41,193	34,953	219,558	119,682	99,876
Cost of sales	(81,416)	(68,069)	(13,346)	(40,580)	(40,836)	(206,818)	(114,921)	(91,896)
Gross profit	(5,270)	9,939	(15,209)	613	(5,883)	12,740	4,760	7,980
Other income	16	14	2	16	0	46	42	4
(Loss) gain on exchange rate	(433)	(302)	(131)	(164)	(270)	(266)	63	(329)
Administrative expenses	(333)	(318)	(15)	(220)	(113)	(2,334)	(725)	(1,609)
Finance costs	(77)	(58)	(19)	(54)	(22)	(175)	(160)	(15)
Fair value (loss) gain on derivatives	(187)	(337)	150	(50)	(137)	(751)	(336)	(415)
Income tax	1,257	(1,782)	3,038	(28)	1,285	(1,846)	(752)	(1,094)
Net income	(5,027)	7,156	(12,183)	113	(5,140)	7,414	2,892	4,522

Production Volumes

Petroleum products	Q3/22	Q2/22	Q3/21	Thousands barrels	
				9M/22	9M/21
Polymer Grade Propylene	346	324	386	1,050	1,237
Liquefied Petroleum Gas	586	636	527	1,850	1,775
Light Naphtha	818	953	798	2,674	2,373
Gasoline	3,816	3,785	3,687	11,720	11,384
Jet Fuel	929	1,043	244	2,438	850
Diesel	6,233	6,057	4,991	18,105	15,448
Fuel Oil	929	822	512	2,501	1,515
Asphalt	241	188	139	666	520
Mix C4	510	465	533	1,495	1,610
Other ⁽¹⁾	1,551	1,343	924	4,209	3,031
Total production	15,958	15,615	12,742	46,707	39,744

⁽¹⁾ Includes sulfur and reformat and products sold pursuant to our cracker feed exchange.

Total Sales Revenue

Petroleum products ⁽¹⁾	Q3/22	Q2/22	Q3/21	US\$ Million	
				9M/22	9M/21
Polymer Grade Propylene	25	29	31	89	103
Liquefied Petroleum Gas	35	47	32	126	81
Light Naphtha	67	85	60	240	168
Gasoline	548	669	420	1,829	1,190
Jet Fuel	115	146	26	301	95
Diesel	865	1,008	528	2,707	1,589
Fuel Oil	74	49	31	190	85
Asphalt	15	19	10	58	29
Mix C4	47	52	39	160	211
Crude	161	-	0	190	1
Others ⁽²⁾	128	152	68	414	225
Total Revenue	2,082	2,254	1,245	6,303	3,776

⁽¹⁾ Includes Government LPG and oil subsidies.

⁽²⁾ Includes sulfur, reformat and products sold pursuant to our cracker feed exchange.

Sales revenue in Q3/22 decreased 8% from Q2/22 due to a decrease in average oil prices but this was partially offset by an increase sales volume of 16.6 million barrels in Q3/22 compared to 15.6 million barrels in Q2/22 due to increased domestic demand than Q2/22. Thailand oil demand continued to recovery particularly in aviation sector, however diesel demand was pressured by raining season and lower power plant feedstock requirement. Total sale amount in Q3/22 also included sale of crude oil of 1.4 million barrels.

Comparing Q3/22 with Q3/21, sales revenue increased 67%, which was impacted by significantly higher oil prices and an increase in sales volume after easing of Covid measures, which increased from 13.1 million barrels in Q3/21 to 16.6 million barrels in Q3/22.

Similarly, sales revenue for 9M/22 also significantly increased 67% compared to 9M/21 from 41.0 million barrels to 48.0 million barrels from recovery of product demand with more mobility after relaxation of Covid.

The table presents breakdown of revenues from sales of petroleum products to company's customers.

Customer	Q3/22	Q2/22	Q3/21	9M/22	9M/21
Chevron	45%	40%	42%	41%	45%
PTT & PTTOR	42%	46%	42%	45%	39%
Other oil and petrochemical companies	13%	14%	16%	14%	16%
Total	100%	100%	100%	100%	100%

Cost of Sales

Comparing cost of sale for Q3/22 with Q2/22, cost of sale increased 13%. The increase was due to increase in sale volume, higher weighted average cost of sale and also a loss from inventory write-down to net realizable value of US\$76 million (Baht 2,776 million) in Q3/22.

Comparing Q3/22 to Q3/21, cost of sales in Q3/22 increased 81% which reflected from oil price rose in this quarter and also higher in sales volume compared with the same quarter in prior year. Cost of sale also included a loss from inventory write-down due to oil price falling at the end of September 22.

Cost of sales in 9M/22 increased 63% from 9M/21. The increase in cost of crude oil on weighted average inventory, a loss from inventory write-down, and also higher in sales volume compared with the same period in prior year.

Gain / (loss) on Foreign Exchange and Financial Derivatives

Thai Baht in Q3/22 continued to depreciate against the US dollar in line with regional currencies which resulted to another exchange loss (including derivatives) of US\$17 million in Q3/22 comparing to Q2/22 of US\$18 million.

Comparing Q3/22 to Q3/21, there were exchange loss in both quarter of US\$17 million in Q3/22 and US\$7 million in Q3/21. Value of Baht declined in Q3/22 which resulted in exchange loss when SPRC has net Baht denominated receivables.

Comparing 9M/22 to 9M/21, Thai Baht value continued to decline due to US dollar strengthening on interest rate hike to control the inflation rate which impacted to exchange loss of US\$28 million, higher than the same period of prior year of US\$8 million.

Administrative Expenses

Administrative expenses were US\$9 million in Q3/22, the same as in Q2/22 and higher than in Q3/21, owing primarily to the expense related to the SPM incident. There was a minor additional expense related to SPM incident of US\$2.7 million in Q3/22.

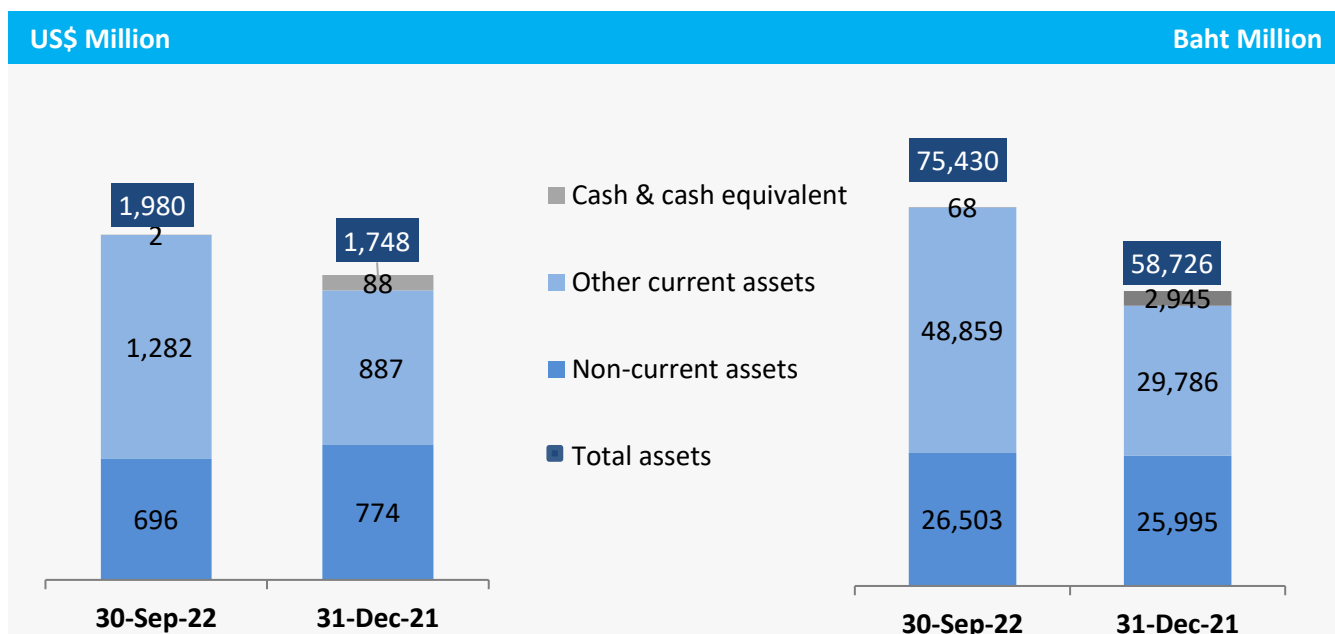
Comparing 9M/22 with 9M/21, administrative expense significantly increased from US\$23 million in 9M/21 to US\$69 million in 9M/22 due to the expenses related to SPM incident.

Income tax

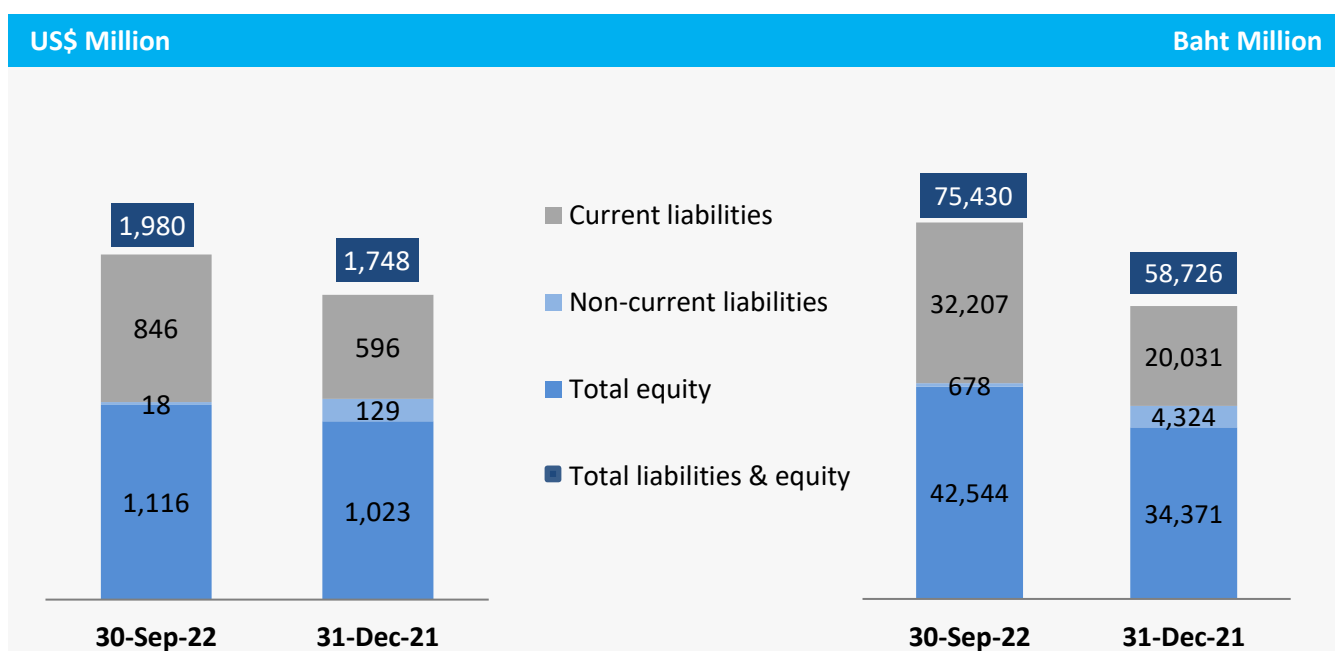
Operating profit in 9M/22 resulted in income tax in this period which offset with the deferred income tax on operating loss carry forward.

Analysis of Financial Position

Asset Breakdown



Liabilities & Equity



Assets

Total assets as of 30 September 22 increased by US\$231 million (Baht 16,704 million) from 31 December 21.

Total current assets increased US\$309 million (Baht 16,196 million) mainly due to:

- an increase in inventory of US\$292 million (Baht 13,312 million) mainly from higher inventory price due to increasing in oil price and increasing of inventory volume to support higher crude run and increase in strategic reserve from 4% to 5%; and
- an increase in trade and other receivables of US\$101 million (Baht 5,696 million) due to higher product selling price, higher outstanding oil fuel fund subsidy and advance income tax in September 22 comparing to December 21; but partly offset by
- a decrease in cash and cash equivalent of US\$86 million (Baht 2,877 million) due to net cash used in

financing activities, mainly from dividend payments to shareholders of US\$136 million (Baht 4,936 million) and repayment of long-term borrowings of US\$83 million (Baht 2,953 million) and also support higher working capital, which was partly offset by net cash generated from operating activities.

On the contrary, non-current assets decreased US\$78 million (Baht 508 million) mainly due to a decrease in property, plant and equipment of US\$51 million (but increase Baht 1,280 million from currency translation) due to depreciation expenses in 9M/22, and a decrease in deferred tax asset of US\$25 million (Baht 741 million) from the utilization of operating loss carryforward from profit in 9M/22.

Liabilities

Total liabilities as of 30 September 22 increased US\$139 million (Baht 8,531 million) from 31 December 21. The increment was mainly from:

- a) an increase in trade and other account payables of US\$135 million (Baht 7,002 million) from an increase in crude oil price and purchase volume in September 22 comparing to December 21; and
- b) an increase in other current liabilities from short-term provision relating to oil spill incident of US\$7 million (Baht 269 million); but partly offset by
- c) a decrease in Excise tax payable of US\$16 million (Baht 441 million) from government reduction in excise tax rate of diesel since February 22 to control the selling price; and
- d) a decrease in L-T borrowing of US\$105 million (Baht 2,921 million) but partly offset by an increase in S-T borrowing of 103 million (Baht 3,910 million) to support working capital.

Shareholders' Equity

Shareholders' equity as of 30 September 22 increased US\$92 million (Baht 8,174 million) from 31 December 21 resulted from the net profit in 9M/22 offset by dividend payment.

Statement of Cash Flow

9M/2022	US\$ Million	Baht Million
Net cash generated from operating activities	28	361
Net cash used in investing activities	(4)	(146)
Net cash used in financing activities	(110)	(4,010)
Net decrease in cash and cash equivalents	(86)	(3,796)
Cash and cash equivalents at the beginning of the period	88	2,945
Adjustments from foreign exchange translation	(0)	919
Cash and cash equivalents at the end of the period	2	68

SPRC cash and cash equivalents was US\$2 million at the end of September 2022, decreased from US\$88 million at the end of December 2021.

Details of cash flow activities in 9M/22 are as follow.

- a) Net cash generated from operating activities of US\$28 million (Baht 361 million) which was primarily due to:
 - a. Cash generated from 9M/22 net profit of US\$229 million (Baht 7,414 million) from strong refining margin and non-cash items of US\$133 million (Baht 4,526 million);
 - b. Cash generated from operating liabilities of US\$115 million (Baht 4,018 million) mainly from an increase in trade and other payables US\$136 million (Baht 4,733 million) due to the increase in the price and volume of crude oil purchase in September 22 but partly offset by a decrease in other current liabilities of US\$21 million (Baht 714 million) mainly from lower Excise tax rate on diesel to control the retail price in September 22 comparing to December 21. Cash generated was offset by

- c. Cash used in operating assets of US\$448 million (Baht 15,597 million). The increase both in oil price and volume due to higher strategic reserve also gave rise to an increase in inventory US\$368 million (Baht 12,817 million) and an increase in trade and other receivables of US\$79 million (Baht 2,760 million) from higher selling price and an increase in outstanding oil fuel fund subsidy.
- b) Net cash used in investing activities of US\$4 million (Baht 146 million) mainly in reliability and environmental projects.
- c) Net cash used in financing activities of US\$110 million (Baht 4,010 million) for the principal repayment of long-term borrowings in 9M/22 US\$83 million (Baht 2,953 million) and dividend payment of US\$136 million (Baht 4,936 million), partially offset by proceed of short-term borrowing of US\$109 million (Baht 3,879 million) to support the increase in working capital.

Financial Ratios

		Q3/22	Q2/22	Q3/21	9M/22	9M/21
Current Ratio	(Time)	1.5	1.7	2.0	1.5	2.0
Gross Profit Margin	(%)	(6.9)	12.7	1.5	6.1	4.1
Net Profit Margin	(%)	(6.6)	9.2	0.3	3.6	2.5
Debt to Equity ratio	(Time)	0.8	0.7	0.7	0.8	0.7
Net Interest-Bearing Debt to Equity ratio	(Time)	0.2	0.1	0.3	0.2	0.3
Interest Coverage ratio	(Time)	(80.4)	155.4	3.7	58.2	24.4

Note:

Current Ratio	= Current Assets / Current Liabilities	(Time)
Gross Profit Margin	= Gross Profit (Loss) / Sales Revenue	(%)
Net Profit Margin	= Quarter (Net Profit (Loss) / Total Revenue)	(%)
Debt to Equity Ratio	= Total Liabilities / Total Shareholders' Equity	(Time)
Net Interest-Bearing Debt to Equity ratio	= Interest Bearing Debt - Cash / Total Shareholders' Equity	(Time)
Interest Coverage ratio (Accrual basis)	= Earnings before interest and taxes (EBIT) / interest expenses	(Time)

4. Market Outlook

The refining margin is expected to be driven by strong middle distillate market in the fourth quarter despite downward pressure from a slower economic growth. In addition, downside risks to margins will include additional export quota from mainland China. At the end of September, China confirmed new export quotas for transport fuels and Fuel oil speculation by issuing 15 million metric ton of export quotas to refiners. 13.25 million metric ton of the quotas were for transport fuels, while 1.75 million metric ton were for Fuel oil. It was also reported that the new quotas can be rolled over to Q1/23. However, the refinery margins are expected to remain strong year on year largely driven from low inventory of Middle Distillate around the globe and demand from European imports.

The balance between global liquid demand and supply for the year 2022 is expected to be at 99.6 MMb/d on demand and 100.6 MMb/d on supply. On demand side, demand recovery remains under pressure from China continues to battle localized outbreaks with restricted movements. In addition, the uncertainty economic circumstance owing to high energy price and rising interest rate have slowed manufacturing activities in several countries. However, rising gas price will support the gas to oil switch, offsetting some of the downside risk to demand. On the supply side, Global supply is expected to rise mainly from OPEC+ gradually increase production throughout the year. With the latest decision starting in October to cut 2 MMb/d output with the aim to keep supply demand towards balance to supporting high oil price.

Light distillates crack will continue to face extreme volatility from economic uncertainty amid recession fears and economic woes in parts of Asia are expected to curtail demand despite lower retail prices. However, Gasoline demand in Q4/22 is expected to increase from seasonal boost at the end of the year by holiday festivities. China export and high inventory in Singapore will cap the price gain in this part of the world.

Middle distillates crack, which includes Jet and diesel, were expected to remain firm. Furthermore, gas price is expected to remain high, which will keep higher gas to oil switching amid extremely low inventory level and EU embargo Russian oil will keep the middle distillate cracks elevated. However, the potential additional supply from China will weigh heavily on global refining margins. In addition, Jet cracks are estimated to recover gradually in Q4/22 as heating oil stockpiling and aviation demand recovery from the easing of travel requirements.

The residual fuel oil crack is expected to face further downward pressure with reshuffling of Russian barrels from Europe, higher refinery utilization to meet Middle Distillate demand. Meanwhile, the slowing global economy has lowered consumption in the industrial sector, as well as bunker requirements. However, Crack could be pushed up from potential demand returns for power generation in Q4/22.

5. Appendix

