One Family…
Fueling the Future of Thailand

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

Star Petroleum Refining Public Company Limited

For Quarter 2/2020 and 6 months ended June 2020

1) Company's Operating Result

(US$ Million)	Q2/20	Q1/20	+/(-)	Q2/19	+/(-)	6M/20	6M/19	+/(-)
Total Revenue	807	1,256	(449)	1,553	(746)	2,064	3,045	(981)
EBITDA	69	(303)	372	(6)	75	(234)	80	(315)
EBIT	47	(326)	372	(26)	73	(279)	39	(318)
(Loss) gain on foreign exchange	(1)	7	(8)	16	(18)	6	26	(21)
Net income (Loss)	37	(261)	298	(19)	56	(224)	34	(258)
Net income (Loss) (US$ per share)	0.01	(0.06)	0.07	(0.00)	0.01	(0.05)	0.01	(0.06)
Accounting gross refining margin (US$/barrel) (1)	7.51	(20.34)	27.85	2.29	5.22	(6.95)	5.17	(12.12)
Market gross refining margin (US$/barrel) (2)	4.65	1.28	3.37	2.57	2.08	2.90	2.83	0.07
Crude intake (thousand barrels/day)	141.9	153.1	(11.2)	151.5	(9.6)	147.5	157.6	(10.1)

(Baht Million)	Q2/20	Q1/20	+/(-)	Q2/19	+/(-)	6M/20	6M/19	+/(-)
Total Revenue	25,831	39,376	(13,545)	49,332	(23,501)	65,207	96,729	(31,522)
EBITDA	2,150	(9,622)	11,772	(174)	2,324	(7,458)	2,560	(10,018)
EBIT	1,444	(10,329)	11,772	(822)	2,266	(8,885)	1,246	(10,131)
(Loss) gain on foreign exchange	(41)	242	(283)	512	(552)	201	839	(638)
Net income (Loss)	1,138	(8,273)	9,411	(599)	1,738	(7,135)	1,091	(8,225)
Net income (Loss) (Baht per share)	0.26	(1.91)	2.17	(0.14)	0.40	(1.65)	0.25	(1.90)

(1) margin includes inventory gain/loss based on weighted average inventory cost.
(2) margin is calculated based on current replacement cost.

Exchange rate (Baht/US$)	Q2/20	Q1/20	+/(-)	Q2/19	+/(-)	6M/20	6M/19	+/(-)
Average FX	32.11	31.45	0.66	31.76	0.35	31.77	31.78	(0.00)
Closing FX	31.07	32.83	(1.76)	30.92	0.15	31.07	30.92	0.15

SPRC's operating performance in Q2/20 was still impacted from COVID-19 pandemic with low production rates and low market margin. SPRC started to reduce the refinery utilization in March to meet the reduced consumption and as such SPRC crude intake in Q2/20 was at 142 thousand barrels per day, equivalent to 81% of the refining capacity, which reduced from 153 thousand barrels per day in Q1/20. Despite the recovery of oil price during May-June 20, the average oil price in Q2/20 was still lower than Q1/20 and together with the lower refinery throughput, sales revenue in Q2/20 decreased from US$1,256 million to US$807 million, or a decrease of 36%.

Comparing Q2/20 with Q1/20, SPRC has positive EBITDA, EBIT and net earnings in Q2/20 while there was a significant stock loss and negative earnings in prior quarter. Impacted from the pandemic, world market oil price sharply dropped in March and April and started to recover in May and June which resulted to stock gain in Q2/20. NIAT for the quarter was US$37 million while it was loss US$261 million in prior quarter. Accounting refining margin in Q2/20 turned to positive at US$7.51/bbl comparing to negative at US$(20.34)/bbl in Q1/20 which impacted by a huge stock loss from inventory write down to net realizable value due to the oil price declining in Q1/20. Excluding stock gain or loss, market refining margin has improved from US$1.28/bbl in Q1/20 to US$4.65/bbl in Q2/20 due to crude price discount benefit and some relief of the COVID-19 lockdown which resulted in the increased demand. Apart from the external impact on refinery utilization, SPRC still keep focusing to maintain plant reliability and reduce its operating expenses.

Compared Q2/20 with Q2/19, sales revenue decreased 48% as a result of lower average selling price and lower throughput. However EBITDA, EBIT and net earnings in Q2/20 were positive while they were loss in Q2/19. Recovery of oil price in Q2/20 resulted in higher accounting gross refining margin in Q2/20 comparing to Q2/19. Excluding stock gain or loss, Q2/20 market gross refining margin was also higher due to the increased demand and crude price discount while market gross refining margin in Q2/19 was relatively low impacted from excessive refinery run.

Compared 6M/20 with 6M/19, the impact from the outbreak and oil price decline also caused negative EBITDA and net loss for 6M/20 due to a significant stock loss while earnings were positive in 6M/19. Crude intake was 84% utilization or 148 thousand barrels per day in 6M/20, decreased from 158 thousand barrels per day in 6M/19, impacted from the reduction in refinery run due to the decreased demand during COVID-19 pandemic. Together with lower average selling price, sales revenue in 6M/20 decreased from prior year. Accounting gross refining margin was negative at US$(6.95)/bbl in 6M/20 comparing to positive at US$5.17/bbl in 6M/19. Excluding stock gain or loss, market gross refining margin in 6M/20 and 6M/19 were relatively low at average of US$2.8-US$2.9/bbl. Apart from stock loss and lower accounting refining margin, net loss in 6M/20 was also from lower exchange gain and higher financing cost when comparing to net earnings in 6M/19.

2) Market Condition

Pricing	Q2/20	Q1/20	+/(-)	Q2/19	+/(-)
Dubai crude oil	30.55	50.66	-20.11	67.38	-36.84
Light Naphtha	30.41	48.83	-18.41	60.08	-29.66
Gasoline (premium)	33.11	57.23	-24.12	74.89	-41.78
Jet Fuel	30.43	59.16	-28.73	79.60	-49.17
Diesel	36.25	61.66	-25.41	79.76	-43.51
Fuel Oil (HSFO)	28.91	43.28	-14.37	65.08	-36.16

Spread over Dubai	Q2/20	Q1/20	+/(-)	Q2/19	+/(-)
Light Naphtha	-0.13	-1.83	1.70	-7.31	7.17
Gasoline (premium)	2.56	6.58	-4.01	7.51	-4.94
Jet Fuel	-0.12	8.51	-8.62	12.21	-12.33
Diesel	5.70	11.00	-5.30	12.38	-6.67
Fuel Oil (HSFO)	-1.63	-7.38	5.75	-2.31	0.67

Average Dubai price for Q2/20 was US$30.55/bbl, which was decreased from US$50.66/bbl in Q1/20. Oil prices fell to US$20.39/bbl in April 20, its lowest in at least 10 years. The main reason was from higher global crude oil supply and lower demand due to the coronavirus crisis. However, the Organization of the Petroleum Exporting Countries, along with Russia and other countries (known as OPEC+) agreed to cut output by 9.7 million barrels per day (bpd) in May to July, representing about 10% of global supply. Some countries in the region also increasingly eased coronavirus restrictions which improved demand in May 20 onward.

Gasoline spread over Dubai in Q2/20 fell to US$2.56/bbl. Gasoline cracks fell due to COVID19 lockdowns in several countries including India, the United States, and parts of Europe. Gasoline export from China and arbitrage flow from west to Singapore also weighed on market supply. In May 20, Gasoline cracks and demand started improving as road mobility and transport fuel demand across the region trends higher due to most countries have eased containment measures and reopened their economies. Singapore light distillates stocks were 15.0 million barrels on average, decreased by 2% Q-o-Q.

Naphtha spread over Dubai in Q2/20 was minus US$0.13/bbl. Naphtha market was supported by the lower crude prices which has incentivized petrochemical producers to keep high cracker utilization, higher LPG prices also unattractive to use as feed stock and Asia and Middle Eastern refiners are cutting runs owing to the transport fuel demand reduction, leading to lower naphtha production.

Jet and Diesel crack spreads over Dubai were minus US$0.12/bbl and US$5.70/bbl, respectively. Jet cracks remained under pressure as most country borders remain closed to international visitors and demand only due to domestic flight. Diesel cracks continue to trend lower in May as more cargoes from India are being exported to the Far East amid weak domestic demand which will continue the trend of Indian supply flooding the regional market. However, the ease containment measures were support gasoil price as some recovery in both transport and industrial demand. Singapore stocks increased to 14.0 million barrels, rise 6% Q-o-Q.

Fuel oil spread over Dubai in Q2/20 was minus US$1.63/bbl, which was higher than Q1/20. High sulfur fuel oil cracks have been supported by tight heavy sour crude supply as OPEC cut more heavy crude, lower outright crude prices, refinery run cuts and scheduled maintenance in the region in Q2 which is produce less fuel oil available. More demand in North East Asia as complete install scrubber also supports the market. Singapore onshore fuel oil inventories increased by 7% Q-o-Q to 26.6 million barrels.

Due to lower crude premium and lower product market effect, SPRC's average market refining margin in Q2/20 was US$4.65/bbl as compared to US$1.28/bbl in Q1/20 and US$2.57/bbl in Q2/19. In Q2/20, SPRC captured margin by maximizing light crude, minimize Jet production and optimizing crude throughput to meet domestic demand and continuing process optimization.

3) Financial Results

	US$ Million			US$ Million		US$ Million		
	Q2/20	Q1/20	+/(-)	Q2/19	+/(-)	6M/20	6M/19	+/(-)
Total Revenue	807	1,256	(449)	1,553	(746)	2,064	3,045	(981)
Cost of sales	(748)	(1,582)	834	(1,588)	840	(2,330)	(3,017)	687
Gross profit	**59**	**(325)**	**385**	**(35)**	**94**	**(266)**	**28**	**(294)**
Other income	0	0	(0)	0	(0)	1	1	(0)
(Loss) gain on exchange rate	(1)	7	(8)	16	(18)	6	26	(21)
Administrative expenses	(10)	(8)	(2)	(8)	(3)	(19)	(16)	(2)
Finance costs	(1)	(2)	1	(0)	(1)	(3)	(0)	(2)
Fair value loss on derivatives	(1)	0	(1)	0	(1)	(1)	0	(1)
Income tax	(9)	66	(75)	7	(16)	58	(4)	62
Net income (Loss)	**37**	**(261)**	**298**	**(19)**	**56**	**(224)**	**34**	**(258)**

	Baht Million			Baht Million		Baht Million		
	Q2/20	Q1/20	+/(-)	Q2/19	+/(-)	6M/20	6M/19	+/(-)
Total Revenue	25,831	39,376	(13,545)	49,332	(23,501)	65,207	96,729	(31,522)
Cost of sales	(23,981)	(49,701)	25,721	(50,435)	26,455	(73,682)	(95,825)	22,143
Gross profit	**1,851**	**(10,325)**	**12,176**	**(1,103)**	**2,954**	**(8,475)**	**904**	**(9,379)**
Other income	8	13	(5)	8	(0)	21	21	(0)
(Loss) gain on exchange rate	(41)	242	(283)	512	(552)	201	839	(638)
Administrative expenses	(333)	(258)	(75)	(238)	(94)	(590)	(514)	(76)
Finance costs	(31)	(52)	21	(9)	(21)	(83)	(14)	(69)
Fair value loss on derivatives	(41)	0	(41)	0	(41)	(41)	0	(41)
Income tax	(275)	2,108	(2,382)	232	(507)	1,833	(141)	1,974
Net income (Loss)	**1,138**	**(8,273)**	**9,411**	**(599)**	**1,738**	**(7,135)**	**1,091**	**(8,225)**

Production Volumes

Thousands barrels

Petroleum products	Q2/20	Q1/20	Q2/19	6M/20	6M/19
Polymer Grade Propylene	424	361	356	785	715
Liquefied Petroleum Gas	550	636	641	1,186	1,338
Light Naphtha	941	760	681	1,701	1,361
Gasoline	3,422	3,890	3,577	7,312	7,326
Jet Fuel	430	1,222	1,124	1,652	2,459
Diesel	6,260	6,183	5,372	12,443	11,154
Fuel Oil	687	1,010	1,355	1,698	2,749
Asphalt	116	126	233	242	476
Mix C4	494	520	405	1,014	797
Other [(1)]	1,057	1,111	1,510	2,168	3,130
Total production	**14,382**	**15,820**	**15,254**	**30,201**	**31,505**

[(1)] Includes sulfur and reformate and products sold pursuant to our cracker feed exchange.

Total Sale Revenue

US$ Million

Petroleum products [(1)]	Q2/20	Q1/20	Q2/19	6M/20	6M/19
Polymer Grade Propylene	22	22	24	44	49
Liquefied Petroleum Gas	16	28	31	44	61
Light Naphtha	28	35	39	63	78
Gasoline	255	356	463	611	878
Jet Fuel	11	81	97	91	199
Diesel	410	601	666	1,012	1,298
Fuel Oil	18	40	83	58	163
Asphalt	5	4	13	9	30
Mix C4	12	26	29	38	54
Crude	0	10	0	10	10
Others [(2)]	30	54	107	83	225
Total Revenue	**807**	**1,256**	**1,553**	**2,064**	**3,045**

[(1)] Includes Government LPG and oil subsidies.
[(2)] Includes sulfur, reformate and products sold pursuant to our cracker feed exchange.

The outbreak of COVID-19 has adversely impacted to global economics and reduced oil consumption demand. This resulted in the decrease of 36% in Q2/20 sale revenue from Q1/20 and 48% from Q2/19 from lower in both average petroleum products price and product sale volume. Sale volume decreased to 15.0 million barrels in Q2/20 compared to 16.4 million barrels in Q1/20 and 16.5 million barrels in Q2/19.

The impact of COVID-19 also caused sales revenue for 6M/20 to decrease by 32% compared to 6M/19 from the decrease in both product price and sales volume. Sales volume of petroleum products was 31.4 million barrels in 6M/20 as compared to 33.0 million barrels in 6M/19.

Cost of Sales

Comparing cost of sales for Q2/20 with Q1/20, cost of sale significantly decreased 53%. The decrease was in line with the decrease in sales revenue but in a higher proportion due to lower average cost of crude oil in this quarter and a reversal of inventory write down while cost of sales in Q1/20 included a significant loss from inventory write down to net realizable value of US$160 million.

Comparing Q2/20 to Q2/19, cost of sales also decreased 53% which also reflected from lower average cost of crude oil and lower sales volume.

Cost of sales in 6M/20 also decreased from 6M/19 impacted from global decrease in oil price and lower sales volume.

Gain on Foreign Exchange

Foreign exchange loss of US$1 million in Q2/20 comparing to foreign exchange gain of US$7 million in Q1/20 and US$16 million in Q2/19. In Q2/20 SPRC had balance of Baht denominated receivables and Baht denominated payables so the movement of exchange rate has less impact to company performance. While in Q1/20 SPRC had exchange gain of US$7 million from Baht weakened against US$ on a net Baht denominated payables outstanding. Baht depreciation resulted in a decrease in the value of Baht denominated payables when converted to US$ equivalent payable. Q2/19 was opposite when Baht moved stronger, SPRC had net Baht denominated receivables which resulted in higher US$ receivables equivalent and exchange gain.

Foreign exchange gain for 6M/20 was lower than the same period of prior year due to higher appreciation of Baht relating to U.S. dollar on net Baht denominated receivables in prior years.

Administrative Expenses

Administrative expenses in Q2/20 increased US$2 million from Q1/20 and US$3 million from Q2/19 mainly due to higher provision of material obsolescence and other miscellaneous expenses. These factors also caused administrative expense in 6M/20 higher than 6M/19.

Income tax

Operating profit in Q2/20 resulted in income tax in this period which to offset with the deferred income tax on operating loss carry forward.

4) Analysis of Financial Position

	US$ Million				Baht Million		
	30 Jun 2020	31 Dec 2019	+/(-)	% +/(-)	30 Jun 2020	31 Dec 2019	+/(-)
Assets							
Cash & cash equivalent	3	1	2	292%	81	20	61
Other current assets	513	841	(328)	-39%	15,932	25,504	(9,572)
Non-current assets	947	949	(1)	0%	29,483	28,770	713
Total assets	**1,463**	**1,790**	**(327)**	**-18%**	**45,496**	**54,294**	**(8,798)**
Liabilities							
Current liabilities	352	703	(351)	-50%	10,941	21,334	(10,393)
Non-current liabilities	273	16	257	1609%	8,472	484	7,988
Total liabilities	**625**	**719**	**(94)**	**-13%**	**19,413**	**21,818**	**(2,405)**
Equity							
Share capital & retained earnings	838	1,071	(233)	-22%	32,744	40,150	(7,406)
Other component of shareholders' equity					(6,662)	(7,674)	1,012
Total equity	**838**	**1,071**	**(233)**	**-22%**	**26,083**	**32,476**	**(6,393)**
Total liabilities & equity	**1,463**	**1,790**	**(327)**	**-18%**	**45,496**	**54,294**	**(8,798)**

Assets

Total assets as of 30 Jun 2020 decreased by US$327 million (Baht 8,798 million) from 31 Dec 2019.

Total current assets decreased US$326 million (Baht 9,511 million) mainly due to:

a) a significant decrease in inventory of US$365 million (Baht 10,896 million) from a reduction in crude inventory to optimum operating inventory level and a reduction in strategic reserve requirement from 6% to 4%. Lower inventory was also from a decrease in inventory price which is in line with lower oil price in the market;

b) a decrease in VAT receivables of US$11 million (Baht 321 million) due to higher sales volume in Jun 20 comparing to Dec 19 resulted in VAT on sale higher than VAT on crude purchase which net to lower VAT receivables at end Jun; but partly offset by

c) an increase in trade and other receivables of US$27 million (Baht 1,001 million) due to higher sales volume comparing to Dec 19 after refinery shutdown despite lower product price; and

d) a current portion of prepaid income tax of US$20 million (Baht 621 million) which was reclassified from non-current asset presented in last year.

Non-current assets slightly decreased US$1 million (but increased Baht 713 million due to currency transaction) from a decrease in property, plant and equipment of US$40 million (Baht 603 million) due to depreciation expenses in 6M/20 and a decrease in portion of prepaid income of US$21 million (Baht 621 million) which was reclassified to current assets but offset by an increase in deferred tax asset of US$60 million (Baht 1,940 million) from operating loss carryforward in 6M/20.

Liabilities

Total liabilities as of 30 Jun 20 decreased US$94 million (Baht 2,405 million) from 31 Dec 2019.

Total current liabilities decreased US$351 million (Baht 10,393 million) mainly from:

a) a significant decrease in trade and other account payables of US$247 million (Baht 7,330 million) from lower crude oil price in Jun 20 comparing to Dec 19 and also from lower crude volume purchase;

b) a decrease in S-T borrowing of US$211 million (Baht 6,383 million) from repayment;

c) an increase in excise tax payable of US$85 million (Baht 2,656 million) from the extension of excise tax payment as one of government program to mitigate COVID impact;

d) an increase in current portion of long-term borrowings of US$15 million (Baht 467 million) from new long-term loan agreement entered in Jun 20.

Total non-current liabilities increased US$257 million (Baht7,988 million) mainly from new long-term loan borrowings which the proceed was used to repay short-term loan.

Shareholders' Equity

Shareholders' equity as of 30 Jun 2020 decreased US$233 million (Baht 6,393 million) from 31 Dec 2019 resulted from the net loss in 6M/20 of US$224 million and 2019 dividend payment of US$8 million.

5) Statement of Cash Flow

6M/2020	US$ Million	Baht Million
Net cash used in operating activities	(48)	(1,545)
Net cash used in investing activities	(7)	(212)
Net cash generated from financing activities	58	1,825
Net increase in cash and cash equivalents	**3**	**69**
Cash and cash equivalents at the beginning of the period	**1**	**20**
Adjustments from foreign exchange translation	(1)	(8)
Cash and cash equivalents at the end of the period	**3**	**81**

SPRC cash and cash equivalents were US$3 million at the end of Jun 2020 comparing to US$1 million at end Dec 2019.

Details of cash flow activities in 6M/20 are as follow.

a) Net cash used for operating activities of US$48 million (Baht 1,545 million) which was primarily due to:
   a. 6M/20 net loss of US$224 million (Baht 7,135 million) and non-cash items of US$19 million (Baht 617 million);
   b. Cash used in operating liabilities of US$154 million (Baht 4,886 million) mainly from a decrease in trade and other payables US$244 million (Baht 7,747 million) due to the declining in oil price and lower volume of crude oil purchase but partly offset by an increase in other current liabilities of US$90 million (Baht 2,861 million) mainly from the extension of excise tax payable.
   c. Cash generated from operating assets of US$349 million (Baht 11,093 million), mainly from a decrease in inventory value of US$365 million (Baht 11,612 million) from lower in both inventory volume and price, partly offset by an increase in trade and account receivables of US$26 million (Baht 833 million) from higher sale volume in Jun 20 comparing to Dec 19.

b) Net cash used in investing activities of US$7 million (Baht 212 million);

c) Net cash generated from financing activities of US$58 million (Baht 1,825 million) from long-term borrowings which the proceed was used for short term borrowings repayment.

6) Financial Ratios

		Q2/20	Q1/20	Q2/19	6M/20	6M/19
Current Ratio	(Time)	1.5	0.8	1.6	1.5	1.6
Net Profit Margin	(%)	4.5	(20.8)	(1.2)	(10.9)	1.1
Debt to Equity ratio	(Time)	0.7	0.8	0.5	0.7	0.5
Net Interest-Bearing Debt to Equity ratio	(Time)	0.3	0.5	0.1	0.3	0.1

Note:

Current Ratio	= Current Assets / Current Liabilities	(Time)
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)