



*"One Caring Family
Energizing Our Future"*



**Management's Discussion and
Analysis of Financial Condition and Result of Operations
Star Petroleum Refining Public Company Limited
For Quarter 3/2020 and
9 months ended September 2020**

1) Company's Operating Result

(US\$ Million)	Q3/20	Q2/20	+/(−)	Q3/19	+/(−)	9M/20	9M/19	+/(−)
Total Revenue	1,024	807	217	1,435	(411)	3,088	4,479	(1,392)
EBITDA	35	69	(34)	(17)	52	(200)	63	(263)
EBIT	12	47	(34)	(38)	50	(267)	1	(268)
Gain (Loss) on foreign exchange and derivatives	4	(3)	6	7	(4)	8	34	(26)
Net income (Loss)	8	37	(28)	(30)	38	(216)	4	(220)
Net income (Loss) (US\$ per share)	0.00	0.01	(0.01)	(0.01)	0.01	(0.05)	0.00	(0.05)
Accounting gross refining margin (US\$/barrel) ⁽¹⁾	3.94	7.51	(3.57)	3.11	0.83	(3.38)	4.51	(7.89)
Market gross refining margin (US\$/barrel) ⁽²⁾	1.53	4.65	(3.12)	5.07	(3.54)	2.45	3.54	(1.09)

Crude intake (thousand barrels/day)	142.2	141.9	0.3	144.8	(2.7)	145.7	153.3	(7.6)
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(Baht Million)	Q3/20	Q2/20	+/(−)	Q3/19	+/(−)	9M/20	9M/19	+/(−)
Total Revenue	32,248	25,831	6,417	44,307	(12,059)	97,455	141,036	(43,581)
EBITDA	1,089	2,164	(1,075)	(538)	1,627	(6,369)	2,022	(8,391)
EBIT	384	1,444	(1,060)	(1,166)	1,550	(8,501)	80	(8,581)
Gain (Loss) on foreign exchange and derivatives	110	(82)	192	227	(116)	271	1,066	(796)
Net income (Loss)	268	1,138	(871)	(925)	1,192	(6,867)	166	(7,033)
Net income (Loss) (Baht per share)	0.06	0.26	(0.20)	(0.21)	0.27	(1.58)	0.04	(1.62)

⁽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\$)	Q3/20	Q2/20	+/(−)	Q3/19	+/(−)	9M/20	9M/19	+/(−)
Average FX	31.49	32.11	(0.62)	30.88	0.61	31.68	31.47	0.21
Closing FX	31.83	31.07	0.76	30.77	1.06	31.83	30.77	1.06

After the crude oil price dropped significantly during March and April, it started to recover in May, and stayed in the range of US\$38-45/bbl during June-September for Dubai crude oil. With the oil price recovery, the average oil price in Q3/20 slightly increased from average price in Q2/20. This resulted to the increase in total revenue from US\$807 million in Q2/20 to US\$1,024 million in Q3/20, or an increase of 27%. In order to drive an economic, in Q3/20 the Thai Government eased the lockdown restriction and allowed several businesses to return to their normal activities. However, SPRC's performance in Q3 continued to be impacted from the global oil demand declining. Q3/20 gross refinery margin was still pressured from the reduced demand with low activities on transportation and SPRC had to adjust the production down to optimal level. Crude intake in Q3/20 was low at 142 thousand barrels per day, equivalent to 81% of the refining capacity, which was the same level in Q2/20. Subsequently EBITDA, EBIT and net earnings in Q3/20 also decreased from prior quarter. NIAT for Q3/20 was US\$8 million while it was US\$37 million in Q2/20. A slight increase of oil price in Q3/20 comparing to Q2/20 resulted to stock gain in the accounting gross refining margin for Q3/20 but still lower than stock gain in Q2/20 when oil price recovered from low level at end Q1/20. Excluding stock gain, market refining margin has decreased from US\$4.65/bbl in Q2/20 to US\$1.53 in Q3/20 due to weak oil consumption, lower crack spread especially on Diesel, and less benefit from crude price discount. Apart from the external impact on refinery utilization, SPRC still keep focusing to maintain plant reliability and reduce its operating expenses.

Compared Q3/20 with Q3/19, COVID-19 impacted to SPRC's performance in Q3/20 in both total revenue and refining margin. Total revenue decreased 31% as a result of lower average selling price and lower throughput, market gross refining margin also decreased from US\$5.07/bbl in Q3/19 to \$1.53/bbl in Q3/20 in response to the decrease in oil consumption demand. However SPRC's EBITDA and net earnings in Q3/20 were higher than Q3/19 due to higher accounting gross refining reflected from a stock gain due to the increase in oil price during the quarter while oil price decreased during Q3/19 which resulted to a stock loss and consequently resulted to negative earnings in same quarter of last year.

Compared 9M/20 with 9M/19, a significant stock loss due to the declining in oil price in this year caused negative EBITDA and net loss for 9M/20 while earnings were slightly positive in 9M/19. SPRC has cut the refinery run to 84% utilization of crude unit or 146 thousand barrels per day in 9M/20 comparing to 153 thousand barrels per day in 9M/19. Both accounting gross refining margin and market gross refining margin in 9M/20 decreased from prior years. Accounting gross margin was negative at US\$(3.38)/bbl in 9M/20 but positive at US\$4.51/bbl in 9M/19. Excluding stock gain or loss, market gross refining margin in 9M/20 was low at average of US\$2.45/bbl comparing to US\$3.54 in 9M/19. Apart from stock loss and lower accounting refining margin, net loss in 9M/20 was also from lower exchange gain and higher financing cost when comparing to net earnings in 9M/19.

2) Market Condition

Pricing	Q3/20	Q2/20	+/(-)	Q3/19	+/(-)
Dubai crude oil	42.94	30.55	12.39	61.16	-18.22
Light Naphtha	44.09	30.41	13.67	54.87	-10.78
Gasoline (premium)	47.35	33.11	14.24	72.80	-25.45
Jet Fuel	42.21	30.43	11.78	76.90	-34.70
Diesel	47.12	36.25	10.87	76.50	-29.38
Fuel Oil (HSFO)	40.40	28.91	11.48	62.08	-21.68

Spread over Dubai	Q3/20	Q2/20	+/(-)	Q3/19	+/(-)
Light Naphtha	1.15	-0.13	1.29	-6.29	7.44
Gasoline (premium)	4.41	2.56	1.85	11.64	-7.23
Jet Fuel	-0.73	-0.12	-0.61	15.74	-16.47
Diesel	4.19	5.70	-1.52	15.35	-11.16
Fuel Oil (HSFO)	-2.54	-1.63	-0.91	0.92	-3.46

Average Dubai price for Q3/20 was US\$42.94/bbl, which was increased from US\$30.55/bbl in Q2/20. The oil price recovery was mainly supported by the recovery in refined products demand following the easing or lifting of lockdown measures in various countries, especially in July and August. That said, the oil market was also pressured by demand worries due to virus resurgence in some markets towards the end of Q3/20. At the same time, the production cut agreement and compliance by The Organization of the Petroleum Exporting Countries, along with Russia and other countries (known as OPEC+) had supported the market as well.

Gasoline spread over Dubai in Q3/20 rose to US\$4.41/bbl. Gasoline crack was supported by improvement in mobility indicators in most markets, except for a few markets, which virus infection remains high, resulting in either personal reluctance to travel or mandated to reduce movements. Partial closure of US Gulf Coast refineries due to hurricanes also boosted US and global gasoline prices. China gasoline exports remained elevated in September while strong domestic gasoline demand recovery in India capped its exports. Overall, markets remain tight amid stronger gasoline demand with refinery runs staying relatively flat. Although Singapore light distillate stocks reduced to 13.6 million barrels, dropping 9% Q-o-Q, this remains above seasonal high which limited the rise in gasoline crack.

Naphtha spread over Dubai in Q3/20 increased to US\$1.15/bbl. Naphtha market was supported by strong petrochemical demand which continued to support higher cracker utilization rates. Supply availability was also lesser than expected with reduction in Western arbitrage volumes and restrained regional refinery run

rates. Moreover, recovery in gasoline market as more countries eased movement restrictions also supported naphtha market sentiments.

Jet and Diesel crack spreads over Dubai were US\$-0.73/bbl and US\$4.19/bbl respectively. Jet cracks remained under pressure as production increase was ahead of the demand recovery as several markets faced a virus resurgence and governments were unwilling to further open up their international borders for aviation traffic. Diesel cracks continue to retreat throughout Q3 as faltering demand was met with ample supplies in the region. Several markets recorded expansion in their PMIs in July but virus resurgence in some markets pose risk to a stunted recovery in August and September. Seasonal monsoon and flood season also weighed on demand from agriculture to construction. Singapore middle distillate stocks increased to 15.3 million barrels, rising 9% Q-o-Q.

Fuel oil spread over Dubai in Q3/20 was US\$-2.54/bbl, which was lower than Q2/20. High sulfur fuel oil cracks were supported by demand for utility sector from Pakistan, Saudi Arabia, and Bangladesh, especially in August. Nonetheless, the cracks retreated in September as demand for power generation tapered off and refineries in the Persian Gulf ramped up. Singapore onshore fuel oil inventories dropped by 10% Q-o-Q to 24.0 million barrels.

Due to higher crude premium and lower product market effect, SPRC's average market refining margin in Q3/20 was \$1.53/bbl as compared to \$4.65/bbl in Q2/20 and \$5.07/bbl in Q3/19. In Q3/20, SPRC captured margin by maximizing light crude to maximize gasoline production, maintaining zero Jet production and optimizing crude throughput to meet domestic demand and continuing process optimization.

3) Financial Results

	US\$ Million			US\$ Million		US\$ Million		
	Q3/20	Q2/20	+/(-)	Q3/19	+/(-)	9M/20	9M/19	+/(-)
Total Revenue	1,024	807	217	1,435	(411)	3,088	4,479	(1,392)
Cost of sales	(1,009)	(748)	(261)	(1,472)	463	(3,339)	(4,489)	1,150
Gross profit	15	59	(45)	(38)	52	(251)	(10)	(242)
Other income	0	0	0	0	0	1	1	0
Gain (Loss) on exchange rate	1	(1)	2	7	(7)	7	34	(27)
Fair value gain (loss) on derivatives	3	(1)	4	0	3	2	0	2
Administrative expenses	(6)	(10)	4	(8)	1	(25)	(24)	(1)
Finance costs	(2)	(1)	(1)	(0)	(1)	(4)	(1)	(3)
Income tax	(2)	(9)	7	8	(10)	55	4	52
Net income (Loss)	8	37	(28)	(30)	38	(216)	4	(220)

	Baht Million			Baht Million		Baht Million		
	Q3/20	Q2/20	+/(-)	Q3/19	+/(-)	9M/20	9M/19	+/(-)
Total Revenue	32,248	25,831	6,417	44,307	(12,059)	97,455	141,036	(43,581)
Cost of sales	(31,787)	(23,981)	(7,807)	(45,470)	13,682	(105,469)	(141,295)	35,826
Gross profit	461	1,851	(1,390)	(1,163)	1,624	(8,014)	(259)	(7,755)
Other income	13	8	5	9	4	33	30	4
Gain (Loss) on exchange rate	20	(41)	60	227	(207)	221	1,066	(845)
Fair value gain (loss) on derivatives	91	(41)	132	0	91	50	0	50
Administrative expenses	(200)	(333)	132	(238)	37	(790)	(751)	(39)
Finance costs	(49)	(31)	(18)	(14)	(36)	(132)	(28)	(104)
Income tax	(67)	(275)	208	255	(322)	1,766	114	1,652
Net income (Loss)	268	1,138	(871)	(925)	1,192	(6,867)	166	(7,033)

Production Volumes

Petroleum products				Thousands barrels	
	Q3/20	Q2/20	Q3/19	9M/20	9M/19
Polymer Grade Propylene	446	424	392	1,231	1,108
Liquefied Petroleum Gas	612	550	670	1,798	2,008
Light Naphtha	858	941	556	2,559	1,917
Gasoline	4,007	3,422	3,788	11,318	11,114
Jet Fuel	1	430	1,209	1,653	3,668
Diesel	6,107	6,260	5,422	18,550	16,576
Fuel Oil	503	687	1,175	2,201	3,923
Asphalt	235	116	198	477	674
Mix C4	508	494	431	1,522	1,228
Other ⁽¹⁾	1,010	1,057	929	3,178	4,059
Total production	14,286	14,382	14,771	44,487	46,276

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

Total Sale Revenue

Petroleum products ⁽¹⁾	Q3/20	Q2/20	Q3/19	US\$ Million	
				9M/20	9M/19
Polymer Grade Propylene	27	22	27	71	76
Liquefied Petroleum Gas	21	16	28	65	89
Light Naphtha	34	28	27	97	106
Gasoline	349	255	463	960	1,341
Jet Fuel	4	11	87	95	286
Diesel	491	410	626	1,503	1,924
Fuel Oil	16	18	73	74	235
Asphalt	10	5	9	19	39
Mix C4	27	12	27	65	81
Crude	0	0	0	10	11
Others ⁽²⁾	46	30	67	129	291
Total Revenue	1,024	807	1,435	3,088	4,479

⁽¹⁾ Includes Government LPG and oil subsidies.

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

Total revenue in Q3/20 increased 27% from Q2/20 resulted from the increase in average oil price during Q3/20 comparing to Q2/20, while sale volume was 14.7 million barrels, slightly lower than previous quarter at 15.0 million barrels. Sale volumes in both quarters were still low in relation to the reduction in refinery utilization impacted from the COVID-19 with reduced oil consumption demand.

Comparing Q3/20 to Q3/19, SPRC total revenue decreased due to the decrease in both average petroleum product price and product sale volume. Sale volume in Q3/20 was down from 15.5 million barrels in Q3/19.

The reduced demand and lower oil price impacted from COVID-19 also caused total revenue for 9M/20 to decrease by 31% compared to 9M/19. Sales volume of petroleum products was 46.1 million barrels in 9M/20 as compared to 48.5 million barrels in 9M/19.

Cost of Sales

Comparing cost of sales for Q3/20 with Q2/20, cost of sale increased 35%, which was in line with the increase in sales revenue but in a higher proportion due to lower product spread over crude cost.

Comparing Q3/20 to Q3/19, cost of sales decreased 31%, reflected from lower average cost of crude oil and lower sales volume in this year.

Cost of sales in 9M/20 also decreased from 9M/19 impacted from global decrease in oil price and lower sales volume.

Gain on Foreign Exchange

There was a slight foreign exchange (excluding derivatives) gain of US\$1 million in Q3/20 comparing to a slight exchange loss of US\$1 million in Q2/20 and foreign exchange gain of US\$7 million in Q3/19. Foreign exchange gain in Q3/19 was due to the appreciation of Baht against US\$ during such quarter on Baht denominated receivables.

Comparing 9M/20 and 9M/19, foreign exchange gain in 9M/20 was lower than the same period of prior year. In 9M prior year, Baht appreciated against US\$ which resulted to US\$ foreign exchange gain on net Baht denominated receivables to US\$ amount. On the contrary, Baht depreciated against US\$ in 9M this year but because SPRC had net Baht payables during Q2/20 which also resulted to foreign exchange gain when converting Baht payables to US\$ in a lessor US\$ amount.

Administrative Expenses

Administrative expenses in Q3/20 decreased US\$4 million from Q2/20 and US\$1 million from Q3/19. The reduction was in relation to lower provision of material obsolescence and other miscellaneous expenses.

Comparing 9M/20 with 9M/19, total administrative expenses in 9M/20 was slightly above 9M/19.

Income tax

Operating profit in Q3/20 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 Sep 2020	31 Dec 2019	+ / (-)	% + / (-)	30 Sep 2020	31 Dec 2019	+ / (-)
Assets							
Cash & cash equivalent	2	1	1	128%	48	20	28
Other current assets	539	841	(302)	-36%	17,154	25,504	(8,349)
Non-current assets	927	949	(22)	-2%	29,483	28,770	713
Total assets	1,467	1,790	(323)	-18%	46,686	54,294	(7,608)
Liabilities							
Current liabilities	362	703	(342)	-49%	11,516	21,334	(9,818)
Non-current liabilities	259	16	243	1,523%	8,242	484	7,758
Total liabilities	621	719	(98)	-14%	19,758	21,818	(2,060)
Equity							
Share capital & retained earnings	846	1,071	(224)	-21%	33,012	40,150	(7,138)
Other component of shareholders' equity					(6,084)	(7,674)	1,590
Total equity	846	1,071	(224)	-21%	26,928	32,476	(5,548)
Total liabilities & equity	1,467	1,790	(323)	-18%	46,686	54,294	(7,608)

Assets

Total assets as of 30 September 2020 decreased by US\$323 million (Baht 7,608 million) from 31 December 2019.

Total current assets decreased US\$301 million (Baht 8,321 million) mainly resulted from:

- A decrease in inventory of US\$306 million (Baht 8,868 million) from crude inventory reduction to optimum operating inventory level and a reduction in strategic reserve requirement from 6% to 4%. Inventory price also decreased which was in line with global oil price declining;
- A decrease in VAT receivables of US\$11 million (Baht 321 million) due to higher sales volume in September 20 comparing to December 19 resulted in VAT on sale higher than VAT on crude purchase which net to no VAT receivables at end September; but partly offset by
- An increase in trade and other receivables of US\$14 million (Baht 799 million) due to higher sales volume comparing to December 19 after refinery shutdown despite lower product price

Non-current assets decreased US\$22 million (but increased Baht 713 million due to currency translation) from a decrease in property, plant and equipment of US\$59 million (Baht 571 million) due to 9M/20 depreciation expenses and a decrease in prepaid income tax of US\$21 million (Baht 619 million) due to the income tax refunded from the government but offset by an increase in deferred tax asset of US\$58 million (Baht 1,876 million) from operating loss carryforward in 9M/20.

Liabilities

Total liabilities as of 30 September 20 decreased US\$98 million (Baht 2,060 million) from 31 December 2019.

Total current liabilities decreased US\$342 million (Baht 9,818 million) mainly from:

- A decrease in trade and other account payables of US\$212 million (Baht 6,084 million) from lower price of crude oil purchase in September 20 comparing to December 19 and also from lower crude volume purchase;
- A decrease in S-T borrowing of US\$212 million (Baht 6,084 million) from repayment; but partially offset by
- an increase in current portion of L-T borrowings of US\$30 million (Baht 966 million) from new long-term loan agreement entered in June 20; and
- a slight increase in excise tax payable of US\$8 million (Baht 311 million) from higher sales volume in September 20 comparing to December 19.

Total non-current liabilities increased US\$243 million (Baht 7,758 million) mainly from new L-T borrowings which the proceed was used to repay S-T loan.

Shareholders' Equity

Shareholders' equity as of 30 September 2020 decreased US\$224 million (Baht 5,548 million) from 31 December 2019 resulted from the net loss in 9M/20 of US\$216 million and 2019 annual dividend payment of US\$8 million.

5) Statement of Cash Flow

9M/2020	US\$ Million	Baht Million
Net cash used in operating activities	(82)	(2,608)
Net cash used in investing activities	(10)	(306)
Net cash generated from financing activities	92	2,897
Net increase in cash and cash equivalents	1	(17)
Cash and cash equivalents at the beginning of the period	1	20
Adjustments from foreign exchange translation	0	45
Cash and cash equivalents at the end of the period	2	48

SPRC cash and cash equivalents were US\$2 million at the end of September 20 comparing to US\$1 million at end December 19.

Details of cash flow activities in 9M/20 are as follow

- Net cash used for operating activities of US\$82 million (Baht 2,608 million) which was primarily due to:
 - 9M/20 net loss of US\$216 million (Baht 6,867 million) and add back non-cash items of US\$34 million (Baht 1,079 million)
 - Cash used in operating liabilities of US\$191 million (Baht 6,067 million) mainly from a decrease in trade and other payables US\$209 million (Baht 6,626 million) due to the decrease in both oil price and volume of crude oil purchase but partly offset by an increase in other current liabilities of US\$18 million (Baht 559 million) mainly from higher VAT and excise tax payables from higher sales volume in September 20 comparing to December 19
 - Cash generated from operating assets of US\$291 million (Baht 9,247 million), mainly from a decrease in inventory value of US\$299 million (Baht 9,458 million) from lower in both inventory volume and price and a decrease in VAT receivables of US\$11 million (Baht 321 million), partly

offset by an increase in trade and account receivables of US\$17 million (Baht 523 million) from higher sale volume in September 20 comparing to December 19.

- b) Net cash used in investing activities of US\$10 million (Baht 306 million);
- c) Net cash generated from financing activities of US\$92 million (Baht 2,896 million) from L-T borrowings which part of the proceed was used to repay S-T borrowings.

6) Financial Ratios

		Q3/20	Q2/20	Q3/19	9M/20	9M/19
Current Ratio	(Time)	1.5	1.5	1.6	1.5	1.6
Net Profit Margin	(%)	0.8	4.5	(2.1)	(7.0)	0.1
Debt to Equity ratio	(Time)	0.7	0.7	0.4	0.7	0.4
Net Interest-Bearing Debt to Equity ratio	(Time)	0.4	0.3	0.0	0.4	0.0

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)