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

For Quarter 4/2023 and Year 2023

Star Petroleum Refining Public Company Limited

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1. Company's Operating Result

Note: In September 2023, 2 new companies (Star Fuel Holding Company Limited and Star Fuel Land Company Limited) have been set up which are consolidated into company financial statements. Q3/23, Q4/23 and Year 2023 numbers are presented on a consolidation basis while other periods are stand-alone.

Table 1: Summary of Consolidated Financial statements

(US$ Million)	Q4/23	Q3/23	+/(-)	Q4/22	+/(-)	2023	2022	+/(-)
Total Revenue	1,793	1,730	63	1,793	(0)	6,816	8,097	(1,280)
EBITDA	(140)	171	(311)	15	(155)	42	361	(319)
Adjusted EBITDA [(1)]	(17)	68	(86)	71	(89)	98	433	(335)
Gain (loss) on foreign exchange	2	(4)	6	34	(32)	(7)	6	(13)
Net income (loss)	(130)	120	(249)	(6)	(123)	(34)	222	(257)
Net income (loss) (US$ per share)	(0.03)	0.03	(0.06)	(0.00)	(0.03)	(0.01)	0.05	(0.06)
Accounting gross refining margin (US$/barrel) [(2)]	(6.82)	16.35	(23.17)	1.77	(8.59)	3.51	9.22	(5.71)
Market gross refining margin (US$/barrel) [(3)]	1.80	8.36	(6.56)	5.39	(3.59)	4.39	9.64	(5.25)
Crude intake (thousand barrels/day)	150.2	139.4	10.8	163.2	(13.0)	152.6	156.3	(3.6)
Crude intake Utilization	86%	80%	6%	93%	-7%	87%	89%	-2%

(Baht Million)	Q4/23	Q3/23	+/(-)	Q4/22	+/(-)	2023	2022	+/(-)
Total Revenue	64,164	61,107	3,057	65,706	(1,542)	238,284	285,264	(46,981)
EBITDA	(4,944)	6,035	(10,979)	1,151	(6,095)	1,442	12,513	(11,071)
Adjusted EBITDA [(1)]	(544)	2,419	(2,963)	3,208	(3,751)	3,392	15,067	(11,675)
Gain (loss) on foreign exchange	96	(163)	259	1,225	(1,129)	(218)	207	(426)
Net income (loss)	(4,589)	4,245	(8,834)	260	(4,849)	(1,230)	7,674	(8,904)
Net income (loss) (Baht per share)	(1.06)	0.98	(2.04)	0.06	(1.12)	(0.28)	1.77	(2.05)

Remark: [(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$)	Q4/23	Q3/23	+/(-)	Q4/22	+/(-)	2023	2022	+/(-)
Average FX	35.83	35.34	0.49	36.50	(0.67)	34.97	35.23	(0.26)
Closing FX	34.39	36.72	(2.33)	34.73	(0.35)	34.39	34.73	(0.35)

In Q4/23, a combination of geopolitical and economic factors exerted pressure on oil prices. While the Israel-Hamas conflicts initially caused price volatility, their localized nature resulted in a limited impact on oil output in the Middle East, despite security concerns in the Red Sea. Additionally, concerns about the Chinese economy's potential downturn, including the consequences of China's credit rating reduction and substantial oil inventories in the United States, contributed to the decline in oil prices during this quarter.

The utilization rate for the crude intake in Q4/23 was 150 thousand barrels per day, or equivalent to 86% of its refining capacity, higher than the prior quarter, owing to DHTU shutdown for catalyst replacement to prepare for EURO V compliance in prior quarter, despite SPRC had a maintenance on the Residual Fluidized Catalytic Cracking Unit (RFCCU) during October to early of November. SPRC maintained crude and product optimizations to maximize domestic demand. Similar to the prior quarter, SPRC maintained margin captured by our Bottom Line Improvement Program (BLIP) on refinery optimizations across all areas.

A continuing fall-off in oil prices this quarter caused a loss in SPRC's EBITDA, EBIT and net earnings for Q4/23. NIAT for the quarter was loss of US$130 million compared to gain of US$120 million in the prior quarter. Accounting refining margin in Q4/23 was negative at US$(6.82)/bbl compared to US$16.35/bbl last quarter, impacted by a stock loss, which also included a loss from an inventory write-down to net realizable value due to the declining oil prices during this quarter, while stock gain in the prior quarter. Excluding stock gain (loss), the market refining margin was US$1.80/bbl, a significant drop from US$8.36/bbl due to declining product spreads and RFCC unplanned shutdown for maintenance. Total operating expenses in this quarter increased from the prior quarter as a result of maintenance costs relating to SPM and the timing of maintenance activities, while there was an exchange gain of US$2 million from the appreciation of the Baht against the US dollar at the end of this quarter.

Compared Q4/23 with Q4/22, sales revenue approximately with prior year quarter, which slightly decreased in sale volume, and negative net earnings in both quarters due to a significant stock loss and LCM from the decline in oil price. Excluding stock gain or loss, refining margin in Q4/23 was US$1.80/bbl compared to US$5.39/bbl in Q4/22, mainly from declining the refined product crack and unplanned shutdown.

Compared 2023 with 2022, sales revenue decreased 16%, which was impacted by lower average oil prices, while sales volume slightly increased from the prior year. NIAT loss in 2023 was US$34 million, compared to gain of US$222 million in 2022. Excluding stock gain (loss), the market gross refining margin fell from US$9.64/bbl in 2022 to US$4.39/bbl in 2023 due to a lower crack spread of main products from the fear of global economic recession and impact from the unplanned shutdown, while the market and refining margin was strong in the prior year due to tight supply from the Russia-Ukraine conflict.

2. Market Condition

Pricing	Q4/23	Q3/23	+/(-)	Q4/22	+/(-)
Dubai crude oil	83.75	86.63	-2.88	84.77	-1.02
Light Naphtha (MOPJ)	73.23	71.89	1.34	74.78	-1.55
Gasoline (premium)	96.22	105.6	-9.38	94.30	1.92
Jet Fuel	107.38	112.7	-5.32	118.28	-10.90
Diesel	104.94	113.56	-8.62	124.06	-19.12
Fuel Oil	72.64	81.41	-8.77	62.44	10.20

Spread over Dubai	Q4/23	Q3/23	+/(-)	Q4/22	+/(-)
Light Naphtha (MOPJ)	-10.52	-14.74	4.22	-9.99	-0.53
Gasoline (premium)	12.47	18.97	-6.50	9.53	2.94
Jet Fuel	23.63	26.07	-2.44	33.51	-9.88
Diesel	21.19	26.93	-5.74	39.29	-18.10
Fuel Oil	-11.11	-5.23	-5.88	-22.33	11.22

The average Dubai price for Q4/23 was US$83.75/bbl decreased from US$86.63/bbl in Q3/23. The report of weak economic data from China, the world's biggest crude oil importer, raise the concern of faltering demand. On the supply side, U.S. total liquids production in fourth quarter record on high side at 21.4 million barrels per day (bpd), of which 13.3 million bpd is crude and condensate. However, dramatic military clashes between Israeli and Hamas, lower oil exports from Russia as attacks by the Houthis on ships in the Red Sea, and OPEC+ oil producers agreed to voluntary output cuts totaling about 2.2 million barrels per day (bpd) for early 2024 led by Saudi Arabia rolling over its current voluntary cut have limited the crude price declined.

Naphtha spread over Dubai in Q4/23 increased to US$-10.52/bbl as crude price declined, tighter naphtha supplies from Kuwait's Al-Zour refinery reliability issue, delays in cargo arrivals from the United States and Russia, the seasonal switch to winter gasoline specifications support LPG prices resulting in lowering LPG attractiveness and support naphtha to be petrochemical feedstock. Nevertheless, weak cracker margins have driven some cracker operators to step up rate cuts and shutdowns.

Gasoline spread over Dubai in Q4/23 decreased to US$12.47/bbl significantly decreased from US$18.97/bbl in Q3/23 as winding down of summer driving demand, climbing inventories in the US and Amsterdam-Rotterdam-Antwerp (ARA), and switching to cheaper winter-grade gasoline production. The return of offline capacity from plan/unplanned shutdown increased the supply availability keeping a pressure on the cracks. However, spot cargo requirements from India and Indonesia have provided some support for the cracks.

Jet crack spreads over Dubai decreased from the previous quarter to be US$23.63/bbl as the easing of middle distillate supply uncertainties owing to Russian product export ban have pressured the cracks, air travels demand eases toward colder month, and record high kerosene stocks in Japan have pressured the crack. However, Festive season travel and increasing business travel activities in Dec'23 propelled India's jet fuel demand past pre-pandemic levels. However, lower exports from mainland Chinese, South Korean and Middle East and strong Indonesian demand have helped to limit the decline in cracks.

Diesel crack spreads over Dubai decreased from the previous quarter to US$21.19/bbl as Russian exports continue to grow month over month, higher South Korean exports, and higher spot cargo availability from Malaysia and Vietnam. In addition, the easing of maintenance activity in the Middle East has added more production capacity that has kept a lid on the cracks. However, refineries issues in parts of Europe and Middle East have limited the decline in cracks.

Fuel oil spread over Dubai in Q4/23 decreased from the previous quarter to be US$-11.11/bbl as lower utility requirement from the Middle East and higher exports from Malaysia, Pakistan and Kuwait. But the Higher imports of HSFO into mainland China due to the addition to the fuel oil import quota have limit the decline in cracks.

SPRC's average market refining margin in Q4/23 was US$1.80/bbl, which is lower than US$8.36/bbl in Q3/23 as the main product crack over Dubai declined and FCC shutdown consequently from external power supply outage. In Q4/23, SPRC continued to optimize feedstocks by optimizing freight cost, replacing heavy crude with alternative crude, processing Benchamas crude with competitive price, maximize Jet and Diesel production, maximizing asphalt production, maximize synergy benefit, and produced mogas GB91+ (swap from GB95 to GB91+) to increase mogas production.

3. Financial Performance

Financial Results

Table 2: Consolidated Financial result

	US$ Million			US$ Million		US$ Million		
	Q4/23	Q3/23	+/(-)	Q4/22	+/(-)	2023	2022	+/(-)
Total Revenue	1,793	1,730	63	1,793	(0)	6,816	8,097	(1,280)
Cost of sales	(1,946)	(1,568)	(378)	(1,819)	(127)	(6,808)	(7,736)	928
Gross profit (loss)	**(153)**	**162**	**(315)**	**(25)**	**(127)**	**8**	**361**	**(353)**
Other income	1	1	(0)	0	1	4	2	2
Gain (loss) on exchange rate	2	(4)	6	17	(15)	(21)	11	(32)
Administrative expenses [(1)]	(9)	(7)	(2)	(13)	4	(37)	(82)	44
Finance costs	(3)	(2)	(2)	(4)	1	(11)	(9)	(2)
Fair value gain (loss) on derivatives	0	0	0	17	(17)	14	(5)	19
Income tax	32	(30)	62	1	31	8	(56)	64
Net income (loss)	**(130)**	**120**	**(249)**	**(6)**	**(123)**	**(34)**	**222**	**(257)**

	Baht Million			Baht Million		Baht Million		
	Q4/23	Q3/23	+/(-)	Q4/22	+/(-)	2023	2022	+/(-)
Total Revenue	64,164	61,107	3,057	65,706	(1,542)	238,284	285,264	(46,981)
Cost of sales	(69,584)	(55,368)	(14,216)	(66,015)	(3,569)	(238,049)	(272,833)	34,784
Gross profit (loss)	**(5,420)**	**5,739**	**(11,159)**	**(309)**	**(5,111)**	**235**	**12,432**	**(12,197)**
Other income	37	40	(3)	17	20	139	63	76
Gain (loss) on exchange rate	96	(163)	259	642	(546)	(719)	376	(1,096)
Administrative expenses [(1)]	(318)	(259)	(59)	(457)	139	(1,302)	(2,791)	1,489
Finance costs	(112)	(56)	(56)	(141)	30	(367)	(316)	(51)
Fair value gain (loss) on derivatives	0	0	0	583	(583)	501	(169)	670
Income tax	1,129	(1,056)	2,185	(75)	1,203	294	(1,921)	2,214
Net income (loss)	**(4,589)**	**4,245**	**(8,834)**	**260**	**(4,849)**	**(1,230)**	**7,674**	**(8,904)**

Remark: [(1)] Administrative expenses are the integrated among Star Fuels Holding Co., Ltd. and Star Fuels Land Co., Ltd.

Production Volumes

Table 3: Refinery products only Thousands barrels

Petroleum products	Q4/23	Q3/23	Q4/22	2023	2022
Polymer Grade Propylene	212	307	347	1,212	1,396
Liquefied Petroleum Gas	515	512	652	2,221	2,501
Light Naphtha	913	645	738	3,237	3,413
Gasoline	3,004	3,542	3,803	14,484	15,523
Jet Fuel	1,632	1,623	1,404	6,576	3,842
Diesel	5,391	4,732	6,318	21,742	24,424
Fuel Oil	1,202	704	712	2,957	3,214
Asphalt	220	263	354	1,332	1,020
Mix C4	300	420	416	1,744	1,910
Other (1)	1,595	1,043	434	5,450	4,643
Total production	**14,984**	**13,791**	**15,178**	**60,955**	**61,885**

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

Total Sale Revenue

Table 4: Refinery sale revenue only US$ Million

Petroleum products (1)	Q4/23	Q3/23	Q4/22	2023	2022
Polymer Grade Propylene	13	19	23	80	112
Liquefied Petroleum Gas	28	24	34	115	160
Light Naphtha	78	42	52	234	292
Gasoline	440	522	476	1,979	2,305
Jet Fuel	173	187	187	684	488
Diesel	664	658	852	2,615	3,559
Fuel Oil	93	49	61	200	251
Asphalt	13	23	28	104	86
Mix C4	27	36	42	150	202
Crude	141	85	0	226	190
Others (2)	123	85	37	427	451
Total Revenue	**1,793**	**1,730**	**1,793**	**6,816**	**8,097**

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

Sales revenue in Q4/23 increased 4% from Q3/23 mainly from a higher sales volume of 16.2 million barrels in Q4/23 compared to 14.3 million barrels in Q3/23 particularly in diesel volume which was impacted from DHTU planned a shutdown for catalyst replacement in the prior quarter, but this was partially offset by a decrease in average oil prices. The total sale amount in Q3/23 and Q4/23 also included the sale of crude oil, which was around 1 million barrels in Q3/23 and 1.5 million barrels in Q4/23, respectively.

Comparing Q4/23 with Q4/22, sales revenue approximately with prior year quarter, which slightly decreased in sale volume from 16.4 million barrels in Q4/22 to 16.2 million barrels in Q4/23.

Sales revenue for 2023 decreased by 16% compared to 2022, mainly due to lower oil prices, while sales volume slightly increased from 65.8 million barrels for 2022 to 66.3 million barrels for 2023.

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

Customer	Q4/23	Q3/23	Q4/22	2023	2022
Chevron	30%	45%	42%	39%	41%
PTT & PTTOR	47%	45%	50%	46%	46%
Other oil and petrochemical companies	23%	10%	8%	15%	13%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

Cost of Sales

Comparing the cost of sales for Q4/23 with Q3/23, the cost of sales increased by 24%. The increase was due to an increase in sales volume, higher crude intake in Q4/23, and a higher weighted average cost of sale from the high crude purchase price in September and October, and also included an inventory write-down to a net realizable value of US$51 million in Q4/23 due to oil prices declining at the end of the quarter.

Comparing Q4/23 to Q4/22, the cost of sales in Q4/23 slightly increased by 7%, while the sale volume was slightly lower compared with the same quarter in the prior year.

Cost of sales in 2023 decreased 12% from 2022. The decrease in cost of crude oil on weighted average inventory was in line with the decrease in oil price compared with the prior year.

Gain / (loss) on Foreign Exchange and Financial Derivatives

Comparing Q4/23 with Q3/23, SPRC had a net foreign exchange gain of US$2 million in Q4/23 compared to the exchange loss in Q3/24 of US$4 million, owing to Thai Baht's appreciation against the USD at the end of this quarter.

Comparing Q4/23 to Q4/22, there was an exchange gain in both quarters of US$2 million in Q4/23 and US$34 million in Q4/22. The value of Baht appreciated in both periods which resulted in an exchange gain as SPRC had net Baht denominated receivables.

Comparing 2023 to 2022, Thai Baht value continued to decline due to the US dollar strengthening on interest rate hikes to control the inflation rate, which impacted an exchange loss of US$7 million (including derivatives) compared to an exchange gain of US$6 million in the prior year.

Administrative Expenses

Comparing Q4/23 with Q3/23, administrative expenses increased to US$9 million in Q4/23 from US$7 million in Q3/23 as a result of the timing of employees cost.

Comparing Q4/23 with Q4/22, administrative expenses decreased from US$13 million in Q4/22 to US$9 million in Q4/23 due to the expenses and the provision related to the oil spill incident of US$2.1 million incurred in Q4/22.

There were expenses relating to the oil spill incident in early 2022 of US$48.8 million in 2022 while it was down to US$4.3 million in 2023. This decrease caused lower administrative expenses in 2023 compared to the prior year.

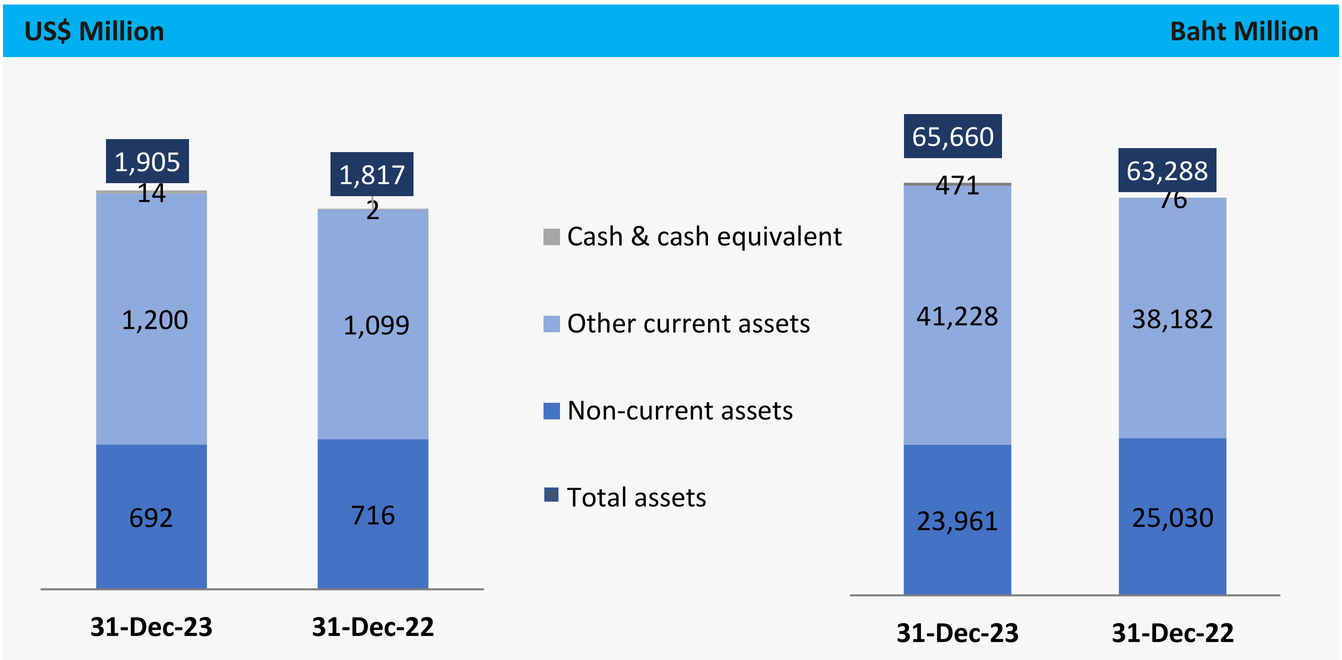
Income tax

Operating loss in 2023 resulted in deferred tax asset in operating loss in this period of US$12 million.

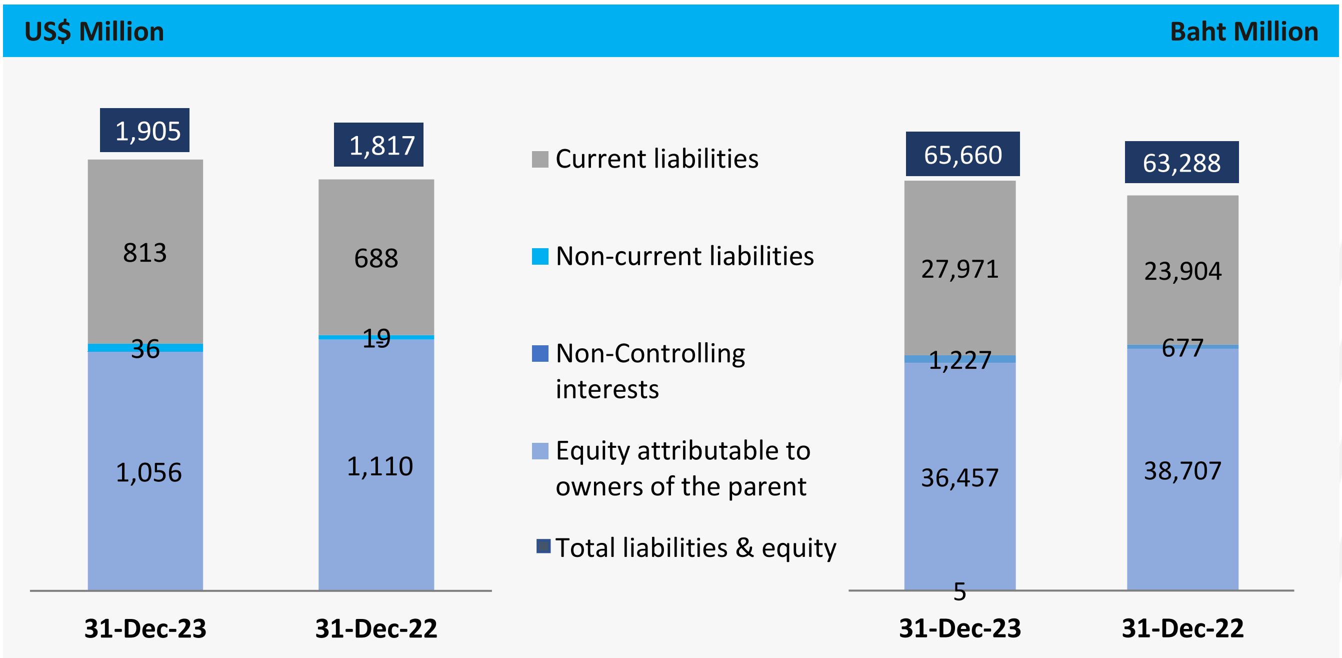
Analysis of Financial Position

Graph 1: Condensed Consolidated Statements of Financial Position

Asset Breakdown



Liabilities & Equity



Assets

Total assets as of 31 December 23 increased by US$87 million (Baht 2,372 million) from 31 December 22.

Total current assets increased by US$112 million (Baht 3,441 million) mainly due to:

a) an increase in trade and other receivables of US$91 million (Baht 2,958 million) mainly from higher sale volume in December 23 as strong domestic demand; and

b) an increase in Cash and cash equivalents of US$12 million (Baht 395 million); and

c) an increase in inventory of US$6 million (but decrease Baht 26 million from currency translation) mainly from higher inventory volume at end of December 23 compared to December 22 but partly offset by decrease in oil prices.

On the contrary, non-current assets decreased US$24 million (Baht 1,070 million) mainly due to a decrease in property, plant and equipment of US$37 million (Baht 1,495 million) due to depreciation expenses in 2023 but partly offset by additional a right of use from the land lease and deferred tax asset from operating loss.

Liabilities

Total liabilities as of 31 December 23 increased by US$141 million (Baht 4,617 million) from 31 December 22. The increment was mainly from:

a) net increase in S-T and L-T borrowing of US$69 million (Baht 2,260 million) to support increase in working capital in 2023; and
b) an increase in trade and other account payables of US$44 million (Baht 1,375 million) from timing of crude payment in December 22 to be paid before year end which resulted to low trade payable at end 2022; and
c) an increase in lease liabilities of US$15 million (Baht 529 million) from new land lease contract with IEAT for 30 years; and
d) an increase in Excise tax payable of US$15 million (Baht 497 million) from higher sale volume in December 23 and excise tax rate for diesel increased compared to December 22.

Shareholders' Equity

Shareholders' equity as of 31 December 23 decreased by US$54 million (Baht 2,245 million) from 31 December 22 resulted from the net loss in 2023 of US$34 million (Baht 1,230 million) and dividend payment of US$19 million (Baht 650 million). Shareholders' equity in Baht also included the impact from exchange rate translation.

Statement of Cash Flow

Table 5: Condensed Consolidated Statement of Cash Flows

	US$ Million		Baht Million	
	2023	2022	2023	2022
Net cash generated from operating activities	3	13	132	156
Net cash (used in) investing activities	(22)	(8)	(776)	(278)
Net cash generated from (used in) financing activities	30	(91)	1,030	(3,298)
Net increase (decrease) in cash and cash equivalents	**11**	**(86)**	**387**	**(3,421)**
Cash and cash equivalents at the beginning of the period	**2**	**88**	**76**	**2,945**
Adjustments from foreign exchange translation	0	1	8	551
Cash and cash equivalents at the end of the period	**14**	**2**	**471**	**76**

SPRC cash and cash equivalents were US$14 million at the end of December 2023, compared with US$2 million at the end of December 2022.

Details of cash flow activities in 2023 are as follow:

a) Net cash generated from operating activities was US$3 million (Baht 132 million) was primarily due to:
    a. Cash generated from operating liabilities was US$50 million (Baht 1,756 million) mainly from an increase in trade and other payables US$43 million (Baht 1,500 million) due to timing of crude payment and an increase in other liabilities US$15 million (Baht 527 million) from lease liabilities, but partly offset by short-term provision paid of US$7 million (Baht 252 million) relating to the oil spill incident. Cash generated was offset by

b. 2023 net loss was US$34 million (Baht 1,230 million) from weak refining margin in Q4/23 and non-cash items of US$98 million (Baht 3,477 million); and

c. Cash used in operating assets was US$111 million (Baht 3,871 million). An increase in trade and other receivables of US$88 million (Baht 3,092 million) from sale volume and excise tax increase compared to December 22, an increase in inventory US$17 million (Baht 582 million) from higher inventory volume and an increase in other current and non-current assets of US$6 million (Baht 197 million) mainly from prepaid expenses.

b) Net cash used in investing activities was US$22 million (Baht 776 million), mainly from minor projects in environmental and IT.

c) Net cash generated from financing activities was US$30 million (Baht 1,030 million) from short-term borrowing to support working capital, but partly offset by dividend payment of US$19 million (Baht 650 million) from 2022 earnings.

Financial Ratios

Table 6: Financial Ratios (Consolidated)

		Q4/23	Q3/23	Q4/22	2023	2022
Current Ratio	(Time)	1.5	1.8	1.6	1.5	1.6
Gross Profit Margin	(%)	(8.5)	9.4	(1.4)	0.1	4.5
Net Profit Margin	(%)	(7.2)	6.9	(0.3)	(0.5)	2.7
Debt to Equity ratio	(Time)	0.8	0.6	0.6	0.8	0.6
Net Interest-Bearing Debt to Equity ratio	(Time)	0.3	0.1	0.3	0.3	0.3
Interest Coverage ratio	(Time)	(50.7)	95.4	(0.9)	(3.0)	32.5

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. Other Important Events until Present

January 2024

On January 3, 2024, Star Petroleum Refining Public Company Limited effectively finalized the investment transaction with Chevron Asia Pacific Holdings Limited, wherein it obtained the shares and strategic assets associated with the Fuel Business.

5. Market Outlook

Chinese exports are expected to rebound in early 2024 with the new export quota and will pressure margins. Consequently, margins are forecasted to soften slightly but remain healthy in Q1/24. Healthy gasoline cracks will be offset by weaker middle distillate cracks and fuel oil. Upside risks to margins include stronger fuel oil cracks due to rerouting of vessels to a longer voyage should the Red Sea situation deteriorate and an earlier-than-expected interest rates cut in the US.

Naphtha crack is expected to remain strong in Q1/24 as supply availability continues to be constrained. After that cracks are anticipated to retreat when supply recovers. Subdued petrochemical derivative demand recovery amid the global economic slowdown and a lack of major economic stimulus by mainland China will keep a lid on Asian naphtha cracks.

Expects gasoline cracks to strengthen slightly in Q1/24 supported by healthy demand in Indonesia. Campaigning efforts during the country's upcoming general elections in February will boost driving activity. In addition, festivities around the region including Lunar New Year in China and the Ramadan holiday in countries such as Indonesia and Malaysia will support the region's demand to some extent. Furthermore, the summer travel season in Oceania will pull more import volumes to meet the market's demand. That said, the return of offline capacity in Asia and the Middle East will limit the increase in the cracks. Moreover, the new export quota from mainland China for 2024 could sour sentiments in the Asian gasoline complex. However, expect limited upside to Chinese exports as refiners prioritize stock building for the peak travel period during the Lunar New Year holiday.

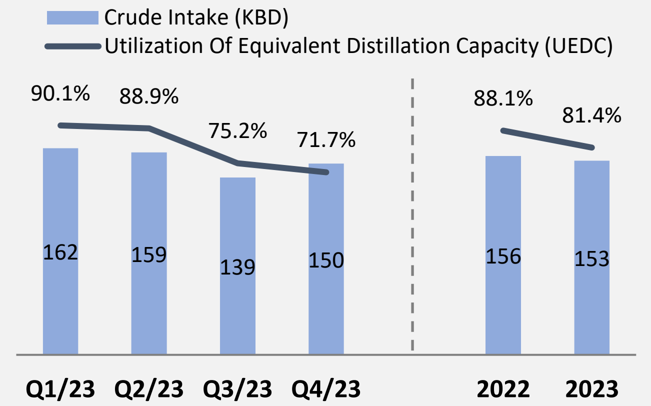
Jet/kerosene crack spreads are forecast to soften slightly in Q1/23. Jet/kerosene imports into Japan, a major consumer of kerosene for winter heating in Asia, will likely decline as domestic refiners ramp up jet/kerosene production at the peak of winter. Increasing regional supplies, along with refineries in the Atlantic Basin returning from seasonal maintenance, will weigh on crack. Furthermore, jet/kerosene exports from main exporter South Korea are expected to remain high. On the other hand, low stock levels in the US and ARA will help to support the cracks. Furthermore, festive travels during Lunar New Year will increase aviation demand. In addition, the summer air travel season in Oceania will also help to support the region's demand.

Gasoil crack spreads are expected to remain firm in Q1/23. Low inventory levels in the US and ARA as markets in the Northern Hemisphere enter winter will support the cracks. On the other hand, Asia's diesel demand will likely drop in 1Q 2024 lead by significant reductions in China's domestic demand as it shrinks seasonally during winter and higher China's diesel exports rebound as release the first batch of 2024 export quotas will limit growth upside. Furthermore, the resumption of Al-Zour refinery will also add more diesel supply that will weigh on the cracks. Upside risks to the cracks could come from a slew of unplanned production issues in southeast Asia and the U.S and a wider East-West differential owing to further instability in the Red Sea that results in rerouting to a longer shipping route around the Cape of Good Hope.

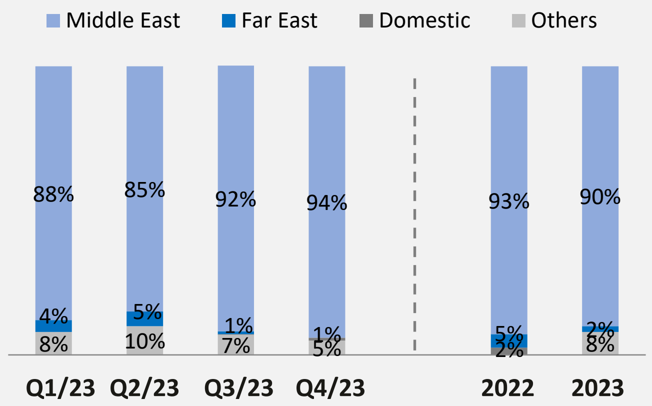
Expect cracks to be weighed on in the coming weeks due to higher HSFO flows to Singapore from higher exports from Russia and the UAE. As well as Chinese fuel oil imports are forecast to decline when the new crude quota becomes available. Upside risks to cracks could come from further escalation of the Red Sea instability resulting in more ships to reroute around the Cape of Good Hope, adding more bunker requirements.

6. Appendix

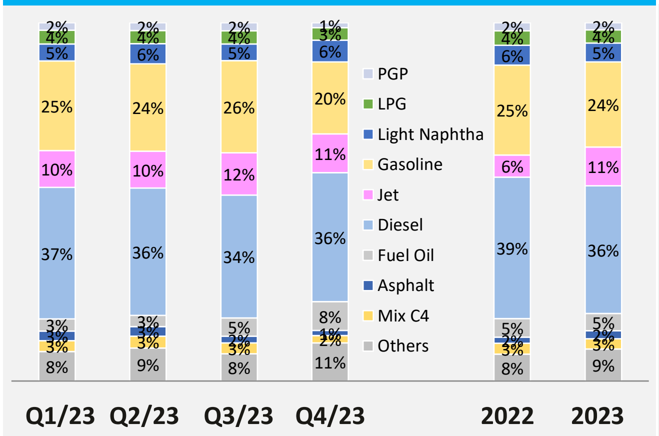
Crude intake



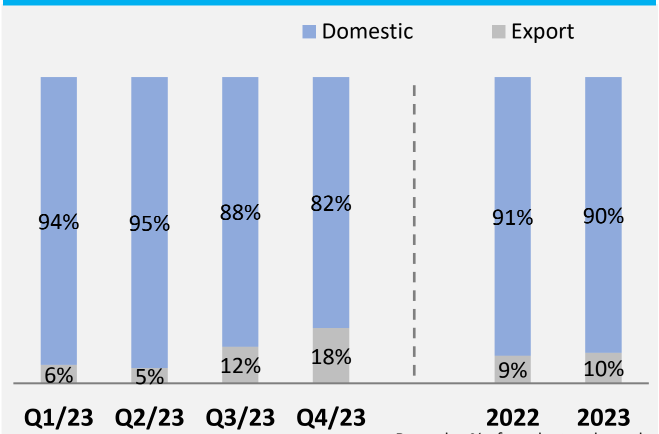
Crude Sources



Production Volumes



Domestic / Export Sales



Remarks: % of products sales only