20 March 2020

Refining NZ Operational Update for January/February 2020

HIGHLIGHTS

- The Company earned Processing Fees of NZD 23.0 million in January/February including Fee Floor payments by our customers.
- Refinery throughput for January/February was 6.9 million barrels, lower than planned due to late crude deliveries by our customers.
- Refining NZ's Gross Refining Margin (GRM) was USD 1.04 per barrel which was heavily impacted by poor global refining margins, high crude oil freight costs and the building of residue for the planned turnaround. Fee Floor payments boosted the GRM to an effective USD 3.09 per barrel.
- Global refining margins were weak in January/February initially due to high gasoline exports from China, new regional refineries ramping up production, and lower than expected diesel margins. The coronavirus outbreak then had a significant impact on margins due to a large reduction in Chinese manufacturing activities and 80% of domestic flights in China being cancelled.
- At the date of this Update, the oil market is facing both a surge in crude oil supply due to the collapse of the OPEC+ group and an extremely weak demand environment due to COVID-19. We are working with customers on their supply chain management and expect to see a reduction in refinery production and pipeline throughputs.
- The RAP achieved throughput of 3.5 million barrels in January/February earning income of NZD 6.9 million, 13% higher than the same period last year.
- Process and personal safety performance remained excellent:
  - There have been no Tier 1 or Tier 2 process safety events for more than a year; and
  - The recordable injury frequency remains at 0.27 per 200,000 work hours - the best since 2010.

COMMENTARY

Refining - Margins and throughput

The refinery achieved throughput of 6.9 million barrels which was lower than planned due late crude deliveries by customers. Operational availability was high at 99.8%. The GRM was low at USD 1.04 per barrel due to poor global refining margins, high crude oil freight costs and the building of residue for the planned April/May turnaround. The GRM was boosted to an effective USD 3.09 per barrel by the customers' Fee Floor payments, earning the company Processing Fee revenue of NZD 23.0 million.

Global refining margins

The Singapore Dubai complex margin for the January/February period was weak at a negative USD1.58 per barrel. The margin was initially impacted by high gasoline exports from China, new regional refineries ramping up production, and lower than expected diesel margins offset somewhat by fuel oil margins recovering due to supply tightness.

The coronavirus outbreak had a significant impact on margins in February due to a large reduction in Chinese refinery utilisation rates and manufacturing activities and 80% of domestic flights being cancelled in China.

Crude oil tanker rates were high in November and December due to the sanctions the US imposed on several Chinese tanker companies. This impacted Refining NZ's January/February GRM as there is a two month lag in the freight rates that are applied in the GRM. Higher crude freight rates negatively impacted the cost of crude processed by Refining NZ during January and February by around USD1.00 per barrel. Since the US sanctions were lifted crude oil tanker rates have returned to normal levels. The Refining NZ GRM will not be negatively impacted by distorted freight rates in the March/April period.

Uplift over Singapore Dubai complex margin

Refining NZ's January/February uplift over the Singapore Dubai complex margin was USD 2.62 per barrel. Our uplift was weighed down by the surge in crude oil tanker rates as outlined above.

Distribution – Refinery to Auckland Pipeline (RAP)

The RAP achieved strong throughput of 3.5 million barrels of gasoline, jet fuel and diesel in the January/February period. This earned income of NZD 6.9 million, 13% higher than the same period last year. Pipeline operational availability was high at greater than 99%.

Global economic conditions including COVID 19

The global refining environment was challenging towards the end of 2019 due to difficult geopolitical and economic conditions and the impact of the IMO MARPOL regulations. This has now been exacerbated greatly by the impacts of COVID-19 and the failure of the OPEC+ group including Russia to reach agreement on crude oil production cuts to support prices.

The oil market is facing both a surge in crude oil supply and an extremely weak demand environment. FGE has revised its 2020 global oil demand and is currently forecasting a demand reduction of 1.3 million barrels per day, whereas it forecast an increase of 0.9 million barrels per day as recently as late January.

New Zealand is being impacted significantly and the situation is evolving. It is therefore not possible to forecast refining margins or NZ product demand accurately, but the risks are material and to the downside.

Our customers are dealing with great volatility caused by COVID-19 and are responding daily to the market impacts of the virus and Government imposed restrictions. In view of the changing demand profile, we are discussing with our customers how we may be able to assist them with their supply chain management by rebalancing the refinery to reduce our jet fuel production (by moving kerosene to petroleum or diesel). We expect that this will result in reduced refinery production and throughout on the Refinery to Auckland pipeline. At the same time, we are discussing with our customers the possibility of reducing product imports planned to cover our April/May planned maintenance turnaround.

Refining NZ has a measure of support due to the Fee Floor, currently set at NZD 140 million, irrespective of the number of barrels processed. In addition, on 14 March FGE forecast that COVID-19 cases outside of China may peak in April and that demand may recover much faster than occurred after the 2008 global financial crisis where the fundamentals, such as credit tightness, were quite different to those existing currently.

Planned Turnaround

Preparations for the planned maintenance turnarounds during March-May, are progressing to plan, with additional controls and procedures instituted as part of our overall pandemic plan. We remain focussed on delivering a safe and quality turnaround while the margin environment is low, such that we are well placed to capitalise on higher margins when the business environment improves.

Health, safety and environment

Our excellent health, safety and environment performance has continued in January/February and we have now achieved over a year without any Tier 1 or Tier 2 process safety events. On a personal safety front, we again had no recordable injuries and our recordable injury frequency is 0.27 per 200,000 work hours. In addition, 211 days have elapsed since our last lost time injury.

Costs

As part of our response to the low margin environment and the impact of COVID-19, the primary focus has been to reduce our cash spend immediately and significantly. We have reduced our 2020 capital programme and have materially rationalised operating costs through significant scope reductions, while ensuring continued safe operation of our refining and distribution business to support a resilient fuels supply to New Zealand.

ENDS

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REFINING NZ
Your Energy Hive

OPERATIONAL DATA

		Jan/Feb 2020	Jan/Feb 2019	YTD 2020	FY 2019
Health, Safety & Environment					
LTI	#	0	0	0	1
LTIF	#/200,000hrs	-	-	0.14	0.13
TRC	#	0	0	0	2
TRCF	#/200,000hrs	-	-	0.27	0.27
Tier I Process Safety Events	#	0	0	0	0
Tier II Process Safety Events	#	0	0	0	0
Releases outside of consent	#	0	0	0	1
Refining					
Brent Crude Oil Price	US$/bbl	59.5	61.8	59.5	64.4
Exchange Rate	US$/NZ$	0.65	0.68	0.65	0.66
Operational availability	%	99.8	100.0	99.8	99.7
Unplanned process downtime	%	0.2	0.3	0.2	1.6
Refining throughput	Mbbl	6.91	6.96	6.91	42.69
Gross Refining Margin	US$/bbl	1.04	4.88	1.04	5.34
Gross Refining Margin (excluding Fee Floor/Margin Cap)	US$M	21.3	33.9	21.3	227.9
Processing Fee (after Fee Floor/Margin Cap)	US$M	14.9	23.8	14.9	159.5
Processing fee (after Fee Floor/Margin Cap)	NZ$M	23.0	34.9	23.0	242.0
Distribution					
RAP throughput	Mbbl	3.5	3.5	3.5	20.8

Notes:

1. The information provided in this announcement excludes revenue from other activities.
2. The Processing Fee results reported in this announcement are subject to change due to post announcement price updates and independent audit.
3. A five-year history of Throughput, Margins and Processing Fees is attached below.
4. Refer to the explanatory notes/glossary for a definition of terms.

HISTORICAL INFORMATION - REFINING

		2016	2017	2018	2019	2020
Jan/Feb	Barrels 000's	6,826	7,160	7,011	6,963	6,909
	RNZ USD GRM per barrel [1)]	7.96	6.58	7.54	4.88	1.04
	Singapore Dubai Complex GRM	4.95	3.42	3.37	-0.32	-1.58
	Uplift vs. Singapore Dubai Complex [3)]	3.01	3.16	4.17	5.20	2.62
	NZD Processing Fee (million) [2)]	57.0	45.9	50.8	34.9	23.0
Mar/Apr	Barrels 000's	7,471	5,140	6,958	7,312	
	RNZ USD GRM per barrel [1)]	1.84	9.35	6.82	6.63	
	Singapore Dubai Complex GRM	3.18	3.02	3.75	0.75	
	Uplift vs. Singapore Dubai Complex [3)]	-1.34	6.33	3.07	5.88	
	NZD Processing Fee (million) [2)]	14.8	48.1	45.8	50.1	
May/Jun	Barrels 000's	6,837	7,755	3,910	6,945	
	RNZ USD GRM per barrel [1)]	6.26	7.63	0.18	4.36	
	Singapore Dubai Complex GRM	2.13	2.90	2.02	0.17	
	Uplift vs. Singapore Dubai Complex [3)]	4.13	4.73	-1.84	4.19	
	NZD Processing Fee (million) [2); 5)]	43.3	58.4	0.7	32.2	
Jul/Aug	Barrels 000's	6,833	7,511	7,615	7,419	
	RNZ USD GRM per barrel [1)]	6.20	8.87	6.86	7.10	
	Singapore Dubai Complex GRM	1.86	4.70	2.57	3.23	
	Uplift vs. Singapore Dubai Complex [3)]	4.34	4.17	4.29	3.87	
	NZD Processing Fee (million) [2)]	41.3	63.6	54.3	56.2	
Sept/Oct	Barrels 000's	7,251	6,816	7,639	7,245	
	RNZ USD GRM per barrel [1)]	7.49	9.31	7.09	6.16	
	Singapore Dubai Complex GRM	3.18	4.73	2.47	3.55	
	Uplift vs. Singapore Dubai Complex [3)]	4.31	4.58	4.62	2.61	
	NZD Processing Fee (million) [2)]	52.5	62.2	57.8	49.3	
Nov/Dec	Barrels 000's	7,447	7,342	7,307	6,803	
	RNZ USD GRM per barrel [1)]	9.20	6.83	6.53	2.62	
	Singapore Dubai Complex GRM	4.19	3.67	1.80	-1.55	
	Uplift vs. Singapore Dubai Complex [3)]	5.01	3.16	4.73	4.16	
	NZD Processing Fee (million) [2)]	67.6	50.7	49.2	19.2	
Total	**Barrels 000's**	**42,665**	**41,724**	**40,440**	**42,687**	**6,909**
	USD GRM per barrel [1)]	**6.47**	**8.02**	**6.31**	**5.34**	**1.04**
	NZD Processing Fee (million) [2)]	**276.6**	**328.9**	**258.7**	**242.0**	**23.0**
	YTD Cap adjustment					
	NZD Processing Fee (million) [1)]					

1) Excludes Fee Floor/Cap adjustment
2) Includes Fee Floor/Cap adjustment
3) RNZ uplift vs. Singapore Dubai Complex GRM is in USD per barrel

EXPLANATORY NOTES/GLOSSARY

LTI (Lost time injuries) and LTIF (Lost time injury frequency)

Lost time injuries refer to fatalities, permanent disabilities or time lost from work.

Lost time injury frequency refers to the number of lost time injuries over a rolling 12-month period, per 200,000 hours worked.

TRC (Total recordable cases) and TRCF (Total recordable case frequency)

Total recordable cases refer to lost time injuries, medical treatment and restricted work cases.

Total recordable case frequency refers to the number of recordable injuries over a rolling 12-month period, per 200,000 hours worked.

Tier 1 Process Safety Event (API 754)

A tier 1 Process Safety Event (PSE) is an unplanned or uncontrolled release of any material, including non-toxic and non-flammable, from a process which results in one or more of the following: A LTI and/or fatality; a fire or explosion resulting in greater than or equal to $25,000 of direct cost to the company; a release of material greater than the threshold quantities given in Table 1 of API 754 in any one-hour period; an officially declared community evacuation or community shelter-in-place.

Tier 2 Process Safety Event (API 754)

A tier 2 Process Safety Event (PSE) is an unplanned or uncontrolled release of any material, including non-toxic and non-flammable, from a process which results in one or more of the following: A recordable injury; a fire or explosion resulting in greater than or equal to $2,500 of direct cost to the company; a release of material greater than the threshold quantities given in Table 2 of API 754 in any one-hour period.

Operational availability

Operational availability is the percent of time available for manufacturing after subtracting maintenance and regulatory/process downtimes.

Unplanned process downtime

A unit downtime is "planned" if the refinery is aware of and has scheduled that unit outage in the previous year. Unplanned process downtime is the weighted average of unplanned downtime across all process units.

Refining throughput

Refining throughput is the volume of feedstock intake, comprising crude oil, residues, natural gas and blendstock, measured in barrels. One barrel equates to approximately 159 litres.

Turnaround

A scheduled outage of one or more process units, planned well in advance and typically occurring in cycles of 2 years or more, for the purpose of significant mechanical inspection and repair.

Gross Refining Margin (excluding Fee Floor/Margin Cap)

The Gross Refining Margin is calculated in USD as the difference between the value of products and the cost of feedstock for each refining customer. The value of products use Singapore quoted prices adjusted for New Zealand quality and the cost of importing those products to New Zealand. Feedstocks are valued using the notional market values adjusted for the cost of getting the feedstock to the refinery. The Gross Refining Margin incorporates the cost of hydrocarbon used as fuel and incurred as process losses.

Typically, Refining NZ has an uplift over the Singapore complex margins of around USD 3.00 to 4.00 per barrel. The value of the uplift varies due to fluctuations in freight rates, product quality premium, crude market premium and operational performance. Product quality premium are the cost differentials between products made to New Zealand quality and products made to the quality that applies to quoted prices in Singapore. Crude market premium are the cost differences between the crude types actually processed at Refining NZ and Dubai (used as basis for the Singapore complex margins). Refining NZ’s crude diet comprises of crudes that price off Dubai as well as crudes that price off different markers such as Brent. The fluctuations of these price markers relative to each other impact the uplift.

Margin Cap/Fee Floor Adjustment

The processing agreements with our customers contain both Floor and Margin Cap clauses, both effective over a full calendar year.

The Fee Floor is the minimum Processing Fee due, for a calendar year, up to a current maximum of NZD 140.0 million. If the year-to-date Processing Fee is below the pro-rata Fee Floor, then an interim pro-rata Fee Floor payment is made by the Customers. Should the Processing Fee exceed the Fee Floor in future months any pro-rata Fee Floor payments that have been made are repaid to the Customers.

The Margin Cap limits the Gross Refining Margin for each customer to a maximum of USD 9.00 per barrel over the calendar year. Should the Gross Refining Margin fall below the Cap in future months any pro-rata Cap reductions that have been made are repaid by the Customers.

The Cap and the Floor are subject to year-to-date adjustments.

Any balance remaining at the end of the year cannot be carried over to the next year.

Processing Fee (after Fee Floor/Margin Cap)

The Processing Fee is 70% of the Gross Refining Margin after any adjustment for the Margin Cap or Fee Floor. The Processing Fee is paid by our customers in NZD.

RAP throughput

RAP throughput is the volume of refined products, comprising gasoline, jet fuel and diesel that are delivered via the Refinery to Auckland Pipeline (RAP) to the Wiri oil terminal.