22 November 2019

Refining NZ Operational Update for September/October 2019

HIGHLIGHTS

- The Company earned NZD 49.3 million in Processing Fees for September/October. Year to date Processing Fee income is NZD 222.8 million versus NZD 209.5 million for the same period in 2018.
- Refinery throughput was 7.25 million barrels which was achieved due to good utilisation by our customers and high refinery availability.
- Refining NZ's Gross Refining Margin (GRM) was USD 6.16 per barrel which represents a lower than normal uplift over the Singapore Dubai complex margin.
- Global refining margins were mixed in September/October. They were initially supported by the attack on the Saudi Arabian oil facilities and firm Asian demand but were then negatively impacted by the fall in fuel oil cracks without the expected rise in diesel cracks.
- The RAP achieved throughput of 3.4 million barrels earning income of NZD 6.1 million, 5% higher than the same period last year. Operational availability on the pipeline was high except for a planned short statutory inspection.
- Process and personal safety performance remained excellent:
    - No Tier 1 or Tier 2 process safety events in the September/October period; and
    - The lost time injury frequency is currently 0.14 per 200,000 work hours

COMMENTARY

Refining - Margins and throughput

The refinery achieved throughput of 7.25 million barrels due to good utilisation by our customers and high operational availability of 98.6%. This throughput, coupled with a GRM of USD 6.16 per barrel, has earned the Company NZD 49.3 million Processing Fee revenue in the September/October period.

Global refining margins

Global refining margins rose in September supported by the attack on the Saudi Arabian oil facilities, firm Asian demand and subdued Chinese exports. However, margins weakened in October as a result of the significant decline in high sulphur fuel oil prices ahead of the IMO MARPOL 2020 and rising crude freight rates (see below).

Singapore gasoline margins remained healthy throughout the period. Diesel margins were flat but are still forecast by leading international energy consulting companies to increase significantly when marine gasoil demand picks up by year-end (or slightly later) when ships start switching to MARPOL compliant fuels and MARPOL compliant fuel oil inventory is drawn down as expected.

Uplift over Singapore Dubai complex margin

Refining NZ's September/October uplift over the Singapore Dubai complex margin was USD 2.61 per barrel, lower than normal, due to the impact of low fuel oil margins, flat diesel margins and the building of residue stocks ahead of the 2020 planned turnaround. The Singapore Dubai complex margin for the September/October period was USD 3.55 per barrel.

Exchange rate

The average exchange rate for the September/October period was USD/NZD 0.63.

Looking forward - Impact of temporary spike in crude freight rates

As noted above, crude freight rates increased significantly during October and through to mid-November due largely to the US imposed sanctions on several Chinese tanker companies, including COSCO which owns ~6% of the global VLCC fleet. The sanctions came at a time when the available shipping fleet was already reduced with a number of vessels docked for installation of exhaust scrubbers and some being used to store MARPOL compliant fuel oil ahead of January 2020.

While there was a surge in all crude oil tanker rates, product tanker rates only increased moderately. Aframax tanker rates, which impact Refining NZ's GRM, increased two and a half fold but product tanker rates only increased by fifty percent. COSCO has since received a temporary waiver from US sanctions and, as at mid-November, freight rates had largely recovered with respect to the impact on Refining NZ's GRM. Nevertheless, the higher freight rates are estimated to impact the cost of crude processed by Refining NZ during November and December in the order of USD -1.00 per barrel as the Refining NZ GRM has a two-month lag in the freight rates that are applied.

Distribution – Refinery to Auckland Pipeline (RAP)

The RAP achieved throughput of 3.4 million barrels of gasoline, jet fuel and diesel which earned income of NZD 6.1 million, 5% higher than the same period last year. Operational availability on the pipeline was high except for a planned short statutory inspection which was completed successfully.

The volume of product delivered through the pipeline remained strong and the increased RAP operating pressure delivered greater flow rates as expected. Refining NZ completed piping tie-ins as part of a project to install additional pumping capacity for the RAP which will further enhance the resilience of supply to Auckland.

Natural gas

Natural gas supplies remained at normal levels in in September/October and Refining NZ was able to obtain all its gas supply requirements at prices around 20% lower than the May/June period peak.

Health, safety and environment

Our excellent process safety performance continued with no Tier 1 or Tier 2 process safety events in the September/October period. Lost time injury frequency is currently 0.14 per 200,000 work hours. The continued improvement in safety performance is supported through the 7,500 proactive safety observations staff and contractors have logged through our hauora korero (safe talks) and hauora hikoi (safe walks) programs.

Costs

Overall operating costs have been tightly controlled with the ongoing pressure from higher electricity prices.

OPERATIONAL DATA

		Sep/Oct 2019	Sep/Oct 2018	YTD 2019	FY 2018
Health, Safety & Environment					
LTI	#	0	1	1	5
LTIF	#/200,000hrs	-	-	0.14	0.48
TRC	#	1	1	2	8
TRCF	#/200,000hrs	-	-	0.41	0.76
Tier I Process Safety Events	#	0	0	0	2
Tier II Process Safety Events	#	0	1	0	3
Releases outside of consent	#	0	1	1	5
Refining					
Brent Crude Oil Price	US$/bbl	61.25	80.0	77.13	71.2
Exchange Rate	US$/NZ$	0.63	0.66	0.66	0.69
Operational availability	%	98.6	97.4	99.7	90.7
Unplanned process downtime	%	1.04	2.5	1.27	0.8
Refining throughput	Mbbl	7.25	7.64	35.88	40.44
Gross Refining Margin	US$/bbl	6.16	7.09	5.85	6.31
Gross Refining Margin (excluding Fee Floor/Margin Cap)	US$M	44.6	54.2	210.1	255.0
Processing Fee (after Fee Floor/Margin Cap)	US$M	31.2	37.9	147.1	178.6
Processing fee (after Fee Floor/Margin Cap)	NZ$M	49.3	57.8	222.8	258.7
Distribution					
RAP throughput	Mbbl	3.36	3.4	17.0	21

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

		2015	2016	2017	2018	2019
Jan/Feb	Barrels 000's	7,056	6,826	7,160	7,011	6,963
	RNZ USD GRM per barrel 1)	9.91	7.96	6.58	7.54	4.88
	Singapore Dubai Complex GRM	5.40	4.95	3.42	3.37	-0.32
	Uplift vs. Singapore Dubai Complex 3)	4.51	3.01	3.16	4.17	5.20
	NZD Processing Fee (million) 2)	59.6	57.0	45.9	50.8	34.9
Mar/Apr	Barrels 000's	7,411	7,471	5,140	6,958	7,312
	RNZ USD GRM per barrel 1)	8.77	1.84	9.35	6.82	6.63
	Singapore Dubai Complex GRM	4.82	3.18	3.02	3.75	0.75
	Uplift vs. Singapore Dubai Complex 3)	3.95	-1.34	6.33	3.07	5.88
	NZD Processing Fee (million) 2)	62.3	14.8	48.1	45.8	50.1
May/Jun	Barrels 000's	6,416	6,837	7,755	3,910	6,945
	RNZ USD GRM per barrel 1)	8.55	6.26	7.63	0.18	4.36
	Singapore Dubai Complex GRM	4.24	2.13	2.90	2.02	0.17
	Uplift vs. Singapore Dubai Complex 3)	4.31	4.13	4.73	-1.84	4.19
	NZD Processing Fee (million) 2); 5)	48.9	43.3	58.4	0.7	32.2
Jul/Aug	Barrels 000's	7,519	6,833	7,511	7,615	7,419
	RNZ USD GRM per barrel 1)	7.66	6.20	8.87	6.86	7.10
	Singapore Dubai Complex GRM	2.52	1.86	4.70	2.57	3.23
	Uplift vs. Singapore Dubai Complex 3)	5.14	4.34	4.17	4.29	3.87
	NZD Processing Fee (million) 2)	63.5	41.3	63.6	54.3	56.2
Sept/Oct	Barrels 000's	7,221	7,251	6,816	7,639	7,245
	RNZ USD GRM per barrel 1)	9.47	7.49	9.31	7.09	6.16
	Singapore Dubai Complex GRM	5.12	3.18	4.73	2.47	3.55
	Uplift vs. Singapore Dubai Complex 3)	4.35	4.31	4.58	4.62	2.61
	NZD Processing Fee (million) 2)	71.8	52.5	62.2	57.8	49.3
Nov/Dec	Barrels 000's	7,017	7,447	7,342	7,307	
	RNZ USD GRM per barrel 1)	10.82	9.20	6.83	6.53	
	Singapore Dubai Complex GRM	6.37	4.19	3.67	1.80	
	Uplift vs. Singapore Dubai Complex 3)	4.45	5.01	3.16	4.73	
	NZD Processing Fee (million) 2)	73.0	67.6	50.7	49.2	
Total	**Barrels 000's**	**42,639**	**42,665**	**41,724**	**40,440**	**35,885**
	USD GRM per barrel 1)	**9.20**	**6.47**	**8.02**	**6.31**	**5.85**
	NZD Processing Fee (million) 2)	**379.2**	**276.6**	**328.9**	**258.7**	**222.8**
	YTD Cap adjustment	**14.4**				
	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.

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 137.5 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.