

MEMORANDUM

BELL GULLY

TO **Mya Nguyen**
OF Commerce Commission

FROM **Phil Taylor / Penny Pasley**
PARTNER Haydn Wong

MATTER NO. 400-4888

DATE 19 June 2015

Response to information request following conference

We set out below information in response to the Commission's information requests following the conference of 10 June 2015.

1. Gains made from improvements to processes/procedures

- 1.1 Wool scouring is essentially a mechanical process by virtue of which greasy wool is cleaned through a series of mechanised bowls by the application of warm water and detergent. The underlying process is largely unchanged since wool scouring began. The major mechanical changes have occurred over time, largely driven by the innovations of plant manufacturers such as Andar and James Irvine. Incremental operational changes occur at the scour level, driven by customer requirements (e.g. the change in detergent applications as set out below) and the incremental operational refinements of the scourer, the latter largely related to achieving throughput efficiencies and quality benefits in order to remain competitive with Chinese scours. Continuous improvement strategies have lifted the performance of both CWH sites over the last four years, including management focus, staff training, equipment maintenance and upgrades and customer interaction.
- 1.2 Capex incurred over the last four to five years for CWH has been substantially of a maintenance, replacement or incremental improvement nature. No board approval has been granted for major one-off capex projects that require a business case (other than gross capex approved as part of annual budgeting).¹
- 1.3 The most significant operational change to the processes of CWH over the last four years has been a change in detergent, from a 9 mole detergent (containing NPEO) to a 6 mole detergent (NPEO free) in the 2013/14 year. This change was required by European and Asian wool grease refiners who determined to exclude the purchase of wool grease washed with 9 mole detergent (as some residue of the detergent remains in the wool grease product). Nigel Hales of CWH has described the change in detergent to be the most significant change to the wool scouring industry during his many years of experience.
- 1.4 The switch in detergent affected the quality of the washed wool and for a time slowed run rate and wool grease recovery rates for CWH. CWH notes that **[REDACTED]**. Instead, CWH has secured supply of an effective 6 mole detergent from an external provider in China, **[REDACTED]**. This company adjusted its blend to suit New Zealand conditions.
- 1.5 To compensate for the decrease in run rates caused by the change in detergents CWH made alterations to the **[REDACTED]** process. Through continual maintenance and tweaks to the systems, CWH has largely managed to increase run rates and wool grease recovery rates on a yearly basis (with the exception of a drop during the detergent change and a small drop between the 2009/10 and 2010/11 years). The run rates at Awatoto since 2009/10 are below.

¹ **[REDACTED]**.

- (a) 2009/10: [REDACTED] gsy/kg per hour ([REDACTED] gsy/kg scoured over [REDACTED] hours)
- (b) 2010/11: [REDACTED] gsy/kg per hour ([REDACTED] gsy/kg scoured over [REDACTED] hours)
- (c) 2011/12: [REDACTED] gsy/kg per hour ([REDACTED] gsy/kg scoured over [REDACTED] hours)
- (d) 2012/13: [REDACTED] gsy/kg per hour ([REDACTED] gsy/kg scoured over [REDACTED] hours)
- (e) 2013/14: [REDACTED] gsy/kg per hour ([REDACTED] gsy/kg scoured over [REDACTED] hours)
- (f) 2014/15 (YTD at April): [REDACTED] gsy/kg per hour ([REDACTED] gsy/kg scoured over [REDACTED] hours)

1.6 During the winter maintenance period of 2012/13 CWH fitted some [REDACTED] and made some moderations to. The wool grease recovery rates since 2009/10 for Awatoto are below.

- (a) 2009/10 = [REDACTED]%
- (b) 2010/11 = [REDACTED]%
- (c) 2011/12 = [REDACTED]%
- (d) 2012/13 = [REDACTED]%
- (e) 2013/14 = [REDACTED]%
- (f) 2014/15 = [REDACTED]% (YTD at April)

1.7 There have also been improvements made to waste streams over the past four to five years. As set out in the CWH report dated 11 March 2015, the Flock and Fanning machine in Timaru was modified in 2013 to allow for the recovery of a significant amount of short fibre, which can be recycled for insulation and composting, reducing waste volumes. Recovered fibre waste increased from [REDACTED] kg or [REDACTED]% of total volume in 2012/13, to [REDACTED] kg or [REDACTED]% of total volume in 2013/14 at Timaru.

1.8 As can be seen from the above, CWH continually seeks to improve its processes and has generally improved run rates every year since 2009/10 (with some exceptions). CWH reacts to changes required by customers, and implements new equipment as it becomes available or appears useful to do so. However, as noted above, these variations are generally incremental rather than major dynamic or productive changes.

2. **Scouring capabilities in countries other than China**

2.1 We have attached the Beef + Lamb Wool Exports Report for July 2013 – June 2014 (previously provided to the Commission with the application for authorisation), as well as the latest monthly report released by Beef + Lamb recording wool export information for year to date July 2014 to March 2015, with supplementary April information (statistics from the latter two documents were mentioned at the conference on 10 June 2015). CWH has supplemented this information with internal knowledge of offshore wool scourers below.

- 2.2 Of the top five destinations for New Zealand's scoured wool – China, Great Britain, Italy, India and Germany /Czech Republic (see below) – all five also import New Zealand greasy wool and CWH believes they have the capacity to scour New Zealand's cross-bred wool. For the year ending June 2014, China accounted for 50% of all New Zealand wool exports, 50% of which were in greasy form (accounting for 88% of all greasy New Zealand exports). The proportion of New Zealand's greasy wool exported to countries other than China has increased recently, with China currently accounting for 83% of New Zealand's greasy wool exports.² The volume of greasy exports to China to date this year has increased 1.7% from the previous year, at 32,124 tonnes (as at April 2015). Information on greasy wool exports and scouring capabilities at the remaining top five destinations for New Zealand's scoured wool are set out below.

Germany / The Czech Republic

- 2.3 Germany accounted for 5% of all New Zealand wool exports, 39% of which were in greasy form (7% of all greasy New Zealand exports) according to Beef + Lamb for the year ending June 2014. The current year shows an increase in the proportion of wool exported greasy to Germany as opposed to scoured (with 50% of exports to Germany now in greasy form) and Germany now accounts for 8% of New Zealand's greasy wool exports.³
- 2.4 CWH believes that Germany no longer has any wool scourers, however (with the last major wool scourer owned by BWK sold to Tianyu in China). Rather, CWH believes that the majority of the German classification is in fact an importation into The Czech Republic and recorded as German because that is the port of entry into Europe. A small amount of the greasy wool recorded as exported to Germany may also go to Russia for scouring.
- 2.5 The Czech Republic has a wool scour, Modiano, which has two ex-New Zealand Andar built scouring lines (a 2.0m from Tomoana Woolscour and a 2.4m from Wanganui Wool Processors). This scour has a strong connection to New Zealand and CWH considers it to be one of the most successful wool processing sites to be found anywhere in the world.
- 2.6 When scouring New Zealand cross-bred wool (and both scour lines can wash New Zealand wool and indeed were built to do so) the capacity of these plants is approximately 259,000 gsy/bales. While Modiano is mainly a combing mill, it appears to be purchasing more New Zealand mid micron cross-bred wools in the current year. Greasy exports to Germany have increased 4% from the previous year as at April 2015, at 2,818 tonnes.

Italy

- 2.7 Italy accounted for 8% of all New Zealand wool exports, 11% of which were in greasy form (3% of all greasy New Zealand exports) for the year ending June 2014. There has been a marked increase in greasy over scoured exports to Italy during the current year, with 20% of exports to Italy now in greasy form and Italy now accounts for 6% of all New Zealand greasy wool exports as (at March 2015). Exports of New Zealand greasy wool to Italy have increased 74% compared to the previous year, at 2,231 tonnes (as at April 2015), indicating that Italian scours can wash New Zealand wool. CWH understands that Italy has two wool scouring companies, both of which are associated with combing mills. CWH understands one such mill is owned by Schneider, the majority shareholder in CWH's New Zealand based customer, Furhmans. The Italians are considered to be world leaders in textile equipment and manufacturers.

² Beef + Lamb Wool Exports, year to date as at March 2015.

³ Beef + Lamb Wool Exports, year to date as at March 2015.

India

- 2.8 For the year ending June 2014, India accounted for 7% of all New Zealand wool exports, 3% of which were in greasy form (0.7% of all greasy New Zealand exports). Greasy exports to India have increased 3% from the previous year, at 211 tonnes as at April 2015, with India now accounting for 0.6% of all New Zealand greasy wool exports (as at March 2015). Indian scour Grentex has an ex-New Zealand scour (from Winchester Woolscour) which can scour New Zealand wools.

Great Britain

- 2.9 For the year ending June 2014, Great Britain accounted for 8% of all New Zealand wool exports, 0.5% of which were in greasy form (0.1% of all greasy New Zealand exports). Greasy exports to Great Britain have increased 395% from the previous year, at 99 tonnes as at April 2015, with Great Britain accounting for 0.2% of all New Zealand's greasy exports at March 2015.
- 2.10 England is the former power house and hub for textiles and early manufacture. Greasy exports are on the rise following pressure from China and it is also experiencing a decrease in sheep numbers. English wool tends to be very similar to New Zealand wool, however, and New Zealand's main sheep breed, the Romney Marsh, originated in England.
- 2.11 There are two remaining wool scourers in England, both of which scour mainly cross-bred wool:
- (a) Howarth Scouring. This is a well-run company and owned by a customer of CWH called Curtis, who is owned by the Norwegian Meat company. They also own a combing mill in Bradford which is significant in size. Howarth scouring operates two New Zealand built 2.4m wide Mentec scour lines that have been modified with Andar wash bowls. CWH's 2.4m line at Timaru is a sister plant. CWH believe that these scour lines can process up to a million greasy kilograms per week. This is similar to what CWH processes at Awatoto. The annualised capacity of Howarth scouring would likely be in excess of 40,000,000 gsy/kgs.
 - (b) Standard Wools. This scour is also owned by a customer of CWH. They operate 2 2.0m wide Andar mini bowl plants. CWH estimate that their run rate is approximately 2300 gsy/kgs per plant or 4600 gsy/kgs per hour combined. Standard Wool Scouring would have more than 35,000,000 gsy/kgs annualised capacity.
- 2.12 Using the international wool statistics provided by the IWTO organisation, England shows an annual wool clip production of 34,000,000 greasy kilograms⁴. Both of these plants must have excess scouring capacity available and the fact that Howarth Scouring has a combing mill associated with it makes it more likely to be an efficient future competitor.

Malaysia

- 2.13 While Malaysia is not currently among New Zealand's top five wool export destinations, greasy wool exported to Malaysia is increasing, and CWH expects this trend to continue. For the year ending June 2014 Malaysia accounted for 0.1% of all New Zealand wool exports, 7% of which were in greasy form (0.4% of all greasy New Zealand exports). However, greasy exports to Malaysia have increased 830% compared to the previous year, currently at 186 tonnes (as at April 2015). Malaysia now accounts for 0.2% of all New Zealand wool exports, 59% of which are in greasy form (or 0.5% of all New Zealand greasy wool exports).

⁴ IWTO Market Information Report 2014, p 24.

2.14 As CWH has previously provided information on, Compass Wool Processors (**CWP**) has recently opened in Malaysia and is actively marketing to New Zealand customers. CWH understands CWP **[REDACTED]**, and CWH expects the volume of wool exported greasy to Malaysia to increase rapidly as CWP gains traction. As the Commission found in the Draft Determination “there is likely to be the available capacity and the ability to scour New Zealand coarse wool in China and Malaysia.”⁵

3. New scours in China with the capability to scour New Zealand wool

3.1 CWH was informed by James Irvine (formerly of Andar New Zealand and now based in China supplying scouring equipment) that he had recently delivered a new scourline to Unilan in Argentina. This was project managed by Henry van der Guest, another ex-Andar expert in commissioning wool scours. James also mentioned that he had orders for five new scour lines for Chinese scours, including one for Red Sun which would be **[REDACTED]**. CWH understands that all of James’ scours can wash both fine and cross-bred wool.

3.2 CWH suggests the Commission contact James Irvine for more information on these scours.

4. Rate of return

4.1 This response from Direct Capital to this question is set out in the attached letter.

5. Incentive based employee schemes and monitoring

Incentive based employee schemes

5.1 As set out in the CWH memo (dated 11 March 2015) provided in response to Commission queries, a series of bonus payments and incentives are in place to help drive productivity throughout the CWH group. Both Timaru and Awatoto have similar incentive schemes in place and both sites have had well developed schemes running for many years now. There are a number of opportunities for staff to improve their earning potential via premium and bonus payments, which are designed to help drive productivity.

5.2 All staff are paid a base hourly rate. This rate is subject to a time and a half (1.5) overtime premium. Staff are also paid discretionary premium payments (not subject to overtime payments). The premium payments are paid at varying levels depending on experience, a willingness to take on responsibility, to participate in up skill activities etc. and encourage active participation in the business. There are also two types of bonus payments paid.

(a) All production staff participate in the general collective bonus scheme which rewards staff for higher productivity over the full working week. Protocols are in place regarding quality and downtime caused by human error.

(b) As well as participating in the collective bonus, **[REDACTED]** can also receive an **[REDACTED]**. Each shift bonus is independent, i.e. a bad production day will not affect the possibility of a bonus on other days. **[REDACTED]**, the financial incentive has a significant motivating effect on the **[REDACTED]** to ensure each shift achieves excellence each day. Each shift is comprised of **[REDACTED]** staff working that shift, with the **[REDACTED]** the most experienced member who is expected to know every section of the factory in detail.

5.3 **[REDACTED]**.

5.4 **[REDACTED]**.

⁵ Draft Determination at para 156.

5.5 [REDACTED].

5.6 [REDACTED].

[REDACTED]									
[REDACTED]									

5.7 [REDACTED].

5.8 [REDACTED].

5.9 [REDACTED].

5.10 [REDACTED].

[REDACTED]					
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

5.11 While it cannot be assumed the incentive schemes are the sole reason for increased run rates, there have certainly been increases in run rate which appear to follow variations to the schemes. Without the variations, the schemes would not continue to have an impact – the schemes naturally have to be updated to mirror improvements in productivity rates or they would cease to provide an incentive for growth. The fact that such growth has continued over the history of the incentive schemes indicates that, contrary to Professor Guthrie’s theory, in practical terms the schemes are working as an incentive to improve run rates.

Monitoring and reporting

5.12 Over the last four years CWH has improved standardised reporting across the group and instituted a new Chief Operating Officer role to ensure greater control and monitoring of hourly, daily, weekly and monthly key performance indicators. Daily key performance indicator reports have been instituted over this period which provide real time data on a range of plant performance criteria. Upgrades to plant SCADA (the reporting and control system for all of the plant operations) and PLC systems (Program Logic Controllers – computers which monitor aspects such as the pumps and motors and send signals back to the SCADA so that equipment settings can be constantly controlled) have increased the real time data capture for energy and water usage which has allowed for greater control and

monitoring. For further information on these systems, please see the CWH response to Commission queries, dated 11 March 2015.

5.13 In addition, in 2012 CWH was instrumental in a rewrite of the Environmental Choice standard for woollen carpets. The result was a new standard for Wool Scouring (EC47-11) which is recognised as the most far reaching environmental standard for wool processing. The standard has an underlying requirement to demonstrate improvements year on year in the areas of energy efficiency, water use, waste minimisation, legal and ethical compliance, and best practice management principles. CWH was the first (and remains the only) wool scouring company in the world to achieve the standard, and remaining within the bounds of this standard will continue to drive CWH to improve its processes on a yearly basis.

6. Competition from countries scouring the same type of wool as New Zealand

6.1 New Zealand produces a wide variety of wool types, including fine wool, medium wool, fine cross-bred and strong cross-bred wool. All of the wool producing countries in the world will likely produce wool that is substitutable for at least one of these types of wool and CWH estimates that most sheep growing countries would have at least some coarse wool breeds of sheep (as generally speaking sheep grown for meat production will be coarse wool producing sheep). CWH understands Lempriere has set out in a letter to the Commission that New Zealand fine wool production accounts for 2%, medium wool 12% and coarse wool 17% of the world production of those types of wool, according to the IWTO. New Zealand therefore competes with the producers accounting for the remainder of that wool. CWH expects wool of countries such as Australia, England, Ireland, Scotland, Turkey, Norway, Iceland, Russia, Mongolia, South America, USA, Sardinia, Sudan, Iran, Holland, Pakistan and China (among others) would be a suitable replacement to New Zealand wool.

6.2 The IWTO defines the major wool producing and exporting countries as Australia, New Zealand, South Africa, Uruguay and Argentina.⁶ While South Africa and Australia produce a significant proportion of fine wool, Uruguay and Argentina produce significant volumes of medium and broader wool.⁷ Uruguay has 8.2 million sheep and exported 14,247 tonnes of greasy wool in 2013 (and 6,452 tonnes of scoured) and Argentina with 12.1 million sheep exported 11,574 tonnes of greasy wool in 2013 (and 2,419 scoured).⁸

6.3 In addition, Great Britain produces significant wool volumes and much of New Zealand's sheep breeds originated in England. While not focused on exports, China is now the largest producer of sheep (with 150 million head in 2013) and India produces 75.5 million, with the Commonwealth of Independent States (including Russia) producing 84.4 million.⁹ The biggest world importers of raw wool, China (accounting for 48% of imports) and India (accounting for 12% of imports), both increased imports of greasy wool in 2013, China by 13% and India by 20%.¹⁰

6.4 New Zealand's greasy exports to its top five scoured wool destinations (using 2013 information from the IWTO 2014 edition and Beef + Lamb year ending June 2014 wool export statistics) are set out below:

⁶ IWTO Market Information Report 2014, p 64.

⁷ IWTO Market Information Report 2014, p 37.

⁸ IWTO Market Information Report 2014, p 68.

⁹ IWTO Market Information Report 2014, p 23.

¹⁰ IWTO Market Information Report 2014, p 64.

Country	Sheep numbers ¹¹	Volume of total wool scoured (greasy tonnes) ¹²	Imports of greasy wool (greasy tonnes) ¹³	Imports of NZ greasy wool (greasy tonnes) ¹⁴	NZ greasy wool as a proportion of total greasy wool imported	NZ greasy wool as a proportion of total wool scoured
China	150m	695,283	284,161	38,801	14%	6%
Great Britain	32.9m	21,383	6,905	20	0.3%	0.1%
Italy	(No data)	11,609	19,476	1,408	7%	12%
India	75.5m	101,110	54,304	306	0.6%	0.3%
Germany and Czech Republic (combined)	(No data)	25,818	44,227	3,154	7%	12%

6.5 The above table shows that the volume of greasy wool imported from New Zealand as a percentage of total greasy wool imports is so small in terms of each countries' overall scouring volumes that an increase in New Zealand greasy wool would be unlikely to be impeded by a shortage of capacity. Equally, each country clearly imports significant volumes of greasy wool from other countries and could switch to importing more of that wool if the price of New Zealand greasy wool increased.

7. Additional request – Clive

7.1 Clive will no longer be required post-transaction because sufficient excess capacity will exist at Awatoto once the Whakatu 3.0 metre line has been relocated. While Clive is the subject of limited use (as previously stated Clive was utilised for approximately 30 days during the last financial year), CWH is currently unable to remove Clive as an overflow facility because capacity in the counterfactual is currently too tight at Awatoto during peak seasonal demand (generally between January and April).

7.2 Post-rationalisation, CWH will retain spare capacity every month at Awatoto above expected wool availability, using estimates of wool volume based on Beef + Lamb forecasts as at April 2014 (CWH notes Beef + Lamb has since revised its forecasts to expect lower volumes of wool and therefore its calculations of expected throughput are conservative). Once the Whakatu scour has been relocated to Awatoto, CWH will have a daily capacity of [REDACTED] gsy/kgs (with the scours running 24 hours a day). Expected greasy wool available for each of the peak season months (based on Beef + Lamb estimates) and capacity for those months, including excess capacity available, is set out in the table below. For all other months, capacity will well exceed demand.

¹¹ IWTO Market Information Report 2014, p 23.

¹² Collaboration of IWTO 2014 information - Greasy wool produced (table 2) and raw wool imported (table 26), minus scoured imports (table 28b), carbonised imports (table 29b) and wool exported in greasy form (raw exports (table 25 minus scoured exports (table 28a) and carbonised exports (table 29a)).

¹³ IWTO 2014 information - raw wool imported (table 26), minus scoured imports (table 28b) and carbonised imports (table 29b).

¹⁴ Beef + Lamb Wool Exports July 2013 to June 2014.

Month	Expected wool available (2017)	Number of days operational	Total capacity available	Excess capacity above expected volume
January	5,766,025	27	[REDACTED]	[REDACTED]
February	6,010,938	28	[REDACTED]	[REDACTED]
March	6,748,687	31	[REDACTED]	[REDACTED]
April	6,492,297	30	[REDACTED]	[REDACTED]