

**ME/6569/15**

**PROPOSED ACQUISITION BY CLARIANT OF THE EUROPEAN  
AIRCRAFT AND RAIL DE-ICING BUSINESS OF KILFROST**

Initial submission from Clariant

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## EXECUTIVE SUMMARY

Certain Clariant entities, namely Clariant International AG, Clariant Produkte (Deutschland) GmbH and Clariant Production UK Limited are seeking to acquire the European aircraft de-icing fluid (“**ADF**”) business and the rail de-icing fluid (“**RDF**”) business (excluding the former soviet republics other than Russia) of Kilfrost Group plc and its subsidiary, Kilfrost Limited, (together “**Kilfrost**”) which consists of all Kilfrost's contracts, customers, IP and a few selected fixed asset items, for the provision of ADF and RDF products in Europe (the “**Merger**”). The acquisition of these assets will enable Clariant to take over Kilfrost’s European business involving the sale of ADF products (and RDF products), except in the former soviet republics other than Russia. An Asset Purchase Agreement was signed on 19 November 2015. Completion is conditional upon merger clearance. Kilfrost and Clariant are referred to in this submission as the “**Parties**”.

Pursuant to a Merger Notice of 11 December 2015, the Competition and Markets Authority (“**CMA**”) has conducted a first phase review of the Merger and issued its first phase decision on 9 February 2016 (“**Decision**”). The Decision concluded that the Merger gives rise to a realistic prospect of a substantial lessening of competition (“**SLC**”) as a result of horizontal unilateral effects in the manufacture and supply of ADF in the UK which may lead to price rises and/or a reduction in product or service offering/quality offered to customers.

The CMA bases its Decision on the following assumptions:

- The Parties are each other’s closest competitors in the UK and the competitive constraint between them would be lost as a result of the Merger;
- The competitive constraints imposed by the Parties’ competitors in the UK are weak;
- The Merger gives rise to a realistic prospect of an SLC which may lead to price rises, a reduction in product or service quality provided to customers and/or the loss of innovation;
- As a result of barriers to entry and expansion, entry or expansion would not be sufficient, timely and/or likely to prevent an SLC arising from the Merger;
- The extent of buyer power, if any, is limited and would not prevent an SLC.

This submission addresses the CMA’s conclusions and sets out why Clariant considers that the Merger will not result in an SLC.

**In summary, Clariant considers:**

- The evidence does not suggest that the Parties are uniquely close competitors in the UK, but that same evidence suggests that there are other competitors in the UK;
- Post-Merger, there will be actual and potential competitors to challenge Clariant for its market share. Competitors will view the Merger as an opportunity to compete for contracts and grow their market share and several competitors are already actively marketing in the UK;
- Barriers to entry are low and it is anticipated that other suppliers will enter the UK. There are a number of established ADF suppliers in Europe and elsewhere who could easily and quickly enter the UK;
- [✂];
- The Merger will therefore ensure security of supply by a supplier who can provide a high quality of service to customers;
- The threat of credible alternative suppliers and the buying power of airlines, airports and ground handling companies mean that the Merger will not lead to an increase in prices, degradation of service levels or loss of innovation. ADF is a tender-based market with switching a common feature and occurrence, and in the face of this Clariant and its competitors will be forced to continue providing high levels of service at competitive prices and to continue innovating.

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## 1. OVERVIEW OF AIRCRAFT DE-ICING

- 1.1 The Parties overlap in the manufacture and supply of aircraft de-icing fluid (“ADF”). ADF is used to remove and prevent the build-up of snow and ice from an aircraft prior to take-off. Owing to different weather conditions, as well as differences in the nature of aircraft and the time between push-back of an aircraft and take-off, different formulations of ADF are used. There are four ‘types’ of ADF: Type I, II, III and IV (these are further described at Section 4 below). All types except Type III are sold in Europe (Type III being rarely used and principally only used in North America).
- 1.2 Type I is usually supplied in concentrated form and is then diluted by the addition of water which is performed by the customer. Types II and IV are supplied in finished form. However, with many customers increasingly requiring the products to mitigate adverse environmental effects, customers may dilute Types II and IV. Whilst this can reduce holdover performance, this approach can be adequate for certain weather conditions.
- 1.3 ADF is manufactured in a one-stage process. There is no complex chemical process (but simply a mixing of ingredients), it is easy to produce and capacity can be quickly expanded. The mixing process of the components (the raw material for ADF, monopropylene glycol (“MPG”) and water and some other components) takes place in factories, and typically the finished products are transported to be stored at local depots. The products can be readily transported using third party hauliers since they are non-hazardous and do not require any specialist haulage.
- 1.4 Production of the finished product is very flexible. All four types have similar chemical compositions and similar equipment can be used to manufacture each type. As a result, suppliers can switch/vary production to meet fluctuating demands. Furthermore the manufacture of ADF can also be readily subcontracted to tolling companies.
- 1.5 Typically, within Europe, ADF is sold to four types of customer: (i) airports, (ii) airlines; (iii) ground handling agents and (iv) defence customers. In the UK, historically aircraft de-icing was carried out by airlines. However, aircraft de-icing is today one of many services sub-contracted by airlines (other services that are sub-contracted include baggage services, pre-flight checks, engineering etc.). In some cases, airlines will contract with a ground handler that provides aircraft de-icing services whereas in other cases airlines contract directly with specialist ADF providers. Clariant and Kilfrost both supply ground handlers in the UK, as well as making supplies to airlines and airports.
- 1.6 The nature of ADF purchasing in the UK is such that, in some cases, different customers will purchase supplies of ADF in respect of the same airport. For example, Heathrow is supplied by a number of suppliers as follows:
  - 1.6.1 Heathrow licenses several ground handlers (e.g. Aeromag 2000, Airline Services etc.) to operate at the airport. Most airlines select one of these ground handlers to provide a range of services which may include the provision of de-icing services.
  - 1.6.2 British Airways conducts its own de-icing at Terminal 5 at Heathrow and buys ADF directly from ADF suppliers (as opposed to the ground handlers who usually buy the product). For non-Terminal 5 traffic, British Airways contracts with one or more of the established service providers.
  - 1.6.3 Specialist de-icing operators – de-icing is also performed at Heathrow by specialist providers [✂].

- 1.6.4 Although Heathrow Airport itself is not a customer of ADF, Heathrow Airport stores ADF as an emergency back-up for operators at the airport. This fluid [X] supplied by the ADF supplier [X] for emergency use [X].
- 1.7 In addition to commercial customers, ADF is also purchased by defence customers. For example, the UK's Ministry of Defence ("MoD") purchases a specific product called AL-34 which is similar to normal ADF but has subtle differences. AL-34 is a proprietary product of Kilfrost [X]. The amount of ADF sold to the MoD is very small. Following the Merger (assuming it is cleared), Clariant would be in a position to produce AL-34 and the supply to the MoD would not be interrupted.
- 1.8 Clariant also manufactures and sells runway de-icing products, whereas Kilfrost sells other de-icing products and specialty fluids including anti-icing fluid for rail (referred to in this submission as "RDF"), special de-icing products for aircraft which use an inflight de-icing system known as TKS, and speciality fluids. Clariant does not supply rail de-icing fluids or any of these other products and for the avoidance of doubt Clariant does not supply runway de-icing products in the UK. Therefore the Parties do not overlap in relation to any of these products.

## 2. OVERVIEW OF CLARIANT

- 2.1 Clariant International AG is a leading specialty chemical company active across many industries, headquartered in Muttenz, Switzerland, and listed on the SIX Swiss Exchange. In this submission, "Clariant" or "the Clariant Group" refers generally to the corporate group of which Clariant International AG is part and of which Clariant AG, a holding company organised under Swiss law, is the parent company.

### Products and Services

- 2.2 Clariant is organised across four principal business units – Care Chemicals, Natural Resources, Catalysis and Plastics & Coatings. Clariant provides solutions across many industries including, Agriculture & Animal Feed, Automotive & Transportation, Aviation, Building & Construction, Chemical Intermediates, Coatings, Paints & Inks, Consumer Goods, Digital Printing & Fabrications, Electrical & Electronics, Food & Beverage, Healthcare, Home Care, Industrial Care, Oil & Gas, Packaging, Personal Care, Plastics & Polymers, Textiles & Fibres, Waste Management. Further detail on Clariant's business units and structure generally is found at <http://www.clariant.com/en/Company/Structure>.
- 2.3 Within its Aviation product range, Clariant supplies ADF and also supplies runway de-icing products, which are not supplied by Kilfrost.

### History

- 2.4 Clariant was formed in 1995 as a spin-off from the chemical company Sandoz, the origins of which go back to 1886. Within the last five years, Clariant has made one acquisition, of the Süd-Chemie Group, a highly-innovative, specialty chemicals company headquartered in Munich, with a focus on the absorbent and catalyst product areas. Süd-Chemie had around 5,000 employees and generated total sales of almost €1.1 billion. Süd-Chemie is not involved in the supply of ADF. Further detail on Clariant's history and on earlier acquisitions can be found at <http://www.clariant.com/en/Company/History>.
- 2.5 The principal events at Clariant from the last five years relating to ADF in the UK are as follows:
- 2.5.1 Clariant entered the UK in 2012, when it succeeded in winning the contract to supply [X]. [X] requested a quote in [X] and awarded the contract to Clariant [X] on the

basis that ADF would be supplied from Clariant's facility in [REDACTED]. At the same time, Clariant was in discussions with [REDACTED] to supply it at [REDACTED], following a request for a quote in [REDACTED], and was awarded the contract in [REDACTED].

2.5.2 In August 2015, Clariant acquired from Kilfrost certain assets relating to Kilfrost's ADF business in the Americas, China, Japan and Korea. This is described more fully at paragraph 3.11 below.

2.6 In September 2014, Clariant acquired Aerochem AB, a Swedish and Norwegian-based group, active in the manufacture and production of ADF products. However, this acquisition has no relation to the supply of ADF in the UK.

### Supply chain structure

2.7 Key points relating to Clariant's supply chain structure for the supply of ADF are as follows:

2.7.1 Production of [REDACTED] Clariant's ADF proprietary concentrate is carried out at [REDACTED]. The vast majority of concentrate produced in [REDACTED] is used by Clariant in its own production of ADF [REDACTED] is transported to other approved producers for them to use in the production of Clariant ADF products.

2.7.2 Clariant uses [REDACTED] for the transport of ADF throughout the UK [REDACTED]. Clariant uses a firm called [REDACTED].

2.7.3 Clariant [REDACTED] ADF from [REDACTED] via [REDACTED] depots in [REDACTED] and stores it in depots [REDACTED] in the UK [REDACTED]. In more detail, Clariant's [REDACTED] depots operate as follows:

(a) In [REDACTED] Clariant has a depot for its supplies to airports in the south of the UK with a stock [REDACTED] of ADF. The present stock at [REDACTED] is to service Clariant's existing customers [REDACTED].

(b) In [REDACTED] Clariant has a depot for its supplies to airports in the middle and the north of the UK with a stock of currently [REDACTED]. The present stock at [REDACTED] is to service Clariant's existing customers at [REDACTED].

2.7.4 In the UK, Clariant has [REDACTED] to meet continuous maximum demand from all UK customers. Furthermore, Clariant takes into account stock held by the [REDACTED].

2.7.5 This combination of stock in the UK allows Clariant time to replenish stock from the [REDACTED] depot and the [REDACTED] plant.

## 3. THE PROPOSED TRANSACTION

3.1 Clariant is seeking to acquire the European ADF business and RDF business (excluding the former soviet republics other than Russia) of Kilfrost which consists of all Kilfrost's contracts, customers, IP and a few selected fixed asset items, for the provision of ADF and RDF products (the "**Merger**"). The acquisition of these assets will enable Clariant to take over Kilfrost's European business involving the sale of ADF products (and RDF products).

3.2 The acquiring entities are Clariant International AG, Clariant Produkte (Deutschland) GmbH and Clariant Production UK Limited. The Merger involves an asset purchase pursuant to which Kilfrost will sell to Clariant the assets relating to Kilfrost's European business for the sale of ADF and RDF products. On [REDACTED], Clariant International AG exercised an option it had under a call option agreement signed with Kilfrost Group plc and its subsidiary, Kilfrost Limited, together referred to as "**Kilfrost**" in this submission, and an asset purchase agreement was signed on 19

November 2015 (the “**Asset Purchase Agreement**”). Under the Asset Purchase Agreement, completion is conditional upon all relevant merger control clearances having been obtained. The Merger was notified to the Austrian and Spanish competition authorities. The Austrian competition authority cleared the Merger on 10 November 2015 by confirming that there was no need for a merger control filing in Austria. The Spanish competition authority approved and cleared the Merger on 28 January 2016.

- 3.3 Upon exercise of the call option, Clariant became bound to purchase, and Kilfrost became bound to sell, the assets listed below. The acquisition of these assets will enable Clariant to take over the Kilfrost European business involving the manufacture and sale of ADF and RDF products. Clariant will not be taking over Kilfrost’s R&D activities.
- 3.4 The assets to be transferred include:
- 3.4.1 goodwill, together with the exclusive right for Clariant to represent itself as carrying on the business [X] in succession to Kilfrost;
  - 3.4.2 business intellectual property which is owned by Kilfrost and used exclusively in carrying on the business at the time of the transfer [X];
  - 3.4.3 the stock in trade of finished and unfinished goods, raw materials and consumables, consumables and work in progress owned by Kilfrost for the purposes of the business as at the time of the transfer;
  - 3.4.4 the benefit of customer contracts [X];
  - 3.4.5 the benefit of supply contracts [X];
  - 3.4.6 certain confidential information used exclusively by the business or which relates exclusively to the business;
  - 3.4.7 certain selected equipment, machinery tools and other chattels owned by Kilfrost exclusively in relation to the business at the time of the transfer; and
  - 3.4.8 business records including all books of account, records, documents and information of Kilfrost relating exclusively to all or any part of the business or the assets.
- 3.5 For the avoidance of doubt, [X] nor the production plant of Kilfrost at Haltwhistle (in the UK), are being transferred as part of the acquisition.

### **Circumstances leading up to the proposed transaction**

- 3.6 [X], who was instructed by Kilfrost, approached Clariant in [X] to understand if Clariant would potentially be interested in acquiring Kilfrost’s business. Clariant attended a meeting at [X]. Clariant started due diligence on the potential acquisition of Kilfrost’s ADF business [X]. During due diligence it became apparent [X]. As a result of this, [X] acquisition of Kilfrost’s assets in North America, South Korea, China and Japan was prioritised. An agreement was reached at the end of [X] and the transaction relating to Clariant’s acquisition of those assets completed on [X].
- 3.7 Negotiations of the various agreements relating to Clariant’s acquisition of the European ADF and RDF business continued in September and October. The Asset Purchase Agreement relating to the acquisition of Kilfrost’s European business was signed on 19 November 2015.
- 3.8 Prior to the approach by [X] described above, Clariant had not considered [X].

## **Rationale of the transaction**

- 3.9 From Clariant's perspective, the acquisition of the Kilfrost ADF business represents an attractive investment because the acquisition will allow its Industrial and Consumer Specialties business unit ("BU ICS") to improve its offering for its customers in Europe. Clariant is paying primarily for [REDACTED].
- 3.10 Clariant considers that the acquisition of the European assets will lead to a number of benefits and efficiencies through the optimisation of [REDACTED].

## **Acquisition of the US and Asian business**

- 3.11 As described above, in August 2015, Clariant acquired from Kilfrost certain assets relating to Kilfrost's ADF business in North America, China, Japan and South Korea. This acquisition allowed Clariant to expand its geographical footprint [REDACTED] in [REDACTED] and [REDACTED] in [REDACTED]. As the deal was structured as an [REDACTED]. Besides this entry into new territories in Asia, Clariant is seeking in relation to the acquired business in [REDACTED] and [REDACTED] to allow the realisation of synergies [REDACTED] as well as [REDACTED] while using its existing sales force to serve the increased customer base.

## **4. THE RELEVANT ECONOMIC MARKETS**

- 4.1 The Parties overlap in the manufacture and supply of ADF. The Decision uses as a product frame of reference the manufacture and supply of ADF, which includes all types of ADF used in the UK. In relation to the geographic frame of reference, the CMA assessed the Merger in the UK (taking into account the constraint of supplies from continental Europe).
- 4.2 Whilst Clariant agrees with the product frame of reference (subject to the comment at paragraph 4.7 below), it considers the geographic frame of reference is not meaningful but is at least EEA-wide.

### **Product market(s)**

- 4.3 Clariant submits that the relevant product market is the manufacture and supply of ADF products.
- 4.4 There are four different types of ADF: Types I to IV. Type I is used for the sole purpose of de-icing an aircraft. Types II to IV can also be used for de-icing an aircraft but are used principally to anti-ice the aircraft, i.e. on a precautionary basis to prevent it icing up and provide protection until the aircraft takes off. Types II, III and IV guarantee protection of over 30, 20 and 80 minutes respectively (known as the holdover time). These different types of ADF are used depending on the weather and the level of protection required. In airports, where the de-icing facilities are installed at the beginning of the take-off runway, use of Type I is normally sufficient (e.g. regional UK airports). If there is likely to be any delay to the take-off after de-icing then an anti-icing step with Type II or Type IV can follow. If the airport is of a size such that there is a considerable distance between the de-icing facility and the take-off runway, then it is necessary to use Type I and in addition Type II /IV in order to prevent the icing of the aircraft on its way to the runway (e.g. London Heathrow airport). Type III is used in the same way as Type I and offers some protection against refreezing (shorter than Type II), but is only used in North America. Therefore, for the purposes of the relevant market, Types I, II and IV are relevant.
- 4.5 Whilst these different types of ADF consist of partly different chemical components; have partly different thickening agents; are of slightly different viscosities and have slightly different properties and applications, Clariant does not consider that they each constitute a separate product market. This is mainly because:

- 4.5.1 From a demand-side perspective, a customer will often buy Type I together with either Type II or IV i.e. it will use Type I for de-icing the aircraft and then II or IV to anti-ice directly after. Types I and II/IV are commonly but not exclusively purchased together and some customers hold a supply of Type I and either Type II or Type IV in order to deploy the correct type of fluid as conditions dictate. However some customers may only purchase one type, particularly if their storage facilities are limited. Type II and Type IV fluids are also largely comparable in price, although the supply price of Type I is generally higher due to the fact that it contains a higher proportion of MPG.
- 4.5.2 From a supply-side perspective, suppliers of ADF are flexible and are able to adjust their production to supply a customer with any of Types I, II and IV as required. It is relatively easy for a supplier to switch production of the various types of ADF. All types have a similar base, consisting of MPG, water and various additives. Type I requires a simple blending of the various ingredients. For Types II and IV, the blending process is similar but is more complex as it requires more quality control/testing during the process and different thickening agents are used.
- 4.6 Therefore, for the reasons set out above, the relevant product market is the manufacture and supply of ADF products.
- 4.7 Clariant does not consider that it is necessary for a supplier of ADF to provide all three types of ADF to be considered credible and disagrees in this respect with the CMA's finding in the Decision. While customers commonly do purchase all three types of fluid from the same suppliers, mostly for matters of efficiency and convenience, there is no technical reason for customers to do so or obstacle to them purchasing these separately. There are in fact examples of customers doing this. For instance [X], described more fully at paragraph 7.18, in recent years combined the purchase of Type I from LNT with that of Types II and IV from Clariant. Clariant also notes that both LNT and ADDCON are developing Types II and IV and expect to receive approval for these products in the next 6 to 12 months and 2 years respectively, as noted in paragraph 94 of the Decision. Clariant also notes that LNT is marketing aggressively in the UK, as is evident from the International Airport Review Issue 1 2016, provided to the CMA in Clariant's response to Annex C of the Phase 2 Opening Letter of 18 February 2016 (the "**Phase 2 Opening Letter**") (see paragraphs 5.4 and 6.3 below).

#### **Geographic market(s)**

- 4.8 Clariant submits that the relevant geographic market for the purpose of the CMA's assessment is not meaningful and can be left open. The market is principally characterised as a tender market, and for the reasons set out below, suppliers can act as credible bidders for contracts in the UK irrespective of their location. As such, the location of suppliers is not relevant in determining the strength of constraint they may pose.
- 4.9 In the UK, and increasingly in other countries, most (but not all) ADF customers invite quotations from a number of suppliers.
- 4.10 Currently, the main ADF producers in Europe are based in various countries (e.g. Kilfrost is based in the UK, Clariant in Germany, Proviron in Belgium, LNT in the UK and ABAX in France, IDS/De-icing Solution in USA etc.). However, each of these ADF producers supplies customers across Europe and beyond i.e. their customers are not located only in the country in which the relevant producer is based and all such suppliers will take part in tender processes across Europe.
- 4.11 The market is characterised by at least pan-European supply. This is made possible by the fact that transportation of ADF is straightforward; it can be easily transported by road or rail. It is non-

hazardous; therefore there are no regulations applicable to its transportation. In addition, the transport costs for ADF are comparatively low meaning that transportation distance does not play a significant role in an ADF producer's decision to respond to a request for quotation.

- 4.12 Further, whilst the products require local storage facilities prior to final delivery to customers, it is easy for an ADF manufacturer to establish storage and logistics facilities locally to its customers. For example, it is possible to rent a local storage depot where the ADF can be stored until it is required by the customer, as Clariant did with [REDACTED] for instance (see paragraph 7.16). Indeed, Clariant did not supply into the UK until 2012 when it began supplying [REDACTED]. Clariant decided to adopt an [REDACTED] (as opposed to setting up [REDACTED] in the UK) [REDACTED] depots [REDACTED]. Clariant has found that this manufacturing and distribution [REDACTED] works well. It is a [REDACTED] that is used by competitors across Europe (e.g. Proviron, LNT etc.). Imports can therefore very readily be made.
- 4.13 In practice, customers of ADF are willing to purchase ADF from any of the main ADF manufacturers with production facilities in Europe. Further, they will also purchase from suppliers with production facilities outside Europe where they have storage facilities in Europe. Customers (both airports and ground handling agents) tend to request quotations from suppliers across Europe to give them the maximum possible choice of supplier and in order to obtain the lowest possible price and utmost supply security.
- 4.14 Customers also purchase on a pan-European basis. For example, the ground handling agent [REDACTED] issued a tender for all its anti-icing requirements in 2014. Clariant was awarded a contract to cover [REDACTED] airports.
- 4.15 There are many examples of customers switching between the various European suppliers, including for example:
- 4.15.1 In [REDACTED], Clariant and Kilfrost lost noteworthy contracts to [REDACTED]:
- (a) [REDACTED];
  - (b) [REDACTED];
  - (c) [REDACTED];
- 4.15.2 [REDACTED];
- 4.15.3 [REDACTED];
- 4.15.4 [REDACTED].
- 4.16 Therefore, while customers tend to contract with a single ADF supplier at any one time, the nature of the market and the availability of credible suppliers outside the UK mean that upon the expiry of that contract, the opportunity is as likely to go to any other European or even non-European competitor.
- 4.17 There are no differences in the national rules or requirements regarding the quality/purity of ADF. In all European countries, it is simply necessary for the products to meet the relevant ISO standards and be AMS-certified, which are common throughout Europe, and mostly elsewhere as well (for further details of certification requirements see Section 9 below).
- 4.18 From a supply-side perspective, suppliers of the key ADF main component MPG are based across the globe and deliver worldwide.
- 4.19 In summary, while the UK, as well as other national jurisdictions, present partly different purchasing features (particularly as regards the volume of ADF purchased as a result of local climatic conditions, and the nature of the customers in each country), all ADF customers

ultimately consider the same European ADF producers when seeking a new supplier of ADF products. Competition between ADF producers therefore takes place at least at a European level.

- 4.20 Clariant disagrees with third party comments that storage costs are higher in the UK and does not consider that any differences are such that the UK should be considered as a separate market. Clariant has highlighted the pan-European nature of demand above. From a supply side, as regards storage costs, the costs of storing ADF products in a tank container are the same wherever the tank container is stored. For Clariant these are approximately [REDACTED] day and represent a small proportion (c. [REDACTED]) of Clariant's overall costs of ADF production. As regards depot costs, these can vary from location to location and do not lead to the conclusion that the UK has fundamentally different competitive conditions. Such costs still only represent a minor proportion of overall costs. By way of example, a depot cost of [REDACTED] would represent [REDACTED] per kg of ADF, i.e. less than [REDACTED] of the ADF selling price. Other logistics costs are a function of the location of a supplier's production facility and similarly do not justify concluding that the UK has different competition conditions.
- 4.21 Clariant also disagrees with third parties' emphasis on the necessity of a UK presence, in the sense of production facilities, for a supplier's ability to compete effectively in the UK and strongly disputes the finding that this should lead to a UK frame of reference. The reasons for Clariant's views are as follows:
- 4.21.1 Kilfrost is currently the only supplier with manufacturing facilities in the UK. By contrast [REDACTED] and also Proviron operate on the basis of an [REDACTED]. Clariant's supply chain is described more fully in Section 2 above and in essence involves the [REDACTED] of ADF from its manufacturing facility in [REDACTED] via [REDACTED] depots [REDACTED] and storage in depots. Both [REDACTED] and Proviron, which by the CMA's own admission in the Decision are effective competitors, demonstrate the ability of non-UK based ADF suppliers to compete effectively in the UK. Kilfrost also operates on the basis of a similar [REDACTED] for its customers in Europe.
- 4.21.2 While storage and transport infrastructure may be key to a competitor's ability to supply customers, whether in the UK or elsewhere, this infrastructure can easily be set up by subcontracting and/or renting from third parties flexibly and at relatively low cost. By way of example, storage represents c. [REDACTED] and transport c. [REDACTED] of Clariant's overall ADF production costs. The cost of renting a tank container is [REDACTED].
- 4.21.3 Clariant provides an excellent example of a supplier's ability to enter the UK part of the European market [REDACTED]. In 2012 when it bid for the contract to supply [REDACTED], it did not have any [REDACTED] but was able to set this up [REDACTED].
- 4.21.4 There are no particular difficulties in supplying the UK which would justify regarding it as a separate market. Proviron itself noted to the CMA at paragraph 69 of the Decision that it was relatively easy to supply the UK, by sea or otherwise.
- 4.21.5 Clariant's infrastructure in the UK also demonstrates its ability to provide security of supply. The stock at each of its depots ([REDACTED]) is to service its existing customers, [REDACTED] to meet maximum demand for all its UK customers in case of a peak in demand. It also takes into account stock held by [REDACTED]. In respect of the UK, its [REDACTED] depots are continuously replenished from its production facility [REDACTED] via [REDACTED] depots, [REDACTED]. As such, in case of high demands, it has [REDACTED] as well as the [REDACTED] and can continue to replenish [REDACTED]. Its production facility capacity could easily be increased and it could equally easily expand its stock in the depots it rents and/or set up additional depots to

cater for customer requirements. This infrastructure is in no way unique to Clariant and could be put in place by any competitor wishing to begin supply in the UK. Proviron has also invested in a high end facility in Ostend in Belgium from which it can by its own admission easily supply the UK. In light of this, Clariant does not consider customers' concerns regarding security of supply and the need for local production to be well-founded.

- 4.22 Clariant also strongly disagrees with the suggestion that the market could be viewed in even narrower local/regional terms. In the alternative, if such a view were taken based on existing local depots, Clariant contends that it cannot see how there could be any pre-existing competition between the Parties, such that the Merger would not in fact result in a loss of competition, in such "regional" segments – which for the avoidance of doubt Clariant strongly disputes exist.

## **5. COMPETITION WITHIN THE RELEVANT MARKETS**

- 5.1 Clariant faces competition from a number of competitors and considers that there are effective and credible actual and potential competitors that will challenge Clariant post-Merger.

- 5.2 There are a number of ADF producers that are currently active worldwide, several of which operate in Europe and actively compete with Clariant and Kilfrost. There are also a number of companies that Clariant considers to be potential competitors on the basis that they could start supplying in Europe quickly and easily. As such, Clariant considers that there will be a number of alternative suppliers for UK customers.

- 5.3 The CMA accepts in the Decision that Proviron – which has recently entered the UK part of the European market – is a credible competitor (paragraph 70 of the Decision). For over 16 years, Proviron has established itself in the UK as a reliable and trusted manufacturer/supplier of runway and commercial de-icing products. In 2013 it entered the ADF business and teamed up with its long term business partner Cryotech, a world leader in de-icing technology, to manufacture (under licence) Cryotech's ADF products in Europe. In its 2014 annual report, Proviron, reports that it was able to increase its customer portfolio and sell its de-icing products in over 20 countries in Europe. Indeed, it is actively marketing in the UK and in [REDACTED] successfully bid for the contract to supply [REDACTED], a customer previously supplied by [REDACTED]. The Decision reports that Proviron told the CMA that it intends to expand its sales in the UK significantly and believes that it has the capabilities to do so. However, the CMA has questioned this in light of ABAX's experience in the UK and the CMA concludes that expansion by Proviron is not sufficiently likely to occur and even if it were to occur, that it would not necessarily replace the loss of competition between the Parties. Clariant considers this conclusion to be erroneous. Not only is Proviron very actively marketing in the UK at present, Proviron's position is to be distinguished from that of ABAX. ABAX relied on a third party distributor in the UK (Esseco) [REDACTED].

- 5.4 As indicated above, Clariant believes, in contrast to the conclusions in the Decision, that even those providers who do not supply the full range of ADF types are also credible potential competitors in the UK. The CMA draws attention to LNT stating that it offers only a Type 1 product and it does not currently supply ADF in the UK. However, this is at odds with LNT's publicly marketed position in which it is advertising heavily that it can provide ADF in the UK. For example in the International Airport Review Issue 1 2016, provided to the CMA in Clariant's response to Annex C of the Phase 2 Opening Letter, it states "*LNT Solutions' ground breaking de-icers for aircraft and pavement, popular in Germany and North America since their introduction a decade ago, are now available in the UK and Ireland*". Further, the Decision reports feedback from LNT that it expects to obtain approval for its Type II and IV ADF products

in six months and twelve months respectively, although Clariant notes that this is inconsistent with the advert noted above which explicitly states “*Other products in the LNT range include Airside Solid and Type I/III/IV Aircraft Deicing Fluids*”. As such LNT is expected to be able to offer the full range of ADF products in short order or at least in the near future.

- 5.5 ADDCON similarly reported to the CMA that it will develop Type II and Type IV ADF products in the short term (2-2.5 years). ADDCON is a German-based supplier of runway de-icer. It has recently developed a Type I ADF product and has recently recruited key ADF individuals from other ADF suppliers. It is therefore anticipated that ADDCON will seek to enter the UK in the next few years.
- 5.6 ABAX is an established supplier of ADF products (Types I, II and IV). It has previously supplied ADF to customers at Manchester, Newcastle and Gatwick airports, and is a significant supplier of ADF in France and the Benelux region. Whilst its distribution arrangements with Esseco have terminated and ABAX no longer supplies the UK, Clariant regards ABAX as a credible competitor in the UK and since it currently supplies other European countries of the European ADF market, Clariant considers it is possible that it may re-enter the UK in the short to medium term, particularly post-Merger when ABAX (and others) may consider it an opportunity to supply in the UK. ABAX also currently licenses its Type IV ADF to Dow Chemicals in North America and would be well positioned to licence a UK supplier relatively quickly and easily.
- 5.7 De-icing Solutions LLC is a large US-based ADF supplier with a sister company, IDS, which provides aviation services at Luton, Heathrow and Geneva airports. Deicing Solutions currently has and supplies Type I and IV (and possibly Type II) ADF products in North America. With its sister company already supplying European airports, Clariant considers Deicing Solutions a credible potential competitor with established ADF products which could easily and quickly begin supplying ADF in Europe and the UK.
- 5.8 AllClear Systems is also a US-based supplier with certified ADF products (Types I and III). It is thought to be planning to enter the European market since it recently exhibited at European industry-wide conferences and is believed to be holding discussions with potential customers in Europe and the UK.
- 5.9 The CMA concludes in the Decision that the Parties are each other’s closest competitors on account of customer specifications, reputation, managing commercial risk and security of supply. All ADF suppliers are well placed to ensure supply chains and logistics arrangements are set up efficiently to ensure security of supply and manage risk. Clariant considers that customers are misplaced in their concern that other providers cannot ensure security of supply. Clariant considers all competitors are able to contract with MPG suppliers to ensure supply at all times including periods of heavy demand. Clariant is in the same position and faces the same risks in procuring MPG. MPG for ADF products constitutes only a small amount of the MPG needed by the chemical industry. Clariant does not believe that MGP suppliers would favour any one ADF producer in times of shortage.
- 5.10 Clariant submits that UK customers’ concerns regarding reputation, local production and/or storage facilities is coloured by long-established and strong relationships with Kilfrost. The Merger represents a change (rather than an adverse competitive effect) which customers, many of whom are risk averse in the sector, may regard negatively without necessarily having a full understanding of the sufficient and available logistics and storage facilities that will permit Clariant, and other providers, to meet their requirements effectively post-Merger. Following the Merger, Clariant will seek to optimise [⌘] to meet customer requirements. [⌘].

- 5.11 Clariant does not accept the CMA’s finding that the offering of ADF suppliers to customers in the UK is differentiated to a significant degree. The CMA referred to competitor feedback in which it was suggested that differentiation of ADF suppliers through related services, in particular storage, may be more pronounced in the UK than it other countries. Whilst it is the case that Kilfrost is a ‘local’ supplier in the sense that it is based in and supplies to UK customers, all suppliers of ADF, including Kilfrost, rely on an import model across Europe and therefore rely on storage and logistics services to ensure supply of ADF to customers.
- 5.12 With regards to ADF itself, apart from the different characteristics of each ADF type, there are no significant qualitative differences between the various ADF products available on the market. All ADF products must meet AMS specifications. Usually customers require that the supplier’s products meet these AMS standards in order for the supplier to be eligible to submit a quotation. The products of all European suppliers are therefore comparable.
- 5.13 Product innovation will not be lost as a result of the Merger, and will continue to be an important factor of competition. The CMA notes at paragraph 54 of the Decision that both Parties undertake R&D, and at paragraph 55 that third parties noted that Clariant and Kilfrost compete in relation to innovative products. The Parties are not alone in conducting R&D and driving innovation and Clariant considers that in recent years their innovations have been incremental. All competitors will have similar R&D activity since, without this, it is not possible to certify a product through the SAE specification. Further, holdover development and improvement of holdover performance is a standard process (see paragraph 11.18 below).
- 5.14 There is evidence that a number of new competitors are seeking to enter the EEA market. AllClear is thought to be planning to enter the European market, having recently exhibited at an Easyjet Winter Readiness Conference. There are also Chinese suppliers of ADF who are currently supplying the large Chinese market. Recently [X] has commenced distributing [X] ADF products.

## 6. LIKELIHOOD OF ENTRY INTO THE UK

- 6.1 Clariant considers that the barriers to entry or expansion in the UK are low and the reasons for this are set out more fully in Section 9 below. In brief, the key to supplying UK customers is to set up adequate logistics capabilities, which can be done by subcontracting and/or renting from third parties with relative ease and little expense, as the example of Clariant’s entry into the UK demonstrates. Clariant considers the most likely new entrants to be existing ADF suppliers elsewhere in Europe and/or the world and existing suppliers of adjacent products such as runway de-icers or MPG and in light of this does not consider that know-how and IP or certifications or approvals or otherwise aspects of the supply chain would create a barrier to entry.
- 6.2 Proviron entered the ADF market through its partnership with Cryotech and has successfully and quickly expanded its offering: it supplies customers in over 20 countries and is aggressively expanding its product range and marketing to new potential customers across Europe. In the UK, it successfully won the business of [X]. In its Annual Report 2014<sup>1</sup>, it notes that its de-icing solutions business is gaining increased recognition in the European market and continues to grow, with “dozens of potential customers from 35 countries” testing and approving new products and that it is “keeping to its strategy of geographic expansion”. The business manager for its de-icing solutions business is quoted as saying that Proviron “keep[s] on growing faster than expected volume-wise, customer-wise and product-wise, and now ha[s] the biggest de-icer product

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<sup>1</sup> Available at <http://www.proviron.com/annual-report-0> and provided with Clariant’s Initial Response of 18 January 2016 to the Issues Paper. See in particular page 8.

*portfolio in Europe*” in the International Airport Review Issue 1 2016 provided in response to Annex C of the Phase 2 Opening Letter. Proviron is therefore likely to continue expanding its share of supply in the UK and elsewhere and will continue to remain a significant competitive constraint on the merged entity. Proviron itself noted to the CMA it intends to expand its sales in the UK significantly and believes that it has the capabilities to do so (paragraph 78 of the Decision). To this end it has invested in a high end facility in Ostend in Belgium, which is well located to obtain MPG from raw material producers in the North of Europe and from which it can easily supply the UK (paragraph 69). In light of all the above, Clariant considers that the CMA’s reasons for dismissing Proviron as a candidate for significant further expansion in the future are unfounded.

- 6.3 LNT is similarly actively marketing its ADF products in the UK and is a UK based company. As noted at paragraph 5.4 above, it is marketing Type I, II and IV ADF products stating that its de-icers are “*now available in the UK*”. Although this is slightly at odds with its statement to the CMA that it expects to have approval for Type II and IV ADF products in the next 6 and 12 months, it nonetheless itself told the CMA that it expects to be able to supply the full range of ADF products in the next year and Clariant considers it likely to be a significant competitive constraint in the following seasons.
- 6.4 As set out at Section 5 above, Clariant also considers potential entry from existing ADF suppliers, including ABAX and ADDCON, entirely possible and likely in the medium term.
- 6.5 For the reasons set out more fully at Section 10 below, Clariant considers there is a real likelihood that [REDACTED].

## **7. CUSTOMERS**

### **Customer requirements**

- 7.1 Most customers will typically buy both (i) Type I; and (ii) either Type II and/or IV, although not necessarily all Types from the same ADF suppliers. This is because the customer will use Type I for de-icing the aircraft and then Type II or IV to anti-ice immediately afterwards. A few airports, where there are more limited storage facilities, may only purchase one type which would be Type II or Type IV.
- 7.2 Typically, within Europe, Clariant and other ADF suppliers sell to four types of customer: (i) airports; (ii) airlines; (iii) ground handling agents and (iv) defence customers. Section 1 above provides further detail on the customer base of Clariant and Kilfrost and of other ADF suppliers and a list of Clariant’s UK ADF customers was provided in response to Annex C of the Phase 2 Opening Letter (as Annex 19A), specifying contract length and value.

### **Contract negotiation and structure**

- 7.3 Some customers purchase ADF by sending out requests for a quotation to potential suppliers and then offers are made on the back of negotiations with chosen bidders. Some customers prefer to go directly to preferred suppliers. Customers tend to renegotiate their contracts during the summer months in preparation for supply during the next winter season. All customers will have contracts in place since it is essential that airports/airlines/ground handlers can obtain supplies very quickly when the weather deteriorates.
- 7.4 Typically, the contracts are [REDACTED] contracts, although in some cases they may be for supply for [REDACTED] winter seasons (e.g. [REDACTED]). The duration of the contract varies by customer, and it is common for a customer to ask the supplier to provide quotes on both an annual and a multi-season basis.

- 7.5 Contracts do not stipulate the minimum or maximum amount of ADF to be supplied as the amount of ADF purchased by customers varies according to the weather. Contracts simply tend to specify the type(s) of ADF to be supplied along with any agreed terms regarding delivery and price.
- 7.6 Neither party is aware of specific brands of ADF being preferred or specified by customers; generally customers simply require compliance with AMS specifications. It is possible that some customers may require suppliers to qualify as a preferred supplier. However, in these cases there will generally be a number of ADF suppliers who will have been nominated as a preferred supplier.
- 7.7 The key feature of tender behaviour by ADF customers in the UK and elsewhere is that decisions on contract renewal are made through a tender process where competitive offerings are price-benchmarked with a significant risk of switching. Clariant and Kilfrost also submitted extensive spreadsheet data regarding all UK tenders either party had participated in for the previous five years during the CMA's Phase 1 process. This spreadsheet is re-attached to this submission at **Annex 7A**. This evidence is described below, first in general overview terms and then more detailed context is provided in turn to tenders, switching and selection criteria.

### **Contract renewal by customers**

- 7.8 The tender data shows that the Parties are not particularly close competitors in the UK and that there are many contracts that the Parties have not competed for. However, due to the informal nature of the tender renegotiation process, this data has inevitable gaps regarding third-party bids (since Clariant and Kilfrost are in no position to have full information on competitive bids), which led the CMA to misinterpret the data in its Issues Paper of 14 January 2016 (the "**Issues Paper**") and inaccurately conclude that third-party competitors do not frequently bid in the UK. The reasons for this misconception are as follows:
- 7.8.1 Clariant and Kilfrost have complete information on the ADF tenders in the UK that they competed for, but do not have complete information on which third parties bid for each tender. As such, where the Parties have not identified competitors as being present, this does not mean that competitors did not bid for ADF contracts in the UK. As a result, the tender data cannot be taken as evidence of the maximum number of ADF tenders in the UK that they bid for – those third parties may well have bid for contracts despite the merging Parties being unable to confirm if they were present. As such, it would be incorrect to conclude from that data that third party suppliers do not often bid for contracts.
- 7.8.2 For the merging Parties, the tender data provides a comprehensive overview of the maximum number of ADF tenders in the UK that they bid for. As such, the tender data demonstrates that the Parties competed for at most [X] ADF tenders in the UK over the relevant period. This accounts for just [X] of all tenders or renegotiations undertaken since Clariant started to supply the UK in 2012/13. Whilst it is correct that the tender data does not provide a comprehensive picture of third party bidding activity, the tender data does definitely demonstrate that the extent of competition between the merging parties is limited – i.e. it demonstrates that Clariant and Kilfrost only competed for [X] of the [X] tenders or renegotiations for ADF in the UK that took place since Clariant's entry. This in turn suggests that there are [X]. For the avoidance of doubt Clariant disagrees with the CMA's conclusion that "*The incomplete nature of the tender data has led the CMA not to place significant weight on it*"; that data is complete in the sense that it provides a complete picture of the contracts that Clariant and Kilfrost competed for and demonstrates that [X].

## **Customer purchasing behaviour – ADF is a tender-based market**

- 7.9 Airport customers in EU Member States are contracting entities within the meaning of the EU Utilities Directive and are required to invite public tenders once a relatively low threshold has been exceeded irrespective of whether they are public or private entities. Ground handling companies are not public entities and so are not subject to the EU Utilities Directive, meaning that many ground handling companies are not required to procure ADF by way of tender, although frequently do so.
- 7.10 There are a range of different forms of tender in the UK ranging from formal tender situations to more informal tenders or renegotiations.
- 7.10.1 Formal tenders: In some cases, customers will engage in a formal tender process in which potential suppliers will be asked to submit comprehensive bids detailing proposed terms for the supply of ADF. In the majority of such formal tenders the Parties are not aware of which other suppliers have actively submitted bids or which suppliers have been shortlisted. Where feasible, the Parties have however provided their best internal view on the suppliers that they believe to have tendered.
- 7.10.2 Informal tenders or renegotiations: In most cases, however, the tender process is less formal in nature. Customers may, for example, sound out various suppliers before asking one (or more) suppliers to submit price quotations. Alternatively, customers may seek to renegotiate prices with their current supplier without inviting quotes from any other supplier (renegotiations). In these cases, the Parties are again not typically aware of the potential alternative suppliers that customers have considered using.
- 7.11 **Annex 7A** identifies whether the tender was formal or informal or a renegotiation and, to the extent that information is available, which other suppliers actively tendered. Furthermore, the CMA's Market Questionnaire of 2 March 2016 requests detailed information on individual tenders and the information provided in response will be relevant to the nature of tender negotiation.

## **Switching**

- 7.12 A key feature of the ADF market is the threat of switching. Whilst some airports may support several customers, the majority of airports support only one customer, and that customer will contract with an ADF supplier on a sole supplier basis. Even where the EU Utilities Directive does not apply, the market is principally characterised by tender or tender-like processes with many contracts being tendered on an annual or short-term basis. Thus in the absence of any long-term contractual commitments, and with the customers being sophisticated purchasers often using experienced procurement teams, customers can readily and cheaply switch supply, and frequently do so from one season to another.
- 7.13 Switching costs are very low and there are no material technical or practical impediments to switching. Regulatory procedures are short and uncomplicated (see paragraphs 9.11 to 9.17 below). From an operational perspective, all that is required is a simple process of emptying and flushing any existing storage tanks and refilling them with the newly-supplied ADF. This can be done very quickly. The replacement ADF can readily be applied using the application equipment used by the customer. Save for any limits on the storage capacity of the customer's equipment, there is no need to purchase additional equipment in order to apply the ADF of an alternative supplier.

- 7.14 The key requirement for a company seeking to enter the UK part of the European market for the manufacturing and distribution of ADF is to establish the necessary logistics facilities. Often, once cold weather arrives, it is critical for a supplier to have logistic facilities (e.g. depots in which it can store the products) close to the airport in order to be able to meet tight delivery requirements, but it is not necessary for a supplier to own and operate its own logistics facilities. [REDACTED] system [REDACTED] demonstrates this.
- 7.15 It would therefore be possible for any non-UK supplier of products to bid in a tender, win the tender and establish a similar logistics system to Clariant.
- 7.16 By way of example, the airline company [REDACTED] was previously supplied by [REDACTED], which has a depot in [REDACTED]. [REDACTED].
- 7.17 With regard to the ease of switching by customers, the standardised nature of ADF products means that it is very straightforward and inexpensive for customers to switch between suppliers. This is evident from the fact that customers run tender procedures on a regular basis, and are often keen to switch suppliers where a new supplier can offer a lower price and/or a more secure supply of products. The only costs are the replacement of fluids. Clariant [REDACTED].
- 7.18 A good example of the readiness of customers to switch annually between suppliers involves the [REDACTED] established for the supply of ADF to the following airports: [REDACTED]. This [REDACTED] tenders every year for Type I and II fluids and during the period 2012/13 – 2015/16 has switched supplier every year between Kilfrost, Clariant and LNT. It is notable that LNT had no customer history and no production lines in place in Europe at the time that it was awarded the German consortium contract. A further example of switching is the loss by [REDACTED], of the contract to supply [REDACTED] to Proviron Industries NV.

#### **Criteria applied by customers for product selection**

- 7.19 Aside from the different characteristics of each type, there are no significant qualitative differences between the various ADF products available on the market. The products of all European suppliers are therefore comparable. There are a limited number of characteristics that may vary between the products themselves including, for example: holdover performance, fluid stability, and foaming characteristics. Customers do not tend to ask for details of or compare these attributes in negotiations with potential suppliers but instead customers will focus on price, logistical arrangements, and reliability of supply and the confidence that any order will be supplied in full and on time.

### **8. STRATEGY IN RELATION TO THE SUPPLY OF ADF IN THE UK**

- 8.1 Clariant's rationale for purchasing the Kilfrost business is set out at paragraphs 3.9 and 3.10 above, namely that the purchase can be expected to allow its BU ICS to improve its offering for its customers in Europe. [REDACTED].
- 8.2 As explained in its 1 March 2016 Annex C response at questions 10 and 11, Clariant [REDACTED]. Question 18 of the Annex C response also explains the extent of Clariant's information regarding competitors.
- 8.3 Clariant's tender activity and product offering are naturally influenced by its awareness of [REDACTED] and its commercial practices aim to be responsive to such [REDACTED]. However, each tender and bid are to some extent unique and it is impossible to pinpoint any [REDACTED], whether currently or over time, in relation to Clariant's bidding activity or product development. Clariant has previously focused [REDACTED], but Clariant would always be keen to bid for [REDACTED].

## 9. BARRIERS TO ENTRY AND EXIT

9.1 Clariant submits that barriers to entry or expansion are low, both for a new entrant to the supply of ADF and for an ADF supplier looking to enter or expand within Europe, and in the UK. Clariant strongly disagrees with the CMA's finding that there is a range of barriers to entry or expansion in the Decision. Clariant's views are based on the following.

### **The key for supply to the UK is an adequate logistical set up**

9.2 The key requirement for a company seeking to enter the UK for the manufacturing and distribution of ADF is to establish the necessary logistics facilities, i.e. depots for storage of ADF and transport. This is acknowledged by third party comments in the Decision, in particular those of ADDCON at paragraph 69. A supplier of ADF, whether in the UK or elsewhere, has to be able to provide the products within lead delivery times, which are often short, particularly where due to cold weather snaps, a customer places an order with a requirement for fast delivery.

9.3 Although suppliers may choose to cater for these requirements differently, the most important aspect of the logistical structure is to be able to store ADF products within reach of a customer and transport the products as and when required. There is no inherent complexity in the logistical system and ADF products do not have any specialist transport requirements, and it is not necessary for a supplier to own the logistics capabilities. A supplier can therefore subcontract logistics to any third party hauliers and rent storage facilities, [REDACTED]. There is a wealth of available logistics providers and hauliers in the UK, including large players such as Hoyer, Bulkhaul, Interbulk, and the costs are not high. For instance, the cost per day of renting a tank container and storing it in a depot is [REDACTED]. By way of example, Clariant's transportation costs represent [REDACTED] of the total costs of production of ADF. [REDACTED]. Clariant does not consider that access to suitable sites are an issue or likely to be a barrier to entry or expansion and has not itself experienced any issues finding and subcontracting in respect of suitable sites

9.4 Neither is it necessary for a supplier to have manufacturing facilities in the UK. Several suppliers, including Proviron and [REDACTED] in the UK but also [REDACTED] in respect of its European customers, operate successfully on the basis of an "import model" where manufacture is outside the country of the customer. In addition, the raw material for ADF products, MPG, is not produced in the UK and would therefore necessarily have to be imported to the UK for the manufacture of ADF in the UK in the first instance.

9.5 Clariant considers that it would therefore be possible for any new entrant or non-UK supplier of ADF products to establish a [REDACTED] logistics system [REDACTED]. For Clariant, the [REDACTED] process of ADF takes place in [REDACTED]. The finished product is then taken to the [REDACTED]. Once a customer places an order, the finished product can be taken to the customer (airport) immediately, since it is already [REDACTED]. As explained more fully in Section 2, [REDACTED]. Clariant expects that such entry could be very quick; a supplier could organise the necessary transport and storage arrangements in as short a time as 1-3 months. Clariant itself was able to set up its logistics capabilities in the UK as its negotiations with [REDACTED]. It was able to start supplying [REDACTED] following the award of the contract. Clariant was also able to do this in respect of [REDACTED]. [REDACTED] was previously supplied by [REDACTED] which had a depot in [REDACTED]. As described at paragraph 7.16 above, [REDACTED], Clariant took part in a [REDACTED] tender process, [REDACTED].

9.6 For these reasons Clariant disagrees with the finding that set-up costs and infrastructure represent a structural barrier to entry as per paragraph 93 of the Decision. Clariant and Proviron are excellent counterexamples.

### **The supply chain is not complex**

- 9.7 The logistics capabilities described above form a large part of the supply chain necessary to supply customers in the UK. Clariant does not consider the supply chain to be complex or likely to deter new entry to the UK, particularly for producers of related products such as runway de-icing fluids or MPG, which are already involved in certain aspects of the supply chain and which Clariant considers to be some of the most likely new entrants to the supply of ADF.
- 9.8 Although a new entrant to the UK would need to design the formula for its ADF product, it may also alternatively enter into a licence and toll manufacturing arrangement with an approved ADF manufacturer to begin providing that manufacturer's product to UK customers. For instance LNT, a relatively new entrant in the ADF market which is not a chemical company, uses a tolling manufacturer to produce its ADF products. Proviron has partnered with Cryotech, a US supplier of ADF products, to manufacture under licence and supply Cryotech's ADF products in Europe. Similarly in North America, ABAX has licensed Dow Chemicals to produce its Type IV formulations and the AMIL qualifications are attached at **Annex 9A**. In respect of manufacturing, the manufacturing process itself is not complex but consists of a simple blending of ingredients to provide finished products. Blending can itself be subcontracted or carried out in partnership with a local supplier, which provides an alternative model for the supply of ADF products in the UK or elsewhere. [✂] are trialling alternative blending processes which involve on-site blending in container trucks.
- 9.9 Upstream, access to the raw material MPG is equally straightforward. There is a range of chemical producers of MPG (e.g. Dow Chemicals, BASF, INEOS, Repsol etc.) which a new entrant can contract with and Clariant does not believe that a small supplier would have any difficulty obtaining supplies from MPG providers. For these reasons, Clariant disagrees with third party comments and the CMA's finding in respect of barriers to entry in the form of economies of scale. Clariant does not believe that ADF suppliers would have any difficulty procuring MPG.
- 9.10 None of the above considerations are relevant to existing suppliers of ADF outside the UK, which will already be involved in the supply chain and would only need to consider the logistics in respect of the UK detailed in the previous section.

### **Certification and approval requirements are not a barrier to entry**

- 9.11 A company which enters the market by designing and developing a new ADF product will need to be approved as an ADF supplier by the Federal Aviation Administration ("FAA") and for the products to be certified according to Aerospace Material Specifications ("AMS") Standards. These standards are the same throughout Europe. This certification process involves certain tests, which are not that complex, and are as follows:
- 9.11.1 **AMIL testing.** AMIL is part of the University of Quebec and carries out laboratory tests of the anti-icing and aerodynamic performance of the fluids according to AMS specifications.
- 9.11.2 **SMI testing:** Scientific Material International (an independent laboratory) conducts the AMS specification tests which measure the physical characteristics of the fluid e.g. its viscosity, toxicity, PH level etc. SMI samples the fluid and then issues a test report.
- 9.11.3 **APS testing:** APS is an independent consultancy company that has contracted with the FAA and Transport Canada to carry out holdover testing.
- 9.12 In terms of timing, the above tests can be run concurrently. A new entrant would need to ensure that its product is ready for the Transport Canada Snow Test, which takes place once a year in

winter months. However a new supplier would usually build this requirement into the overall timeframe for product development

- 9.13 In terms of costs, there are no published or approved costs and the prices paid by an individual ADF manufacturer are negotiated with the relevant test organisation on a case-by-case basis.
- 9.14 Reformulation of any certified ADF product will require re-testing i.e. where a supplier alters a component of the ADF product or makes any significant change to its composition.
- 9.15 Certification is important for insurance requirements, since insurers tend to look at the FAA's list of approved suppliers as a pre-condition to giving insurance. ADF suppliers require aviation risk insurance.
- 9.16 This certification process is valid for the supply of ADF in the whole of Europe and North America, and generally elsewhere in the world (subject to some minor differences e.g. in Russia). Therefore once a new entrant has a product that has passed the tests described above, which are not that complex, it is able to supply in the major countries in Europe. The same is true of ISO standards which are set by the International Standardisation Organisation (ISO) in which virtually all countries of the world are either full or corresponding members (at least all European countries). The four types of ADF for aircraft are based on ISO standards 11075 and 11078 (2007). An existing supplier of ADF meeting ISO standards, or a new entrant developing a new ADF fluid to those standards, are able to supply those fluids in all of Europe, if not the world.
- 9.17 Environmental law regulations set out a procedure for the approval of ADF. This procedure is short and is straightforward for ADF products with ISO accreditation or AMS certification.
- 9.18 Clariant does not consider that the certifications and approvals required for the development of new ADF products are a significant barrier to entry, for the following reasons:
- 9.18.1 The certification of products is only relevant for a company developing a new ADF product. For a new entrant to ADF, the tests are not that complex, the costs involved are not high and enable a company to supply the major markets for ADF. Current suppliers of ADF products regularly submit to these tests when reformulating or developing new products. For instance, LNT noted to the CMA, at paragraph 94 of the Decision, that it is undergoing the approval process for new products.
- 9.18.2 There are a number of potential competitors which operate outside the UK and already have approved products, and would therefore be able to enter the UK quickly and easily. Such potential competitors include (but are not limited to) LNT, ADDCON, AllClear Systems, ABAX, Deicing Solutions LLC, Newave Aerochemical Co. Ltd, Arcton, Home Oil Company, Inland Technologies and others.
- 9.19 Clariant therefore disputes the CMA's finding that certifications and approvals represent a barrier to entry or expansion. This is based on a view which completely ignores potential entry by non-UK suppliers of certified ADF products.
- 9.20 It also strongly disagrees with third party comments regarding its ability post-Merger to influence standard setting to its advantage. Clariant submits that this is based on an erroneous understanding of standard setting organisations. International specifications are set by SAE International and these specifications are discussed, reviewed and balloted by various technical committees of the SAE whose members include a variety of industry stake holders, such as users, airlines, airports, regulators, environmental authorities, equipment manufacturers, aircraft manufacturers and ADF manufacturers. These committees generally regard performance and safety as key criteria in the preparation and adoption of specifications and standards. Decisions by committees are taken by

vote and each individual manufacturer has one vote. It would therefore not be possible for a large supplier to influence standard setting to its advantage.

- 9.21 As regards site certification, while Clariant recognises that this is required, Clariant disputes the CMA's assertion at paragraph 23 of the Decision that this is required on an annual basis. In respect of Type I, certification is possible for multiple sites and is only required on initial production, with re-certification only required every 4 years. In respect of Types II and IV, certification for multiple sites is also possible and re-certification is only required every 2 years.
- 9.22 Clariant disagrees with the CMA's finding at paragraph 23 of the Decision that local licensing is required. In Clariant's experience, local licensing is extremely limited in Europe and not required in the UK.

### **Most potential entrants have the required know-how and IP**

- 9.23 ADF is broadly based on a mix of concentrate, MPG and water. The concentrate tends to be proprietary and protected by each ADF manufacturer. Concentrate usually contains a small amount of MPG, which acts as a solvent in the mix. However additional MPG is mixed with the concentrate (and water) to produce the finished product. A different concentrate is used to produce each of Type I-IV ADF.
- 9.24 While it is necessary for a new entrant to the ADF market to develop a formula to produce ADF products, existing suppliers of ADF outside the UK will have such formulas developed and be able to supply them in the UK – certification requirements do not differ within Europe. Clariant's competitors outside the UK therefore have the necessary know-how and intellectual property already and this does not constitute a barrier to entry. For instance, ABAX licences its Type IV ADF products to Dow Chemicals in the US and could just as easily licence a UK supplier.
- 9.25 Clariant also considers that suppliers of related products, such as runway de-icers, or chemical companies, particularly those involved in the production of MPG, have the necessary technology and expertise to easily develop ADF products and enter the market. Further, a new entrant would not need an expensive production facility but could instead enter into an agreement with a toll manufacturer.

### **A supplier would only need one customer contract to enter the UK**

- 9.26 A supplier of ADF does not need a critical mass of customers to be able to successfully operate in the supply of ADF. To begin supplying in the UK, it is sufficient for a potential entrant to win one customer contract of sufficient substance to set up the logistical capabilities to service that customer. This was the case for Clariant, whose entry into the UK was based on the contract with [REDACTED]. However, Clariant was at the time also in discussions with [REDACTED]. Had Clariant not succeeded with the [REDACTED], it would have entered the UK on the basis of the contract with [REDACTED]. Logistics infrastructure and depot stocks are a function of the requirements of the customer and can be set accordingly.
- 9.27 The straightforward nature of the supply chain would also mean that capacity can be quickly run up and involves limited investment. Production is flexible and can be easily sub-contracted to tolling companies. Clariant therefore does not consider that the need for rapid increases of capacity in times of high demand would act as a barrier to entry to the UK. In addition, non-UK suppliers of ADF, as well as providers of other de-icing products and MPG, are generally not solely suppliers of ADF and have a range of other products on offer. This is the case for Clariant but also ABAX, ADDCON, LNT and Deicing Solutions LLC for instance. They would therefore have the necessary resilience to withstand period of low demands and variable weather conditions.

Further, there are variable weather conditions and winters in all jurisdictions and in particular across Europe – Clariant does not consider this to be a distinctive feature of the UK.

### **Incumbency advantages are not insurmountable**

- 9.28 An incumbent supplier would have the benefit of having demonstrated reliable supply to a customer (assuming this is the case), which given the nature of the ADF market is an advantage. A customer would also be familiar with the ordering system, fluid handling and performance characteristics of the ADF products as well as quality control programmes in place.
- 9.29 However, Clariant does not consider this to be a significant barrier to entry. As well as Clariant's own example with [REDACTED], there is significant evidence of switching by customers. Customers run tender procedures on a regular basis, and are often keen to switch suppliers where a new supplier can offer a lower price and/or a more secure supply of products, and the standardised nature of ADF products means that this is a straightforward and inexpensive process (which essentially involves the cleaning of tank containers with water).
- 9.30 As set out in further detail in Section 7, the German airport consortium provides a good example of the readiness of customers to switch annually between suppliers by tendering every year for Type I and II fluids and during the period 2012/13 – 2015/16 switching supplier every year between Kilfrost, Clariant and LNT (which had no customer history and no production lines in place in Europe at the time that it was awarded the German consortium contract).
- 9.31 Another example is Proviron recently winning a contract [REDACTED] despite [REDACTED].
- 9.32 For these reasons Clariant disagrees with third party comments and the CMA's finding regarding strategic barriers to entry in the form of an established reputation and risk averse customers. Current suppliers of ADF in Europe have an established reputation and, given that competitive conditions in the UK are no different, are also able to supply UK customers. In particular, ABAX and Proviron are known to UK customers, and both Proviron and Clariant provide excellent examples of ADF suppliers able to supply UK customers when there was limited awareness of their ADF activities. In addition, suppliers in adjacent markets, such as runway de-icers, also have an established reputation in their field and, as Proviron demonstrated, have the incentive and ability to enter the ADF market with relative ease. Such suppliers would include LNT and ADDCON, both of which are leading providers of runway de-icing products.

### **There are no other barriers to entry**

- 9.33 For example:
- 9.33.1 There are no export controls in Europe.
- 9.33.2 There are no safety restrictions for transport of ADF by road in Europe.
- 9.34 Clariant disagrees with the suggestion that customers in the UK are heavily dependent on ADF manufacturers. Customers negotiate heavily with ADF suppliers, particularly on price, and this is no different in the UK. For instance despite [REDACTED] revising its [REDACTED] proposal [REDACTED] compared to the previous year it was not able to retain [REDACTED]. In addition, [REDACTED] recently had to revise its [REDACTED] proposal to [REDACTED] and has been required to negotiate regarding [REDACTED] in correspondence with other customers.
- 9.35 Clariant also disputes the suggestion that ABAX's exit from the UK was connected to existing barriers to entry or expansion. Clariant believes that this might have been a combination [REDACTED] and [REDACTED] supplying the UK during the difficult winter conditions of 2010 when ABAX was prevented

by the [REDACTED] from supplying outside of [REDACTED]. In Clariant's view, this would have materially damaged its existing customer relations, [REDACTED].

- 9.36 Clariant notes that the CMA's dismissal of Proviron's chances of successful expansion, in light of the barriers to entry or expansion which the CMA considers to be substantial, in paragraph 95 of the Decision, are not borne out by Proviron's own intentions to "*significantly increase its supply of ADF in the UK*" as per paragraph 94 of the same Decision.

### **Barriers to exit**

- 9.37 Whether a supplier of ADF incurs any costs on exit depends on the relevant supplier's business model. A supplier operating on the basis of an import model with only subcontracted and rented logistics facilities in the UK would normally not incur any exit costs. A supplier with manufacturing facilities in the UK would incur the costs of closing down the relevant production facilities. . As most suppliers in the UK only have storage facilities, they would only need to terminate the relevant agreements.

## **10. COUNTERFACTUAL**

- 10.1 In the absence of the Merger, Clariant would continue to focus on winning customer contracts in the UK.
- 10.2 With regards to Kilfrost, [REDACTED]. Kilfrost's rationale in selling its ADF business is to build up more non-seasonal business, i.e. its Special Fluids Business. In a statement, the managing director of Kilfrost stated that the "*aviation team will move to the Special Fluids Business and help with the expansion of this side of the business*" (<http://www.chroniclelive.co.uk/business/business-news/newcastle-based-kilfrost-sell-aircraft-10495323>). In this context, it was also stated that Kilfrost has been diversifying over the last six years as a means of mitigating against unpredictable weather patterns. The Special Fluids Business will generate for Kilfrost revenues during the whole year and it will make it easier for Kilfrost to cope with its overheads.
- 10.3 If Kilfrost continued its European ADF business, [REDACTED] it would only be a matter of time [REDACTED]. This would then lead to almost exactly the situation [REDACTED]. The most recent published accounts of Kilfrost refer at various points to its potential inability to continue as a going concern in the event that the transaction does not complete. For instance, the Independent Auditors Report for Kilfrost Group plc dated 31 March 2015 for the 18-month period ended 31 March 2015 (which was published on Companies House only recently on 25 January 2016), at page 10 in a section entitled "Emphasis of matter – going concern" states that "*The conditions described in note 1 to the financial statements indicate the existence of material uncertainties which may cast significant doubt about the group's ability to continue as a going concern*" and note 1 to the financial statements at pages 16/17 refers to the failure to complete the transaction as such an uncertainty. This report is attached at **Annex 10A**. [REDACTED] further considers that [REDACTED].
- 10.4 The CMA considers in the Decision (para. 96) that there is limited (if any) risk sharing between ADF suppliers and customers. The ADF suppliers need to have the stock necessary for the supply of customers in case of hard winters. The CMA referred in the Issues Paper to a statement made by a customer who stressed the importance of reliable ADF supply as otherwise this could lead to a "systems failure" in the worst case affecting the UK air transport industry (para. 79 of the Issues Paper). The CMA noted that such failures can have a relatively large impact on airlines compared to the small size of the Parties' ADF business (para. 80 of the Issues Paper). If the CMA will not approve the Merger, it would then be up to Kilfrost to bear the risk of such "systems failure". If Clariant acquires Kilfrost's European ADF business, [REDACTED].

## 11. COMPETITIVE EFFECTS OF THE MERGER

### Clariant's plans post-Merger

- 11.1 Clariant has undertaken post-Merger implementation planning, both for the UK and more broadly for all European countries. Clariant's post-Merger plan has been focused on [REDACTED]. Therefore a meeting of [REDACTED] took place end of [REDACTED] (a CMS lawyer attended at meeting to ensure competition law compliance) to identify the necessary steps to allow a fast integration of the day-to-day business into the SAP systems of Clariant in case of an early approval of the acquisition by antitrust authorities in Spain, Austria and the UK. In addition Clariant and Kilfrost [REDACTED]. If CMA approval would have been received early 2016, an optimisation [REDACTED] finalized for the season [REDACTED]
- 11.2 The commercial focus on the post-Merger integration will be on [REDACTED]. As the overall business of Kilfrost [REDACTED]. However, the realisation of [REDACTED] following the approval of the acquisition will allow Clariant to operate [REDACTED].

### The Merger will lead to material synergies and efficiencies

- 11.3 The Merger will provide material benefits to customers:
- 11.3.1 Security of supply – this is discussed at paragraphs 11.7 to 11.12 below;
  - 11.3.2 An improved level of service – this is discussed at paragraphs 11.13 to 11.15 below;
  - 11.3.3 The Merger will enable the merged entity to be [REDACTED]. Clariant has set out at Section 10 above its views on the [REDACTED]; and
  - 11.3.4 The Merger will allow the merged entity to withstand the variable seasonal demand [REDACTED].

### The Merger will not lead to an increase in prices

- 11.4 The CMA concludes at paragraph 85 of the Decision that the Merger may lead to price rises.
- 11.5 There is no reason to consider that the transaction will give rise to material increases in prices in the UK:
- 11.5.1 The evidence does not suggest that the Parties are uniquely close competitors in the UK. Clariant's position in the UK is driven by [REDACTED]; its share of supply therefore provides a misleading picture of its competitive position in the UK relative to other providers [REDACTED].
  - 11.5.2 The tender data provided to date by the Parties supports Clariant's position that there has been [REDACTED], and thus there will be a limited level of lost competition. Out of [REDACTED] tenders, the Parties only competed in [REDACTED].
  - 11.5.3 Sufficient competitive constraints will remain post-Merger such that the threat of customers switching will prevent any price rises - as explained above, Proviron is a credible alternative UK supplier and is currently actively competing for contracts in and dedicating resources to the UK. Further, there are alternative credible suppliers which are currently active in Europe which are likely to enter the UK part of the European ADF market in the short-medium term, in particular LNT and ADDCON who in the short term are likely to be able to supply the full range of ADF types. As such, Proviron and the threat of entry from other suppliers, will operate to constrain present prices. In the context of a market characterised by tenders or tender like processes, customers will look to secure a number of competitive quotes for the supply of ADF.
  - 11.5.4 The most obvious means to determine the extent to which prices might rise as a result of a loss of Kilfrost as an independent competitor is to test the extent to which prices

fell when Clariant entered the UK. In this regard, in the Decision the CMA concludes that its analysis of price trends following Clariant's entry suggest it was a close competitor to (i.e. because Kilfrost's prices allegedly reduced substantially following Clariant's entry). Clariant disputes this in the strongest possible terms.

- (a) First, as Clariant noted in its Initial Response of 18 January 2016 to the CMA's Issues Paper, there are a number of confounding factors which may also have affected prices at this time; including downward trends input costs and the entry of other competitors. These factors, not Clariant's entry, explain the price trends observed by the CMA.
- (b) Second, Clariant notes that evidence presented to the CMA (and which appears in the CMA's Issues Paper but is notably absent from the Decision) suggests that competition between the Parties in the ADF business in the UK has led to [REDACTED] (and, by implication, that the loss of that competition would not lead to [REDACTED]). In particular, the Issues Paper states that [REDACTED]. Based on evidence provided to the CMA on total volumes and total value for the 2014/15 season for ADF in the UK, the Parties estimate that the [REDACTED]. The price of MPG has been falling in recent years which may in part explain the price fall cited above. In any event, at [REDACTED], this level of price effect is well below the 5% threshold often employed by the CMA when considering 'indicative price rises' in retail mergers to determine whether a merger is likely to give rise to substantial harm to consumers<sup>2</sup>.

11.5.5 The CMA concluded at paragraph 101 of the Decision that any buyer power is likely to materially diminish following the Merger, should it have existed previously. Clariant submits that this wrong. UK customers being airports, airlines and ground handling companies are large experienced buyers, in many cases with international operations, who will actively look to the credible alternative suppliers of ADF in the UK were Clariant to attempt to increase prices.

### **Customers will not face a reduction in product or service offering**

11.6 The CMA concludes that the Merger gives rise to a realistic prospect of a SLC which may lead to a reduction in product or service offering and quality offered to customers (paragraph 7 of the Decision). However, the CMA does not clearly articulate on what basis this would occur. Clariant considers this conclusion is misplaced for three reasons.

### **Clariant is well placed to ensure the security of supply in the UK**

11.7 Firstly, the Merger will protect the security of supply in the UK. [REDACTED] means that in fact currently UK customers are exposed to [REDACTED]. Unlike larger chemical manufacturing companies, Kilfrost's main source of revenue has been its sales of ADF [REDACTED].

11.8 Post-Merger, Clariant will continue to rely on an [REDACTED] to supply the UK. Once ADF is manufactured in [REDACTED] it is transported [REDACTED] for onward shipment to the UK. [REDACTED]. ADF is then transported by road [REDACTED] to customers. Clariant currently maintains sufficient stock at [REDACTED] to service its customers [REDACTED]. At its depot in [REDACTED], it stocks ADF to supply customers at [REDACTED]. At these depots, Clariant plans to have [REDACTED] stock to meet continuous maximum demand from all UK customers [REDACTED].

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<sup>2</sup> Anticipated acquisition by Asda Stores Limited of five grocery stores and three petrol filling stations from Co-operative.

- 11.9 Although Clariant only has [redacted] at present, post-Merger it will ensure that it has [redacted] - to service all customers within the required lead times. Depots with the necessary storage capacity are readily available across the UK.
- 11.10 As such, with a large manufacturing plant, and with established logistics, and the ability to establish depot locations, Clariant is able and will be able to continue to withstand seasonal and weather related sales fluctuations and will be able to ensure the continuation of supply to customers in the UK. Both Clariant and Kilfrost (whose products for European customers are manufactured in the UK), as well as other competitors, operate an [redacted]. It is well established that this [redacted] works effectively for the supply of ADF in Europe.
- 11.11 The CMA should note that Proviron similarly has an efficient supply chain. It has invested in a state-of-the art blending site in close proximity to UK (Ostend). This is very well positioned for obtaining MPG from MPG producers who are located in Northern Europe (e.g. Holland/Belgium or Hamburg/Germany). Proviron similarly has an excellent logistical set-up.
- 11.12 Paragraph 61 of the Decision notes that concerns were also raised by a customer during the CMA's market testing that Clariant and Kilfrost are the only manufacturers which are of sufficient size to give the assurance that they will have access to raw materials (glycol) in high demand periods. The customer stated that smaller ADF manufacturers may not be prioritised by raw material suppliers when there is high demand for these raw materials. Clariant submits that this concern is unfounded. Clariant considers that all competitors are able to contract with Glycol suppliers to ensure supply at all times including periods of heavy demand. Clariant does not believe that MPG suppliers would favour any one supplier and if there was stress on supply then they would operate a legal allocation system for all customers.

#### **There will not be a degradation of service levels in the UK**

- 11.13 Secondly, the Merger will not lead to degradation in service levels in the UK.
- 11.14 As explained above, Clariant has in place in the UK, and will continue to have a well-established and efficient supply chain and logistics arrangements to ensure timely supply of ADF to UK customers. Since ADF is critical to the functioning of airports in cold weather, and a failure to supply sufficient ADF to airports could cause significant disruption and in turn significant reputational damage to Clariant, it is of utmost importance to Clariant to ensure that its supply chain can maintain the required service levels. However, reputation aside, customers also impose contractual mechanisms to maintain service levels and in some cases impose penalties [redacted] for failing to meet service levels. [redacted] and therefore Clariant focuses its efforts on its supply chain to adhere to its contractual requirements.
- 11.15 In paragraph 49 of the Decision, reference is made to a third party comment that Kilfrost is the only supplier of pre-mixed ADF. As noted by the CMA, some customers require pre-mixed ADF product in the UK due to the water quality in certain airports which makes the use of ADF concentrate uneconomical (i.e., the infrastructure for the treatment of water to dilute ADF concentrates would be required). [redacted].

#### **Clariant and other competitors will continue to innovate**

- 11.16 Thirdly, there will not be a loss of innovation as suggested by the CMA at paragraph 85 of the Decision. Clariant continually invests in research and development. As noted by the CMA, other competitors are also investing with the likes of LNT and ADDCON currently preparing to certify and launch a full range of ADF types in the short to medium term. With competition from

Proviron, as well as ADDCON and LNT, Clariant will be fully incentivised to continue to innovate.

11.17 However, customers will also force Clariant to innovate, particularly with regards to environmental standards.

11.18 In this regard, Clariant disagrees with the third party comments at paragraph 55 of the Decision regarding the Parties' innovations. Clariant considers that in recent years [X] have only carried out incremental innovation in respect of their ADF products. Holdover development and improvement of holdover performance is a standard process for ADF suppliers. [X]

**The Merger will act as an incentive to other suppliers to enter the UK**

11.19 Contrary to the CMA's conclusion at paragraph 82 that there would insufficient competition post-Merger from alternative suppliers, Clariant considers that there will be such competition, and also that the Merger is likely to trigger customers to look to alternative providers of ADF, providing rival suppliers with the opportunity to expand their ADF presence in the UK.

## LIST OF ANNEXES

- **Annex 7A** – Combined bidding data of Kilfrost and Clariant (confidential)
- **Annex 8A** – Clariant’s pricing methodology (confidential)
- **Annex 8B** – [✂] cost structure (confidential)
- **Annex 9A** – Qualified Fluid Type IV
- **Annex 10A** – Kilfrost Group plc Report and Group Financial Statements (31 March 2015)

**SAE AMS1428 Type IV Qualified Fluids\***  
**Fluids Qualified at AMIL**  
for  
**Aerodynamic and Anti-icing Endurance Performance**  
(AMS1428 revision current with testing)

Last update: 2016-02-24

Company Name	Fluid Name	Initial Qualification Date (yyyy-mm-dd)		Type of Glycol	Qualified until (yyyy-mm-dd)		
		Aerodynamic Performance (paragraph 3.2.5)	Anti-Icing Performance (paragraph 3.2.4)		Aerodynamic Performance (paragraph 3.2.5)		Anti-icing Performance (paragraph 3.2.4)
					High ramp	Low ramp	
<a href="#">ABAX Industries SPCA</a>	Ecowing AD-49	2008-12-12	2008-12-12	PG	2016-06-02	-	2016-06-02
<a href="#">Clariant Produkte (Deutschland) GmbH</a>	Max Flight 04	2004-05-10	2004-05-05	PG	2016-07-23	-	2016-07-23
	Max Flight SNEG	2014-02-20	2014-02-20	PG	2016-02-20	-	2016-02-20
	Safewing MP IV LAUNCH	2006-05-18	2006-05-16	PG	2016-06-02	-	2016-06-02
	Safewing MP IV LAUNCH PLUS	2013-07-19	2013-07-24	PG	2017-03-24	-	2017-03-30
<a href="#">Cryotech Deicing Technology</a>	Polar Guard®	2010-08-30	2010-08-30	PG	2012-08-30	-	2012-08-30
	Polar Guard® Advance	2011-07-25	2011-07-27	PG	2017-03-11	-	2017-03-11
<a href="#">Deicing Solutions LLC</a>	ECO-SHIELD®	2016-02-23	2016-02-22	PG	2018-02-23	-	2018-02-22
<a href="#">Dow Chemical Company</a>	UCAR™ Endurance EG106 De/Anti-Icing Fluid	2006-01-25	2006-02-02	EG	2017-05-20	-	2017-05-20
	UCAR™ FlightGuard AD-480 <sup>(1)</sup>	1997-10-10	1997-10-17	PG	2012-06-15	-	2012-06-25
	UCAR™ FlightGuard AD-49 <sup>(2)</sup>	2008-12-12	2008-12-12	PG	2017-05-20	-	2017-05-20
<a href="#">Kilfrost Limited</a>	ABC-S Plus	2007-03-07	2007-03-08	PG	2017-06-16	-	2017-07-03
<a href="#">LNT Solutions</a>	E450	2015-07-29	2015-07-30	EG	2017-07-29	-	2017-07-30
<a href="#">Newave Aerochemical Co. Ltd.</a>	FCY 9311	2013-12-20	2013-12-20	PG	2018-01-22	-	2018-01-18
<a href="#">Shaanxi Cleanway Aviation Chemical Co. Ltd</a>	Cleansurface IV	2015-05-25	2015-06-17	PG	2017-05-25	-	2017-06-17

\* : These fluids are qualified according to the tests shown in the table. Other qualification tests, such as fluid stability, toxicity and materials compatibility, are equally required and should be obtained from the fluid manufacturer.

(1) : Refer to preproduction qualification of AD-480 submitted by ABAX Industries.

(2) : Refer to preproduction qualification of Ecowing AD-49 submitted by ABAX Industries.



# Kilfrost Group plc

## Report and Group Financial Statements

31 March 2015

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16/01/2016

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## Strategic Report

We are proud of the heritage of Kilfrost which began over 80 years ago. That heritage, though, has been taken forward by our dynamic team who continued to lead in the niche sector of Aircraft De/Anti-icing Fluids, as well as further development of our Speciality Fluids business. For R&D our investment means that we can conduct experiments in hours rather than days. This investment puts us on the cutting edge of research and is comparable with some of the best universities in the world.

The group's key financial performance indicators for the period were:

	<i>18 months ended</i>	<i>12 months ended</i>
	<i>31 March</i>	<i>30 September</i>
	<i>2015</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>
Turnover	75,211	62,614
Operating (loss)/profit	(3,949)	4,363
(Loss)/profit on ordinary activities after taxation	(4,220)	3,069
Shareholders' funds	4,079	7,005

The results for the period ended 31 March 2015 are disappointing, with monthly group sales being significantly down on the previous year following two of the mildest winters in Europe for many years. This was partially compensated for by good sales in North America, particularly following one of their harshest winters for many years.

These two successive mild winters have put the business in a difficult position. Since the period end we have been taking decisions to ensure the sustainability of Kilfrost over the years to come. As part of this process we have made a strategic decision to divest certain of our activities and concentrate on emerging technologies.

On 27 August 2015 the Group have divested its Aircraft De/Ant-icing (ADF) assets in North America, China and Japan, realising a significant cash sum and generating a book profit on disposal of £2.4m. The immediate impact of that was to secure the Group's financial position at that time. Kilfrost Inc has a tolling agreement in place with Clariant International AG through to 30 June 2016, which involves the profitable production of ADF products on their behalf, using the Kilfrost Inc. current U.S facilities.

On 20 November 2015 Clariant announced that it had also signed an agreement with Kilfrost Group to acquire our aircraft de-icing (ADF) business in UK and Europe. The transaction is subject to regulatory approvals and conditional upon clearance from the respective Competition and Markets Authorities in each jurisdiction.

There is a risk that this regulatory approval will not be obtained. The timing of approval is uncertain and must be before 30 June 2016 for the transfer of the trade and assets to Clariant to proceed. If the UK and Europe ADF business is not sold, it is our intention to continue trading that business as normal.

Should regulatory approval for the sale of the UK and Europe ADF business be granted, the Kilfrost Group will continue to concentrate on our Speciality Fluids markets, while providing toll manufacturing of ADF for Clariant in the US, and in UK/Europe

Therefore, looking ahead, and depending on the outcome of the regulatory approval, we see the following potential scenarios going forward:

1. Divest all of our remaining ADF business, then concentrate on our Speciality Fluids markets and Toll manufacture ADF for Clariant.
2. Divest our ADF assets in Europe and retain the UK business plus grow Speciality Fluids
3. Remain as we are now following our divestments of our ADF businesses outside of Europe.

## Strategic Report

The Directors believe that each of the above 3 scenarios will provide the basis for a sustainable future for Kilfrost Group. These scenarios each allow for organic growth either in ADF and/or Speciality Fluids, plus the potential for Toll manufacturing. Combining these activities potentially provide for a stronger more diversified group. Product diversification continues at a pace and is based upon a sound understanding of our core capabilities and their future applications.

### Principal risks and uncertainties

The principal risks and uncertainties facing the group are broadly grouped as competitive, legislative and financial risk.

- *Market risks*

The market for our ADF products is highly seasonal and significantly variable, depending on weather conditions. We aim to mitigate this risk going forward through further development and growth in our Speciality Fluids business.

*Competitive risks*

The group operates in a global market and services customers in more than 50 countries. These customers select suppliers based on a combination of factors including price, delivery, quality and reputation. The group has a wide range of customers with no individual customer accounting for a significant proportion of the entire business with many customers having dealt with the group for a number of decades. The Kilfrost brand is well respected in the global market place and viewed as a leader in its field.

Competitive pressures exist from international competitors operating in certain of the group's markets where pricing benefits can be gained from their closer location to the customers.

- *Legislative risks*

The group is governed by a wide range of legislation, particularly in the supply of fluids to the aircraft industry. The group takes great care to keep up to date with all new initiatives to ensure that it can maintain its position at the forefront of the industry. Also looking at the scenarios envisaged whereby certain assets are sold the Competition and Markets Authorities may need to be included and may accelerate or delay any divestment.

- *Financial risks*

The group's main areas of financial risks are credit, foreign currency and liquidity risks.

The group's policy is to minimise credit risk by ensuring that credit terms are only granted to customers who demonstrate an appropriate history and credit position.

The group manages foreign currency risk through transacting business in only three currencies namely Sterling, Euros and US dollars. Each currency is managed by matching income and expenditure whenever possible.

Liquidity risk is the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities. Depending on the outcome of the various scenarios noted above a large cash injection could be seen within a short time, which would allow the group to pay off existing bank funding and trade creditors. The group aims to mitigate liquidity risk by managing cash generation from its activities on a regular basis, utilising appropriate credit facilities for working capital and longer term investments.

# Strategic Report

On behalf of the Board

Miss J L Halbert  
Director

15 January 2016

## Directors' report

The directors present their report and group financial statements for the 18 month period ended 31 March 2015.

### Results and dividends

The group loss for the period, after taxation, amounted to £4,220,000 (year ended 30 September 2013: profit of £3,069,000). The company paid an interim dividend of £nil during the period (year ended 30 September 2013: £1,000,000).

### Principal activity

The group's principal activity during the period was that of the manufacture of anti-icing and de-icing fluids, predominantly for the aircraft market.

### Directors

The directors who served during the period were as follows:

Miss J C Halbert

Miss J L Halbert

Mr M S Halbert

Mr G Lydiate

Mr K R Beaty (appointed 1 April 2014)

### Research and development

Kilfrost Limited invested £1,049,133 on experimental expenditure and research during the period (year ended 30 September 2013: £632,790). This has been expensed through the profit and loss account.

### Directors' liabilities

At 31 March 2015 trade creditors amounting to £1,702,955 were personally guaranteed by a director, Mr G Lydiate. The guarantee was indemnified by Kilfrost Group PLC on issue and remains in place until the liability has been discharged.

### Political and charitable contributions

During the period the group made various charitable donations totalling £41,350 (2013: £350,520).

### Going concern

The Directors have performed an assessment of the Group's ability to continue trading as a going concern, by reference to trading forecasts and financing requirements for a period of 12 months from the date of approval of these financial statements. The directors are satisfied that the going concern basis of preparation for these financial statements is appropriate.

In looking at the assessment of the Group's ability to continue trading as a going concern for the next 12 months the Directors have examined a number of factors. These include:

1. the forecast cash requirements, which are impacted by the long range weather forecast for the remaining winter months in the UK & Europe, and
2. the impact of the divestment in August 2015 of the Group's North American, China and Japan ADF businesses (which were historically loss making activities), and
3. the forecast financial facilities available to the group from its bankers and one of its major raw material suppliers, and
4. the impact and timing of the 3 scenarios regarding the future of the Group's UK & European ADF business (as outlined in the Strategic Report), which is dependent on the outcome of the Regulatory approval process, which may be concluded anytime from January 2016 to June 2016, and

## Directors' report

### Going concern (continued)

5. the strength of our Speciality Fluids business, its prospects for growth and our ability to develop this into a sustainable and profitable business, through successful development of our products and re-sizing of our ongoing cost base.

Recent weather conditions have continued to be mild, but the Directors anticipate a lowering of temperatures around Europe in the remaining winter months which are expected to create an increase in demand for the Group's ADF products. Whilst we anticipate an increase in demand in the remaining winter months, we cannot be certain of that fact.

Our Bankers have remained very supportive of the business, have provided continued facilities to the Group in recent months and have verbally committed support until completion of the sale of the Group's UK & European ADF business, which must be before 30 June 2016. Given that the Bank has shown its support to the Group by continuing facilities, and we have also opened discussions with potential new funders about new and increased facilities, the Directors feel that there is a reasonable expectation that sufficient facilities will continue to be available for the next 12 months. Whilst we anticipate that the Bank will continue to provide adequate levels of financial support, we cannot be certain of that fact.

Our major raw material supplier continues to provide us with extended credit and the Directors feel that there is a reasonable expectation that adequate extended credit facilities will continue to be available for the next 12 months. Whilst we anticipate that the supplier will continue to provide adequate levels of extended credit, we cannot be certain of that fact.

The Directors believe that each potential scenario regarding the future of the Group's UK & European ADF business (as outlined in the Strategic Report), which is dependent on the outcome of the Regulatory approval process, will provide the basis for a sustainable future for the Kilfrost Group. Whilst we anticipate that this will be the case, we cannot be certain of that fact.

Whilst we anticipate strong and profitable sales growth in our Speciality Fluids business will be achieved in the coming years, we cannot be certain of that fact.

For these reasons the Directors consider that the adoption of the going concern basis in preparing the financial statements is appropriate. However, as pointed out above, there are five uncertainties impacting the ongoing availability of adequate financial facilities and the ability of the business to return to profit. Should sufficient bank funding and other credit not be available to the business in the coming years, or should sales not increase such that losses continued and cash was not generated, then the business may not be able to continue as a going concern. The Directors have considered these five uncertainties, and believe that they distil down into two mutually exclusive options. The first is whether or not the sale of the business is given approval by the CMA. In the event that this happens, the business will have sufficient cash resources to repay existing facilities and to fund the residual business in the short to medium term as it develops. Should the sale not complete, the going concern of the Group will depend on the renewal of existing and/or negotiation of new bank and other financing facilities. Each of these two scenarios represent material uncertainties that may cast significant doubt upon the Group's ability to continue as a going concern. The financial statements do not contain the adjustments that would result if the Group was unable to continue as a going concern, because the Directors currently believe that they can continue to address these uncertainties and retain adequate levels of funding in the business, growing sales and returning to profit.

## Directors' report

### Disclosure of information to the auditor

So far as each person who was a director at the date of approving this report is aware, there is no relevant audit information, being information needed by the auditor in connection with preparing its report, of which the auditor is unaware. Having made enquiries of fellow directors and the group's auditor, each director has taken all the steps that he/she is obliged to take as a director in order to make himself/herself aware of any relevant audit information and to establish that the auditor is aware of that information.

On behalf of the Board

Miss J L Halbert  
Director  
15 January 2016

## Statement of directors' responsibilities

The directors are responsible for preparing the Strategic Report, Directors' Report and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial period. Under that law the directors have elected to prepare the financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law). The financial statements are required by law to give a true and fair view of the state of affairs of the group and the company and of the profit or loss of the group for that period. In preparing those financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgments and estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the company will continue in business.

The directors are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the group and the company and to enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the group and company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

## **Independent auditors' report**

### **to the members of Kilfrost Group plc**

We have audited the financial statements of Kilfrost Group plc for the period ended 31 March 2015 which comprise the Group Profit and Loss Account, the Group statement of total recognised gains and losses, the Group and Company Balance Sheets, the Group statement of cash flows, the Group reconciliation of net cash outflow to movement in net debt and the related notes 1 to 24. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

This report is made solely to the company's members, as a body, in accordance with Chapter 3, section 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

#### **Respective responsibilities of directors and auditor**

As explained more fully in the Directors' Responsibilities Statement set out on page 8, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

#### **Scope of the audit of the financial statements**

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the group and parent company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the directors; and the overall presentation of the financial statements. In addition, we read all the financial and non-financial information in the Report and Group Financial Statements to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

#### **Opinion on financial statements**

In our opinion the financial statements:

- give a true and fair view of the state of the group's and the parent company's affairs as at 31 March 2015 and of the group's loss for the period then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

## **Independent auditors' report**

**to the members Kilfrost Group plc (continued)**

### **Emphasis of matter – going concern**

In forming our opinion, which is not modified, we have considered the adequacy of the disclosure made in note 1 to the financial statements concerning the group's ability to continue as a going concern. The conditions described in note 1 to the financial statements indicate the existence of material uncertainties which may cast significant doubt about the group's ability to continue as a going concern. The financial statements do not include the adjustments that would result if the group was unable to continue as a going concern.

### **Opinion on other matter prescribed by the Companies Act 2006**

In our opinion the information given in the Strategic Report and Directors' Report for the financial period for which the financial statements are prepared is consistent with the financial statements.

### **Matters on which we are required to report by exception**

We have nothing to report in respect of the following matters where the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Darren Rutherford (Senior Statutory Auditor)  
for and on behalf of Ernst & Young LLP, Statutory Auditor  
Newcastle upon Tyne

15 January 2016

## Group profit and loss account

for the period ended 31 March 2015

	Note	18 Months to 12 Months to	
		31 March 2015	30 September 2013
		£'000	£'000
<b>Turnover</b>	2	75,211	62,614
Cost of sales		(68,276)	(49,903)
		6,935	12,711
<b>Gross profit</b>		(11,170)	(8,485)
Administrative expenses		(4,235)	4,226
Other operating income		286	137
		(3,949)	4,363
<b>Operating (loss)/profit</b>	3		
Interest receivable and similar income		2	6
Interest payable and similar charges	4	(832)	(276)
		(4,779)	4,093
<b>(Loss)/profit on ordinary activities before taxation</b>			
Tax credit/(charge) on (loss)/profit on ordinary activities	7	559	(1,024)
		(4,220)	3,069
<b>(Loss)/profit on ordinary activities after taxation</b>	22		

All of the group's operations were continuing at 31 March 2015 (see note 24 regarding disposal of certain business segments subsequent to the year end).

**Group statement of total recognised gains and losses**  
**for the period ended 31 March 2015**

		<i>18 Months to 12 Months to</i>	
		<i>31 March 30 September</i>	
		<i>2015</i>	<i>2013</i>
	<i>Note</i>	<i>£'000</i>	<i>£'000</i>
(Loss)/profit for the financial period/year		(4,220)	3,069
Actuarial (loss)/gain recognised in the pension scheme	21	(163)	68
Tax charge arising thereon		23	(14)
Exchange differences		15	(55)
Total recognised gains and losses relating to the period/year		<u>(4,345)</u>	<u>3,068</u>

## Group balance sheet

at 31 March 2015

		<i>31 March 30 September</i>	
		<i>2015</i>	<i>2013</i>
	<i>Note</i>	<i>£'000</i>	<i>£'000</i>
<b>Fixed assets</b>			
Tangible assets	8	1,374	1,850
<b>Current assets</b>			
Stocks	10	17,165	14,734
Debtors	11	5,993	2,749
Cash at bank and in hand	19(c)	379	380
Deferred tax asset	7(d)	-	416
		<u>23,537</u>	<u>18,279</u>
<b>Creditors: amounts falling due within one year</b>	12	(18,521)	(11,938)
<b>Net current assets</b>		<u>5,016</u>	<u>6,341</u>
<b>Total assets less current liabilities</b>		6,390	8,191
<b>Creditors: amounts falling due after more than one year</b>	13	(1,500)	(500)
<b>Provisions for liabilities</b>	14	-	(62)
<b>Net assets excluding pension liability</b>		<u>4,890</u>	<u>7,629</u>
Pension liability	21	(811)	(624)
<b>Net assets including pension liability</b>		<u>4,079</u>	<u>7,005</u>
<b>Capital and reserves</b>			
Called up share capital	16	72	69
Share Premium	17	1,416	-
Merger reserve	17	893	893
Capital redemption reserve	17	7	7
Capital contribution	17	1,508	1,508
Profit and loss account	17	183	4,528
<b>Equity shareholders' funds</b>	22	<u>4,079</u>	<u>7,005</u>

The financial statements were approved and authorised for issue by the Board of Directors on 15 January 2016 and signed on their behalf by:

Miss J L Halbert  
Director

Mr G Lydiate  
Director

## Company balance sheet

at 31 March 2015

		31 March 30 September	
		2015	2013
	Note	£'000	£'000
<b>Fixed assets</b>			
Tangible assets	8	464	482
Investments	9	76	5,699
		<u>540</u>	<u>6,181</u>
<b>Current assets</b>			
Debtors	11	629	757
Cash at bank and in hand		-	-
Deferred tax asset		-	-
		<u>629</u>	<u>757</u>
<b>Creditors: amounts falling due within one year</b>	12	(1,234)	(1,211)
<b>Net current liabilities</b>		<u>(605)</u>	<u>(454)</u>
<b>Total assets less current liabilities</b>		(65)	5,727
<b>Creditors: amounts falling due after more than one year</b>	13	(1,000)	-
<b>Net (liabilities)/assets</b>		<u>(1,065)</u>	<u>5,727</u>
<b>Capital and reserves</b>			
Called up share capital	16	72	69
Share Premium	17	1,416	-
Capital redemption reserve	17	7	7
Profit and loss account	17	(2,560)	5,651
<b>Equity shareholders' (deficit)/funds</b>	22	<u>(1,065)</u>	<u>5,727</u>

The financial statements were approved and authorised for issue by the Board of Directors on 15 January 2016 and signed on their behalf by:

Miss J L Halbert  
Director

Mr G Lydiate  
Director

## Group statement of cash flows

for the period ended 31 March 2015

		<i>18 Months to 31 March 2015 £'000</i>	<i>12 Months to 30 September 2013 £'000</i>
	<i>Note</i>		
<b>Net cash (outflow)/inflow from operating activities</b>	19(a)	(10,430)	8,169
<b>Returns on investments and servicing of finance</b>	19(b)	(762)	(226)
<b>Taxation</b>		690	(453)
<b>Capital expenditure</b>	19(b)	(208)	(416)
<b>Dividends paid</b>	18	-	(1,000)
<b>Purchase of own shares</b>		-	(1,000)
<b>Financing</b>	19(b)	10,709	(4,789)
<b>(Decrease)/increase in cash</b>		<u>(1)</u>	<u>285</u>

### Group reconciliation of net cash inflow to movement in net debt

		<i>18 Months to 31 March 2015 £'000</i>	<i>12 Months to 30 September 2013 £'000</i>
	<i>Note</i>		
<b>(Decrease)/increase in cash</b>	19(c)	(1)	285
<b>Cash (inflow)/outflow from financing</b>		(9,290)	4,789
<b>Movement in net debt in the period/year</b>		<u>(9,291)</u>	<u>5,074</u>
<b>Net debt at 1 October</b>		(4,540)	(9,614)
<b>Net debt at 30 September</b>	19(c)	<u>(13,831)</u>	<u>(4,540)</u>

## Notes to the financial statements

at 31 March 2015

### 1. Accounting policies

#### *Basis of preparation*

The financial statements are prepared under the historical cost convention, in accordance with applicable accounting standards except for the adoption of merger accounting referred to below.

The group financial statements consolidate the financial statements of Kilfrost Group plc and its subsidiary undertakings up to 31 March (2013: 30 September). No profit and loss account is presented by Kilfrost Group plc as permitted under section 408 of the Companies Act 2006.

In the opinion of the directors, the combination with Kilfrost Group plc in a prior period was part of a Group reconstruction rather than an acquisition, since the shareholders of the Company were the same as the former shareholders in Kilfrost Group plc.

Accordingly, having regard to the overriding requirement under Section 403 of the Companies Act 2006 for the financial statements to give a true and fair view of the group's results and financial position, the directors adopted merger accounting principles in drawing up those and all subsequent financial statements.

In the company financial statements advantage was taken of merger relief rules, and the shares issued as consideration for the acquisition of Kilfrost Limited were accounted for at nominal value.

#### *Basis of consolidation*

The group financial statements consolidate the financial statements of Kilfrost Group plc and all its subsidiary undertakings drawn up to 31 March (2013: 30 September). Where necessary, adjustments are made to bring the accounting policies used under relevant local GAAP in the individual financial statements of the company and subsidiaries into line with those used by the Group under UK GAAP.

#### *Parent company's profit and loss account*

The company has taken the exemption under section 408 of the Companies Act 2006 to not disclose the parent company's profit and loss account in these financial statements.

#### *Going concern*

The group financial statements are prepared on the going concern basis.

The parent company had net liabilities of £1,065,000 at the balance sheet date.

The Directors have performed an assessment of the Group's ability to continue trading as a going concern, by reference to trading forecasts and financing requirements for a period of 12 months from the date of approval of these financial statements. The directors are satisfied that the going concern basis of preparation for these financial statements is appropriate.

In looking at the assessment of the Group's ability to continue trading as a going concern for the next 12 months the Directors have examined a number of factors. These include:

1. the forecast cash requirements, which are impacted by the long range weather forecast for the remaining winter months in the UK & Europe, and
2. the impact of the divestment in August 2015 of the Group's North American, China and Japan ADF businesses (which were historically loss making activities), and
3. the forecast financial facilities available to the group from its bankers and one of its major raw material suppliers, and
4. the impact and timing of the 3 scenarios regarding the future of the Group's UK & European ADF business (as outlined in the Strategic Report), which is dependent on the outcome of the Regulatory approval process, which may be concluded anytime from January 2016 to June 2016, and

## Notes to the financial statements

at 31 March 2015

### *Going concern (continued)*

5. the strength of our Speciality Fluids business, its prospects for growth and our ability to develop this into a sustainable and profitable business, through successful development of our products and re-sizing of our ongoing cost base.

Recent weather conditions have continued to be mild, but the Directors anticipate a lowering of temperatures around Europe in the remaining winter months which are expected to create an increase in demand for the Group's ADF products. Whilst we anticipate an increase in demand in the remaining winter months, we cannot be certain of that fact.

Our Bankers have remained very supportive of the business, have provided continued facilities to the Group in recent months and have verbally committed support until completion of the sale of the Group's UK & European ADF business, which must be before 30 June 2016. Given that the Bank has shown its support to the Group by continuing facilities, and we have also opened discussions with potential new funders about new and increased facilities, the Directors feel that there is a reasonable expectation that sufficient facilities will continue to be available for the next 12 months. Whilst we anticipate that the Bank will continue to provide adequate levels of financial support, we cannot be certain of that fact.

Our major raw material supplier continues to provide us with extended credit and the Directors feel that there is a reasonable expectation that adequate extended credit facilities will continue to be available for the next 12 months. Whilst we anticipate that the supplier will continue to provide adequate levels of extended credit, we cannot be certain of that fact.

The Directors believe that each potential scenario regarding the future of the Group's UK & European ADF business (as outlined in the Strategic Report), which is dependent on the outcome of the Regulatory approval process, will provide the basis for a sustainable future for the Kilfrost Group. Whilst we anticipate that this will be the case, we cannot be certain of that fact.

Whilst we anticipate strong and profitable sales growth in our Speciality Fluids business will be achieved in the coming years, we cannot be certain of that fact.

For these reasons the Directors consider that the adoption of the going concern basis in preparing the financial statements is appropriate. However, as pointed out above, there are five uncertainties impacting the ongoing availability of adequate financial facilities and the ability of the business to return to profit. Should sufficient bank funding and other credit not be available to the business in the coming years, or should sales not increase such that losses continued and cash was not generated, then the business may not be able to continue as a going concern. The Directors have considered these five uncertainties, and believe that they distil down into two mutually exclusive options. The first is whether or not the sale of the business is given approval by the CMA. In the event that this happens, the business will have sufficient cash resources to repay existing facilities and to fund the residual business in the short to medium term as it develops. Should the sale not complete, the going concern of the Group will depend on the renewal of existing and/or negotiation of new bank and other financing facilities. Each of these two scenarios represent material uncertainties that may cast significant doubt upon the Group's ability to continue as a going concern. The financial statements do not contain the adjustments that would result if the Group was unable to continue as a going concern, because the Directors currently believe that they can continue to address these uncertainties and retain adequate levels of funding in the business, growing sales and returning to profit.

## Notes to the financial statements

at 31 March 2015

### 1. Accounting policies (continued)

#### **Depreciation**

Depreciation is provided on all tangible fixed assets at rates calculated to write off the cost, less estimated residual value based on prices prevailing at the date of acquisition, of each asset over its expected useful life as follows:

Freehold property	-	straight line over 50 years
Plant and machinery	-	15-25% straight line basis
IT equipment and software	-	straight line over 3 years
Motor vehicles	-	25% straight line basis

The carrying values of tangible fixed assets are reviewed for impairment in periods if events or changes in circumstances indicate the carrying value may not be recoverable.

#### **Revenue recognition**

Revenue is recognised when the group makes a delivery of goods or performs services for a third party to the extent that a financial benefit accrues which can be reliably measured.

Revenue is measured at the fair value of the financial benefit accruing and is stated net of value added tax and other similar taxes.

#### **Stocks**

Stocks and work in progress are valued at the lower of cost and net realisable value after making due allowance for obsolete and slow moving items.

Cost includes all direct expenditure and an appropriate proportion of fixed and variable overheads, based on a normal level of activity.

Net realisable value is based on estimated selling price less any further costs expected to be incurred to completion and disposal.

#### **Leasing and hire purchase commitments**

Assets held under finance leases and hire purchase contracts, which are those where substantially all the risks and rewards of ownership of the asset have passed to the group, are capitalised in the balance sheet and are depreciated over their useful lives.

The interest element of the rental obligations is charged to the profit and loss account over the period of the lease and represents a constant proportion of the balance of capital repayments outstanding.

Rentals paid under operating leases are charged to income on a straight line basis over the lease term.

#### **Government grants**

Government grants are recognised on receipt and after all qualifying conditions are complied with.

Where the grant relates to an expense item, it is recognised in the profit and loss account over the period necessary to match on a systematic basis to the costs that it is intended to compensate.

Where the grant relates to the acquisition or construction of a fixed asset, the grant is deferred on the balance sheet and released to the profit and loss account over the period of the useful lives of the assets to which the grant relates.

## Notes to the financial statements

at 31 March 2015

### 1. Accounting policies (continued)

#### **Deferred taxation**

Deferred tax is recognised in respect of all material timing differences that have originated but not reversed at the balance sheet date where transactions or events have occurred at that date that will result in an obligation to pay more, or a right to pay less or to receive more, tax, with the following exception:

- Deferred taxation assets are recognised only to the extent that the directors consider that it is more likely than not that there will be suitable taxable profits from which the future reversal of the underlying timing differences can be deducted.

Deferred taxation is measured on an undiscounted basis at the tax rates that are expected to apply in the periods in which timing differences reverse, based on tax rates and laws enacted or substantively enacted at the balance sheet date.

#### **Research and development**

Expenditure on research and development is written off in the period in which it is incurred.

#### **Foreign currencies**

##### *Company*

Transactions in foreign currencies are recorded at the rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the rate of exchange ruling at the balance sheet date. All differences are taken to the profit and loss account.

##### *Group*

The financial statements of overseas subsidiary undertakings are translated at the rate of exchange ruling at the balance sheet date. The exchange difference arising on the retranslation of opening net assets is taken directly to reserves. All other translation differences are taken to the profit and loss account with the exception of differences on foreign currency borrowings to the extent that they are used to finance or provide a hedge against group equity investments in foreign enterprises, which are taken directly to reserves together with the exchange difference on the net investment in these enterprises. Tax charges and credits attributable to exchange differences on those borrowings are also dealt with in reserves.

#### **Share based payments**

The group operates a share option incentive scheme for certain directors. The fair value of options granted, if material, is recognised as an employee expense in the income statement with a corresponding increase in equity. The fair value is measured at grant date and spread over the period during which the employees become unconditionally entitled to the options. The fair value of the options is measured using the "Black-Scholes" option valuation model, taking into account the terms and conditions upon which the options were granted. The amount recognised in the income statement, if material, is adjusted at each balance sheet date to reflect the number of share options that vest revised for expected leavers and estimated achievement of non-market based vesting conditions.

#### **Capital instruments**

In accordance with FRS 25 when shares are issued, any component that creates a financial liability of the company or group is presented as a liability in the balance sheet. The corresponding dividends relating to the liability component are charged as interest expense in the income statement.

Therefore the company has classified the redeemable preference shares as long-term debt.

## Notes to the financial statements

at 31 March 2015

### 1. Accounting policies (continued)

#### *Pensions*

Costs associated with defined contribution pensions schemes are recognised within operating profits in the profit and loss account in the period in which they are paid. The assets of defined contribution pension schemes are held separately from those of the group in independently administered funds.

The cost of providing benefits under the defined benefit plan is determined using the projected unit method in accordance with FRS17, which attributes entitlement to benefits to the current period (to determine current service cost) and to the current and prior periods (to determine the present value of defined benefit obligations) and is based on actuarial advice. Past service costs are recognised in the profit and loss account on a straight-line basis over the vesting period or immediately if the benefits have vested. When a settlement or a curtailment occurs, the charge in the present value of the scheme liabilities and the fair value of the plan assets reflects the gain or loss which is recognised in the profit and loss account. Losses are measured at the date that the employer becomes demonstrably committed to the transaction and gains when all parties whose consent is required are irrevocably committed to the transaction.

The interest element of the defined benefit cost represents the change in present value of scheme obligations relating from the passage of time, and is determined by applying the discount rate to the opening present value of the benefit obligation, taking into account material changes in the obligation during the period. The expected return on plan assets is based on an assessment made at the beginning of the period of long-term market returns on scheme assets, adjusted for the effect on the fair value of plan assets of contributions received and benefits paid during the period. The difference between the expected return on plan assets and the interest costs is recognised in the profit and loss account as other finance income or expense.

Actuarial gains and losses are recognised in full in the statement of recognised gains and losses in the period in which they occur.

The defined benefit pension liability in the balance sheet comprises the present value of the defined benefit obligation (using a discount rate based on high quality corporate bonds), less any past service cost not yet recognised and less the fair-value of plan assets out of which the obligations are to be settled directly. Fair value is based on market price information and in the case of quoted securities is the current bid price.

## Notes to the financial statements

at 31 March 2015

### 2. Segmental analysis

Turnover represents net invoiced sales of goods, excluding value added tax, and relates to the continuing principal activity of the group. An analysis of turnover and profit on ordinary activities before taxation by geographical market is given below:

	<i>18 Months to 31 March 2015 £'000</i>	<i>12 Months to 30 September 2013 £'000</i>
<i>Turnover</i>		
UK	11,033	13,161
Europe	24,918	33,623
Rest of World	39,260	15,830
	<u>75,211</u>	<u>62,614</u>
	<u><u>75,211</u></u>	<u><u>62,614</u></u>
<i>(Loss)/profit on ordinary activities before taxation</i>		
UK	(980)	235
Europe	(1,519)	5,491
Rest of World	(2,280)	(1,633)
	<u>(4,779)</u>	<u>4,093</u>
	<u><u>(4,779)</u></u>	<u><u>4,093</u></u>

## Notes to the financial statements

at 31 March 2015

### 3. Operating (loss)/profit

This is stated after charging/(crediting):

	<i>18 Months to 31 March 2015 £'000</i>	<i>12 Months to 30 September 2013 £'000</i>
Depreciation - owned fixed assets	697	404
Auditor's remuneration	85	38
Foreign exchange gains	(41)	(142)
Operating lease charges		
- land and buildings	538	217
- other	18	17
Loss/(profit) on disposal of fixed assets	13	(22)
	<u>          </u>	<u>          </u>

The remuneration of the auditor is further analysed as follows:

	<i>18 Months to 31 March 2015 £'000</i>	<i>12 Months to 30 September 2013 £'000</i>
Audit of the financial statements	65	32
Preparation of the financial statements	-	4
Corporate tax compliance	20	2
	<u>          </u>	<u>          </u>

### 4. Interest payable and similar charges

	<i>18 Months to 31 March 2015 £'000</i>	<i>12 Months to 30 September 2013 £'000</i>
Bank loans and overdrafts	653	228
Net interest cost on pension scheme assets and liabilities (note 21)	68	44
Other interest	111	4
	<u>          </u>	<u>          </u>
	<u>832</u>	<u>276</u>

## Notes to the financial statements

at 31 March 2015

### 5. Staff costs

	<i>18 Months to 31 March 2015 £'000</i>	<i>12 Months to 30 September 2013 £'000</i>
Wages and salaries	5,106	4,579
Social security costs	877	692
Other pension costs	319	214
	<u>6,302</u>	<u>5,485</u>

The average monthly number of employees during the period/year was as follows:

	<i>18 Months to 31 March 2015 No.</i>	<i>12 Months to 30 September 2013 No.</i>
Production	33	34
Research and development	15	13
Sales and administration	43	49
	<u>91</u>	<u>96</u>

### 6. Directors' emoluments

	<i>18 Months to 31 March 2015 £'000</i>	<i>12 Months to 30 September 2013 £'000</i>
Emoluments	791	1,159
Company contributions paid to money purchase pension schemes	45	30

	<i>18 Months to 31 March 2015 No.</i>	<i>12 Months to 30 September 2013 No.</i>
Members of money purchase schemes	1	1

## Notes to the financial statements

at 31 March 2015

### 6. Directors' emoluments (continued)

The emoluments of the highest paid director were as follows:

	<i>18 Months to 31 March 2015 £'000</i>	<i>12 Months to 30 September 2013 £'000</i>
Emoluments	791	565
Company contributions paid to money purchase pension schemes	<u>45</u>	<u>30</u>

The directors did not exercise any share options during the year (2013: nil).

### 7. Tax

(a) Tax (credit)/charge on (loss)/profit on ordinary activities

	<i>Group</i>		<i>Company</i>	
	<i>18 Months to 31 March 2015 £'000</i>	<i>12 Months to 30 September 2013 £'000</i>	<i>18 Months to 31 March 2015 £'000</i>	<i>12 Months to 30 September 2013 £'000</i>
Current tax:				
UK corporation tax	(1,031)	1,040	-	-
Adjustments in respect of previous periods	(61)	(104)	(5)	135
<b>Total current tax (credit)/charge (note 7(b))</b>	<u>(1,092)</u>	<u>936</u>	<u>(5)</u>	<u>135</u>
Deferred tax:				
Origination and reversal of timing differences	(2)	41	-	-
Prior year adjustment	(12)	34	-	-
Effect of changes in tax rates and laws	-	(33)	-	-
Movement in respect of pension scheme liability	131	46	-	-
Deferred tax asset de-recognised	416	-	-	-
<b>Total deferred tax charge/(credit) (note 7(d))</b>	<u>533</u>	<u>88</u>	<u>-</u>	<u>-</u>
<b>Tax (credit)/charge on (loss)/profit on ordinary activities</b>	<u>(559)</u>	<u>1,024</u>	<u>(5)</u>	<u>135</u>

## Notes to the financial statements

at 31 March 2015

### 7. Tax (continued)

#### (b) Factors affecting current tax (credit)/charge

The tax assessed on the profit on ordinary activities for the period is different the standard rate of corporation tax in the UK of 21.6% (2013: 23.5%). The differences are reconciled below:

	<i>Group</i>		<i>Company</i>	
	<i>18 Months to 31 March 2015 £'000</i>	<i>12 Months to 30 September 2013 £'000</i>	<i>18 Months to 31 March 2015 £'000</i>	<i>12 Months to 30 September 2013 £'000</i>
(Loss)/profit on ordinary activities before tax	(4,779)	4,093	(8,216)	7,747
(Loss)/profit on ordinary activities multiplied by standard rate of corporation tax in the UK of 21.6% (2013: 23.5%)	(1,032)	962	(1,775)	1,821
Effects of				
Transfer pricing adjustments	-	-	533	471
Dividend income not taxable	-	-	-	(2,484)
Disallowable items for tax purposes and				
Consolidation adjustments	29	42	13	14
Other short-term timing differences	6	(3)	-	-
Decelerated/(accelerated) capital allowances	47	(20)	-	-
Research and development tax credits	(238)	(163)	-	-
Movement in pension scheme liability	(25)	(15)	-	-
Losses carried forward	43	237	15	-
Effect of differential tax rate on losses carried back	(83)	-	-	-
Utilisation of tax losses/group relief not paid for	-	-	-	178
Adjustments to tax charge in respect of previous period	(61)	(104)	-	135
Overseas losses	222	-	-	-
Investment impairment not tax deductible	-	-	1,214	-
Current tax (credit)/charge (note 7(a))	(1,092)	936	-	135

## Notes to the financial statements

at 31 March 2015

### 7. Tax (continued)

#### (c) Factors that may affect future tax charges

The company has tax losses of approximately £69,000 to carry forward at 31 March 2015 (30 September 2013: £nil) available to use against future trading profits.

The group has gross tax trading losses of approximately £199,000 to carry forward at 31 March 2015 (30 September 2013: £nil) in relation to its UK businesses available to use against future trading profits generated within the UK.

The group has unutilised tax trading losses to carried forward in relation to its US subsidiary amounting to \$9,405,000 (2013: \$8,248,000), of which \$nil (2013: \$1,641,000) have been recognised as a deferred tax asset at the US tax rate of 39.5%, amounting to £nil (2013: £416,000).

Following the successful claim for Research and Development Tax Credits, the directors expect that the effective rate of tax will be lower than the standard rate of tax in the future.

The corporation tax rate from 1 April 2015 is 20%, and this rate has been applied to the deferred tax assets and liabilities arising at the balance sheet date. The corporation tax rate will reduce to 19% from 1 April 2017 and 18% from 1 April 2020, however as these rates have not been substantively enacted at the balance sheet date they have not been applied to the deferred tax balances.

#### (d) Deferred taxation

The deferred tax included in the balance sheet is as follows:

Recognised deferred tax:

	<i>Group</i>		<i>Company</i>	
	<i>31 March 2015</i>	<i>30 September 2013</i>	<i>31 March 2015</i>	<i>30 September 2013</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Included in provisions for liabilities (note 14)	-	(62)	-	-
Included in defined benefit pension liability (note 21)	-	156	-	-
Included in current assets	-	416	-	-
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>

Reconciliation of deferred tax

	<i>Group</i>	<i>Company</i>
	<i>£'000</i>	<i>£'000</i>
At 1 October 2013 including deferred tax on defined benefit pension liability	510	-
Deferred tax charge in profit and loss account (note 7(a))	(533)	-
Amount debited to statement of total recognised gains and losses	23	-
	<u>          </u>	<u>          </u>
At 31 March 2015 including deferred tax on defined benefit pension liability	-	-
	<u>          </u>	<u>          </u>

## Notes to the financial statements

at 31 March 2015

### 7. Tax (continued)

#### (d) Deferred taxation (continued)

Included within the deferred tax asset of £nil (2013:£416,000) above is £nil (2013: £416,000) that relates to losses carried forward in Kilfrost Inc. as explained above. Having considered trading forecasts over the next five years for Kilfrost Inc., the directors have concluded that there is insufficient certainty over the level and timing of future taxable profits to be generated by Kilfrost Inc. in order that the deferred tax asset can be utilised within five years. Accordingly, a cautious approach has been adopted to the recognition of some of these tax losses as a deferred tax asset in these financial statements, and it has not been recognised.

The remaining deferred tax asset/(liability) relates to businesses within the UK as follows:

	<i>Group</i>		<i>Company</i>	
	<i>31 March</i>	<i>30 September</i>	<i>31 March</i>	<i>30 September</i>
	<i>2015</i>	<i>2013</i>	<i>2015</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Capital allowances in advance of depreciation	(10)	(56)	-	-
Short-term timing differences	10	(6)	-	-
UK Tax losses carried forward	-	-	3-	-
	<u>-</u>	<u>(62)</u>	<u>-</u>	<u>-</u>
UK Deferred tax asset/(liability)	-	(62)	-	-

Having considered trading forecasts over the next five years for the Group's businesses within the UK the directors have concluded that there is insufficient certainty over the level and timing of future taxable profits that will be generated within the UK in order that the deferred tax asset can be utilised within five years. Accordingly, a deferred tax asset has not been recognised in these financial statements.

## Notes to the financial statements

at 31 March 2015

### 8. Tangible fixed assets

#### Group

	<i>Freehold property £'000</i>	<i>Leasehold property £'000</i>	<i>Fixtures and fittings £'000</i>	<i>Total £'000</i>
Cost:				
At 1 October 2013	1,072	403	3,255	4,730
Additions	-	10	211	221
Disposals	-	(18)	(95)	(113)
At 31 March 2015	<u>1,072</u>	<u>395</u>	<u>3,371</u>	<u>4,838</u>
Depreciation:				
At 1 October 2013	191	279	2,410	2,880
Provided during the period	40	133	524	697
Disposals	-	(18)	(95)	(113)
At 31 March 2015	<u>231</u>	<u>394</u>	<u>2,839</u>	<u>3,464</u>
Net book value:				
At 31 March 2015	<u>841</u>	<u>1</u>	<u>532</u>	<u>1,374</u>
At 1 October 2013	<u>881</u>	<u>124</u>	<u>845</u>	<u>1,850</u>

#### Company

	<i>Freehold property £'000</i>	<i>Total £'000</i>
Cost:		
At 1 October 2013	631	631
Additions	-	-
At 31 March 2015	<u>631</u>	<u>631</u>
Depreciation:		
At 1 October 2013	149	149
Provided during the period	18	18
At 31 March 2015	<u>167</u>	<u>167</u>
Net book value:		
At 31 March 2015	<u>464</u>	<u>464</u>
At 1 October 2013	<u>482</u>	<u>482</u>

## Notes to the financial statements

at 31 March 2015

### 9. Investments

Company

Unlisted  
investments  
£'000

Investment in subsidiary undertakings

Cost:

At 1 October 2013

5,699

Impairment

(5,623)

At 31 March 2015

76

Details of the investments in which the company holds more than 20% of the nominal value of any class of share capital are as follows:

<i>Name of company</i>	<i>Country of registration</i>	<i>Holding</i>	<i>Proportion held</i>	<i>Nature of business</i>
Kilfrost Limited	UK	Ordinary shares	100%	Manufacture and distribution of de/anti-icing fluids
Kilfrost Holdings Inc.	USA	Ordinary shares	100%	Holding company
Kilfrost Inc. **	USA	Ordinary shares	100%	Manufacture and distribution of de/anti-icing fluids
Kilfrost (Beijing) Trading Co. Ltd*	China	Ordinary shares	100%	Manufacture of anti and de-icing fluids

\* held by Kilfrost Limited

\*\* held by Kilfrost Holdings Inc.

### 10. Stocks

	<i>Group</i>		<i>Company</i>	
	<i>31 March 2015</i>	<i>30 September 2013</i>	<i>31 March 2015</i>	<i>30 September 2013</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Raw materials	5,124	7,439	-	-
Containers	187	110	-	-
Finished products	11,854	7,185	-	-
	<u>17,165</u>	<u>14,734</u>	<u>-</u>	<u>-</u>

## Notes to the financial statements

at 31 March 2015

### 11. Debtors

	<i>Group</i>		<i>Company</i>	
	<i>31 March</i>	<i>30 September</i>	<i>31 March</i>	<i>30 September</i>
	<i>2015</i>	<i>2013</i>	<i>2015</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Trade debtors	5,639	2,400	-	-
Other debtors	78	49	13	-
Prepayments and accrued income	276	300	165	119
Amounts due from subsidiary undertakings	-	-	451	-
Corporation tax recoverable	-	-	-	638
	<u>5,993</u>	<u>2,749</u>	<u>629</u>	<u>757</u>

### 12. Creditors: amounts falling due within one year

	<i>Group</i>		<i>Company</i>	
	<i>31 March</i>	<i>30 September</i>	<i>31 March</i>	<i>30 September</i>
	<i>2015</i>	<i>2013</i>	<i>2015</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Trade creditors	5,074	6,239	165	95
Corporation tax	-	402	-	-
Other taxes and social security costs	156	439	-	277
Other creditors	25	34	3	-
Accruals	556	404	-	28
Short-term borrowings	11,644	4,420	-	-
Amounts due to subsidiary undertakings	-	-	-	811
Shareholder loans	1,066	-	1,066	-
	<u>18,521</u>	<u>11,938</u>	<u>1,234</u>	<u>1,211</u>

Short-term borrowings are secured by way of a fixed and floating charge over certain of the company's assets. Each of Kilfrost Group plc, Kilfrost Limited, Kilfrost Holdings Inc and Kilfrost Inc have entered into cross-guarantees with The Royal Bank of Scotland plc in connection with working capital banking facilities made available to Kilfrost Limited and Kilfrost Inc.

The short term shareholder loans are unsecured, interest free and are contractually repayable on demand.

At 31 March 2015 trade creditors amounting to £1,702,955 were guaranteed by a director, Mr G Lydiate. The guarantee was indemnified by Kilfrost Group PLC on issue.

## Notes to the financial statements

at 31 March 2015

### 13. Creditors: amounts falling due after more than one year

	<i>Group</i>		<i>Company</i>	
	<i>31 March</i>	<i>30 September</i>	<i>31 March</i>	<i>30 September</i>
	<i>2015</i>	<i>2013</i>	<i>2015</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Shareholder loans	500	500	-	-
Redeemable preference shares (note 16)	1,000	-	1,000	-
	<u>1,500</u>	<u>500</u>	<u>1,000</u>	<u>-</u>

The long term shareholder loans are unsecured, interest free and are contractually repayable no earlier than 1 March 2017.

### 14. Provisions for liabilities

	<i>Group</i>		<i>Company</i>	
	<i>31 March</i>	<i>30 September</i>	<i>31 March</i>	<i>30 September</i>
	<i>2015</i>	<i>2013</i>	<i>2015</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Deferred tax (note 7(d))	-	62	-	-
	<u>-</u>	<u>62</u>	<u>-</u>	<u>-</u>

### 15. Operating lease commitments

Annual rentals payable under non-cancellable operating leases as at 31 March 2015 are as follows:

<i>Group</i>	<i>Land and</i>	<i>Plant and</i>	<i>Land and</i>	<i>Plant and</i>
	<i>buildings</i>	<i>machinery</i>	<i>buildings</i>	<i>machinery</i>
	<i>31 March</i>	<i>31 March</i>	<i>30 September</i>	<i>30 September</i>
	<i>2015</i>	<i>2015</i>	<i>2013</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Expiring within one year	9	-	98	4
Expiring after one year but not more than five years	312	29	135	23
Expiring after more than five years	52	-	-	-
	<u>373</u>	<u>29</u>	<u>233</u>	<u>27</u>
<i>Company</i>	<i>Land and</i>	<i>Plant and</i>	<i>Land and</i>	<i>Plant and</i>
	<i>buildings</i>	<i>machinery</i>	<i>buildings</i>	<i>machinery</i>
	<i>31 March</i>	<i>31 March</i>	<i>30 September</i>	<i>30 September</i>
	<i>2015</i>	<i>2015</i>	<i>2013</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Expiring after one year but not more than five years	135	-	135	-
Expiring after more than five years	-	-	-	-
	<u>135</u>	<u>-</u>	<u>135</u>	<u>-</u>

## Notes to the financial statements

at 31 March 2015

### 16. Share capital

	<i>31 March 30 September</i>	
	<i>2015</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>
<i>Authorised</i>		
Ordinary shares of £1 each	72	69
2% Redeemable Preference Shares of £1 each (classified as a liability under FRS25)	2	-
	<u>74</u>	<u>69</u>
	<u><u>74</u></u>	<u><u>69</u></u>

  

	<i>31 March</i>	<i>30 September</i>	<i>31 March</i>	<i>30 September</i>
	<i>2015</i>	<i>2013</i>	<i>2015</i>	<i>2013</i>
	<i>No.</i>	<i>No.</i>	<i>£'000</i>	<i>£'000</i>
<i>Allotted, called up and fully paid</i>				
Ordinary shares of £1 each	72,280	69,280	72	69
Preference Shares of £1 each	2,000	-	2	-
	<u>74,280</u>	<u>69,280</u>	<u>74</u>	<u>69</u>
	<u><u>74,280</u></u>	<u><u>69,280</u></u>	<u><u>74</u></u>	<u><u>69</u></u>

On 9 June 2014, 3,000 ordinary shares with aggregate nominal value of £3,000, were allotted for cash at £473.12 each resulting share premium being recognised of £1,416,361.

On 20 May 2014, 2,000 2% redeemable preference shares with aggregate nominal value of £2,000 were issued to the Stuart Halbert Foundation at £500 each. They are redeemable at the earlier of the Company's discretion or after 5 years at £500 per share.

The preference shares carry a discretionary dividend of 2% per annum, payable annually in arrears.

## Notes to the financial statements

at 31 March 2015

### 17. Reserves

*Group*

	<i>Profit and loss account £'000</i>	<i>Share premium account £'000</i>	<i>Capital redemption reserve £'000</i>	<i>Capital contribution £'000</i>	<i>Merger reserve £'000</i>	<i>Total £'000</i>
At 1 October 2013	4,528	-	7	1,508	893	6,936
Loss for the period	(4,220)	-	-	-	-	(4,220)
Dividend paid	-	-	-	-	-	-
Issue of ordinary shares	-	1,416	-	-	-	1,416
Actuarial loss on pension scheme net of deferred tax	(140)	-	-	-	-	(140)
Exchange differences	15	-	-	-	-	15
At 31 March 2015	183	1,416	7	1,508	893	4,007

*Company*

	<i>Profit and loss account £'000</i>	<i>Share premium account £'000</i>	<i>Capital redemption reserve £'000</i>	<i>Total £'000</i>
At 1 October 2013	5,651	-	7	5,658
Loss for the period	(8,211)	-	-	(8,211)
Issue of ordinary shares	-	1,416	-	1,416
Dividend paid	-	-	-	-
At 31 March 2015	(2,560)	1,416	7	(1,137)

## Notes to the financial statements

at 31 March 2015

### 18. Dividends

<i>Declared and paid during the period/year:</i>	<i>2015</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>
Final ordinary dividend	-	1,000

### 19. Notes to the statement of cash flows

(a) Reconciliation of operating (loss)/profit to net cash outflow from operating activities:

	<i>2015</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>
Operating (loss)/profit	(3,949)	4,363
Depreciation	697	404
Increase in stocks	(2,431)	(538)
Increase in debtors	(3,244)	(895)
(Decrease)/increase in creditors	(1,305)	5,045
Difference between pension charge and cash contributions	(200)	(133)
Profit on disposal of fixed assets	(13)	(22)
Exchange differences	15	(55)
Net cash (outflow) / inflow from operating activities	(10,430)	8,169

(b) Analysis of cash flows for headings netted in the statement of cash flows:

	<i>2015</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>
<i>Returns on investments and servicing of finance:</i>		
Interest received	2	6
Interest paid	(764)	(232)
Net cash outflow	(762)	(226)
<i>Financing:</i>		
Issue of new ordinary share capital	1,419	-
Issue of redeemable preference shares	1,000	-
Increase in shareholder loans	1,066	-
Increase/(decrease) in short-term borrowings	7,224	(4,789)
Net cash inflow/(outflow)	10,709	(4,789)
<i>Capital expenditure:</i>		
Purchase of tangible fixed assets	(221)	(438)
Proceeds from disposal of fixed assets	13	22
Net capital expenditure	(208)	(416)

## Notes to the financial statements

at 31 March 2015

### 19. Notes to the statement of cash flows (continued)

(c) Analysis of changes in net debt

	<i>As at</i> <i>1 October</i> <i>2013</i> <i>£'000</i>	<i>Cashflow</i> <i>£'000</i>	<i>Non-cash</i> <i>changes</i> <i>£'000</i>	<i>As at</i> <i>31 March</i> <i>2015</i> <i>£'000</i>
Cash at bank and in hand	380	(1)	-	379
Shareholder loans	(500)	(1,066)	-	(1,566)
Redeemable preference shares	-	(1,000)	-	(1,000)
Short-term borrowings	(4,420)	(7,224)	-	(11,644)
Net debt	<u>(4,540)</u>	<u>(9,291)</u>	<u>-</u>	<u>(13,831)</u>

### 20. Loss attributable to members of the parent company

The loss after tax dealt with in the financial statements of the parent company was £8,211,000 (30 September 2013: profit of £7,612,000)

### 21. Pension commitments

The group operates a defined benefit scheme in the UK which is now closed to future accrual and new entrants. The last full actuarial valuation of this scheme was carried out by a qualified independent actuary on 1 August 2013. The calculations below are based on the actuarial valuation as at 1 August 2013 and allowing for movements to 31 March 2015.

During the period, £199,500 was paid by the employer as agreed deficit funding (2013: £133,000). Management estimate that contributions to the scheme going forwards will total £133,000 per annum. This is the recommended level of deficit funding provided in the latest actuarial valuation.

The major assumptions used by the actuary were:

	<i>31.3.15</i>	<i>30.9.13</i>	<i>30.9.12</i>
Rate of increase in pensions in payment	3.1%	3.3%	2.1%
Rate of increase in deferred pensions	2.3%	2.5%	2.0%
Discount rate for scheme liabilities	3.3%	4.4%	4.1%
Inflation assumption	3.1%	3.3%	2.1%

The directors acknowledge their responsibilities for ensuring that actuarial assumptions are suitably updated to reflect changing economic conditions and they confirm that the assumptions at 31 March 2015 have been carefully reviewed with the actuary.

The pension scheme has not invested in the company/group itself.

## Notes to the financial statements

at 31 March 2015

### 21. Pension commitments (continued)

The assets in the scheme and the expected rate of return were:

	<i>Long term rate of return expected at 31.3.15</i>	<i>Value at 31.3.15 £'000</i>	<i>Long term rate of return expected at 30.9.13</i>	<i>Value at 30.9.13 £'000</i>	<i>Long term rate of return expected at 30.9.12</i>	<i>Value at 30.9.12 £'000</i>
Diversified Growth	3.3%	244	-	-	2.4%	1,179
Cash	3.3%	1,114	3.5%	1,692	4.3%	414
Total market value of assets		1,358		1,692		1,593
Present value of scheme liabilities		(2,169)		(2,472)		(2,530)
Deficit in scheme		(811)		(780)		(937)
Related deferred tax credit		-		156		216
Net pension liability		(811)		(624)		(721)

The pension scheme has not invested in any of the company's own assets or other assets used by the company.

#### Analysis of the amount charged to operating profit

	<i>18 Months to 31 March 2015 £'000</i>	<i>12 Months to 30 September 2013 £'000</i>
Current service cost	-	-
Total operating charge	-	-

#### Analysis of the amount charged to other finance costs

	<i>18 Months to 31 March 2015 £'000</i>	<i>12 Months to 30 September 2013 £'000</i>
Expected return on pension scheme assets	(82)	(59)
Interest on pension scheme liabilities	150	103
Net finance cost on pension scheme assets and liabilities (note 4)	68	44

## Notes to the financial statements

at 31 March 2015

### 21. Pension commitments (continued)

#### *Analysis of the amount recognised in statement of total recognised gains and losses*

	<i>18 Months to 12 Months to</i>	
	<i>31 March 30 September</i>	
	<i>2015</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>
Actual return less expected return on pension scheme assets	73	(33)
Experience gains and losses arising on the scheme liabilities	23	25
Changes in assumptions underlying the present value of the scheme liabilities	(259)	76
	<hr/>	<hr/>
Actuarial (loss)/gain recognised in the statement of total recognised gains and losses	(163)	68
	<hr/> <hr/>	<hr/> <hr/>

#### *Movement in the value of scheme assets during the period/year*

	<i>18 Months to 12 Months to</i>	
	<i>31 March 30 September</i>	
	<i>2015</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>
Scheme assets at the start of the period/year	1,692	1,593
Expected return	82	59
Contribution by employer	200	133
Contribution by members	-	-
Benefits and expenses paid	(689)	(60)
Actuarial gains/(losses)	73	(33)
	<hr/>	<hr/>
Scheme assets at the end of the period/year	1,358	1,692
	<hr/> <hr/>	<hr/> <hr/>

#### *Movement in the value of scheme liabilities during the period/year*

	<i>18 Months to 12 Months to</i>	
	<i>31 March 30 September</i>	
	<i>2015</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>
Scheme liabilities at the start of the period/year	2,472	2,530
Interest cost	150	103
Benefits and expenses paid	(689)	(60)
Actuarial losses/(gains)	236	(101)
	<hr/>	<hr/>
Scheme liabilities at the end of the period/year	2,169	2,472
	<hr/> <hr/>	<hr/> <hr/>

## Notes to the financial statements

at 31 March 2015

### 21. Pension commitments (continued)

#### Movement in the net financial position of the scheme during the period/year

	18 Months to 12 Months to	
	31 March 30 September	
	2015	2013
	£'000	£'000
Deficit in scheme at start of period/year	(780)	(937)
Contributions	200	133
Net finance cost	(68)	(44)
Actuarial (losses)/gains	(163)	68
Deficit in scheme at end of period/year	(811)	(780)

#### History of experience gains and losses

	2015	2013	2012	2011	2010
	£'000	£'000	£'000	£'000	£'000
<i>Difference between the expected and actual return on scheme assets:</i>					
amount (£)	73	(33)	(64)	20	(155)
percentage of scheme assets	5.4%	2.0%	4.0%	1.2%	5.4%
<i>Experience gains and losses on scheme liabilities:</i>					
amount (£)	23	25	(22)	77	722
percentage of the present value of the scheme liabilities	1.1%	1.0%	0.9%	3.6%	20.8%
<i>Total actuarial gain or loss:</i>					
amount (£)	(163)	68	(587)	55	45
percentage of the present value of the scheme liabilities	7.5%	2.8%	23.2%	2.6%	1.3%
Defined benefit obligation	(2,169)	(2,472)	(2,530)	(2,127)	(3,471)
Plan assets	1,358	1,692	1,593	1,699	2,878
Net deficit	(811)	(780)	(937)	(428)	(593)

In agreement with the directors the actuary has used long cohort mortality assumptions that are consistent with the PCMA00 and PCFA00 mortality tables and reflect a reasonable estimate of likely future experience. The directors will continue to monitor these assumptions as the long term trend is for mortality improvements which add to life expectancies and hence the value of the liabilities.

The cumulative amount of actuarial gains and losses recognised since the adoption of FRS17 in 2005 in the Statement of Total Recognised Gains and Losses is a net loss of £1,659,000 (2013: loss £1,496,000).

## Notes to the financial statements

at 31 March 2015

### 22. Reconciliation of shareholders' funds and movements on reserves

<i>Group</i>	<i>2015</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>
(Loss)/profit for the financial period/year	(4,220)	3,069
Dividend paid	-	(1,000)
Actuarial (loss)/gain on pension scheme net of deferred tax	(140)	54
Purchase of own shares	-	(1,000)
Issue of ordinary shares	1,419	-
Exchange differences	15	(55)
	<u>(2,926)</u>	<u>1,068</u>
Net (decrease)/increase in shareholders' funds		
Opening shareholders' funds	7,005	5,937
	<u>4,079</u>	<u>7,005</u>
	<u><u>4,079</u></u>	<u><u>7,005</u></u>
 <i>Company</i>		
	<i>2015</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>
(Loss)/profit for the financial period/year	(8,211)	7,612
Dividend paid	-	(1,000)
Purchase of own shares	-	(1,000)
Issue of ordinary shares	1,419	-
	<u>(6,792)</u>	<u>5,612</u>
Net (decrease)/increase in shareholders' funds		
Opening shareholders' funds	5,727	115
	<u>(1,065)</u>	<u>5,727</u>
Closing shareholders' deficit	<u><u>(1,065)</u></u>	<u><u>5,727</u></u>

### 23. Controlling party

In the opinion of the directors, no individual shareholder has outright control of the company.

### 24. Events since the balance sheet date

On 27 August 2015 the Group have divested its Aircraft De/Ant-icing (ADF) assets in North America, China and Japan, realising a significant cash sum and generating a book profit on disposal of £2.4m. The immediate impact of that was to secure the Group's financial position at that time. Kilfrost Inc has a tolling agreement in place with Clariant International AG through to 30 June 2016, which involves the profitable production of ADF products on their behalf, using the Kilfrost Inc. current U.S facilities.

On 20 November 2015 it was announced that Clariant had also signed an agreement with Kilfrost to acquire Kilfrost's aircraft de-icing business in UK/Europe. The transaction is subject to regulatory approvals and conditional upon clearance from the respective Competition and Markets Authorities in each jurisdiction.