

BIOFLEET CASE STUDY #9

Alberta Processing Co. Calgary, Alberta

BACKGROUND

Alberta Processing, a division of West Coast Reduction Ltd., is based in Calgary. The company employs approximately 80 people at its Calgary plant.



The company provides raw material pickup services to farms, feedlots, restaurants, butcher shops, super markets and processors of beef, pork, poultry and fish products.

A fleet of company owned and operated trucks picks up and delivers these raw materials to the company's plant. These raw materials are then processed into finished products such as protein meals, fats and oils.

BIODIESEL

In April 2007, Alberta Processing entered into the biodiesel market in southern Alberta by sourcing B100 biodiesel and storing it in large heated storage tanks for sale to local distributors. At the same time, the company decided that it was important to become one of its own best customers by using biodiesel blends in its entire truck fleet. This would not only reduce emissions but also serve to demonstrate to customers the operational viability of biodiesel.

The company fleet consists of 36 trucks that have been using a blend of B5 to B20 biodiesel since April 2007. The trucks use diesel engines supplied by:

- Cat – 14 (C12, C13)
- Cummins – 21 (M11, ISM, ISC, 3406)
- Ford – 1 (FNH – 7.8)

As well, three skid steers, a rail car mover, one crane and a portable welder have been using biodiesel blends since the beginning of the project.



STORING AND USING BIODIESEL

The B100 biodiesel, sourced from either tallow or soy feedstock, arrives via rail tank car from eastern Canadian or US suppliers. A Certificate of Analysis conducted by an independent lab is provided for each load of biodiesel confirming that the biodiesel meets the ASTM D6751 fuel quality standard.

The B100 biodiesel is then sold to a local distributor who mixes the biodiesel with diesel to achieve a requested blend level. This distributor then provides on-site refuelling of Alberta Processing trucks and equipment.

OPERATIONAL ISSUES

The company started using biodiesel in its truck fleet at blend levels that were a function of minimum outdoor temperatures. The company was cautious given that temperatures can sometimes vary in its service area and wanted to ensure that the fuel was well within the jell point for biodiesel. As higher biodiesel blends tend to “clean out” diesel fuel residue which is captured by fuel filters, the company wanted to minimize this risk by first using a low level blend.

As a result Alberta Processing Co. used a B5 blend starting in April 2007 and reverted to this blend level from December to April 2008. In the spring and fall of 2007, blend levels were increased to B10 and from June to the end of August 2007 a B20 blend was used.



Since starting to use biodiesel blends in April 2007, the truck fleet has logged over 675,000 Km under all types of weather conditions. Filter replacement was monitored during these periods. There were no noticeable differences in filter performance using biodiesel compared to diesel at any of the blend levels.

No additional oil changes have been reported or required.

Over the past year, the company has used about 500,000 litres of B100 biodiesel.

COMMENTS FROM ALBERTA PROCESSING

“As part of our company commitment we use biodiesel to lower our exhaust and carbon emissions. We know that using biodiesel is a bit more of a challenge in cold weather and blend levels must be managed. All fuels have their own characteristics and we have not found biodiesel to be complicated to manage. Over the past year, in all kinds of weather, we have had no operational issues with biodiesel.” Geoff Smolkin, Director of Prairie Operations.

CONTACT INFORMATION

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