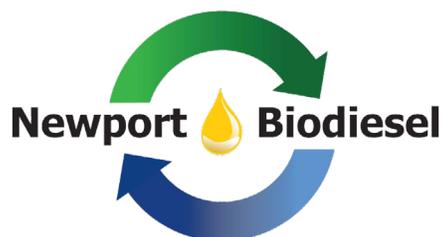


## Newport Biodiesel

Customer Spotlight



### KEY FACTS

#### Customer

- Newport Biodiesel

#### Location

- Newport, RI

#### Equipment

- HI904  
Coulometric Karl Fischer Titrator
- HI2020 edge®  
Multiparameter pH Meter

## Newport Biodiesel's Mission in New England

It's hard to believe that Newport Biodiesel, an 8-million gallon per year biodiesel facility, was started by its initial founder in his basement 14 years ago. Now, the company collects waste cooking oil from over 5,000 restaurants and facilities throughout Rhode Island, Massachusetts, Connecticut, and New Hampshire to produce clean burning fuel to ASTM D6751 Standards. Through the hard work and dedication of its roughly 40-member team, Newport Biodiesel continues to succeed in producing millions of gallons of alternative fuel for heating and transportation use throughout New England.



Biodiesel is produced by a process called transesterification, where fats and oils are converted into biodiesel and glycerin (as a co-product). Specifically, at Newport Biodiesel, they prepare used cooking oil for biodiesel production by removing solids and water through a mechanical operation. The oil then goes through a light chemical process involving methanol and a catalyst to emerge with biodiesel.

## Reliability Makes All the Difference

It was back in 2017 that John Fitzgerald, Production Manager at Newport Biodiesel, discovered Hanna Instruments. When faced with a costly repair bill for their aging Karl Fischer titrator, Fitzgerald was faced with finding a replacement unit to run their moisture analyses, and he chose Hanna's Coulometric Karl Fischer Titrator (HI904). A coulometric titration is a chemical analysis that determines trace amounts of moisture in a sample. In this case, Newport Biodiesel used the titrator to



measure the amount of moisture in the incoming cooking oil and in the finished biodiesel product. The goal in biodiesel production is to have the lowest moisture content possible in the final product. If they notice the moisture content is rising, they can proactively adjust their process and ensure a consistent result. Without a

reliable coulometric titrator, they would face many problems with their final product such as water accumulation and issues in handling and storage.

### Hanna's Unmatched Support

There are three key benefits that Newport Biodiesel recognized in Hanna's coulometric titrator: "the (sample) cell is better, there is less chance of breakage, and replacement costs are less than half of what we were used to paying," Fitzgerald notes. He went on to emphasize that, "if you're cost-conscious and want to avoid downtime, it's the equipment to have." In addition to the quality of the products, Hanna's service contracts and customer service also played significant roles in helping to minimize the downtime at Newport Biodiesel. Taking part in Hanna's yearly service plan, Newport Biodiesel was able to take advantage of Hanna's Loaner Program. Within three years, they only experienced one issue with their coulometric titrator. In that instance, Newport Biodiesel was able to get a loaner titrator from Hanna within one day while their unit was sent back to Hanna for assessment and repair. As a result of Hanna's titrator service plan, Newport Biodiesel experienced no downtime and received the support that they needed. Fitzgerald goes on to explain that, "Hanna's customer service has been fantastic. I talk to one person and don't get shipped around to different people. Customer service also checks in on us from time to time to see how things are going."

“If you're cost-conscious and want to avoid downtime, it's the equipment to have.”

– John Fitzgerald, Production Manager

After successfully implementing the coulometric titrator in their production analysis, Newport Biodiesel felt confident in expanding their use of Hanna equipment. The 15-person team that helps operate Newport Biodiesel's lab now utilizes Hanna's edge pH and conductivity meters as well as Hanna pH buffers and calibration solutions. Ultimately, the ease of use, cost-effectiveness, and dependable service are the reasons why Newport Biodiesel feels that working with Hanna is successful. ■

