# **Customer Testimonial**

## Xclude® Breathers

### Marquette Transit Authority – Marquette, Mich.

### **Differentials**



#### **Customer Profile**

Marquette Transit Authority (MARQTRAN) is a municipal transit system funded by State, Federal and County governments. They provide countywide service in one of Michigan's largest counties, and have been an LE customer since 1992.

#### **Application**

The fleet consists of more than 30 units of various size and manufacturers. Marquette County is located on the Southern shore of Lake Superior, which is known for its severe storms. In the winter, temperatures can reach -20°F (-29°C) with 200 inches of snow annually. Most units in the Marquette Transit Authority will travel approximately 50,000 miles per year.

#### Challenge

Marquette was having problems with contamination in the Monolec® Gear Lubricant (703) in the differentials. Xamine® oil analysis reports showed contamination of silicon, sodium and water at 200,000 miles, indicating change, although oil condition was still serviceable.

#### **LE Solution**

Greg Klang, LE lubrication consultant, recommended putting Xclude® breathers on the differentials to help with the contamination issues.

#### Results

They plumbed in soft flex line to the interior of the bus to preclude road salt, sand, and snow/moisture from entering the OEM poppet type breather on the top of the differential.

By using the Xclude breathers to control contamination, the gear oil is cleaner and lasts longer. They change out the breathers annually, and now one fill of Monolec 703 will last the life of the bus, the expected 300,000 miles.



Upon change out of the breathers, one of the mechanics cut apart a breather for inspection and the dirt containment was very evident showing what a great job the Xclude breather had done. Xamine oil analysis reports confirmed the benefit of using the breathers.





Thank you to Brian Bauman, shop foreman, and to Greg Klang, LE lubrication consultant (pictured), for providing the information used in this report.



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