



The Leader in Industrial Magnetic Filtration

Case Study

Esso, Weatherford-Ampscot
Pump Jack Gear Box Application
2003

Problem:

Esso Canada Upstream Field Services wanted to increase the efficiency of their oil field equipment to extend the length of their service and maintenance intervals. Part of the initiative included extending the life of their LeGrand 160 pump jacks.

Solution:

Remove the traditional magnetic rod with a Gauss Rating of 350Gs and replace it with an OEI Magnetic Filter Rod with patented radial technology and a Gauss reading of 1200Gs.

Variables:

Magnetic Filter Rods	1200Gs
Pump Jacks	6 (E-8: 1,6,11,12,13,19)
Test time	37 Hours

Photos:

A: Trial magnetic filter rod location in gear box of a LeGrand 160.

B: The OEM Magnetic Filter Rod in service for over 8 years.

C: The OEI Magnetic Filter Rod in service in the same gearbox for 37 days.

Results:

Before the test, the original factory installed filter rod had been in service for 8 years, after 37 hours of installation, the OEI Magnetic Filter Rod had a layer of contamination 1/2" thick.

Randy Wilson, field service inspector stated, "When the rod was removed from the gearbox, I could not believe what I was looking at. The rod was totally covered in ferrous contamination that had been there for years. We had no idea that there was so much metal there. Obviously the equipment will work better with this filtration installed. This will definitely increase the gearbox life."

Return on Investment (ROI):

Removing this much contamination extends fluid life and protects equipment from seizure and failure, further, it decreases need for maintenance and downtime increasing production and increasing savings.

Recommendation:

Install OEI Magnetic Filters on every gearbox in every pump jack to extend the life of fluids and equipment. Esso followed this recommendation and had Weatherford-Ampscott install OEI Magnetic Filter Rods throughout that factory.

