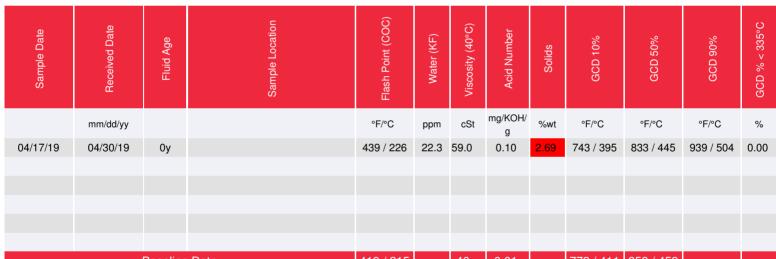


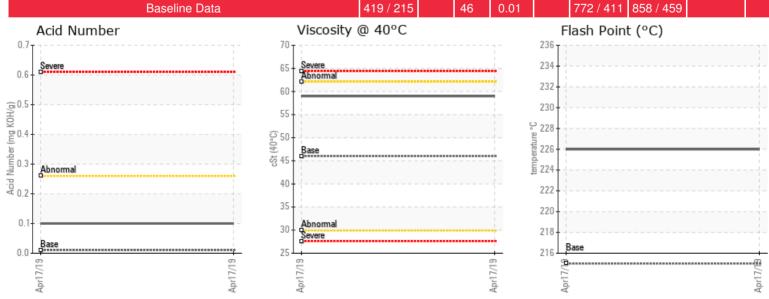
HEAT TRANSFER

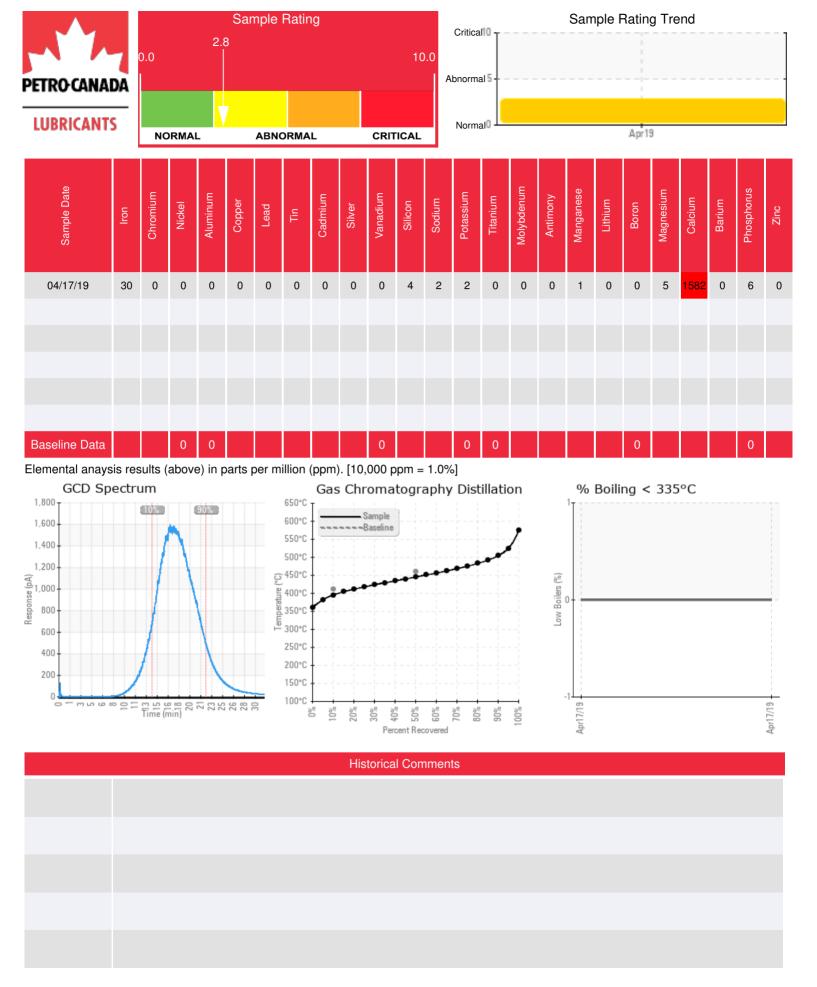
Customer: PTRHTF10216	System Information	Sample Information
INDUS INC	System Volume: 300 gal	Lab No: 02282229
825 GRANITE ST	Bulk Operating Temp: 440F / 227C	Analyst: Doug Vrooman
BRAINTREE, MA 02184 USA	Heating Source:	Sample Date: 04/17/19
Attn: Dave Worrick	Blanket:	Received Date: 04/30/19
Tel: (781)953-0358	Fluid: CITGO HYTHERM 46	Completed: 05/08/19
E-Mail: dave.worrick@indusinc.com	Make:	

Recommendation: With Pentane Insolubles at 2.69 and a 30% increase in Viscosity, it is clear that the Heat Transfer Fluid has thickened, which could result in less efficiency in the Heat Transfer System and more fuel consumption. The High Calcium number of 1582 ppm, could be due to a detergent or cleaner that may have been added to the system. It is not usually part of the Heat Transfer Fluid chemistry. With fluid results as they are and the system only 300 gallons we would advise a system cleaning, flush and fill with fresh Heat Transfer Fluid.

Comments: Pentane Insolubles levels are severely high. Calcium ppm levels are severely high.







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