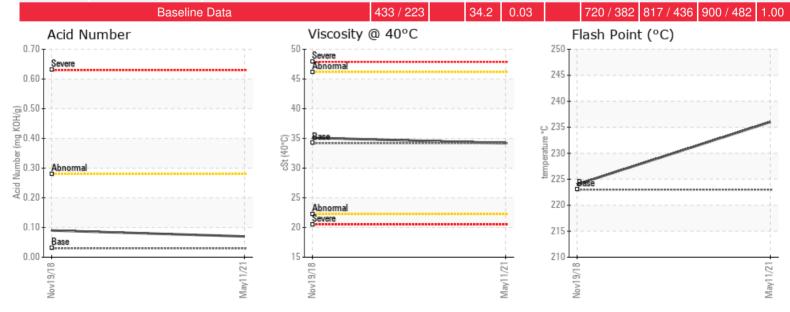


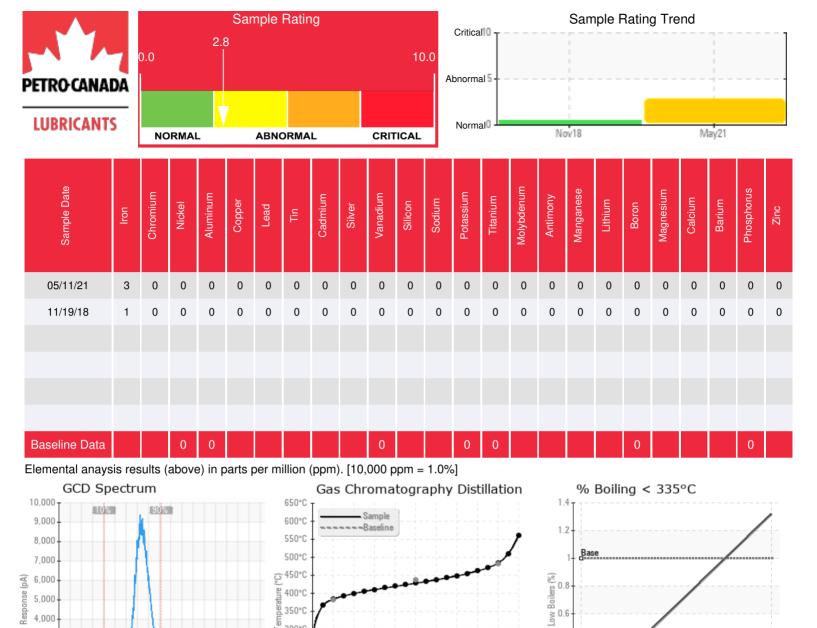
Customer: PTRHTF20187	System information	Sample Information
KEYERA ENERGY- SIMONETTE GAS	System Volume: 27000 ltr	Lab No: 02421968
PLANT	Bulk Operating Temp: 428F / 220C	Analyst: Clinton Buhler
PO BOX 58	Heating Source:	Sample Date: 05/11/21
VALLEYVIEW, AB T0H 3N0 Canada	Blanket:	Received Date: 05/18/21
Attn: Brody Shilka	Fluid: PETRO CANADA PETRO-THERM	Completed: 05/28/21
Tel: (780)835-1861	Make: PETROTECH	Clinton Buhler
E-Mail: brody shilka@keyera.com		Clinton.Buhler@hollyfrontier.com

Recommendation: Sample results indicate that the fluid is in suitable condition for continued service. Elevated water levels may be associated to how and where the sample was taken. The expansion tank is not ideal for a sample point as it may not see full system flow or temperature and may not represent system condition. Please sample from a hot, turbulent zone and not from low spots or site glasses, etc.... Pump discharge is the most ideal sample location preceded by a thorough purge of the sample valve and tubing. Please re-sample in 6 months

Comments:

Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/ g	%wt	°F/°C	°F/°C	°F/°C	%
05/11/21	05/18/21	36.0m	EXPANSION TANK	457 / 236	468.0	34.2	0.07	0.077	721 / 383	802 / 428	903 / 484	1.32
11/19/18	11/29/18	6.0m		435 / 224	32.2	35.1	0.09	0.034	726 / 385	813 / 434	918 / 492	0.00







0.4

0.2

0

Nov19/18

May11/21

11/19/18	The fluid is in excellent condition and suitable for further use. Please re-sample in 6 months.

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350°C

300°C

250°C

200°C

150°C

100°C

8 %0 20% 30% 10% 50% Percent Recovered

Response 5,000

4,000

3.000

2,000

1,000

0