

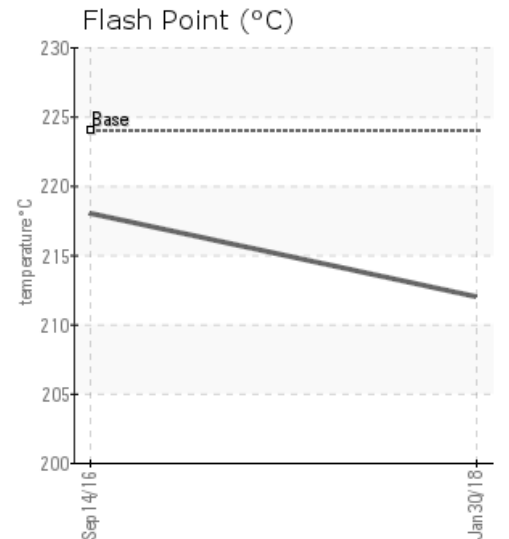
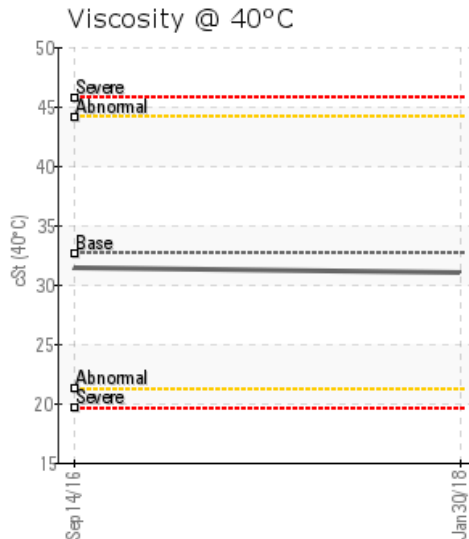
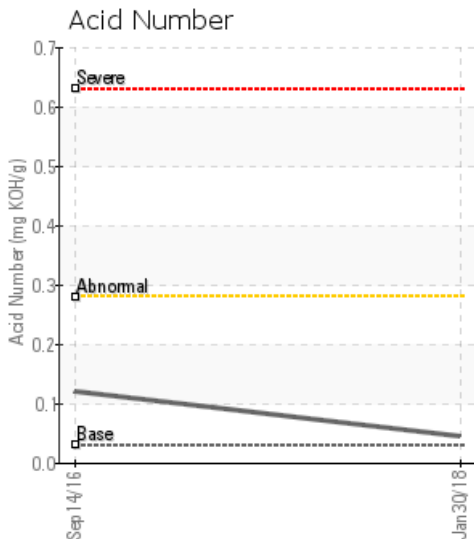
## [HOT OIL SAMPLE STATION] SILANE 4.0 DISTILLATION

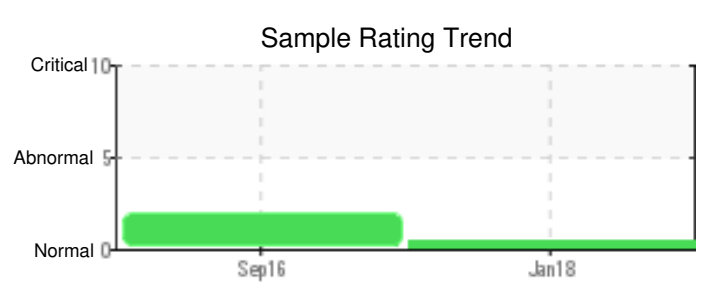
Customer: PTRHTF10093	System Information	Sample Information
REC GROUP 3322 ROAD N N.E. MOSES LAKE, WA 98837 USA Attn: Loren Poulson Tel: E-Mail: loren.poulson@recsilicon.com	System Volume: 50000 gal Bulk Operating Temp: 420F / 216C Heating Source: Blanket: Fluid: PETRO CANADA CALFLO AF Make: COEN	Lab No: 02197255 Analyst: Ron LeBlanc Sample Date: 01/30/18 Received Date: 02/07/18 Completed: 02/08/18 To discuss this report contact Ron LeBlanc at (541)967-6499

Recommendation: Pentane insoluble dropped significantly in this sample. Debris dropped from moderate to very lite.

Comments:

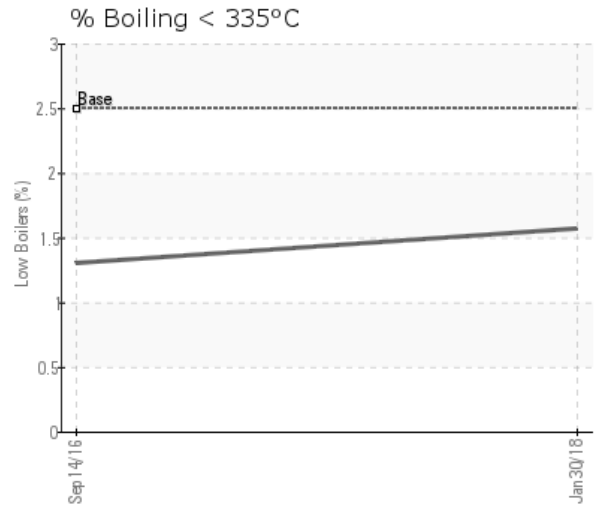
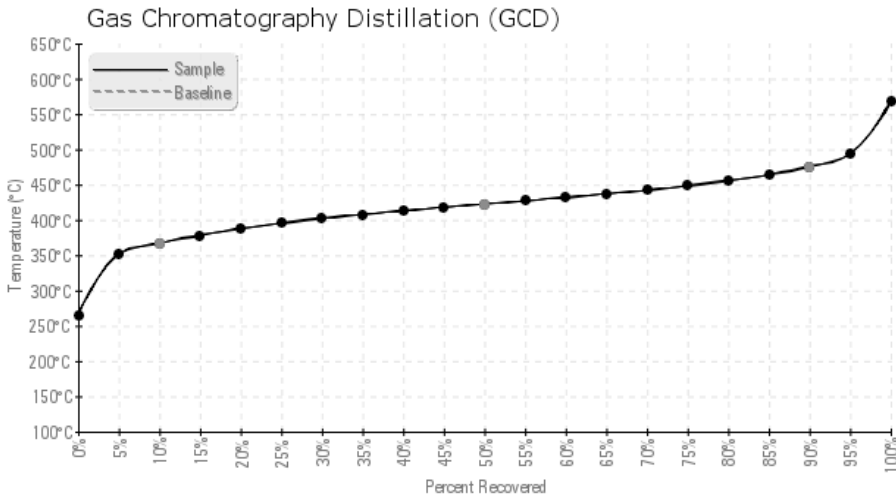
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
01/30/18	02/07/18	16m		414 / 212	5.3	31.0	0.044	0.074	692 / 367	792 / 422	888 / 476	1.57
09/14/16	09/19/16	58m	HOT OIL SMPL STATION	424 / 218	184.2	31.4	0.12	<b>0.713</b>	694 / 368	795 / 424	898 / 481	1.30
Baseline Data				435 / 224		32.7	0.03		693 / 367	790 / 421	887 / 475	2.5





Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
01/30/18	66	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	0	0	0	0	0	212	0
09/14/16	21	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	0	0	0	0	0	260	1
<b>Baseline Data</b>			0	0						0			0	0					0				270	

Elemental analysis results (above) in parts per million (ppm). [10,000 ppm = 1.0%]



### Historical Comments

09/14/16	Pentane is elevated indicating sediment. Filter cart should be run on oil to clean it up. Pentane Insolubles levels are severely high.

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