

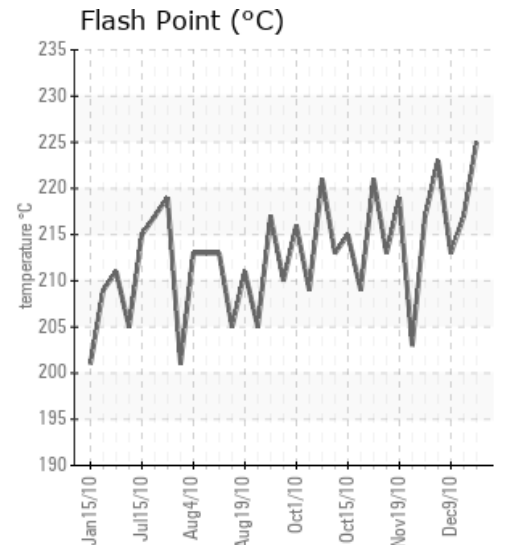
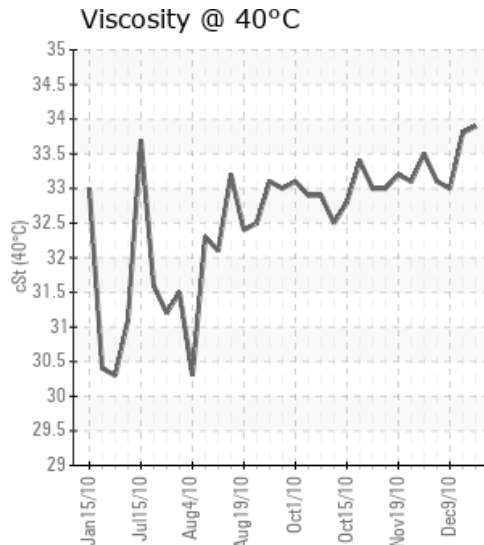
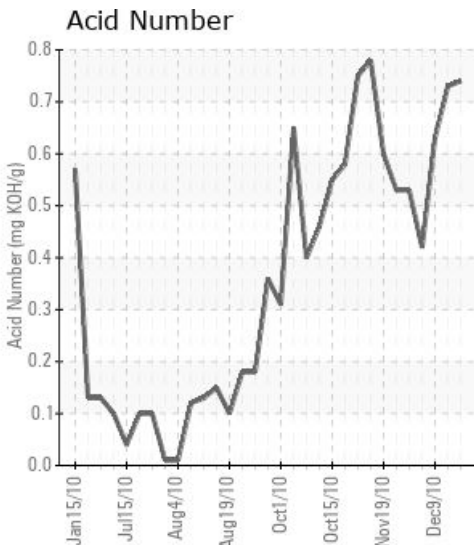
[Disto Oil Loop] SILANE 4.0 DISTILLATION

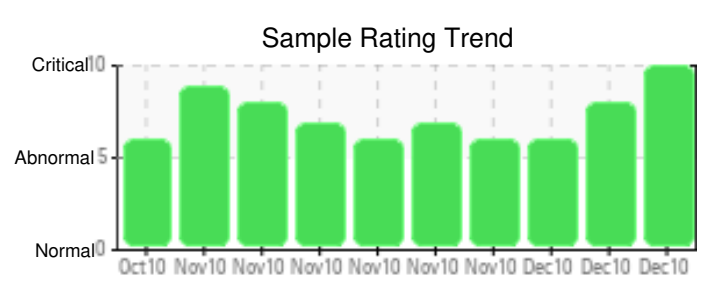
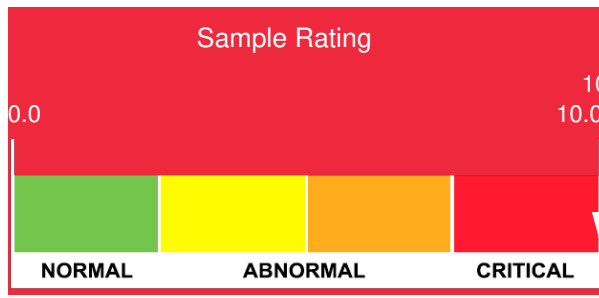
Customer: PTRHTF10093	System Information	Sample Information
REC GROUP 3322 ROAD N N.E. MOSES LAKE, WA 98837 USA Attn: Sam Bright Tel: (509)766-8902 E-Mail: sam.bright@recsilicon.com	System Volume: 50000 gal Bulk Operating Temp: 420F / 216C Heating Source: Blanket: Fluid: Make: COEN	Lab No: I-X23725 Analyst: Gaston Arseneault Sample Date: 12/17/10 Received Date: 12/21/10 Completed: 12/27/10 To discuss this report contact Gaston Arseneault at 973-986-6503

Recommendation: Silicone seem to have stabilized around 300 ppm, little lower than a couple months ago. The tin may come from the pump bearings attacked by the acids.

Comments: Acid Number is SIGNIFICANTLY HIGH. Tin is at a MODERATE LEVEL; Silicon is at a SEVERE LEVEL; Chlorine Result = 500ppm.

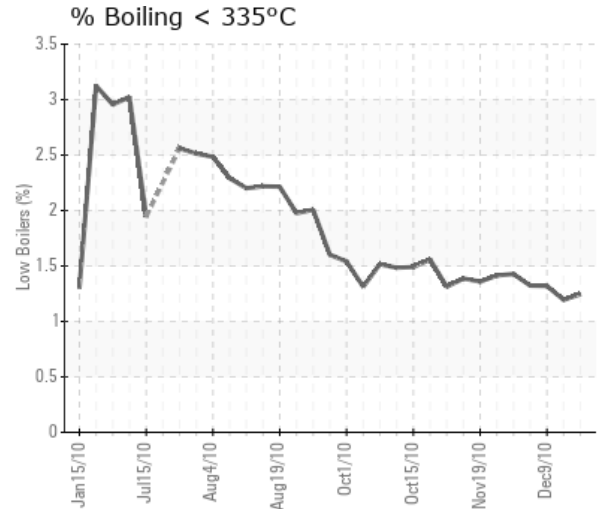
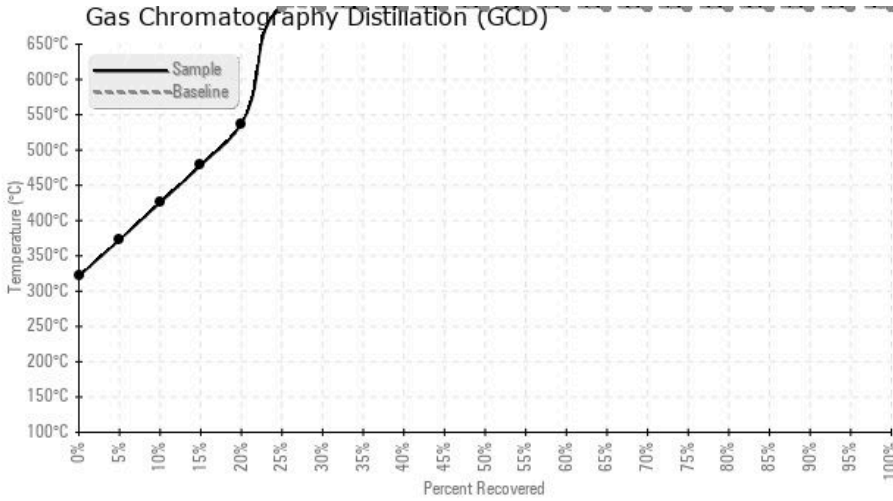
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
12/17/10	12/21/10	6m	TANK	437 / 225	14	33.9	0.74	0.107	703 / 373	797 / 425	893 / 478	1.245
12/17/10	12/21/10		DCS REBOILER	423 / 217	7	33.8	0.73	0.038	703 / 373	796 / 425	890 / 477	1.195
12/09/10	12/13/10	6m		415 / 213	71	33	0.63	0.041	700 / 371	794 / 423	886 / 475	1.32
11/30/10	12/02/10		N2 PURGE @100C 5DAYS	433 / 223	141	33.1	0.42	0.044	700 / 371	794 / 423	887 / 475	1.323
11/30/10	12/02/10	5m	CARBON FILTERED	423 / 217	4	33.5	0.53	0.058	700 / 371	794 / 424	886 / 475	1.428
11/19/10	11/24/10		DCS	397 / 203	8	33.1	0.53	0.047	699 / 371	794 / 423	888 / 475	1.414
Baseline Data												





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	
12/17/10	6	0	0	0	0	0	60	2	0	0	302	0	0	0	0	0	0	0	0	0	2	0	5	0	
12/17/10	8	0	0	0	0	0	7	2	0	0	302	0	0	0	0	0	0	0	1	0	2	0	6	0	
12/09/10	10	0	0	0	0	0	3	0	0	0	323	0	0	0	0	0	0	0	0	0	0	0	13	0	
11/30/10	3	0	0	1	0	1	8	0	0	0	336	0	0	0	0	0	0	0	0	0	0	0	9	0	
11/30/10	2	0	0	0	0	1	16	0	0	0	299	0	0	0	0	0	0	0	0	0	0	0	9	0	
11/19/10	13	0	0	0	0	0	6	3	0	0	349	0	0	0	0	0	0	0	2	0	3	0	9	0	
Baseline Data																									

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



Historical Comments

12/17/10	
12/09/10	Not sure what actions were taken since the last sample. Silicon is at 323 ppm while the Total Acid Number is 0.63.
11/30/10	
11/30/10	As shared before, the TAN is lower in the sample that was purged with nitrogen to release the chlorosilane. However, the carbon filtered sample shows lower silicone.
11/19/10	

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