

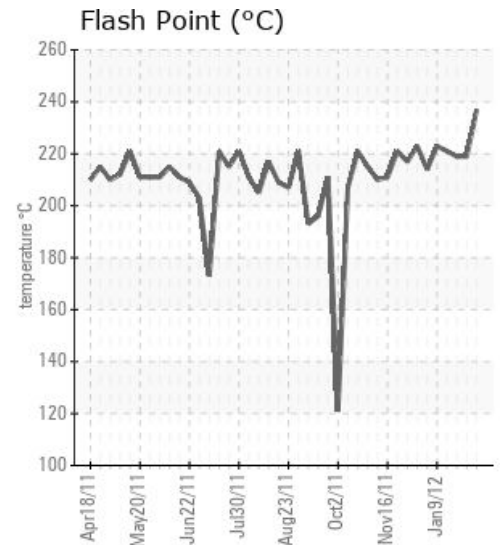
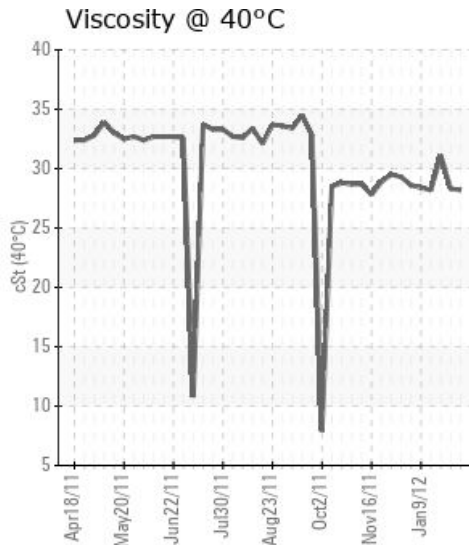
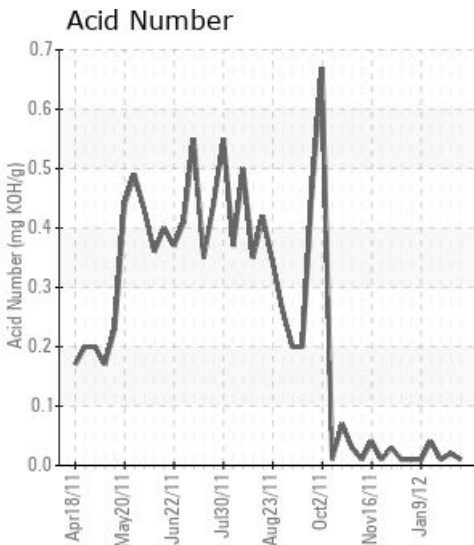
## [Disto Oil Loop] SILANE 4.0 DISTILLATION

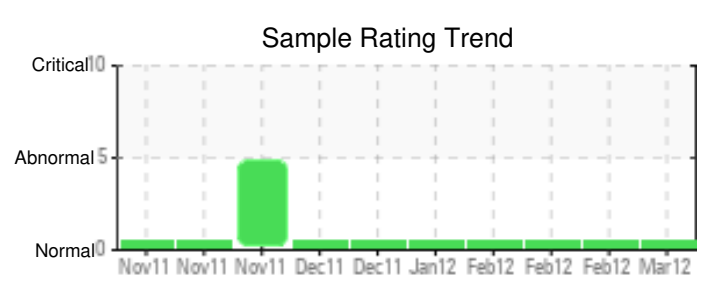
Customer: PTRHTF10093	System Information	Sample Information
<b>REC GROUP</b> 3322 ROAD N N.E. MOSES LAKE, WA 98837 USA Attn: Sam Bright Tel: (509)766-8902 E-Mail: sam.bright@recsilicon.com	System Volume: 50000 gal Bulk Operating Temp: 420F / 216C Heating Source: Blanket: Fluid: Make: COEN	Lab No: I-618711 Analyst: Gaston Arseneault Sample Date: 03/05/12 Received Date: 03/08/12 Completed: 03/13/12 To discuss this report contact Gaston Arseneault at 973-986-6503

Recommendation: Everything seems stable, Silicon is the same as previous samples. We are not certain why the flash point is suddenly higher but suspect uncertainty in testing. Samples are taken regularly so no reason to be concerned here.

Comments: Data indicates no abnormal findings. Resample at normal interval.

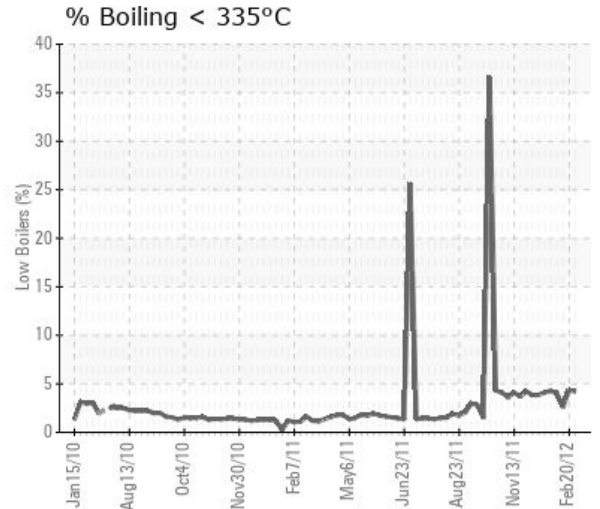
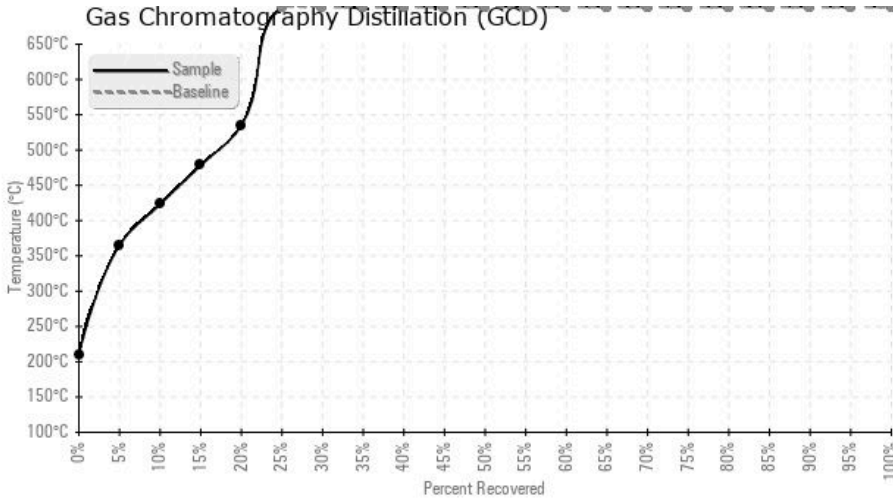
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
03/05/12	03/08/12	5m	PLANT 4.0 HOT OIL	459 / 237	19	28.2	0.01	0.024	689 / 365	793 / 423	893 / 478	4.2
02/20/12	02/22/12	4m	4.0 STC VAPORIZER	426 / 219	15	28.3	0.02	0.038	688 / 365	793 / 423	892 / 478	4.347
02/06/12	02/09/12	4m	NA	426 / 219	16	31.1	0.01	0.007	695 / 368	796 / 424	891 / 477	2.59
02/06/12	02/07/12		NA	430 / 221	18	28.2	0.04	0.017	690 / 366	795 / 424	893 / 479	4.05
01/09/12	01/13/12		TCS VAPORIZER 4.0 SI	433 / 223	13	28.4	0.01	0.012	689 / 365	794 / 424	892 / 478	4.278
12/27/11	01/03/12		4.0 TCS VAPORIZEN	417 / 214	10	28.6	0.01	0.015	691 / 366	795 / 424	894 / 479	4.113
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	
03/05/12	9	0	0	0	0	0	0	0	0	0	6	0	3	0	0	0	0	0	0	0	0	0	165	0	
02/20/12	9	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	2	0	0	0	151	0	
02/06/12	0	0	0	0	0	0	0	1	0	0	5	0	3	0	0	0	0	0	3	0	1	1	10	0	
02/06/12	8	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	3	0	0	1	173	0	
01/09/12	7	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0	0	2	1	3	0	179	4	
12/27/11	7	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	1	169	0	
Baseline Data																									

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



Historical Comments	
02/20/12	The results are consistent with recent TCS Vaporizer samples. Silicon is unchanged at 5 ppm.
02/06/12	The oil condition didn't changed much since the last sample. The phosphorous dropped suddenly to 10 ppm from 270 ppm which is surprising. We will see from the specialized testing from Mississauga if indeed the additive contributing to the phosphorous has depleted.
02/06/12	The oil properties look normal and consistent with previous samples. silicon rose from 4 to 9 ppm but this may be due to the analysis, as this is very low level and uncertainty may be high at this level.
01/09/12	Results look very much like previous sample. Silicon is stable around 4-5ppm.
12/27/11	This sample show normal results and no sudden change in Silicon, TAN or solids. Let's keep monitoring the oil in this plant.

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