TESTOIL
EHC ANALYSIS

Machine Condition: NORMAL

Lubricant Condition: CRITICAL

STEAM TURBINE HYDRAULIC

EHC Fluid Analysis Report

Machine Type:	Hydraulic System	**Received:**	11/12/2018	**ATTN:**	
Lube Type:	FYRQUEL EHC FLUID	**Report:**	11/17/2018		
Machine MFG:	GENERAL ELECTRIC	**Sample No.:**	2528/1/62		
Machine MOD:	270T795-PR20	**Analyst:**	MM		

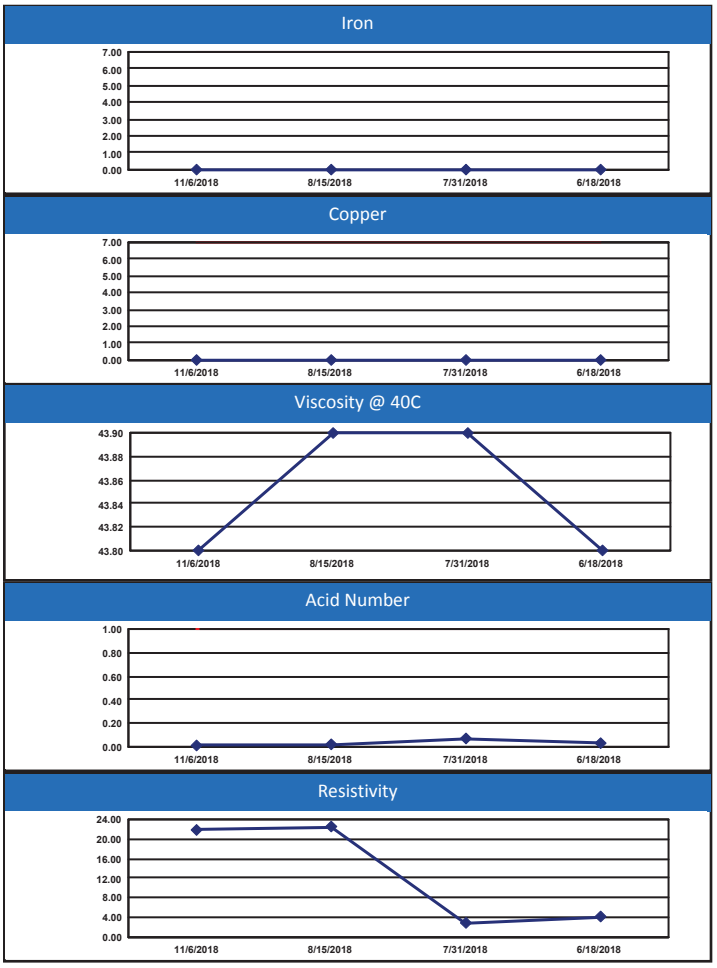
Problems

***High MPC

The MPC result is above the critical alarm limit. Elevated MPC values for phosphate esters can be due to microdieseling or the presence of insoluble fluid degradation products. Presence of these contaminants can lead to filter plugging, stiction and the malfunction of close tolerance moving parts.

Customer Notes:

Date		11/6/18	8/15/18	7/31/18	6/18/18
Lab No	Reference	2382098	2308795	2296955	2259744
Hours		Unknown	Unknown	Unknown	Unknown
Spectroscopic Analysis (ppm) ASTM D5185 Mod					
Iron	0	0	0	0	0
Copper	0	0	0	0	0
Lead	0	0	0	0	0
Aluminum	0	0	0	0	0
Tin	2	0	0	0	0
Nickel	0	0	0	0	0
Chromium	8	7	7	5	6
Titanium	0	0	0	0	0
Calcium	0	0	0	0	1
Magnesium	0	1	0	1	1
Phosphorus	> 25000	> 25000	> 25000	> 25000	> 25000
Zinc	0	0	0	0	0
Barium	0	0	0	0	2
Molybdenum	0	0	0	0	0
Silicon	0	1	0	2	2
Boron	2	0	0	0	2
Sodium	4	1	13	0	4
Potassium	6	0	0	0	0
Viscosity (centistokes) ASTM D 445 Mod					
Viscosity @ 40C	42.8	43.8	43.9	43.9	43.8
Color ASTM D 1500					
COLOR		<2.5	<3.0	<3.0	<3.0
Acid Number (mg KOH/g) D974 Mod.					
Acid Number	0.11	0.01	0.02	0.07	0.03
Resistivity(G.ohm -cm) ASTM D1169 * {OUTSOURCED TEST}					
Resistivity	20	21.9	22.6	2.9	4.2
Particle Count (particles per ml) ISO 4406.99					
ISO CODE	18/16/14	16/14/10	16/14/10	14/13/9	16/14/11
>4 Micron	2500	320	322	144	356
>6 Micron	640	124	125	56	138
>14 Micron	160	9	9	4	10
>50 Micron	0	0	0	0	0
>100 Micron	0	0	0	0	0
Water Content (a)-ASTM D6304C (b)-IWI-134* (c)-Crackle (d)-IWI-135* (e)-IWI-370*					
Water %	< 0.1	0.0155 *(a)*	0.0691 *(a)*	0.0313 *(a)*	0.0442 *(a)*
Membrane Patch Colorimetry IWI-250					
MPC	<30	53	40	38	43
Specific Gravity ASTM D1298					
Specific Gravity	>1.12	1.16	1.16	1.16	1.16



Testing performed by Insight Services®. This test is accredited under the laboratory's ISO/IEC 17025 accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation L2221. (e) -Estimated sample date. (*) - Not in scope of accreditation. Power Plant Customer assumes sole responsibility for the application of and reliance upon results and recommendations reported by TestOil, whose obligation is limited to good faith performance.