

Machine Id **GENERAC SID HARTMAN** Component

Propane Engine

SHELL ROTELLA T 15W40 (4 QTS)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		WC0933143	WCM1369844	
	Sample Date		Client Info		13 May 2024	06 Jun 2018	
	Machine Age	hrs	Client Info		576	419	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Changed	N/A	
	Filter Changed		Client Info		Changed	N/A	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>100	2	2	
WEAT	Chromium	ppm	ASTM D5185m		0	<1	
Metal levels are typical for a new component breaking in.	Nickel	ppm	ASTM D5185m		0	0	
	Titanium	ppm	ASTM D5185m	20	0	<1	
	Silver	ppm	ASTM D5185m	>5	۰ <1	0	
	Aluminum	ppm	ASTM D5185m		3	6	
	Lead	ppm	ASTM D5185m		3	1	
	Copper	ppm	ASTM D5185m		1	2	
	Tin	ppm	ASTM D5185m		<1	<1	
	Vanadium	ppm	ASTM D5185m	20	<1	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>50	22	6	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	0	9	
	Water		WC Method	>0.1	NEG	NEG	
	Soot %	%	*ASTM D7844		0.1	0	
	Nitration	Abs/cm	*ASTM D7624	>20	8.0	6.	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	17.1	16.	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		2	2	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m	316	67	25	
	Barium	ppm	ASTM D5185m	0.0	0	0	
	Molybdenum	ppm	ASTM D5185m		99	61	
	Manganese	ppm	ASTM D5185m		<1	<1	
	Magnesium	ppm	ASTM D5185m	24	53	922	
	Calcium	ppm	ASTM D5185m		2585	1242	
	Phosphorus	ppm	ASTM D5185m		1131	1062	
	Zinc	ppm	ASTM D5185m		1348	1220	
	Sulfur	ppm	ASTM D5185m		4417	2626	

Oxidation

12.

14.54

13.2

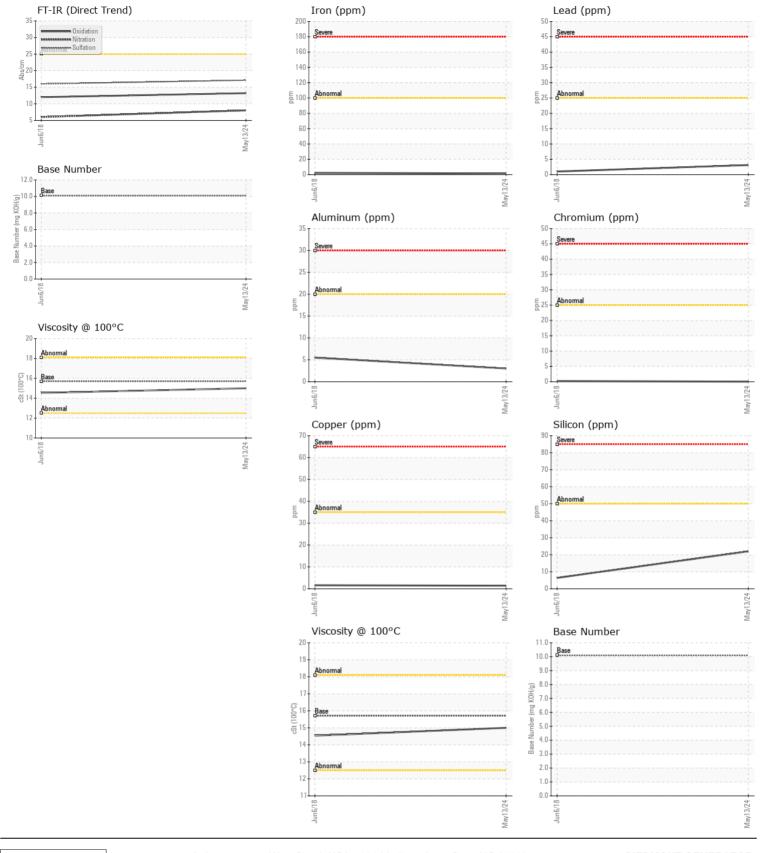
4.8

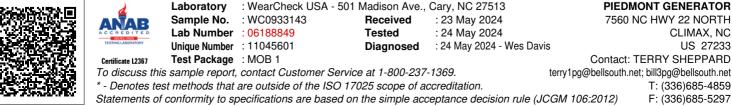
15.0

Abs/.1mm *ASTM D7414 >25

Base Number (BN) mg KOH/g ASTM D2896 10.1

Visc @ 100°C cSt ASTM D445 15.7





Contact/Location: TERRY SHEPPARD - PIEJUL Page 2 of 2