

## **OIL ANALYSIS REPORT**

# CROMBRE DEVELOPMENTS [250735] 362073-1-1-0713

Component **Gasoline Engine** SHELL ROTELLA T 10W30 (--- GAL)

#### Recommendation

No corrective action is recommended at this time. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

#### Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

#### Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.



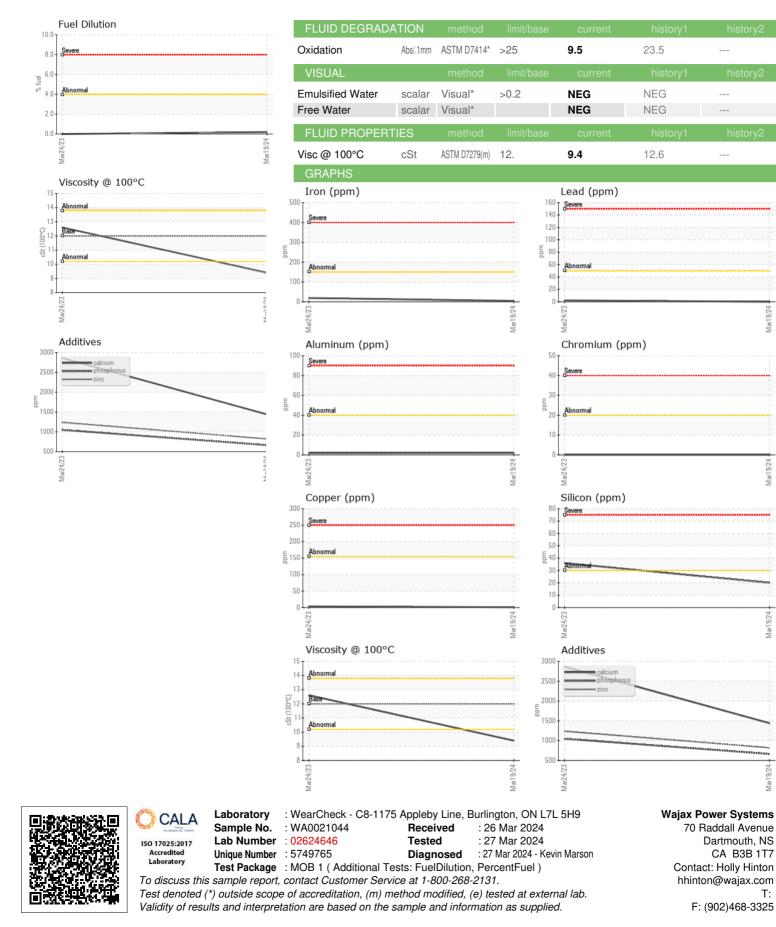
Sample Rating Trend



			11 1. 11			
SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WA0021044	WA0019249	
Sample Date		Client Info		19 Mar 2024	24 Mar 2023	
Machine Age	hrs	Client Info		307	282	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	٨	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>150	5	19	
Chromium	ppm	ASTM D5185(m)	>20	0	0	
Nickel	ppm	ASTM D5185(m)	>5	0	<1	
Titanium	ppm	ASTM D5185(m)		0	<1	
Silver	ppm	ASTM D5185(m)	>2	0	0	
Aluminum	ppm	ASTM D5185(m)	>40	2	2	
Lead	ppm	ASTM D5185(m)	>50	0	2	
Copper	ppm	ASTM D5185(m)	>155	<1	4	
Tin	ppm	ASTM D5185(m)	>10	0	1	
Antimony	ppm	ASTM D5185(m)		0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		65	30	
Barium	ppm	ASTM D5185(m)		0	0	
Molybdenum	ppm	ASTM D5185(m)		135	2	
Manganese	ppm	ASTM D5185(m)		0	2	
Magnesium	ppm	ASTM D5185(m)		402	13	
Calcium	ppm	ASTM D5185(m)		1440	2863	
Phosphorus	ppm	ASTM D5185(m)		663	1048	
Zinc	ppm	ASTM D5185(m)		819	1238	
Sulfur	ppm	ASTM D5185(m)		1777	3186	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>30	20	36	
Sodium	ppm	ASTM D5185(m)	>400	2	7	
Potassium	ppm	ASTM D5185(m)	>20	<1	5	
Fuel	%	ASTM D7593*	>4.0	0.2	<1.0	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	0	
Nitration	Abs/cm	ASTM D7624*	>20	5.9	12.8	
Sulfation	Abs/.1mm	ASTM D7415*	>30	16.5	31.4	



## **OIL ANALYSIS REPORT**



Contact/Location: Holly Hinton - DDCDAR